



Penrith Lakes Draft Development Control Plan – Stage 1

Draft for exhibition

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1 Introduction

1.1 Name of this development control plan

This plan is the Penrith Lakes Development Control Plan 2021 - Stage 1. This development control plan (DCP) has been prepared in accordance with Part 3, Division 3.6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000*.

1.2 Adoption and commencement

This DCP was adopted by the Secretary of the Department of Planning, Industry and Environment on [Date] and commenced on [Date].

1.3 Land to which this DCP applies

This DCP applies to Employment and Tourism zones under the *State Environmental Planning Policy (Penrith Lakes Scheme) 1989* (Penrith Lakes SEPP).

For Residential zoned land under the Penrith Lakes SEPP, the controls that apply to land zoned Environmental Living (E4) under the Penrith Local Environmental Plan will apply. As such the Penrith Development Control Plan 2014 and relevant Council guidelines, policies etc. will apply to Residential zoned land.

1.4 Consent authority

The consent authority for land zoned Employment and Tourism is the Minister for Planning and Public Spaces.

1.5 Purpose of the DCP

Clause 36(2) of the Penrith Lakes SEPP requires that a DCP be prepared before development consent is granted for development on land in an urban release area.

An urban release area is defined in the Penrith Lakes SEPP under Part 1 Clause 5(1) as land zoned Employment, Tourism or Residential.

1.6 Aims and objectives

The aims and objectives of the Penrith Lakes DCP - Stage 1 are to:

- provide a framework to guide development in Employment and Tourism zones at Penrith Lakes; and
- identify requirements and build upon the Penrith Lakes SEPP by providing detailed objectives, considerations and controls for land in the Employment and Tourism zones.

Further master planning is required for each Employment and Tourism precinct, as identified in Chapter 5, and should be adopted by the consent authority before any development consent.

1.7 How to use this DCP

1.7.1 Structure of the DCP

This DCP comprises five chapters and a definitions section, as outlined in Table 1.

Table 1. Structure of this DCP

Section	General description
1 Introduction and administration	Addresses information about the administrative provisions of the plan, such as the name of the plan, adoption and commencement information, where the plan applies and how to use the DCP.
2 Penrith Lakes background	Addresses topics relating to landscape strategy, views and vistas, movement strategy, and design excellence strategy.
3 Environmental considerations	Addresses environmental aspects relating to flood planning, stormwater management, water conservation, tree preservation, riparian corridors, bushfire management, heritage, contamination, waste management, operating hours, noise, vibration and air quality.
4 Urban design and built-form controls	Addresses urban design and built-form controls.
5 Precinct controls	Provides detailed controls for Tourism and Employment zones.
6 Definitions	A dictionary that defines key terms.

1.7.2 Variation to DCP controls

Variation of any control in this DCP may be considered by the consent authority where an application demonstrates its compliance with the relevant objectives specified in the DCP.

Any variation to the controls must be supported by a written statement demonstrating how the objectives of each relevant chapter of the DCP are satisfied.

1.8 Relationship to other documents and instruments

Where this DCP refers to other documents, it means those documents as titled and any subsequent edits or updates.

1.8.1 State Environmental Planning Policy (Penrith Lakes Scheme) 1989

This DCP should be read in conjunction with the Penrith Lakes SEPP. The land-use provisions and development standards within the Penrith Lakes SEPP and the development controls within this DCP comprise the principal planning provisions relevant to the development of land at Penrith Lakes.

1.8.2 Penrith City Council documents

This DCP prevails over other DCPs and guidelines that may apply to the land at Penrith Lakes.

The Penrith Development Control Plan 2014 will serve as a guide, where relevant. Other Penrith City Council design guidelines and engineering standards will continue to apply, where relevant.

1.8.3 Penrith Lakes Flood Response Guideline

The Penrith Lakes Flood Response Guideline (in preparation) will outline the requirements for non-residential land to ensure an early and resilient response to the risk of flood.

The Guideline will include a warning system that, when triggered, would require site users not to attend the site or, if already onsite at the time of the warning, vacate before the floodwaters near the site and surrounds, and ahead of the evacuation of other occupants of the Hawkesbury–Nepean Valley. It is expected that the guideline will also include a cap on the number of vehicles that can safely evacuate from Penrith Lakes.

1.9 Public notification of development applications

The public notification of development applications shall be undertaken in accordance with the department's Community Participation Plan (2019) and other practices and procedures.

2 Penrith Lakes background

2.1 Penrith Lakes

Penrith Lakes is planned to be a large water-based parkland and a signature piece of regional open space in the Western Parkland City, with a world-class sporting and recreational identity. Penrith Lakes includes a range of land-use zones, including Employment and Tourism, which add to the vitality of the Penrith area.

2.2 Landscape strategy

Penrith Lakes sits within a unique landscape. The Nepean River to the west and south of Penrith Lakes is lined with dense bushland that creates filtered views to the river. Across the Nepean River, the Blue Mountains escarpment forms a strong visual and landscape border to the west, and the Cranebrook escarpment creates a lower landscape edge on the east of the site. Surrounding Penrith Lakes on the north and northeast are large rural properties.

The following goals identify the broad landscape strategy for Penrith Lakes.

All development will have regard to:

- the connection of people to Country and restoration of the landscape and natural systems of the Western Parkland City;
- the protection and framing of the expansive views of the parkland and waterways and the character of Penrith Lakes;
- the promotion of landscape design and planning as part of a fully integrated approach to site development;
- ensuring that all landscaping is designed in the context of the wider Penrith Lakes landscape setting;
- increasing canopy cover towards the Greater Sydney Region Plan's identified target of 40% tree canopy, to help cool the area and increase resilience to a changing climate;
- the promotion of biodiversity and ecological conservation through the protection of watercourses, wetlands and riparian corridors; and
- the creation of distinct landscape character areas that build on the existing landscape features.

2.3 Views and vistas

Penrith Lakes is an important visual, landscape and recreational asset to Penrith, the Western Parkland City and Greater Sydney.

The following goals identify the broad visual strategy for Penrith Lakes.

All development will have regard to:

- the protection of the Penrith Lakes character of visual openness to the surrounding landscape;
- the maintenance of significant views to the Blue Mountains and the surrounding lakes; and
- the preservation of views of important landscape elements and heritage items.

The view analysis has identified key view sheds considered important to the visual experience of Penrith Lakes.

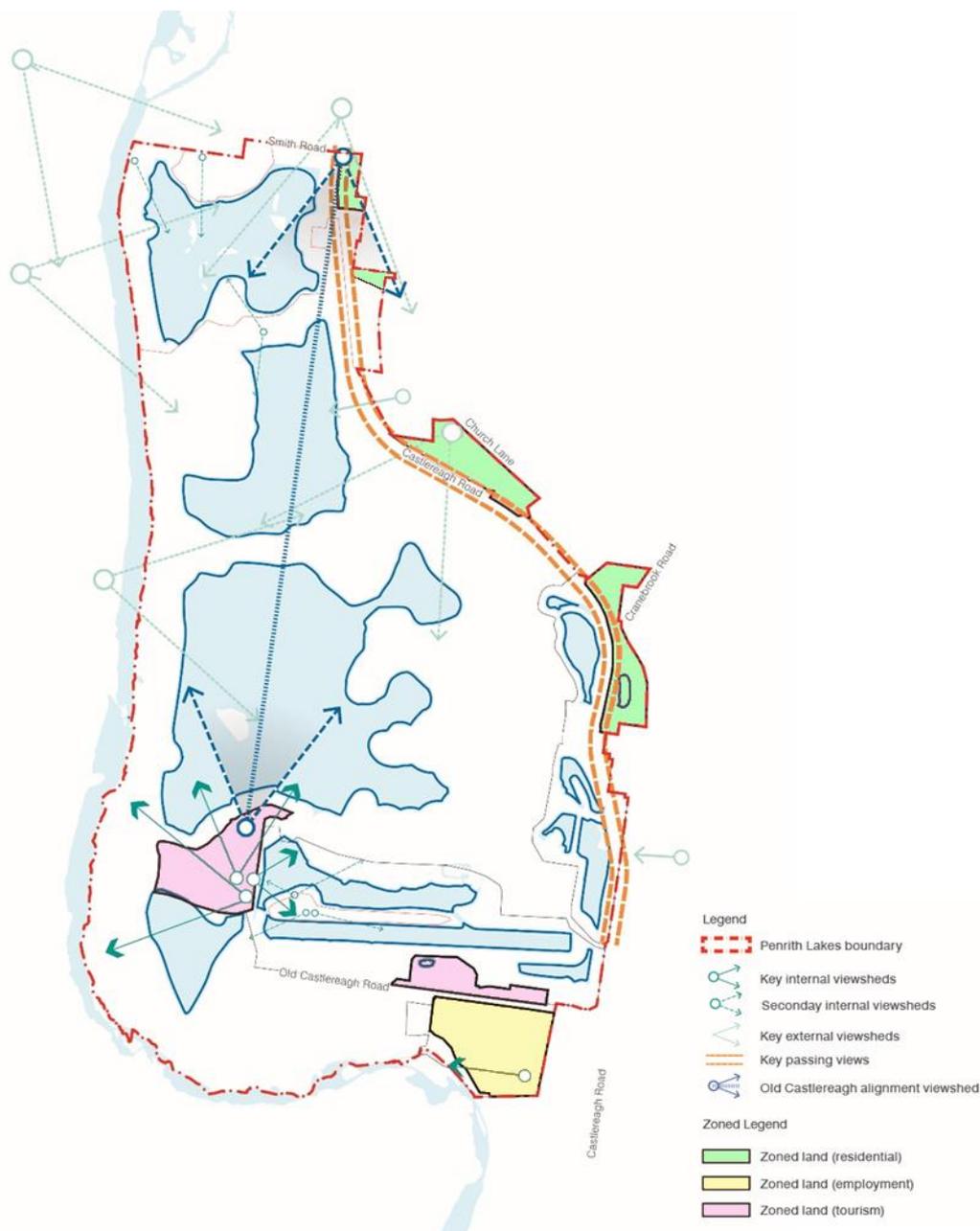
The preservation of the following key view sheds is important:

- north–south views from Castlereagh Road and Penrith Lakes;
- view corridors from Old Castlereagh Road to the Nepean River;
- the western view corridor from Lugard Street to the Nepean River; and
- views between Penrith Lakes and the Methodist Church Group (including the church, school and cemetery) on Old Castlereagh Road.

Any development in Penrith Lakes must preserve the key views and vistas identified in Figure 1. Development must not unreasonably obstruct key external views of Penrith Lakes from Castlereagh Road, the Nepean River and the Blue Mountains.

Development is to be located and designed to minimise impacts on key views and vistas. Building design and landscaping plans are to have regard for view corridors and minimise any impacts.

Figure 1. Key views



2.4 Movement strategy

Penrith Lakes is bound by Castlereagh Road to the east, a busy regional connector road; Smith Road to the north, a local access road; and the Nepean River along its western and southern boundary.

There are two primary publicly accessible entrances to Penrith Lakes. One is the entry into the Penrith Whitewater Stadium off McCarthy's Lane, and the other is the main access point into the Sydney International Regatta Centre located along Old Castlereagh Road.

Around the Regatta Lake is a 5 kilometre loop path that serves as a walking and cycling circuit.

The Green Grid link is a planned walking and cycling trail along the Nepean River. There is the potential to connect it to other circuits and natural trails around Penrith Lakes.

The site and surrounding residential development east of Castlereagh Road have limited or no access to public transport. There are four bus routes that pass along Castlereagh Road and Cranebrook Road at the southeast corner of the site. The nearest bus stops for these routes are located to the east of the site at a distance of between 500 metres and 1 kilometre.

The following goals identify the broad movement strategy for Penrith Lakes.

All development will have regard to, facilitate or provide for:

- new roads and connections to improve accessibility and permeability for all users;
- the encouragement of a shift towards active transport uses through high-quality and safe pedestrian and cycling access;
- the minimisation of the visual impact of all access roads, parking areas and services;
- the promotion of pedestrian access to primary roads;
- the improvement of walking and cycling access to and along the river's edge; and
- access between adjoining areas within Penrith Lakes.

2.5 Design excellence strategy

In addition to its unique setting, Penrith Lakes also has items of post-contact heritage significance, including the Castlereagh village and homestead sites, and the Sydney International Regatta Centre and Penrith Whitewater Stadium, legacies of the Sydney 2000 Olympic Games exemplifying the high design standards for which the Olympics are known.

Given the proximity of proposed precincts to these sites and landscapes, all precinct master plans must include an approved design excellence strategy, which will:

- ensure that new development is well integrated into and complements this context;
- promote best practice in the design of precincts and individual buildings;
- protect Olympic legacies;
- protect significant views; and
- ensure that development is informed by an understanding of Country, in accordance with traditional owners and knowledge holders.

Design excellence strategies should outline the process for achieving design excellence, including:

- procurement of suitably qualified and experienced urban, architectural and landscape design professionals; and
- design review program including frequency of design review coordinated with key hold points in the master plan design process.

All precinct master plans must be reviewed by the NSW State Design Review Panel (SDRP). The consent authority must consider the recommendations of the SDRP prior to approving the design excellence strategy. The design excellence strategy must be approved prior to any development consent on land to which this DCP applies.

In this clause, the SDRP means a panel established by the consent authority for the purposes of this clause and convened by the NSW Government Architect.

3 Environmental considerations

The provisions in this Chapter apply to development of land in the Employment and Tourism zones unless specified in the Clause.

3.1 Flood planning and evacuation

Objectives

- a) To ensure development on the floodplain is consistent with the NSW Government's Flood Prone Land Policy and the principles in the NSW Government's *Floodplain Development Manual*.
- b) To minimise flood risk to life of the users of the development in the full range of flooding, including the 5% annual exceedance probability (AEP), 1% AEP, 0.5% AEP, 0.2% AEP and the probable maximum flood (PMF).
- c) To maintain the flood function of the floodplain to minimise impacts of development on flood behaviour and adverse impacts to community.
- d) To enable safe evacuation from the land and ensure development does not adversely impact the evacuation capacity of the existing Hawkesbury–Nepean community.
- e) To allow development that is compatible with the flood hazard and flood function of the land.
- f) To avoid significant adverse impacts on flood behaviour and the environment.
- g) To consider changing flood risk due to climate change.

Controls

- 1) Development on land below the level of the PMF that will increase the number of people on the land must be consistent with the Penrith Lakes Flood Response Guideline (in preparation).
- 2) All development that will increase the number of people on the land must submit a flood emergency management plan prepared in accordance with and to demonstrate compliance with the Penrith Lakes Flood Response Guideline (in preparation).

The following clauses apply to land below the flood planning level:

- 3) A flood and drainage investigation that overlays the 20%, 5%, 1%, 0.2% AEP and PMF level and any overland flows must be submitted with a development application. The levels on the survey are required to be verified during construction by a survey certificate.
- 4) The drainage investigation must acknowledge and mitigate the effects of flood on proposed infrastructure.
- 5) Development must not adversely impact flood behaviour for the full range of floods (up to and including the PMF) and is to consider cumulative impacts of development on surrounding land, including:
 - a) loss of flood storage;
 - b) loss of or changes to flood flow paths;
 - c) acceleration or obstruction of flood flows;
 - d) increase in the depth, duration or velocity of floodwaters; and
 - e) any reduction in flood warning times elsewhere on the floodplain.
- 6) The applicant must demonstrate that:
 - a) the development will not increase the flood hazard or risk to other properties;
 - b) all structures are designed and constructed to ensure structural integrity up to the 0.2% AEP, taking into account the forces of floodwater, wave action, flowing water

- with debris, buoyancy and immersion. Structural certification must be provided confirming the above;
- c) the proposed building materials are flood-compatible;
 - d) the buildings are sited in the optimum position to avoid floodwaters and allow safe flood evacuation; and
 - e) the development will not expose any occupants of the land to unacceptable levels of risk.
- 7) Development, excluding temporary structures, in high flood hazard areas, floodways' and land below the 1% AEP should be avoided.
 - 8) Development must demonstrate that any overland flow is maintained for the 1% AEP overland flow.
 - 9) Consent will not be granted to filling of floodways or high flood hazard areas.
 - 10) Development shall be consistent with the following guidelines:
 - a) *Managing Flood Risk Through Planning Opportunities—Guidance On Land Use Planning In Flood Prone Areas* (Hawkesbury–Nepean Floodplain Management Steering Committee);
 - b) *Reducing Vulnerability of Buildings to Flood Damage—Guidance On Building In Flood Prone Areas* (Hawkesbury–Nepean Floodplain Management Steering Committee); and
 - c) *Designing Safer Subdivisions—Guidance On Subdivision Design In Flood Prone Areas* (Hawkesbury–Nepean Floodplain Management Steering Committee).
 - 11) Development must avoid significant adverse effects on the floodplain environment that would cause erosion, siltation, destruction of riparian vegetation or a reduction in the stability of the riverbank or watercourse.
 - 12) All electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be waterproofed, located above the flood planning level, or both.
 - 13) Hazardous or potentially polluting materials must not be stored below the 0.2% AEP level unless adequately protected from floodwaters in accordance with industry standards.
 - 14) Adequate flood signage and exits must be installed to facilitate safe and orderly evacuation from flooding without reliance upon the State Emergency Service or other authorised emergency services personnel.
 - 15) Fencing must not impede the flow of floodwaters or increase flood affectation on surrounding land.

3.2 Water-sensitive urban design and stormwater management

Objectives

- a) To ensure that development does not result in the pollution of waterways (including the lakes).
- b) To ensure that development does not generate stormwater discharges that exceed the capacity of the drainage network.
- c) To minimise nuisance flows of stormwater to adjoining properties.
- d) To minimise hardstand and impervious areas on developed land to minimise run-off.
- e) To ensure an integrated approach to water cycle management through the use of water-sensitive urban design principles, including maximising onsite detention and stormwater reuse.

Controls

- 1) A stormwater management plan must be submitted with development applications (excluding minor alterations and additions). The plan must provide details of the management of stormwater and the measures proposed to mitigate changes in water quality, run-off volume and peak flow of stormwater on adjoining or downstream sites, both during and after construction. This plan must provide details demonstrating that the drainage systems have adequate capacity.
 - a) The plan is to demonstrate that development can achieve the following:
 - 90% reduction in the post-development mean annual load total gross pollutant (greater than 5 mm);
 - 85% reduction in the post-development mean annual load of total suspended solids;
 - 65% reduction in the post-development mean annual load of total phosphorus;
 - 45% reduction in the post-development mean annual load of total nitrogen;
 - 90% reduction in free oils and grease with no visible discharge; and
 - 75% of all stormwater harvested onsite.
 - b) Modelling for determining the mean annual loads from land use must be undertaken in Model for Urban Stormwater Improvement Conceptualisation (MUSIC) and in accordance with the *NSW MUSIC Modelling Guidelines* (Greater Sydney Local Land Services). The Penrith City Council MUSIC-link is appropriate for model configuration.
 - c) Mitigation of changes to the flow rate and flow duration within the receiving waterways as a result of the development is required. Natural flow paths, discharge points and run-off volumes from the site should also be maintained. Where this is not possible, justification of the changes must be provided to the satisfaction of the consent authority.
 - d) The developed 1% AEP peak flow must be reduced to predevelopment flows by incorporating stormwater detention and management devices.
- 2) Development must be consistent with the following guidelines:
 - a) Penrith City Council's *Stormwater Drainage Specification for Building Developments*; and
 - b) Penrith City Council's *WSUD Technical Guidelines*.

- 3) Stream erosion index for all development must ensure that the post-development duration of stream-forming flows shall be no greater than 3.5 times the predeveloped duration of stream-forming flows.
- 4) The following general stormwater provisions apply:
 - a) Run-off must not be discharged into environmentally sensitive areas, including threatened ecological communities.
 - b) Pipe outlets must have stormwater energy dissipaters, except where waters enter a formed channel or similar structure that is unlikely to be damaged by water flowing in at high velocity.
 - c) Permeable ground surfaces are to be maintained, and, where suitable conditions exist, stormwater infiltration must occur onsite.
 - d) The development of any lot must account for the existing drainage arrangements of the area, including any localised ponding, and whether the proposed development is likely to affect:
 - access to the site;
 - drainage on adjoining properties;
 - localised nuisance flooding on adjoining properties; or
 - natural overland flow or drainage paths.

Provision must be made in the design of drainage systems for all upstream catchments, including a future connection point and adequate capacity for a fully developed upstream catchment.
 - e) In areas where there is no defined drainage system, the applicant shall liaise with the adjoining owners regarding the construction of a drain or channel to an existing watercourse. This may include the provision of drainage easements.
 - f) Drainage constraints must be assessed in a report prepared by a qualified engineer to ensure that:
 - where capacity may be limited, appropriate drainage measures, including possible onsite detention, is provided;
 - the proposed development will not overload trunk drains during peak storm events or cause localised flooding;
 - if the proposed development will result in additional pollutant loading (and the appropriate licences have been obtained from the relevant government authorities), then those pollutants and run-off will comply with the water quality requirements referred to in this plan; and
 - where easements are required across neighbouring properties, the adjoining owners' consent is submitted with the development application.
 - g) If the site does not have access to Penrith City Council's stormwater drainage system, all drainage shall be designed to ensure that the intensity, quantity and quality of surface run-off does not adversely affect downstream properties and watercourses. A legal point of discharge will be required.
 - h) If the site has access to Penrith City Council's stormwater drainage system, all stormwater must be collected from the site, and either be recycled for use or discharged into Council's stormwater drainage system. No stormwater will be permitted to discharge across Council's footways or reserves or to enter adjoining land.
- 5) The following stormwater detention controls apply to sites that do not discharge by gravity through regional detention facilities:

- a) Adequate stormwater systems must be designed and constructed to ensure that, development does not increase stormwater peak flows in any downstream area, for all rainfall events up to the 1% AEP event.
 - b) Onsite stormwater detention systems cannot include rainwater tanks, water retention basins or dams.
 - c) Detention systems to be designed in accordance with Penrith City Council's *Stormwater Drainage Specification for Building Developments*.
 - d) Onsite detention systems must be designed using a catchment-wide approach.
 - e) Onsite stormwater detention mechanisms must have a maintenance program in place.
 - f) Onsite stormwater detention mechanisms must be placed on the title of the relevant allotment or property to ensure their retention and maintenance.
 - g) Restriction as to user and Positive Covenant must be registered against the title of the relevant allotment or property to ensure their retention and maintenance of onsite stormwater detention.
- 6) The following stormwater design standard must be applied:
 - a) Any new piped drainage system must be designed to control minor stormwater flows under normal operating conditions for a 20% AEP storm event.
 - b) Any new drainage system must be designed to control major stormwater flows under normal operating conditions for a 1% AEP storm event.
 - 7) Development must provide an integrated approach to water cycle management that addresses water conservation, efficiency, stormwater management and drainage through a coordinated process.
 - 8) Onsite measures must be implemented to maintain water quality, to control the volume of stormwater run-off and to ensure that the rate at which stormwater leaves the site is at or less than predevelopment volume and rate.

3.2.1 Special stormwater controls for the Employment zoned land

All development in the Employment zoned land must be accompanied by a report, prepared by a suitably qualified expert, that demonstrates compliance with the following controls.

Controls

- 1) Provided the stormwater from the Employment zoned land drains into the identified receiving area of the bioretention treatment train of the constructed and operational Southern Wetlands, the stormwater quality requirements for all development types must meet the following pollutant reductions before connection and discharge into the Southern Wetlands:
 - a) total suspended solids—70%;
 - b) total phosphorous—30%; and
 - c) gross pollutants (greater than 5 mm)—98%.
- 2) All connections to the Southern Wetlands must satisfy the consent authority in consultation with the entity operating the Southern Wetlands.
- 3) To minimise erosion and scour of the Southern Wetlands, all connections to the Southern Wetlands must be treated with measures to dissipate stormwater velocity, such as a low-gradient rocky channel.
- 4) Post development discharge from the Employment zone to the Southern Wetlands must primarily be at a flow-rate that is suitable for the Southern Wetlands treatment train to accept and must not be more than pre-development flow rates from the Employment zoned land.

- 5) If any stormwater from the Employment zoned land does not discharge into the Southern Wetlands treatment train, stormwater treatment must meet the standards defined in Control (1) of Clause 3.2 of this DCP.

3.3 Water conservation and reuse

Objective

- a) To ensure development maximises use of non-reticulated water.

Controls

- 1) Development must demonstrate that it meets the following minimum standards under the Water Efficiency Labelling and Standards (WELS) scheme: four-star dual-flush toilets, three-star showerheads, four-star taps (for all taps other than bath outlets and garden taps) and three-star urinals.
- 2) Development must install rainwater tanks to meet 80% of non-potable demand, including outdoor use, toilets and laundry.
- 3) Where cooling towers are used, they must:
 - a) connect to a conductivity meter to ensure optimum circulation before discharge;
 - b) include a water meter connected to a building's energy and water metering system to monitor water usage; and
 - c) employ alternative water sources for cooling towers where practical and in accordance with the *Public Health Act 2010* and NSW Health guidelines.
- 4) Water use within open space (for uses such as irrigation, pools, water features, and the like) must be supplied from sources other than potable mains water (for example, treated stormwater or greywater) to meet 80% of water use demand.
- 5) Rainwater tanks must be:
 - a) appropriately located and designed (with appropriate types, materials and colours) to minimise the visual impact on any rural, scenic or landscape character of any area;
 - b) integrated into the design of any cluster of buildings or as part of the primary dwelling during the site planning and design process;
 - c) designed, constructed, or both in accordance with the necessary guidelines to ensure safety and structural stability, including preventing flotation in the event of flooding; and
 - d) designed to minimise the entry of contaminants into any water that may be harvested for drinking.
- 6) Where development consent is required for rainwater tanks, the following requirements apply:
 - a) rainwater tanks must not exceed 3 metres in height above ground level (including stand);
 - b) rainwater tanks must not collect water from a source other than gutters or downpipes on a building or a water supply service pipe;
 - c) rainwater tanks must be structurally sound;
 - d) rainwater tanks, and any stands for the tanks, must:
 - be assembled and installed in accordance with the manufacturer's specifications; and
 - not rest on a footing of any building or other structure on the property, including a retaining wall.
 - e) freestanding rainwater tanks must be elevated above the 1% AEP flood level or anchored to resist buoyancy and impact forces;

- f) rainwater tanks must use prefabricated materials or be constructed from prefabricated elements designed and manufactured for the purpose of construction of a rainwater tank;
- g) rainwater tanks must be enclosed, and inlets screened or filtered to prevent the entry of foreign matter or creatures;
- h) rainwater tanks must use a non-reflective finish. Materials and colours should complement those used on the dwelling house and any other buildings on the land; and
- i) plastic rainwater tanks are not to be used in bushfire-prone areas.

3.4 Tree preservation

Objectives

- a) To prescribe which species or kinds of trees or other vegetation are protected by Clause 21 (Preservation of trees or vegetation) of the Penrith Lakes SEPP.
- b) To protect existing trees and vegetation and ensure that any new development accounts for existing vegetation in the design and construction of the development.

Controls

- 1) The prescribed trees or other vegetation that are protected by Clause 21 of Penrith Lakes SEPP are:
 - a) any tree or other vegetation that has one or more of the following:
 - height greater than 3.5 metres;
 - canopy spread greater than 4 metres; and
 - primary trunk diameter greater than 400 millimetres when measured 1 metre above the base of the tree.
 - b) any tree or other vegetation that is, or forms part of, a heritage item or is within a heritage conservation area.
- 2) Development must seek to retain existing trees. Any tree loss shall be offset with replacement plantings at a ratio of at least 2:1 (new to existing).

3.5 Riparian corridors, lakes and water bodies

Objectives

- a) To protect water quality and terrestrial and aquatic life forms.
- b) To minimise disturbance, impacts, or both on riparian corridors, lakes and water bodies and to improve connectivity between riparian areas and native vegetation areas.
- c) To maintain and improve the hydrological regime of wetlands and water bodies.
- d) To explore opportunities to rehabilitate riparian corridors and ensure that width, buffers to development, quality of landscape and diversity of vegetation to support principles of ecological sustainability are provided.
- e) To effectively manage indirect and ongoing impacts of development near waterways to ensure established waterway health targets are achieved and maintained.

Controls

- 1) Development within 40 metres of the Nepean River must be avoided. Where development is unavoidable, the applicant is to demonstrate that potential impacts on water quality, aquatic habitat and riparian vegetation will be negligible and that the design enhances or restores natural riparian corridor features.

- 2) Development must provide a buffer to protect the ecological, hydrological and water quality values of wetlands, lakes and water bodies. The buffer area must be vegetated with native plants that are largely indigenous to the area.
- 3) Activities within the riparian corridor, such as cycleways and paths, detention basins, stormwater management devices and essential services must comply with the riparian corridor matrix in the Natural Resources Access Regulator's *Guidelines for controlled activities on waterfront land—Riparian corridors*. Activities in the vegetated riparian zone should be avoided, where possible, and must not result in the removal or disturbance of native vegetation.
- 4) A managed buffer zone outside the vegetated riparian zone must be provided, where possible, to provide an additional buffer between development and the vegetated riparian zone. This buffer must be vegetated with native plants that are largely indigenous to the area. Land uses within the managed buffer zone could include roads, paths, playgrounds and stormwater management devices.
- 5) Asset protection zones must be located outside vegetated riparian corridors.
- 6) All riparian corridors must comprise a vegetated riparian zone along each side of the waterway and, where possible, this should enhance or restore remnant native riparian vegetation.
- 7) Appropriate widths for vegetated riparian corridors should follow the Natural Resources Access Regulator's *Guidelines for controlled activities on waterfront land—Riparian corridors*.

3.6 Bushfire management

Objectives

- a) To ensure risks to life and property associated with bushfire are appropriately managed.
- b) To minimise the impacts of development in relation to bushfire.
- c) To ensure bushfire risk is managed in connection with the preservation of ecological values.

Controls

- 1) Development must be in accordance with the *Rural Fires Act 1997*, the Rural Fire Service's *Planning for Bushfire Protection* (2019) and Australian Standard AS3959—Construction of buildings in bushfire-prone areas.
- 2) Development on bushfire-prone land must be accompanied by a bushfire risk assessment report.
- 3) Siting of buildings, lot layout and building design must provide for the safety of people and property by mitigating bushfire risk.
- 4) Bushfire protection measures must be located wholly within the development site. All proposed asset protection zones must be within the property and incorporated into affected lots, within the existing or proposed road reserve, or a combination of both.
- 5) The asset protection zone must be outside areas of ecological value.

3.7 Heritage conservation

Objectives

- a) To maintain the significance and setting of heritage items including the relationship between an item and its surroundings.
- b) To ensure an adequate curtilage and landscaped setting for heritage items.

- c) To ensure that subdivision of land on which a heritage item is located does not isolate the building from its setting or context, adversely affect its amenity or privacy, or interfere with important view lines.
- d) To ensure that development is designed to minimise any potential impacts to heritage items.

Controls

- 1) Development shall be sited and designed to ensure that the visual prominence, context and significance of heritage items and their setting is maintained.
- 2) Development in the vicinity of heritage items must be compatible with the historic values of the item.
- 3) A heritage impact statement is required where proposed development is located on land containing a heritage item or is located on land adjacent to a listed heritage item.
- 4) Proposals for subdivision must include an appropriate setback or curtilage for heritage items which is informed by the recommendations of the heritage impact statement
- 5) Development must protect the views and vistas to heritage items.

3.8 Aboriginal cultural heritage

Objectives

- a) To preserve and enhance items and sites of Aboriginal cultural and archaeological significance located within Penrith Lakes.
- b) To ensure heritage significance is considered for any development affecting potential archaeological sites and places of Aboriginal heritage significance.

Controls

- 1) All development is to be informed by an understanding of Country, through consultation with traditional owners.
- 2) All development is to be in accordance with the relevant provisions of the *National Parks and Wildlife Act 1974* and the (former) Department of Environment, Climate Change and Water's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*.

3.9 Contamination

Objective

- a) To manage and mitigate the impacts of potential contaminated land on development and use of land.

Controls

- 1) Where development is proposed on land identified as being potentially contaminated, a preliminary site investigation report must be prepared and submitted with a development application.
- 2) Where a site has been remediated with the involvement of a NSW Accredited Site Auditor, applications for initial subdivisions or initial use of the land must be supported by a Site Audit Statement, Site Audit Report and any documentation prepared to address the conditions of the Site Audit Statement.
- 3) Should additional potentially contaminating activities be found to have occurred after the issue of the Site Audit Statement (e.g. unauthorised filling activities) or should a Stage 1 Preliminary Site Investigation identify potential or actual site contamination, then a Stage 2

Detailed Site Investigation must be prepared. If remediation works are required, a remedial action plan must be submitted.

- 4) All reports are to be prepared by a suitably qualified land contamination consultant with consideration of the relevant NSW Environment Protection Authority guidelines and the National Environment Protection (Assessment of Site Contamination) Measure.
- 5) Prior to granting development consent, the consent authority must be satisfied that the site is suitable, or can be made suitable after remediation, for the proposed use.

3.10 Trading/Operating hours of premises

Objectives

- a) To ensure that the amenity of adjoining properties, especially residential and rural areas, is preserved.
- b) To ensure development has the flexibility in trading/operating hours to ensure it is competitive and productive.

Controls

- 1) Construction works shall generally be restricted to the following hours:
 - a) Monday to Friday, 7 am to 6 pm;
 - b) Saturday, 7 am to 1 pm; and
 - c) Sundays or public holidays, no work.
- 2) The hours of operation for premises involved in any type of employment-generating activity shall be considered on merit, having regard to the potential impact on the amenity of adjoining properties.

3.11 Waste management

Objectives

- a) To facilitate sustainable waste management practices during the demolition, construction and operational phases of development.
- b) To minimise the environmental impacts of waste through waste avoidance, minimisation, re-use and recycling.

Controls

- 1) A waste management plan must be lodged with a development application, including demolition, construction, changes of use or a combination of these. The plan must include details regarding:
 - a) the types and volumes of waste and recyclables generated during the demolition, construction and operational phases;
 - b) details of onsite storage, treatment of waste, or both during the demolition, construction and operational phases;
 - c) disposal of waste generated during the demolition and construction phases that cannot be re-used or recycled;
 - d) ongoing management of waste during the operational phase of the development, including collection regime; and
 - e) waste minimisation techniques, including recycling.

3.12 Noise and vibration

Objectives

- a) To ensure that development and traffic associated with development do not adversely impact the amenity of surrounding land uses.
- b) To ensure appropriate noise mitigation measures are incorporated into development.

Controls

- 1) Development must be designed with noise control measures to minimise the impact of noise on adjoining land uses.
- 2) Development applications for noise-generating uses must be accompanied by a noise impact assessment from a suitably qualified acoustic consultant that demonstrates compliance with the noise and vibration controls contained within the relevant Australian Standards and State Government Guidelines relating to noise, including but not limited to:
 - a) *Protection of the Environment Operations Act 1997*;
 - b) NSW Environment Protection Authority's *Noise Policy for Industry*
 - c) (former) NSW Department of Environment, Climate Change and Water's *NSW Road Noise Policy*;
 - d) (former) NSW Department of Environment, Climate Change and Water's *Interim Construction Noise Guideline*;
 - e) *State Environmental Planning Policy (Infrastructure) 2007*;
 - f) (former) NSW Department of Planning *Development near rail corridors and busy roads – Interim Guideline*; and
 - g) relevant Australian Standards.
- 3) When development may have a vibration impact on adjoining land uses, a vibration impact assessment is to be prepared by a suitably qualified consultant and submitted with the development application. This assessment is to be carried out with consideration of the former NSW Department of Environment and Conservation's *Assessing Vibration: a Technical Guideline* either no impact or that impacts will be mitigated by suitable measures.

3.13 Air quality

Objectives

- a) To ensure air quality is maintained at acceptable levels.
- b) To minimise the risk of dust or odour impacts on adjoining land uses.
- c) To ensure emissions are minimised from plant, equipment and machinery.

Controls

- 1) Where development may adversely affect air quality, an air quality impact assessment as prepared by a suitably qualified environmental consultant in accordance with the relevant NSW Environment Protection Authority guidelines, must accompany a development application.
- 2) Development is to provide air quality control measures both during and after construction.

4 Urban design and built-form controls

Throughout this DCP, all numeric built-form controls are provided as a maximum, with floor space ratio and height as the primary controls. It should be understood that the maximum of each built-form control may not be achieved.

4.1 Site planning

Objectives

- a) To improve the sustainability of development that accounts for social, economic and environmental opportunities and constraints.
- b) To ensure that development addresses the key site planning principles, urban design and design excellence by:
 - responding to the natural topography and landform of the site;
 - protecting areas of scenic or visual importance in the Penrith Lakes;
 - adopting a height, massing and scale that accords with the analysis of the site and minimises visual impact;
 - incorporating safety and security measures in its design;
 - using, where possible, sustainable materials that minimise impacts on the environment, maintenance and waste; and
 - incorporating the principles of universal design to maximise accessibility for all people.

Controls

- 1) Detailed site planning is required for lots above 1 hectare or sites that have not been developed previously for urban development.

4.2 Building design

Objectives

- a) To ensure building design reflects the landscape setting and the natural environment and to reduce the overall bulk and scale of development.
- b) To encourage the use of materials and finishes that provide a high level and quality of architecture.
- c) To ensure that new development contributes to creating a visually cohesive urban environment.
- d) To support passive surveillance of the adjoining public realm.

Controls

- 1) All buildings should be designed to a high architectural standard and be designed by a suitably qualified design expert.
- 2) Where a building is longer than 60 metres, the building is to be separated into at least two parts by a significant recess or projection to minimise the mass, bulk and scale of the built form.
- 3) Building facades must be articulated with building entries, awnings, porticos, recesses, blade walls and projecting bays as appropriate.
- 4) There must be a minimum separation of 20 metres between buildings in Tourism zoned land. Reduced separation may be supported where it can be demonstrated that development is consistent with the objectives of this DCP.
- 5) Building design is to minimise visual impacts and overshadowing on adjoining sites.

- 6) Buildings shall be constructed with high-quality materials that integrate with the surrounding landscape and parkland setting.
- 7) External materials are to be of light-coloured and non-reflective building materials, and paved surfaces are encouraged.
- 8) The use of sustainable and recycled materials sourced from the region is encouraged.
- 9) Buildings are to be sited to frame the street. On corner lots, buildings should be oriented to address all street frontages.
- 10) Buildings are to be oriented to ensure prevailing winds over blue-green infrastructure are optimised as a means of providing passive cooling.
- 11) Blank facades are not permitted along primary and secondary street frontages.
- 12) Treatment of building facades is to be articulated by variations in materials, finishes and colours; use of blade or fin walls; sun shading devices; or varying facade elements.
- 13) Building services, such as mechanical ventilation, roof plant and lift overrun, must integrate with the facade and building design and must not be directly visible from the public domain.
- 14) Street-facing elevations and elevations fronting the future Great River Walk are to present a high standard of architectural design with varying materials in combination with landscaping treatments to break up the expanse of large walls.
- 15) Applications for large-scale public buildings must demonstrate that buildings have been planned and designed to meet the needs of people with a complex or profound disability.

4.3 Active frontage

Objectives

- a) To promote pedestrian activity and safety in the public domain.
- b) To create an attractive streetscape and an activated frontage to the Nepean River.
- c) To activate corner lots and street frontages with good physical and visual connections between buildings and the public domain.

Controls

- 1) Buildings must have openings, including main entries, to the street and public domain that aim to provide activation, passive surveillance and an overlook of the public domain.
- 2) Buildings must be activated by using glazing, office administration areas, building entries and the like (large, blank wall surfaces are not permitted).
- 3) Transparency and openings are to be maximised, and blank walls, fire exits and building services elements are to be minimised.
- 4) Buildings are to be designed to create an attractive and activated edge to the Nepean River.
- 5) Setback areas must provide interest and maximise opportunities for casual surveillance.
- 6) Important corners and lots with dual street frontage must address both street frontages.
- 7) Facades must be articulated so that they address the street and add visual interest.
- 8) Vehicular access points, apart from those providing access to recreational uses, must not be located on any street adjacent to the Nepean River or open space areas.
- 9) Screening must be provided for any plant and mechanical equipment.

4.4 Landscaping and open space

This clause only applies to the Tourism precincts.

Objectives

- a) To ensure that landscape planning is informed by an understanding of Country.
- b) To ensure development contributes to the landscape character of Penrith Lakes.
- c) To maximise permeable surface areas for stormwater management.
- d) To ensure sufficient space for landscaping and open space that will complement buildings and enhance the landscape character.
- e) To provide workers and visitors with usable private and communal open space areas.
- f) To increase canopy cover to contribute to the Greater Sydney Region Plan's identified target of 40% tree canopy, to help cool the precinct and increase resilience to a changing climate.

Controls

- 1) A landscape plan must be submitted with development applications (excluding dwellings and minor alterations and additions). Landscape plans must be prepared by a suitably qualified consultant and include preferred tree species and canopy size. Landscape plans shall include details on areas of public domain, if appropriate.
- 2) Development shall be compatible with the landscape setting of Penrith Lakes.
- 3) Development must maintain a sense of openness and integrate with the surrounding landscape.
- 4) A landscape setting for all development must be provided. Wherever possible, existing trees, environmentally sensitive features or other local character elements are to be retained and incorporated into the landscape setting.
- 5) Development proposals must demonstrate how they are contributing to the 40% tree canopy target in the Greater Sydney Region Plan by preserving existing trees, where possible, and adding to the existing canopy to provide green infrastructure and amenity.
- 6) Development must protect and maintain the cultural landscape setting associated with heritage items.
- 7) Development must provide an appropriate landscape transition to lake foreshore areas, the Nepean River and streets.
- 8) Landscape design shall complement the proposed built form and minimise the impact of scale, mass and bulk of the development in its context. Landscape design must promote environmentally sustainable development principles, including low-water and/or low-maintenance plants and drought-tolerant species, planting native or indigenous plants and using quality, long-lasting materials.
- 9) Landscape design must maximise the area of a deep soil zone to provide sufficient soil depth for roots to allow trees to reach full canopy potential.
- 10) Remnant vegetation and riparian areas must be protected and enhanced, where possible. Where land contains remnant native vegetation, a flora and fauna assessment report will be required.
- 11) Development must maximise permeable design solutions, including permeable paving to minimise stormwater run-off.

- 12) Landscape design must be high-quality and create interest and character through measures such as selection of tree species, well-integrated public art, pavement design and other elements.
- 13) Landscaping design must be compatible with flood risk.
- 14) Open space shall be provided that accommodates a range of uses and meets the needs of workers and visitors. It is to be designed to be safe and secure for all users.
- 15) Landscaping must be integrated in the front setback of buildings to provide an attractive outlook and screen buildings.
- 16) Landscaped walls, including vertical gardens and green roofs, are encouraged. A specialised landscape architect must design any green roofs and must include:
 - a) the location of proposed structures;
 - b) drainage, irrigation and waterproofing details;
 - c) an appropriate selection of plant species and soil details; and
 - d) an accessibility and management plan outlining the required and ongoing maintenance for the green roof.
- 17) The deep soil area will be included in the total landscaped area of the site.
- 18) Solar access to private open space must be maximised. Communal open space must receive a minimum of three hours of direct sunlight from 9 am to 3 pm on 21 June.
- 19) Appropriate shading must be provided so that communal spaces are usable during summer.
- 20) Communal open spaces must incorporate the primary deep soil area where possible.
- 21) Landscaping must contribute to water efficiency and effective stormwater management.

4.5 Deep soil and tree canopy

Objectives

- a) To provide developments with a high level of amenity and landscape character.
- b) To retain existing tree canopy and allow for future canopy increase.
- c) To reduce urban heat by increasing tree canopy as part of development.

Controls

- 1) Unless otherwise stated within this DCP, a minimum 20% of the site must be provided as deep soil to allow sufficient area for tree planting. A reduced area of deep soil may be considered, but only where it can be demonstrated that appropriate tree canopy cover will be achieved.
- 2) Unless otherwise stated within this DCP, deep soil zones must be a minimum of 6 metres wide. Where appropriate, deep soil zones shall be provided in one continuous area.
- 3) Any approved tree clearing must be replaced at a ratio of at least 2:1 (new to existing) to contribute to the 40% tree canopy target in the Greater Sydney Region Plan.
- 4) For development applications, the consent authority shall consider:
 - a) the opportunity to provide new trees and retain existing trees on the proposed development site to contribute to the 40% tree canopy target in the Greater Sydney Region Plan;

- b) the proponent’s approach to incorporating and protecting existing trees as part of the development design to enhance urban amenity and provide established urban canopy across the development;
 - c) whether an efficient water source for trees has been incorporated into the development design; and
 - d) potential opportunities for alternative water supplies, including stormwater capture, sewer harvesting and the like, to ensure adequate soil moisture during warm months and drought conditions.
- 5) No structural work or excavations that may restrict vegetation growth are permitted in deep soil zones (including, but not limited to, car parking and hard paving).

4.6 Staging

Objectives

- a) To ensure the orderly development of the land, including the delivery of necessary infrastructure.
- b) To provide new connections in the early stages of development.
- c) To provide flexibility for future development and the delivery of development lots within zoned precincts.
- d) To ensure the efficient delivery of infrastructure.

Controls

- 1) Development must ensure that adequate services and public access, including roadways, are provided in the initial stage of development.
- 2) Development applications for subdivision or development of more than 5,000 m² are required to submit a staging plan.
- 3) The staging plan is to be endorsed by the relevant consent authority.
- 4) Development applications for subdivision must consider road connections and services for the site and surrounding land and demonstrate their adequate provision in the first stage of development.
- 5) Development must not result in isolated lots.

4.7 Public art and design

Objectives

- a) To integrate urban art within the public domain and key development sites.
- b) To encourage a consistent art and design theme throughout Penrith Lakes.
- c) To enrich the public domain through the installation of artworks in the open space network.

Controls

- 1) A public art strategy must be submitted with any development application on sites of more than 10,000 m², excluding development applications limited to rehabilitation, temporary uses, or minor alterations and additions.
- 2) The public art strategy is to be relevant and relate to the surrounding area and the broader context of Penrith Lakes and is to address:
 - a) context of precinct within the Penrith Lakes;
 - b) community and public artist engagement;

- c) location of installations and artwork;
 - d) themes and narrative;
 - e) procurement strategies;
 - f) maintenance strategies; and
 - g) decommissioning strategies.
- 3) Any outdoor signage used within the precinct is to be consistent with the overarching Penrith Lakes design theme (in preparation).

4.8 Access and movement

Objectives

- a) To facilitate access and future connections between adjoining precincts.
- b) To minimise vehicular access points from Old Castlereagh Road.
- c) To minimise the conflict between pedestrians and vehicles.
- d) To improve permeability and pedestrian access between precincts, the Nepean River and recreation areas.
- e) To provide new road connections and walking and cycling connections to service development.
- f) To regulate the key characteristics of new roads to provide traffic safety and efficient traffic flow, appropriate parking, appropriate pedestrian and cycle paths, and suitable verge and road reserve widths in accordance with each road's function and use within the general road hierarchy.
- g) To ensure public safety from criminal elements by considering the NSW Police 'Safer By Design' or 'Crime Prevention Through Environmental Design' principles and protocols.
- h) To minimise construction and maintenance costs and avoid the need for future property acquisition to provide for public roads.
- i) To maintain flexibility to allow for future changes in land-use patterns.
- j) To ensure noise from all sources is within acceptable limits.
- k) To incorporate appropriate traffic-calming measures.

Controls

- 1) A traffic and transport plan is to be submitted as part of a development application plan (excluding minor development), detailing site access, movement and traffic impacts on the local road network.
- 2) A clear street hierarchy must be established using existing public roads (upgraded as necessary) and new collector roads and local streets.
- 3) The road classification requirements for new developments are set out in Section 10.4 of the Penrith Development Control Plan 2014. Roads are generally to be located above the 1% AEP level and provide rising road access to Castlereagh Road.
- 4) Road networks must provide adequate circulation for local traffic, bus routes and emergency vehicle access but must also consider the servicing of pedestrian and cycle movement.
- 5) The road network must be designed to allow efficient access to key destination nodes throughout Penrith Lakes, providing appropriately planned access and egress intersections to the adjoining major road network of Castlereagh Road to distribute traffic demands.
- 6) Where new streets are proposed, a public domain plan is to be submitted with a development application that details the design, maintenance and management of streets.

- 7) Roads shall be designed in accordance with the following principles:
 - a) Road and lane widths must allow for two-way movement and turning movements of vehicles, including consideration for buses, heavy vehicles, garbage trucks and emergency vehicles;
 - b) Verge widths must be sufficient to meet the requirements for utilities, street tree planting, footpaths, shared paths and urban design outcomes;
 - c) Adequate turning paths must be provided for all vehicles at intersections and for property access; and
 - d) Sufficient width must be provided for drainage functions and water-sensitive urban design measures.
- 8) Roads are to be designed in accordance with Penrith City Council's *Design Guidelines for Engineering Works for Subdivisions and Developments*.
- 9) Development shall, where appropriate, be designed to:
 - a) allow all vehicles to either leave or enter the site in a forward direction;
 - b) accommodate heavy vehicle parking and manoeuvring areas;
 - c) avoid conflict with staff, customer and visitor vehicular movements; and
 - d) ensure satisfactory and safe operation with the adjacent road system.
- 10) The suitability of manoeuvring areas provided for large vehicles is to be designed to comply with Australian Standard – AS2890 series.
- 11) Adequate space is to be provided within the site for the loading, unloading and fuelling (if applicable) of vehicles. These areas must be screened from the road.
- 12) New streets are to have a strong landscaped character.
- 13) Unless otherwise stated in this DCP, all vehicular access and entries to parking are to be located on secondary streets or at the rear of buildings.
- 14) Additional access points and driveways from Old Castlereagh Road shall be minimised and allowed only where they are approved as part of the traffic and transport plan prepared for the development.
- 15) Vehicle and pedestrian entry points are to be appropriately marked and signposted.
- 16) Verge treatments are to be designed to reflect the intended use of the street activity and function.
- 17) Paved surfaces must be designed to delineate between different uses, including pedestrian areas, car parking spaces and driveways.
- 18) Development must deliver a permeable and walkable local street network. Pedestrian paths are required on new and upgraded roads.
- 19) Development shall provide new pedestrian connections, as appropriate, to the Nepean River, including new connections from Lugard Street and Old Castlereagh Road.
- 20) Development must ensure that pedestrian and cycle facilities in public spaces are safe, well-lit, clearly defined, functional and accessible to all users.
- 21) The minimum width is 1.5 metres for pedestrian footpaths and 3 metres for shared cycle/pedestrian paths. All new roads are to include pedestrian footpaths on both sides. Shared paths are encouraged on one side of new roads.
- 22) Pedestrian paths and cycleways, as well as pedestrian refuge islands, are to be designed so that they are fully accessible by all users in terms of access points and gradients, in

accordance with Australian Standard – AS1428 (parts 1 to 4—Design for Access and Mobility).

- 23) The road cross-sections to be adopted will need to be further developed, with consideration given to land-use planning and support for active transport opportunities.

4.9 Parking strategy

Objectives

- a) To ensure parking areas are well-designed and integrate with development.
- b) To ensure the provision of an appropriate number of vehicular spaces, having regard to the proposed development.
- c) To reduce pedestrian and vehicle conflicts on development sites and the adjoining road network.
- d) To minimise the visual impact of onsite parking to maintain the visual amenity of Penrith Lakes.
- e) To enable the conversion of above-ground parking to other future uses.
- f) To positively support the complementary use and benefit of public transport and active transport options, such as bicycles and walking.

Controls

- 1) Car parking shall generally be provided in accordance with the land uses and rates outlined in Table 2.
- 2) Unless otherwise stated within this DCP, parking areas must not be located within the front setback of the lot.
- 3) Unless otherwise stated within this DCP, on-grade car parking must:
 - a) be located on the side or rear of the lot;
 - b) be constructed of permeable materials;
 - c) provide one large tree for every six car parking spaces; and
 - d) include fencing or landscaping to improve the visual impact on adjacent areas and allow for safe access to building entry points.
- 4) Where multilevel car parking is located above ground, ventilation grills or screen devices must be integrated into the facade and design of the building.
- 5) Parking areas are to be designed in accordance with the relevant Australian Standards.
- 6) Along all public street frontages, multilevel above-ground parking areas are to be laminated or sleeved with another use for a minimum depth of 10 metres—for example, building entry lobbies, retail tenancies and commercial floor space.
- 7) Temporary above-ground parking areas are to be designed to allow future adaptation to other uses. Ramps should be located internally rather than on the facades of parking structures, and multilevel parking areas should allow ease of adaptation of use.

4.9.1 Car parking

Table 2 outlines the recommended parking rates for various land uses at Penrith Lakes. Parking requirements should be rounded to the nearest whole number and, in the case of 0.5, rounded up. When calculating parking requirements for different land uses, each land-use environment is to be rounded to the nearest whole number and, in the case of 0.5, rounded up, before adding the land-use requirements together.

Car parking arrangement should comply with Australian Standard AS2890.1 (Parking facilities—Off-street car parking) and Australian Standard AS2890.6 (Parking facilities, Part 6—Off-street parking for people with disabilities).

Table 2. Parking rates

Land uses	Parking rate
Hotel or motel accommodation	1 space per unit, plus 1 space per manager, plus 1 space per 6 employees
Retail premises	1 space per 30 m ² gross floor area
Business and office premises	1 space per 40 m ² gross floor area
Restaurants, reception rooms and function rooms	1 space per 6 m ² of seating area, plus 1 space per employee
Entertainment facilities and function centres	1 space per 3.5 seats or 1 space per 3.5 m ² gross floor area, whichever is greater
Fitness centres, including gyms	7 spaces per 100 m ² gross floor area

For land uses not included in Table 2, the nearest equivalent rate would apply as informed by the parking requirements in the RTA's *Guide to Traffic Generating Developments*, Australian Standard AS2890.1 (Parking facilities—Off-street car parking) and Australian Standard AS2890.2 (Parking facilities, Part 2—Off-street commercial vehicle facilities). In the absence of other information, the applicant shall justify their proposed provision of parking spaces in light of their traffic report and the objectives of Clause 4.9.

4.9.2 Additional parking requirements

4.9.2.1 Bicycle/Motorcycle parking

Objective

- a) To support and promote the demand for active transport, such as bicycling and other active transport options.

Controls

- 1) Development is to provide bicycle parking in accordance with Austroads' *Guide to Traffic Management Part 11—Parking Management Techniques*.
- 2) Bicycle parking spaces must comply with Australian Standard 2890.3 (Parking facilities, Part 3—Bicycle parking).
- 3) For development that facilitates long-term (all-day) parking, end-of-trip facilities are to be provided, including showers, changing rooms, communal bike tools/repair stand and air compression bike pump.
- 4) Motorcycle parking must be provided based on 2% of the car parking provision.
- 5) Motorcycle parking spaces must comply with Australian Standard AS2890.1 (Parking facilities—Off-street car parking).

4.9.2.2 Service vehicle parking

Controls

- 1) Service vehicle parking areas must comply with Australian Standard AS2890.2 (Parking facilities, Part 2—Off-street commercial vehicle facilities) and the minimum design vehicle requirements in Table 3.

Table 3. Minimum design vehicle requirements

Site area	Design vehicle
Up to 1,500 m ²	Medium rigid vehicle
1,500 m ² to 4,000 m ²	Heavy rigid vehicle
Greater than 4,000 m ²	Articulated vehicle

4.10 Signage

Objectives

- a) To ensure that signage is compatible with the building design and landscape character of Penrith Lakes.
- b) To ensure that signage reflects the nature and scale of the activity conducted on the land.

Controls

- 1) The siting and design of all signage are to be sympathetic to the landscaped character of the area and minimise any visual impacts to adjoining properties.
- 2) All advertising is to be:
 - a) visually interesting;
 - b) constructed of high-quality, durable materials;
 - c) considered in conjunction with the design and construction of buildings;
 - d) restricted to only one sign per street frontage; and
 - e) contained wholly within the site.
- 3) Signage proposals are to consider existing signs on buildings as well as the streetscape to ensure that any new signage does not result in visual and physical clutter.
- 4) Corporate colours, logos and other graphics are to achieve a high degree of compatibility with the architecture, materials, finishes and colours of the building or site to which the sign relates.
- 5) Illuminated signs are generally discouraged, unless it can be demonstrated that the illuminated sign will be minimal and simple and have limited impact on the amenity or landscaped character setting and pedestrians or vehicles.

4.11 Solar access

Objective

- a) To protect solar access and minimise overshadowing to public open space, recreation areas, heritage items and adjoining properties.

Controls

- 1) Shadow diagrams for 9 am, 12 pm and 3 pm during the winter solstice are to be submitted with any development application where a building of two storeys or more is proposed.
- 2) All open space and public recreation areas must achieve a minimum of 3 to 4 hours of solar access from 9 am to 3 pm on 21 June (midwinter).
- 3) Development must not result in any overshadowing to heritage items.

4.12 Utility services

Objectives

- a) To ensure that adequate services are available to facilitate development.
- b) To ensure that development will not place unreasonable pressure on servicing authorities in terms of timing and extent of supply.
- c) To ensure that development will take place only where satisfactory arrangements are made with the servicing authorities.

Controls

- 1) All development applications are to address the existing and proposed provision of services, utilities, or both to a site and whether there is satisfactory capacity to address the required demand of the proposal.
- 2) Satisfactory arrangements are to be made with the relevant servicing authorities for providing services to the property.
- 3) Development consents will include a condition requiring the applicant to provide evidence that arrangements satisfactory to Sydney Water have been made for water supply and sewer services to the development.
- 4) Electricity services are to be provided in accordance with the relevant energy services provider.
- 5) Applicants will be required to obtain a certificate from the energy service provider outlining their notification of arrangements for servicing the site, including the provision of street lighting.
- 6) Electricity infrastructure is to be placed underground and may be in shared trenches and must be safe for extended floodwater emersion when located at or below the flood planning level extent.
- 7) Gas services are to be provided in accordance with the requirements of the relevant services provider based on the specific demand by specific users.
- 8) Gas supply infrastructure must be installed underground in shared trenches.
- 9) Telecommunications services are to be provided in accordance with the requirements of the relevant services provider.
- 10) Telecommunications services shall be funded by the applicant, including completion of consultation and design certification required to provide a ready pit and pipe in accordance with National Broadband Network (NBN) guidelines.

4.13 Fencing

Objectives

- a) To address the security needs of developments and avoid unacceptable visual impacts on the streetscape and landscape design.
- b) To ensure that the design and location of fencing integrate with the development and are suitable for its purpose and setting.
- c) To ensure that fencing is of a consistent high quality of construction and uses appropriate materials.
- d) To define site boundaries and give definition to building envelopes.

Controls

- 1) Fencing shall integrate with the overall design of the development and associated security structures, where possible.
- 2) The solid component of front fencing must not be higher than 1.2 metres.
- 3) The location and design of fences, including the materials used to construct the fencing, should:
 - a) be constructed of natural materials and finishes that integrate into the landscape character of Penrith Lakes;
 - b) be consistent in design and style with the building;
 - c) complement the streetscape, landscaping and open spaces;
 - d) maximise natural surveillance from the street to the building and from the building to the street; and
 - e) not impede the natural flow of stormwater drainage or floodwaters.
- 4) Fencing along boundaries adjacent to open spaces, including waterways and water bodies, is to integrate with the landscaping of the development.
- 5) Fencing is not permitted in setback areas.
- 6) Solid, metal sheet fencing is not permitted.
- 7) Where site security is required, security fencing shall generally be of an 'open' nature and of a dark colour, such as green or black plastic-coated mesh fencing.

4.14 Lighting

Objectives

- a) To provide adequate security lighting for business establishments and ensure there is no adverse impact on adjoining properties, particularly residential and rural areas.
- b) To provide lighting that improves the safety and amenity of the uses and the public domain.
- c) To locate and design lighting so it does not have significant detrimental offsite impacts.

Controls

- 1) External lighting within the lots is to comply with Australian Standard AS4282 (Control of the obtrusive effects of outdoor lighting).
- 2) Street lighting along internal roads is to be provided in accordance with the Australian Standard AS1158 series (Lighting for roads and public spaces).
- 3) Lighting design must address NSW Police's principles of 'Crime Prevention Through Environmental Design', having regard to the operating hours of individual tenants and any safety and security issues.
- 4) Adequate lighting must be provided to meet security requirements without excessive energy consumption. Lighting powered by solar batteries or other renewable energy sources is encouraged. The use of sensor lighting, both internally and externally, should be considered.

5 Precinct controls

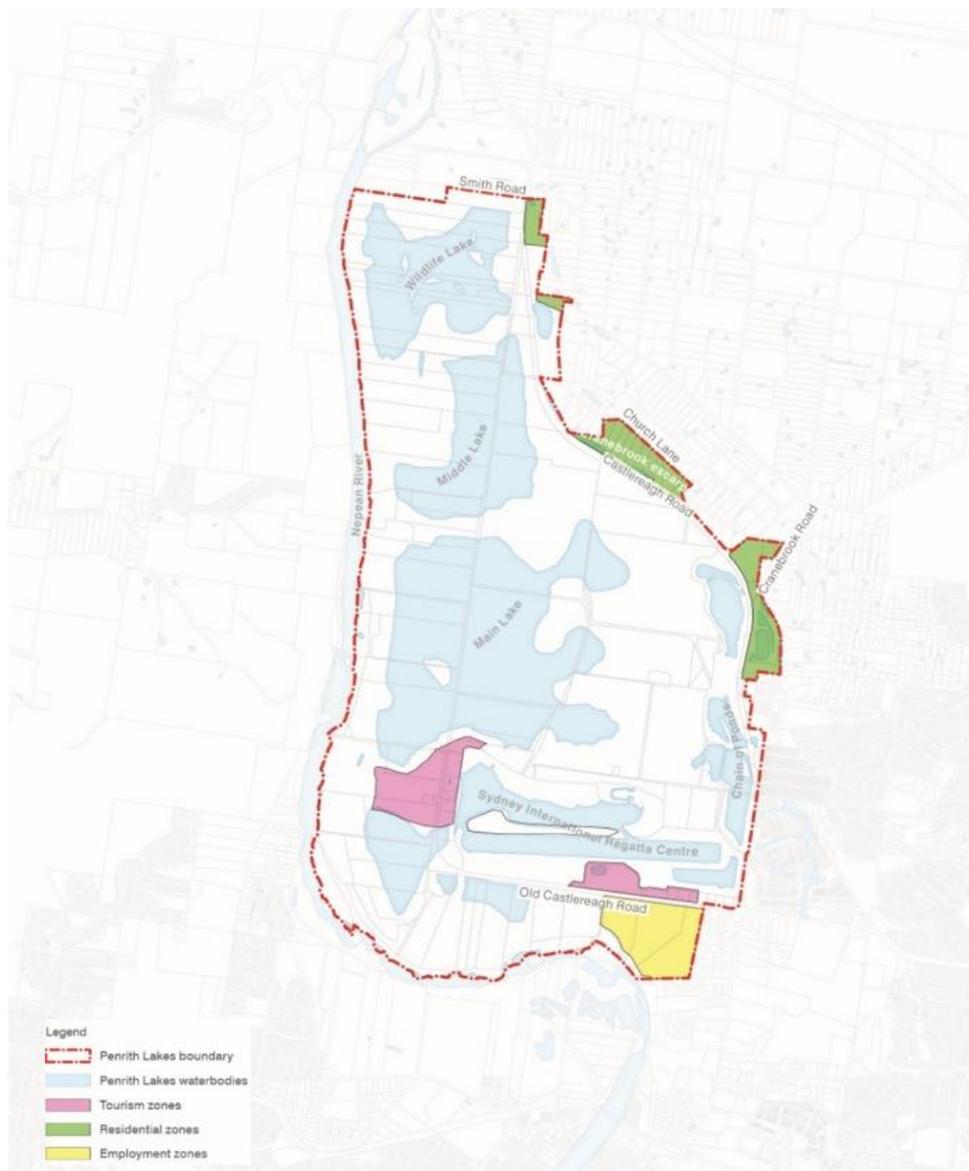
5.1 Specific provisions for urban land

This section outlines development controls for the tourism and employment areas, which have been divided into the following three precincts:

- Tourism South precinct;
- Tourism West precinct; and
- Employment precinct.

Despite any other clause in this DCP, all numeric built-form controls are provided as a maximum, with building height and floor space ratio as primary controls. The exception is the Tourism West precinct, where site coverage is the primary control. It is assumed that the maximum of each built-form control may not be achieved.

Figure 2. Precinct diagram



5.2 Tourism South precinct

5.2.1 Land application

The following additional development controls apply to land within the Tourism zone, south of the Regatta Lake, as Figure 3 shows.

Figure 3. Tourism South precinct



Objectives

- To provide for high-quality recreation and tourism uses that celebrate the precinct's lakeside setting.
- To ensure development prioritises views to the lake and retains significant trees.
- To ensure development creates an attractive arrival to Penrith Lakes, with well-designed buildings that address Old Castlereagh Road.
- To ensure development integrates with its lakeside setting, with generous landscaping, setbacks and views.
- To provide new connections and streets to improve permeability and access to the Regatta Lake.

Desired future character

All development applications are to demonstrate consistency with the following desired character objectives:

- a) low-scale development fronting the Regatta Lake that responds to its landscape and preserves existing trees where possible;
- b) a generous landscaped buffer along Old Castlereagh Road that provides a sense of arrival, functions as a Gateway to Penrith Lakes and preserves existing trees or plants advanced replacement trees capable of reaching a substantial height and canopy;
- c) preserved north–south views from Old Castlereagh Road to the Regatta Lake through sufficient separation between buildings; and
- d) improved permeability and pedestrian access to primary roads, nature trails, the Regatta Lake, and current and future recreational features of Penrith Lakes.

5.2.2 Tourism South precinct master plan

Before any development or subdivision application in the Tourism South precinct, a master plan is required, which should be adopted by the consent authority.

The master plan forms the basis for urban development in the precinct by setting out:

- how individual lots are compatible with master planning of the other lots in the Tourism South precinct;
- the major road network and potential access points;
- the open space and drainage networks and any basins or water quality treatment measures;
- the existing physical and environmental features of the site;
- the general indication of the phasing of development;
- the proposed site layout, including an indicative road layout;
- an urban design and landscape strategy;
- a design excellence strategy;
- location of communal open space, its function and landscaping;
- design principles based on analysis of the site and its context;
- identification of gateway sites and corridors;
- pedestrian, vehicular and cycle road access and circulation networks and facilities;
- remediation of any site contamination; and
- any other major infrastructure, such as transmission lines, trunk sewage or water supply lines.

Objectives

- a) To ensure that development in the precinct occurs in an orderly manner.
- b) To ensure that infrastructure, services and amenities are sufficient to support growth and development in the precinct.
- c) To ensure high quality design.

Controls

- 1) The primary entry to the Tourism South precinct is to be maintained from Old Castlereagh Road. However, additional driveways to Old Castlereagh Road should be minimised.
- 2) All development applications are to be generally in accordance with the adopted master plan.

- 3) The applicant must undertake a design review of the master plan throughout its preparation, in accordance with the design excellence strategy prepared in accordance with this DCP.
- 4) The precinct master plan must include a landscape plan prepared by a suitably qualified consultant and include preferred tree species and canopy size. The landscape plan shall include details on areas of public domain within the precinct, if appropriate.
- 5) The precinct landscape design shall complement the proposed built form and minimise the impact of scale, mass and bulk of the development in its context.
- 6) The landscape design shall maximise permeable design solutions, including permeable paving to minimise stormwater run-off.
- 7) The precinct master plan must include sufficient pervious ground surface area to allow natural drainage to occur – for instance, permeable paving, gravel decking, garden beds or some combination of these.
- 8) The landscape plan developed for the master plan must demonstrate how the development of the precinct would contribute to the 40% tree canopy target in the Greater Sydney Region Plan by preserving existing trees, where possible, and adding to the existing canopy to provide green infrastructure and amenity.
- 9) When assessing development applications, the consent authority will consider the extent to which the proposed development is consistent with the master plan, including cumulative and precedent implications for the planned infrastructure, and services and amenities provision.
- 10) The applicant must, to the consent authority's satisfaction, demonstrate that any proposed variations to the general arrangement of the master plan are consistent with the precinct's desired future character.

5.2.3 Subdivision design

Objectives

- a) To preserve and retain significant environmental and cultural features of the site, such as view sheds, existing vegetation, riparian corridors and heritage items.
- b) To create the opportunity for individual design solutions and innovative and efficient subdivision layout.
- c) To minimise the number of road entry points to Old Castlereagh Road, thereby allowing more efficient traffic management.
- d) To support the evacuation system established in the Penrith Lakes Flood Response Guideline.

Controls

- 1) Only strata or community title subdivision is permitted to facilitate the administration of the site evacuation system established in accordance with the Penrith Lakes Flood Response Guideline.

5.2.4 Building height

Objectives

- a) To ensure building heights respond to the site's topography and natural features.
- b) To provide an appropriate height transition and step down with the topography, with lower buildings fronting the Regatta Lake.
- c) To preserve views from Old Castlereagh Road to the Regatta Lake.

- d) To ensure building heights sit below the tree canopy and preserve significant vegetation views.

Figure 4. Height of buildings (Tourism South precinct)



Controls

- 1) Figure 4 shows the maximum building heights. The predominant maximum building height is 22 metres, with the exception of land depicted in Figure 4 that is within 50 metres of the precinct boundary, which has a maximum height of 10 metres.
- 2) Development is to step down with the topography and present with a lower building height along the northern edge fronting the Regatta Lake.

Note building height is to be measured from final approved ground level.

5.2.5 Floor space ratio

Objectives

- a) To provide sufficient area for open space and landscaping.
- b) To achieve attractive streetscapes and reduce overall bulk and scale.

Controls

- 1) The maximum floor space ratio for a building on any lot is not to exceed 1.25:1.

5.2.6 Site coverage

Objectives

- a) To maximise open space and landscaped area.
- b) To minimise stormwater run-off.
- c) To ensure sufficient area for landscaping, including deep soil and retention of vegetation.
- d) To ensure appropriate bulk and scale of development.

Controls

- 1) Site coverage for a lot is not to exceed 50%.
- 2) A minimum of 30% of the lot area is to be landscaped.
- 3) A schedule (table) showing the site coverage and landscape area should be submitted with the development application or included on the site plan.

5.2.7 Building setbacks

Objectives

- a) To ensure buildings are appropriately sited to preserve mature trees and, where possible, existing vegetation.
- b) To enhance the landscape setting, provide area for vegetation and open space, and protect views.
- c) To establish a heritage curtilage and setback to the local heritage item: Long's House.

Controls

- 1) Building setbacks are to be in accordance with the standards outlined in Table 4.

Table 4. Building setback requirements (Tourism South precinct)

Location	Distance (m)
Old Castlereagh Road	10
Lot Side boundary	5
Lot Rear boundary	5
Precinct boundary (unless already provided by other setbacks)	5
Heritage curtilage around Long's House (a reduced setback may be considered if supported by a suitably qualified heritage consultant)	10

5.2.8 Heritage

Objectives

- a) To ensure that the heritage significance of Long's House is recognised in developing the precinct.
- b) To encourage the adaptive re-use of Long's House.

Controls

- 1) Development should ensure that the significance of Long's House and its setting is retained and enhanced.
- 2) For sites in the vicinity of Long's House, a heritage impact statement and a heritage interpretation strategy are to be submitted with a development application.
- 3) No overshadowing is permitted to Long's House and its curtilage area.

5.3 Tourism West precinct

5.3.1 Land application

The following additional development controls apply to land within the Tourism West precinct, located west of the Regatta Lake, as Figure 5 shows.

Figure 5. Tourism West precinct



Objectives

- To provide for a range of tourism and recreation uses that support the vision of Penrith Lakes as a major recreation and tourism destination.
- To ensure development addresses Old Castlereagh Road to create a focal point for the precinct.
- To ensure development is well-located and designed to minimise visual impacts and protect views.
- To ensure development provides appropriate curtilage to heritage items.
- To ensure that development responds to the flood constraints of the precinct.

Desired future character

All development applications are to demonstrate consistency with the following desired future character objectives:

- complement the sporting and recreational use of the area;
- low-scale development at key entry locations to preserve views;
- a main street appearance along Old Castlereagh Road, with buildings that address the street and improve connectivity to heritage buildings;
- generous landscaped setbacks maintaining a village character; and
- protection of views and physical connections between heritage buildings and the Regatta Lake.

5.3.2 Tourism West precinct master plan

Before any development or subdivision application in the Tourism West precinct, a precinct master plan is required, which should be adopted by the consent authority.

The master plan forms the basis for urban development in the precinct by setting out:

- the major road network and potential access points;
- the open space and drainage networks and any precinct-scale basins or water quality treatment measures;
- the existing physical and environmental features of the site;
- the general indication of the phasing of development;
- the proposed site layout, including an indicative road layout;
- an urban design and landscape strategy;
- a design excellence strategy for the precinct;
- location of communal open space, its function and landscaping;
- design principles based on analysis of the site and its context;
- identification of gateway sites and corridors;
- pedestrian, vehicular and cycle road access and circulation networks and facilities;
- remediation of the site, including any site contamination; and
- any other major infrastructure, such as transmission lines, trunk sewage or water supply lines.

Objectives

- a) To ensure that development in the precinct occurs in an orderly manner.
- b) To ensure that infrastructure, services and amenities are sufficient to support growth and development in the precinct.
- c) To ensure high quality design.

Controls

- 1) Old Castlereagh Road must be extended to McCarthys Lane as a first stage of the development of the Tourism West precinct. This shall include a link to the southern edge of Main Lake A by providing a 22-metre road reserve comprising a 13-metre roadway and 4.5-metre verges on each side. This road access is required as stage 1 of the precinct development.
- 2) The primary entry to the Tourism West precinct is to be maintained from Old Castlereagh Road.
- 3) All development applications are to be generally in accordance with the adopted master plan.
- 4) The applicant must undertake a design review of the master plan throughout its preparation, in accordance with the design excellence strategy prepared in accordance with this DCP.
- 5) The precinct master plan must include a landscape plan prepared by a suitably qualified consultant and include preferred tree species and canopy size. The landscape plan shall include details on areas of public domain within the precinct, if appropriate.
- 6) The precinct landscape design shall complement the proposed built form and minimise the impact of scale, mass and bulk of the development in its context.
- 7) The landscape design shall maximise permeable design solutions, including permeable paving to minimise stormwater run-off.

- 8) The precinct master plan must include sufficient pervious ground surface area to allow natural drainage to occur – for instance, permeable paving, gravel decking, garden beds or some combination of these.
- 9) The landscape plan developed for the master plan must demonstrate how the development of the precinct would contribute to the 40% tree canopy target in the Greater Sydney Region Plan by preserving existing trees, where possible, and adding to the existing canopy to provide green infrastructure and amenity.
- 10) When assessing development applications, the consent authority will consider the extent to which the proposed development is consistent with the master plan, including cumulative and precedent implications for the planned infrastructure, and services and amenities provision.
- 11) The applicant must, to the consent authority's satisfaction, demonstrate that any proposed variations to the general arrangement of the master plan are consistent with the precinct's desired future character.

5.3.3 Subdivision design

Objectives

- a) To preserve and retain significant environmental and cultural features of the precinct, such as view sheds, existing vegetation, riparian corridors and heritage items.
- b) To create the opportunity for individual design solutions and innovative and efficient subdivision layout.
- c) To minimise the number of road entry points to Old Castlereagh Road, thereby allowing more efficient traffic management.
- d) To support the evacuation system established in the Penrith Lakes Flood Response Guideline (in preparation).

Controls

- 1) To facilitate the administration of the site evacuation/response system established in accordance with the Penrith Lakes Flood Response Guideline (in preparation), only strata or community title subdivision shall be permitted.

5.3.4 Building height

Objectives

- a) To ensure building heights respond to the site's topography and natural features.
- b) To protect views to the Regatta Lake and the Blue Mountains.
- c) To protect views to and from heritage buildings.
- d) To ensure building heights minimise visual impacts.
- e) To provide appropriate height transition around height item and ensure building heights are scaled back from heritage curtilage and sympathetic to heritage item and its curtilage.

Controls

- 1) The maximum building height is 14 metres. The consent authority may consider variation to building height up to 25 metres for some buildings during the master planning process subject to the review of the precinct master plan by the NSW State Design Review Panel and compliance with the objectives and desired future character of the Tourism West precinct.

Note - building height is to be measured from final approved ground level.

5.3.5 Floor space ratio

Objectives

- a) To provide sufficient area for open space and landscaping.
- b) To achieve attractive streetscapes and reduce overall bulk and scale.

Controls

- 1) The maximum floor space ratio for a building on any lot is not to exceed 0.75:1.

Note - due to a larger area of the precinct below the 1% AEP flood level and the land having a high flood hazard (H6 classification), the floor space ratio is less than the Tourism South precinct.

5.3.6 Setbacks

Objectives

- a) To ensure buildings are appropriately sited to preserve mature trees and, where possible, existing vegetation.
- b) To enhance the landscape setting by providing area for vegetation and open space and protect views.
- c) To protect the heritage curtilage of local heritage items; the Upper Castlereagh School and Residence, the Upper Castlereagh Methodist Church and Hall, and the Methodist Cemetery.

Controls

- 1) Building setbacks are to be in accordance with the standards outlined in Table 5.

Table 5. Building setback requirements (Tourism West precinct)

Location	Distance (m)
Old Castlereagh Road	10
Front lot boundary (unless already provided by other setbacks)	5
Side lot boundary (unless already provided by other setbacks)	5
Rear lot boundary (unless already provided by other setbacks)	5
Precinct boundary (unless already provided by other setbacks)	5
Edge of Quarantine Lake and Main Lake A	100
Heritage curtilage around Upper Castlereagh School and Residence, the Upper Castlereagh Methodist Church and Hall, and the Methodist Group and Cemetery (a reduced setback may be considered if supported by a suitably qualified heritage consultant)	10

5.3.7 Site coverage

Objectives

- a) To maximise open space in a landscape setting that respects local heritage and the nearby lakes.
- b) To minimise stormwater run-off.
- c) To ensure sufficient area for landscaping, including deep soil and retention of vegetation.
- d) To ensure appropriate bulk and scale of development.

Controls

- 1) Site coverage for the precinct is not to exceed 30% of Tourism zoned area.

- 2) A minimum of 30% of the lot area of the Tourism zoned land is to be landscaped.
- 3) A schedule (table) showing the site coverage and landscape area should be submitted with a development application.

5.3.8 Heritage

Objectives

- a) To ensure that the heritage significance of Upper Castlereagh Public School and Residence and the Methodist Group and Cemetery is recognised in developing the precinct.
- b) To encourage the adaptive re-use of the Upper Castlereagh Public School and Residence and the Methodist Group and Cemetery.

Controls

- 1) For sites in the vicinity of Upper Castlereagh Public School and Residence and the Methodist Group and Cemetery, a heritage impact statement and a heritage interpretation strategy are to be submitted with a development application.
- 2) No overshadowing is permitted of the Upper Castlereagh Public School and Residence or the Methodist Group and Cemetery and its curtilage areas.

5.4 Employment precinct

5.4.1 Land application

The following development controls apply to land within the Employment precinct (Figure 6). The Employment precinct includes the Environment zoned land along Old Castlereagh Road immediately north of the Employment zoned land.

Figure 6. Employment precinct



Objectives

- To provide for a range of local employment opportunities within the Penrith Lakes areas.
- To identify and provide public amenities and service infrastructure to accommodate development.
- To ensure development is well-located and designed to minimise visual impacts and protect views.

Desired future character

All development applications are to demonstrate consistency with the following desired future character objectives:

- a new business park and innovative employment uses in a landscape setting that creates a key connector to Penrith city centre and recreational amenities to the north;
- improved connections and views to the Nepean River and the Great River Walk;

- c) a new entry off Lugard Street that creates a sense of arrival and a new ‘front door’ to the precinct, complementing Old Castlereagh Road as a key gateway to the precinct; and
- d) generous landscape setbacks.

5.4.2 Employment precinct master plan

Before any subdivision application in the Employment precinct, a precinct master plan is required, which the consent authority should adopt.

The master plan forms the basis for urban development in the precinct by setting out:

- the major road network and potential access points;
- the open space and drainage networks and any precinct-scale basins or water quality treatment measures;
- the existing physical and environmental features of the site;
- the general indication of the phasing of development;
- the proposed site layout, including an indicative road layout;
- an urban design and landscape strategy;
- a design excellence strategy for the precinct;
- location of communal open space, its function and landscaping;
- design principles based on analysis of the site and its context;
- identification of gateway sites and corridors;
- pedestrian, vehicular and cycle road access and circulation networks and facilities;
- remediation of any site contamination; and
- any other major infrastructure, such as transmission lines, trunk sewage or water supply lines.

Objectives

- a) To ensure that development in the precinct occurs in an orderly manner.
- b) To ensure that infrastructure, services and amenities are sufficient to support growth and development in the precinct.
- c) To ensure high quality design.

Controls

- 1) Development must provide a new secondary entry off Lugard Street that runs along the southwest boundary of the precinct and connects with Old Castlereagh Road. The reserve for this road shall be provided at the first stage of development as a 22 metre road reserve to provide for a 13 metre roadway with 4.5 metre verges on each side of the southwestern perimeter of the site.
- 2) The primary entry to the Employment precinct is to be maintained from Old Castlereagh Road.
- 3) All development applications are to be generally in accordance with the adopted master plan.
- 4) The applicant must undertake a design review of the master plan throughout its preparation, in accordance with the design excellence strategy prepared in accordance with this DCP.

- 5) The master plan must address stormwater treatment and processes and discharge to manage flow rates.
- 6) When assessing development applications, the consent authority will consider the extent to which the proposed development is consistent with the master plan, including cumulative and precedent implications for the planned infrastructure, and services and amenities provision.
- 7) The precinct master plan must include a landscape plan prepared by a suitably qualified consultant and include preferred tree species and canopy size. The Landscape plan shall include details on areas of public domain within the precinct, if appropriate.
- 8) The precinct landscape design shall complement the proposed built form and minimise the impact of scale, mass and bulk of the development in its context.
- 9) The landscape design shall maximise permeable design solutions, including permeable paving to minimise stormwater run-off.
- 10) The landscape plan developed for the master plan must demonstrate how the development of the precinct would contribute to the 40% tree canopy target in the Greater Sydney Region Plan by preserving existing trees, where possible, and adding to the existing canopy to provide green infrastructure and amenity.
- 11) The applicant must, to the consent authority's satisfaction, demonstrate that any proposed variations to the general arrangement of the master plan are consistent with the precinct's desired future character.

5.4.3 Subdivision design

Objectives

- a) To achieve maximum flexibility for siting and location of buildings and to achieve an appropriate density of development.
- b) To provide opportunities for parcels of land of varying size and dimensions to satisfy market demand and the needs of the development industry.
- c) To minimise the number of road entry points to Old Castlereagh Road, thereby allowing more efficient traffic management.
- d) To create the opportunity for individual design solutions and innovative and efficient subdivision layout.
- e) To ensure that land to be developed is of an adequate size and shape to accommodate development and provide amenity for occupants of the site and surrounding areas.
- f) To support the flood resilience warning and early response system established in the Penrith Lakes Flood Response Guideline (in preparation).

Controls

- 1) Variations to subdivision controls will be considered for lots created solely for the purpose of 'utility installations' or 'utility undertakings'.
- 2) Only strata or community title is permitted to facilitate the administration of the flood resilience warning and early response system established in accordance with the Penrith Lakes Flood Response Guideline (in preparation).
- 3) Table 6 outlines the subdivision controls.

Table 6. Subdivision controls

Item	Area	Control
Minimum allotment size	Employment zone	1,500 m ²
Minimum frontage	Employment zone	30 m

5.4.4 Building height

Objectives

- a) To ensure building heights respond to the site's topography and natural features.
- b) To retain views to the Regatta Lake and the proposed Great River Walk extension.
- c) To minimise the impact of buildings on the surrounding public realm, including areas of environmental significance and landscape value.
- d) To provide a range of building heights across the precinct.

Controls

- 1) Buildings must not exceed a maximum height of 12 metres from the approved ground level within 140 metres of the precinct boundary, as Figure 7 shows.
- 2) For lots not subject to Control (1) above, a maximum building height of 20 metres from the approved ground level is permitted.

Note - building height is to be measured from final approved ground level.

Figure 7. Height of buildings (Employment precinct)



Legend

-  Penrith Lakes boundary
-  SEPP zone boundary
-  12m height of building
-  20m height of building

5.4.5 Floor space ratio

Objectives

- a) To provide sufficient area for open space and landscaping.
- b) To achieve attractive streetscapes and reduce overall bulk and scale.

Controls

- 1) The maximum floor space ratio for a building on any lot is not to exceed 0.8:1.

5.4.6 Site coverage

Objectives

- a) To limit the density of development.
- b) To encourage the provision of open space and landscaping on development sites.

Controls

- 1) Site coverage for any lot is not to exceed 60% of the area of the lot (only include Employment zoned land for lot area calculation).

5.4.7 Building setbacks

Objectives

- a) To provide a consistent design and landscaped transition to the future Great River Walk extension.
- b) To provide an open streetscape with substantial areas for landscaping.
- c) To enhance the visual quality of development and the urban landscape.
- d) To screen undesirable views and minimise the visual impact of hard surface areas.
- e) To ensure new development retains existing trees or significant stands of vegetation in the overall site layout.
- f) To minimise the impact of overshadowing to adjoining buildings and open space.

Controls

- 1) Building setbacks are to be in accordance with the standards outlined in Table 7.
- 2) Side and rear setbacks for smaller lots (less than 5,000 m²) are to be considered on merit, accounting for site areas, street frontage width, site access, onsite parking, landscaping and adjoining lots' setbacks.

Table 7. Building setback requirements (Employment precinct)

Location	Distance
Lots fronting the perimeter road (connecting Lugard Street and Old Castlereagh Road)	10 m
Lots fronting other internal roads	5 m
Secondary road frontages (corner lots)	5 m
Side boundary (one side) for lots greater than 5,000 m ²	5 m
Rear boundary for lots greater than 5,000 m ²	5 m
Setback from Old Castlereagh Road	10 m
Precinct boundary (except lots sharing boundary with Old Castlereagh Road)	5 m
Side and rear boundaries for lots less than 5,000 m ²	Merit-based

- 3) Notwithstanding Control (1) above, no development other than the following is permitted within the defined setback for any road:
 - a) Landscaping;
 - b) maintenance/rehabilitation of biodiversity corridors or areas;
 - c) utility services installation;
 - d) access ways and driveways (not permitted in setbacks to Old Castlereagh Road);
 - e) fire access roads;
 - f) approved signage;
 - g) street furniture; and
 - h) drainage works.
- 4) Setbacks may incorporate an off-street parking area if it can be demonstrated that the location of the car parking area:
 - a) is set behind a landscaped area;
 - b) promotes the function and operation of the development;
 - c) enhances the overall design of the development by implementing design elements, including landscaping, that will screen the parking area and is complementary to the development; and
 - d) does not detract from the streetscape values of the locality.
- 5) For corner sites, setbacks must also ensure clear vehicular sightlines for perpendicular traffic.
- 6) Awnings, canopies, balconies, sun shading and screening elements can project into the side or rear setback zones.

5.4.8 Landscaping and open space

Objectives

- a) To ensure development contributes to the landscape character of Penrith Lakes.
- b) To maximise permeable surface areas for stormwater management.

- c) To ensure sufficient space for landscaping and open space that will complement buildings and enhance landscape character.
- d) To screen undesirable views.
- e) To provide workers and visitors with usable private and communal open space areas.

Controls

- 1) A landscape plan, prepared by a qualified landscape architect, must be submitted with any development application.
- 2) A minimum of 15% of the lot area is to be landscaped, and a minimum of 10% is to be deep soil to allow sufficient area for tree planting.
- 3) Deep soil zones must be a minimum of 3 metres wide. Where appropriate, deep soil zones should be provided in one continuous area.
- 4) Landscape design should contribute to the Greater Sydney Region Plan's canopy cover target of 40%, such as by retaining existing paddock trees, windrows and large canopy trees where possible and adding to the existing canopy.
- 5) For any approved tree clearing, trees are to be replaced at a ratio of at least 2:1 (new to existing) to contribute to the 40% tree canopy target in the Greater Sydney Region Plan.
- 6) Outdoor recreation areas for staff shall be integrated into landscaped areas, where possible, to provide shade and an appropriate level of amenity and comfort.
- 7) Landscaped front setbacks must include canopy trees whose mature height is in scale with the proposed development.
- 8) Tree planting in island planter beds shall be provided at a rate of one planter bed per 10 car spaces within car parks to reduce the heat effect and soften hard surfaces.
- 9) Screen planting with evergreen shrubs and trees is required to screen car parks, vehicular manoeuvring areas, garbage areas and storage areas from the street frontage.
- 10) The selection of proposed trees and other landscaping plants is to consider:
 - a) the preferred trees identified in Council's Street and Park Tree Management Plan;
 - b) the use of relevant local native vegetation communities that occur (or once occurred) in the area rather than exotic plant or non-local native species;
 - c) the re-use of native plants or topsoil removed during subdivisions works or earthworks;
 - d) the contribution to the management of soil salinity, water levels and soil erosion;
 - e) low-maintenance and drought-tolerant tree species; and
 - f) the capacity of the species to contribute to tree canopy cover.
- 11) Sufficient space is to be made available to allow trees to grow to maturity.
- 12) Landscaped areas shall be consolidated to maximise space for deep soil, tree growth and aesthetic opportunities.
- 13) Ground covers should be considered as a grass alternative in areas not specifically designed for pedestrian use.

5.4.9 Building design

Objectives

- a) To encourage innovation and a high standard of architectural design, using quality materials and finishes.

- b) To ensure development achieves a high level of sustainability and environmental performance.
- c) To encourage articulated and varied frontages and roof lines to minimise perceived bulk and scale, particularly where facing or visible from public roads.
- d) To ensure that new development contributes to creating a visually cohesive urban environment.
- e) To support passive surveillance of the adjoining public realm.

Controls

- 1) In assessing development proposals, the consent authority will have regard to the quality of building design and materials (type and colour).
- 2) Elevations fronting the street or public reserves or those that are visible from public areas must present a building form of significant architectural and design merit. The construction of large, blank wall surfaces is not permitted in visually sensitive locations.
- 3) Large, unrelieved expanses of wall or building mass will not be supported, and as such, should be broken up by using suitable building articulation, fenestration or alternative architectural enhancements.
- 4) All loading areas should be towards the rear of allotments. Loading areas are to be screened from the view of primary road frontages and visually sensitive public areas using physical screening, vegetation screening or both.
- 5) External materials should not have an index of reflectivity above 20%. A reflectivity statement is to be submitted with all building development applications.
- 6) To reduce the visual impact from elevated locations, particular care should also be taken in:
 - a) designing roof elements; and
 - b) locating plant and mechanical equipment including exhausts.
- 7) Any office and administration component is to be located towards the main frontage of the building and be designed as an integral part of the overall building, rather than as an ancillary structure.

6 Definitions

Adjoining and neighbouring land and properties means any land that may be detrimentally affected by the use, or erection, of a building or work on the development site.

Annual exceedance probability (AEP) means the probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.

Asset protection zone means an area surrounding a development where fuel is managed to reduce the bushfire hazard to an acceptable level.

Buffer means a strip of land that is reserved between a potential source of pollution or other impact and an area that must be protected from the pollution or impact.

Building includes part of a building and any structure or part of a structure, including a swimming pool, but does not include:

- a) a manufactured home, a moveable dwelling, or associated structure, or part of a manufactured home, a moveable dwelling or associated structure
- b) a temporary structure within the meaning of the *Local Government Act 1993*.

Collector road means a road that collects and distributes traffic in an area, as well as serving abutting properties.

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

Curtilage, in relation to a heritage item or conservation area, means the area of land (including land covered by water) surrounding a heritage item; a heritage conservation area; or a building, work or place within a heritage conservation area that contributes to its heritage significance. Specific curtilage areas are as defined in the State Heritage Register or the Penrith Local Environmental Plan 2010, if so referred.

Deep soil is an area of natural ground with no obstructions above or below and relatively natural soil profiles. Deep soil zones help promote healthy growth of large trees, protect existing mature trees and allow infiltration of rainwater into the water table to reduce stormwater run-off. Deep soil zones exclude areas on structures, pools and non-permeable paved areas.

Erosion means the detachment and removal of soil materials from a given area, by the processes of wind, water, gravity or some combination of these.

Flood planning level means the level of a 1:100 average recurrence interval flood event, plus 1 metre freeboard.

Floor space ratio is the ratio of the allowable gross floor area to the site area.

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

- a) the area of a mezzanine
- b) habitable rooms in a basement or an attic
- c) any shop, auditorium, cinema, and the like in a basement or attic.

It excludes:

- a) any area for common vertical circulation, such as lifts and stairs
- b) any basement:
 - i. storage

- ii. vehicular access, loading areas, garbage and services
- c) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting
- d) car parking to meet any requirements of the consent authority (including access to that car parking)
- e) any space used for the loading or unloading of goods (including access to it)
- f) terraces and balconies with outer walls less than 1.4 metres high
- g) voids above a floor at the level of a storey or storey above.

Height:

- a) in relation to a building, means the vertical distance measured between final approved ground level at any point at which the building is sited and the roof of the topmost floor of the building above that point
- b) in relation to any advertising sign or structure, means the vertical distance measured between the final approved ground level at any point at which the advertising sign or structure is sited and the uppermost portion of the advertising sign or structure at that point.

Heritage impact statement is a document consisting of:

- a) a statement demonstrating the heritage significance of a heritage item or heritage conservation area
- b) an assessment of the impact that proposed development will have on that significance
- c) proposals for measures to minimise that impact.

Heritage interpretation strategy is a strategy that:

- a) defines the land and places to which the heritage interpretation strategy relates
- b) describes the cultural landscapes, history and heritage assets on that land
- c) describes the significance of the cultural landscape history and heritage assets on that land
- d) provides plans for the commemoration and communication of the heritage significance of the land and heritage assets there
- e) includes indicative designs and concept sketches for recommended methods of commemorating key historical site uses
- f) recommends appropriate construction materials, production methods and siting to be adopted in implementing heritage-commemorating plans.

In the vicinity means one of the following:

- a) within an allotment abutting or directly across a road reservation from an allotment containing a heritage item, or within 200 metres of a boundary of an allotment containing a heritage item (whichever is less)
- b) within the curtilage of a heritage item that has been formally defined by an environmental planning instrument, or in a heritage study supporting that instrument, or by a Commission of Inquiry, or in a DCP or in a conservation management plan.

Indigenous vegetation means one or more plant species of vegetation, including trees, shrubs, understory plants, ground cover and plants occurring in a wetland, that existed in the City of Penrith before European settlement or have regrown through natural or assisted processes. This may include standing dead trees that provide essential habitat for natural plants.

Landscaped area means an area of open space on the lot, at ground level, that is permeable and consists of soft landscaping, turf or planted areas and the like.

Penrith Lakes is the land edged in heavy black on the structure plan within the Penrith Lakes SEPP.

Penrith Lakes Scheme is the creation of a regional recreational lake system, as shown on the structure plan within the Penrith Lakes SEPP, for the benefit of the public as a result of—

- a) the staged optimum extraction of sand and gravel reserves
- b) the staged rehabilitation, reconstruction and landscaping of the land
- c) the staged formation of a series of interconnected lakes.

and includes the identification of land for possible future urban purposes as a result of the work referred to in paragraphs (a) and (b).

Pervious area means an area that allows natural drainage to occur—for instance, permeable paving, gravel, decking, garden beds or some combination of these.

Regional detention facility means a stormwater detention facility built and operated by the stormwater utility provider.

Remnant vegetation means areas, or networks of areas, of indigenous vegetation that allow migration of plants and animals and provide examples of local biodiversity and habitat for various species in their own right.

Riparian corridor is the land directly adjacent to (or surrounding) a natural or artificial waterway that provides a crucial link between terrestrial and stream ecosystems.

Site coverage means the proportion of a site covered by buildings. However, the following are not included for the purpose of calculating site coverage:

- a) any basement
- b) any part of an awning that is outside the outer walls of a building and that adjoins the street frontage or other site boundary
- c) any eaves
- d) unenclosed balconies, decks, pergolas and the like.

Southern Wetlands treatment train consists of the elements and structures arranged in series leading to and including the Southern Wetlands, which cumulatively manage quality and quantity of stormwater run-off.

Structure plan means the map marked 'Sydney Regional Environmental Plan No 11—Penrith Lakes Scheme (Amendment No 4)', as amended.

Suitably qualified person, for the purposes of this DCP, is a person who has demonstrated experience, or access to experience, in relevant areas. In addition, the person will be required to have appropriate professional indemnity and public risk insurance.

Waste management plan is a plan detailing the anticipated volume and types of waste and recyclable materials likely to be generated, how it is to be stored and treated onsite, and how the residual will be disposed.