



# **Planning Proposal**

## **Mitigating the Urban Heat Island Effect**

**January 2022**



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## Appendices

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# Introduction

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## 1. Purpose of Planning Proposal

An amendment to the *Penrith Local Environmental Plan 2010* (LEP 2010) is proposed to introduce a new local provision to ensure the mitigation of the urban heat island effect is a major consideration for development.

The Department of Planning, Industry and Environment's (DPIE) Gateway Process is the current process for making or amending Local Environmental Plans (LEPs). The process has several steps which are outlined in Table 1. The preparation of a Planning Proposal is the first step in the DPIE's Gateway Process for amending LEP 2010.

**Table 1: Gateway Process**

No.	Step	Explanation
1	Planning Proposal	Council prepares a Planning Proposal explaining the intended effect of a proposed LEP and sets out the justification for making the LEP.
2	Gateway Determination	The Department of Planning, Industry and Environment, as a delegate of the Minister for Planning and Public Spaces, determines whether a Planning Proposal can proceed.
3	Community Consultation	The Planning Proposal is placed on public exhibition for the period identified in the Gateway Determination.
4	Assessment	Council considers the submissions received in response to the public exhibition and varies the Planning Proposal if required.
5	Drafting	Parliamentary Counsel prepares a draft local environmental plan.
6	Decision	The relevant planning authority approves the local environmental plan and it is published on the NSW legislation website making it law.

## 2. Background

Penrith City is susceptible to urban heat impacts due to the region's existing climate and topography, geographic position, large and growing residential population and rapid urban development. As our City grows and becomes more urbanised, reducing and removing heat from the urban environment is critical to achieving an environment that has high amenity, provides opportunities for active, healthy and safe activities and is comfortable throughout summer.

This Planning Proposal has largely been informed by the following documents:

- [Penrith Cooling the City Strategy](#) 2015 – This document identifies strategies to cool Penrith City and the region in a way that improves liveability and prioritises protection from heat for our community;
- [Benchmarking Summer Heat Across Penrith, New South Wales](#) 2020 – Undertaken in partnership with Western Sydney University, this project recorded localised air temperatures in Penrith City during the summer of 2019-20 to understand local heat and hot spots;

- [Resilient Penrith Action Plan 2021-2030](#) – This Action Plan aims to build awareness and preparedness and enhance the capacity of Council and the community to adapt and be more resilient to risks, shocks and stresses, including extreme heat and heatwaves; and
- [Western Sydney Regional Organisation of Council's \(WSROC\) Urban Heat Planning Toolkit 2021](#) – This Toolkit recommends potential local planning provisions and development controls for consideration by councils to create cool cities and cool outdoor spaces.

This section brings together key information from these documents on urban heat in Penrith City and why mitigating the urban heat island effect is a priority that needs urgent attention. The full documents can be accessed using the above links in blue.

### ***Penrith City and Urban Heat***

Located in the Sydney Basin, Penrith City sits at lower elevations within the basin, with the elevated terrain of the Blue Mountains to the west. The topography and geographic position away from the coast mean that sea breezes from the east do not reach the City leading to consistently higher temperatures and lower rainfall than in the more coastal parts of Sydney. Figure 1 shows the mean summer maximum air temperatures across the Greater Western Sydney region, based on data for the past 30 years from the Bureau of Meteorology. The figure highlights that Penrith City experiences mean summer maximum temperatures of 29°C or higher.

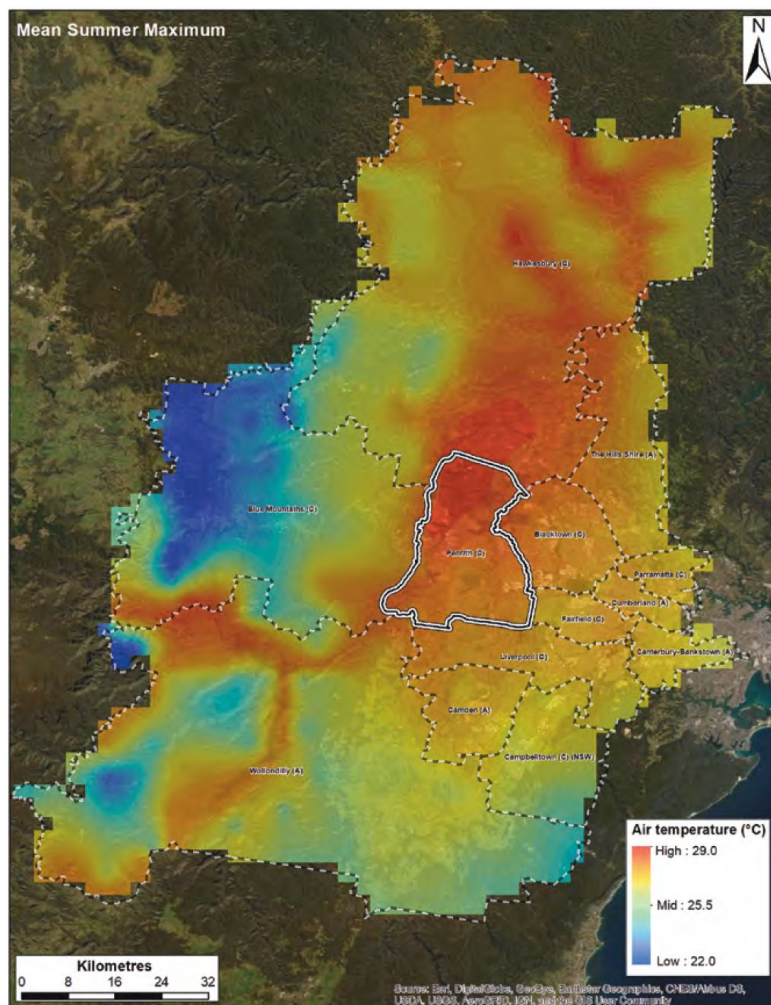
Meteorological records also show that Penrith experienced a stronger increase in the number of days where maximum temperatures exceeded 35°C compared to locations further east like Parramatta and Sydney CBD, as shown in Figure 2.

In 2019-20, Council partnered with Western Sydney University to record localised summer air temperatures to gain a better understanding of local heat and hot spots across the City. The *Benchmarking Summer Heat Across Penrith Report* mapped the mean summer air temperatures recorded over the 2019-20 summer, shown in Figure 3. This figure shows higher summer mean temperatures in the central part of the City, where most of Penrith's urban areas exist.

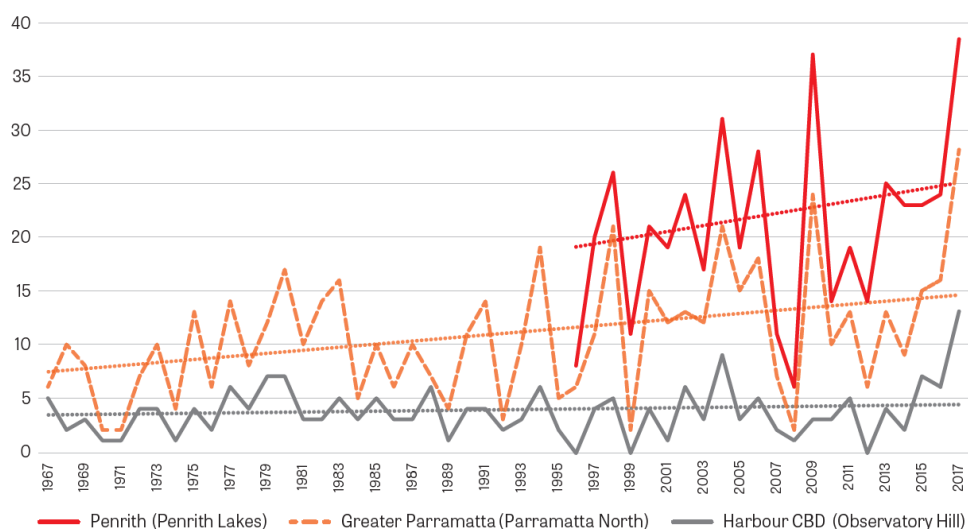
The report also mapped the mean night time air temperatures during a heatwave event where at least one location recorded a night time air temperature of greater than 30°C for seven nights during January and February 2020. The mean night time temperatures are shown in Figure 4. This figure shows that night time temperatures were generally found to be warmer in the City's urban areas, including Penrith, Emu Plains, Jamisontown, South Penrith and St Marys.

Figures 3 and 4 also show some areas within the City are significantly cooler than others. These predominately included areas with water, such as the river, creeks, irrigated sporting fields and parks, and areas with ground and tree cover.

**Figure 1: Mean summer maximum air temperatures across Greater Western Sydney <sup>1</sup>**



**Figure 2: Number of days above 35°C in Sydney CBD, Greater Parramatta and Penrith <sup>2</sup>**

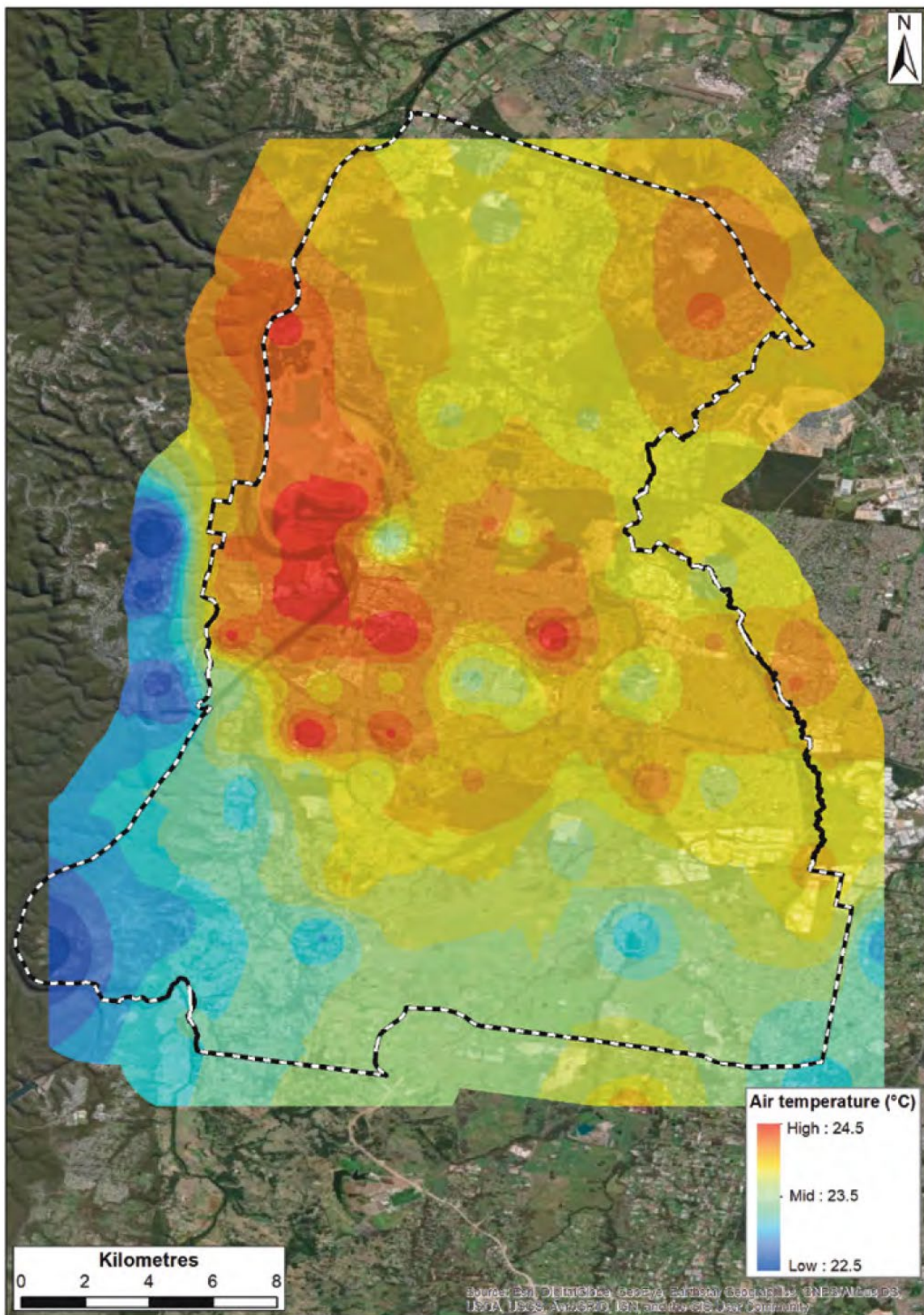


<sup>1</sup> Pfautsch S., Wujeska-Krause A. Rouillard S. (2020) *Benchmarking Summer Heat Across Penrith, New South Wales*. Western Sydney University, p 3.

<sup>2</sup> Greater Sydney Commission (2018) *Greater Sydney Region Plan – A Metropolis of Three Cities*. State of New South Wales, p 175.



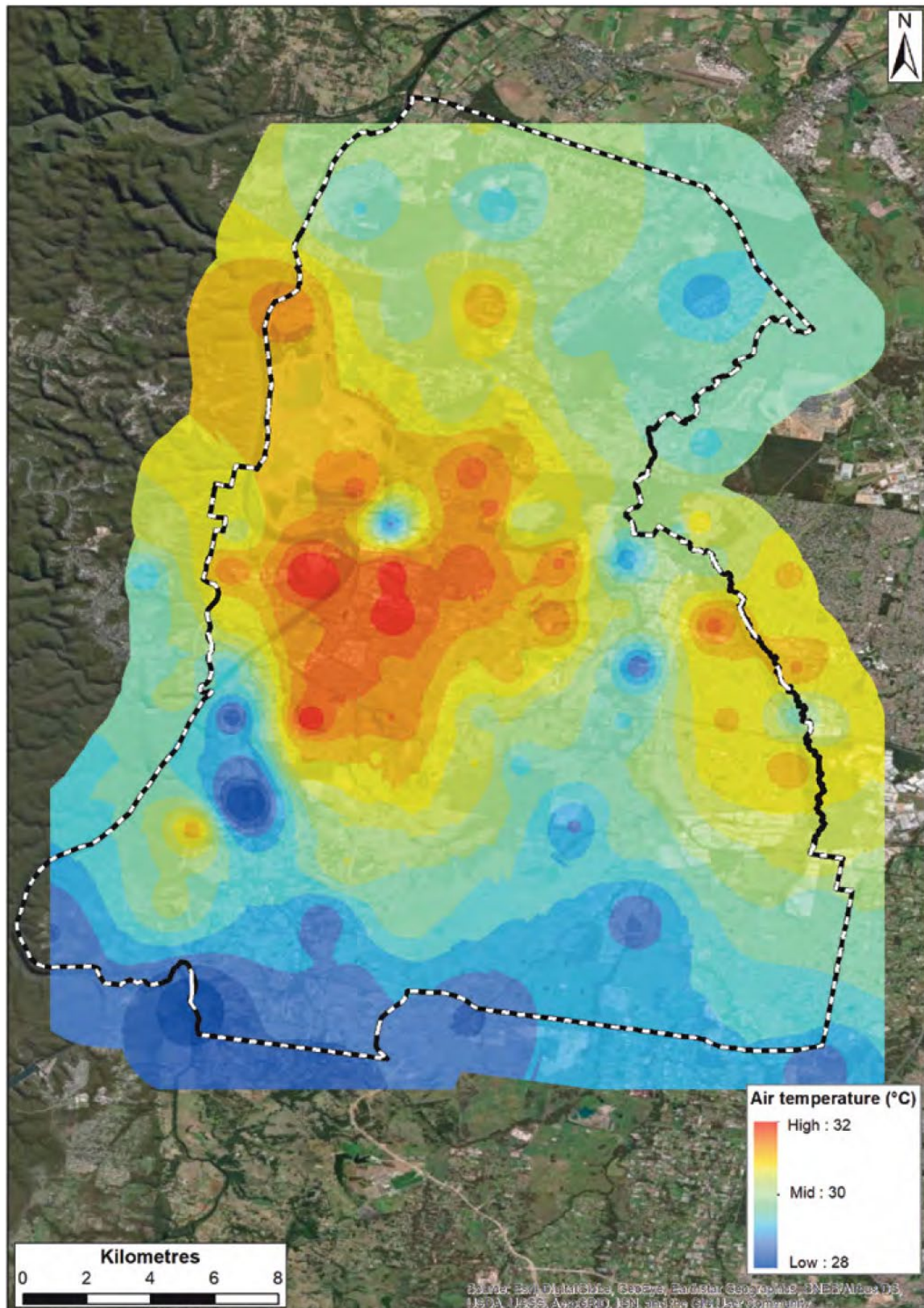
Figure 3: Mean summer air temperatures across Penrith City during summer of 2019-20 <sup>3</sup>



<sup>3</sup> Pfautsch S., Wujeska-Krause A. Rouillard S. (2020) *Benchmarking Summer Heat Across Penrith, New South Wales*. Western Sydney University, p 34.



Figure 4: Mean night time air temperatures across Penrith City during a heatwave event in summer of 2019-20 <sup>4</sup>



<sup>4</sup> Pfautsch S., Wujeska-Krause A. Rouillard S. (2020) *Benchmarking Summer Heat Across Penrith, New South Wales*. Western Sydney University, p 41.






### Penrith's Increasing Vulnerability to Urban Heat

Penrith's vulnerability to high temperatures and heatwaves (defined by the Bureau of Meteorology as three or more days of high maximum and minimum temperatures at a given location) is projected to increase in the future.

The Metropolitan Sydney climate change snapshot by Adapt NSW outlines projected changes in temperature and rainfall in the near future (2030) and far future (2070) as shown in Figure 5. Based on the NSW and ACT Regional Climate Modelling (NARClIM) projections, the snapshot indicates that Sydney is projected to continue to warm, with areas away from the coast projected to have more high temperature (above 35°C) days and fewer cold (below 2°C) nights.

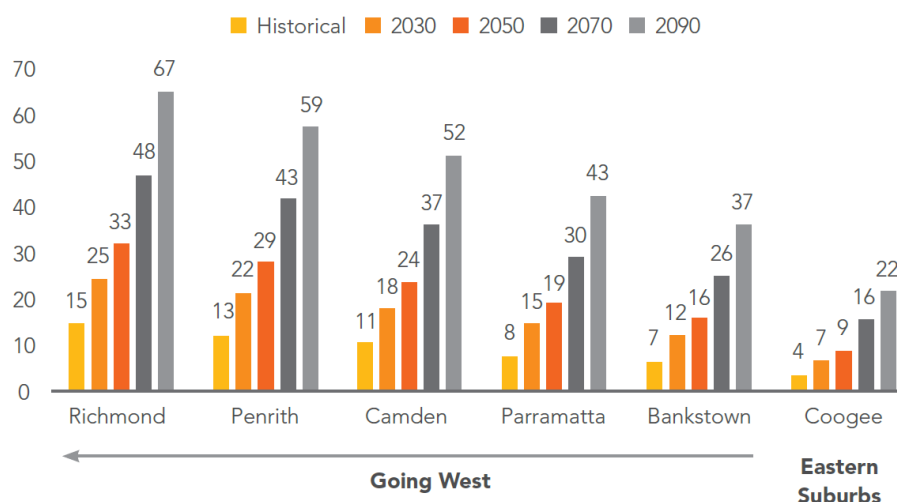
**Figure 5: Metropolitan Sydney Projected Temperature and Rainfall Changes <sup>5</sup>**

	Projected <b>temperature</b> changes	
	Maximum temperatures are projected to <b>increase</b> in the near future by 0.3–1.0°C	Maximum temperatures are projected to <b>increase</b> in the far future by 1.6–2.5°C
	Minimum temperatures are projected to <b>increase</b> in the near future by 0.4–0.8°C	Minimum temperatures are projected to <b>increase</b> in the far future by 1.4–2.5°C
	The number of hot days will <b>increase</b>	The number of cold nights will <b>decrease</b>
	Projected <b>rainfall</b> changes	
	Rainfall is projected to <b>decrease</b> in spring and winter	Rainfall is projected to <b>increase</b> in summer and autumn

Projections by CSIRO and the Bureau of Meteorology further highlight that Western Sydney will experience more hot days in the future with 22 days above 35°C by 2030 as shown in Figure 6. However, it is noted that, according to the *Benchmarking Summer Heat Across Penrith Report*, the number of days above 35°C recorded in Penrith over the 2019-20 summer was 39 days.

<sup>5</sup> Adapt NSW (2014) *Metropolitan Sydney Climate change snapshot*. State of New South Wales, p 3.

**Figure 6: Days over 35°C in selected locations in Metropolitan Sydney <sup>6</sup>**



Council's *Resilient Penrith Action Plan* identifies high temperatures and heatwaves as an extreme risk to the community. High temperatures and heatwaves have a significant impact on human health and wellbeing. Heat related illnesses include dehydration, heat stress and heat stroke. Heatwaves are estimated to have caused more deaths in Australia over the past 100 years than any other natural event. Older people, young children and people with existing illnesses are generally more vulnerable, as well as people who work outdoors.

The vulnerability of the community to high temperatures and heatwaves can be compounded by socio-economic factors. Households feeling financial stress, people that are renting or in social housing without access to air conditioning or private transport to cooler places, people with a disability and people with English as a second language may have reduced capacity to prepare, respond and cope with heat events. Recent vulnerability mapping undertaken by Council has identified over 194,000 residents within the City as vulnerable to heat, with over 24,000 having the highest vulnerability.

High temperatures and heatwaves also place pressure on infrastructure, particularly on the electricity network during times of peak demand, with the potential for power failures.

High temperatures and heatwaves also make it less attractive for people to walk and cycle and spend time outdoors. Planning liveable neighbourhoods needs to consider how urban heat and the urban heat island effect can be mitigated, particularly in areas with a higher proportion of vulnerable people.

### ***Urban Heat Island Effect***

As urban development occurs, it usually replaces natural land surfaces and vegetation with hard structures like roads, footpaths, car parks and buildings. These surfaces absorb much more heat than vegetation and encourage rainfall to run off the surface, leaving little moisture in the ground. This means there is less opportunity for evapotranspirative cooling to occur like it would in a natural landscape. A high density of non-permeable and non-reflective surfaces, such as roof

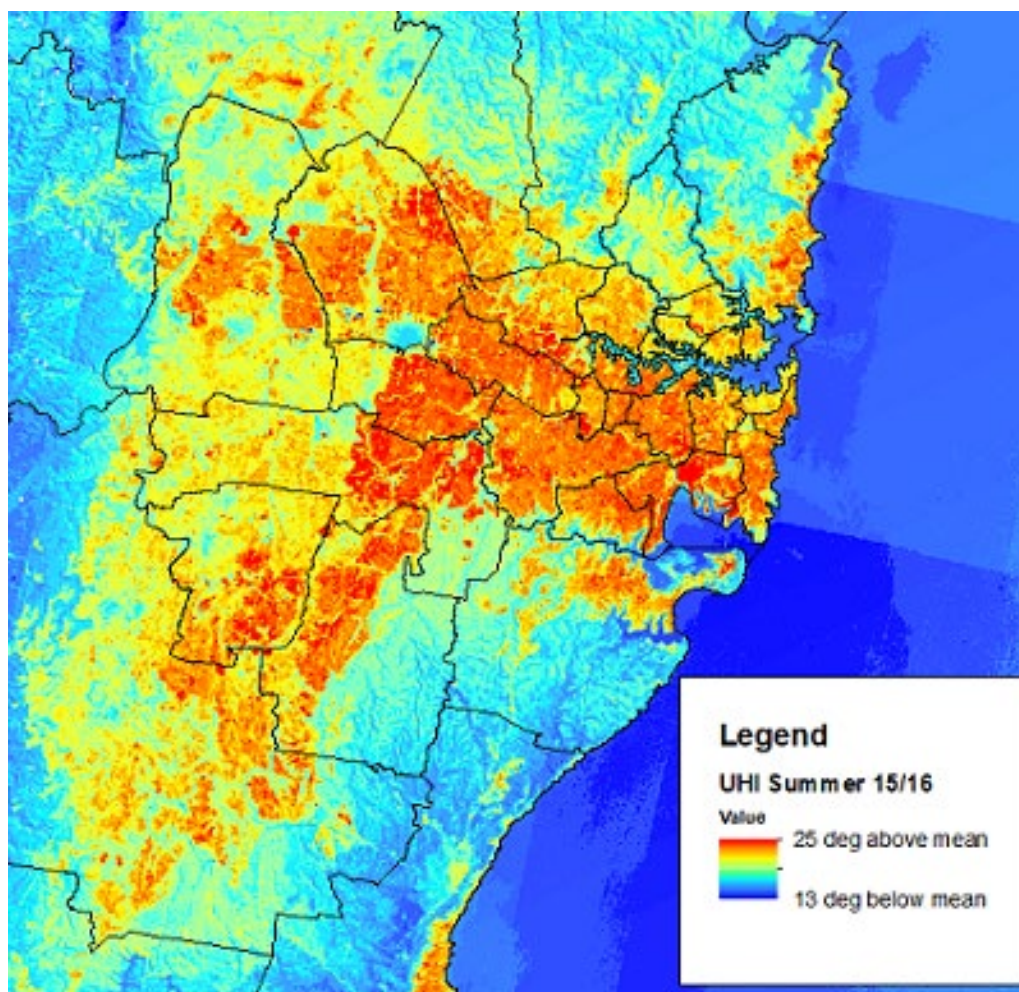
<sup>6</sup> Ogge M, Browne B, Hughes T (2018) *HeatWatch, Extreme Heat in Western Sydney*. The Australia Institute, p 37.

tiles, concrete and asphalt in an urban area can also trap absorbed heat so that at night temperatures do not drop significantly, providing limited respite from the daytime heat.

Other sources of heat in an urban environment (such as waste air from air conditioners and heat from vehicle engines) combine with trapped absorbed heat to make urban areas significantly hotter than surrounding, less urbanised areas. This phenomenon causes cities to become islands of heat and is known as the urban heat island effect.<sup>7</sup>

Adapt NSW has mapped the urban heat island effect in metropolitan Sydney for the summer of 2015-16, shown in Figure 7.

**Figure 7: The Urban Heat Island Effect in metropolitan Sydney, Summer 2015-16<sup>8</sup>**



The *Benchmarking Summer Heat Across Penrith Report* mapped mean daytime and night time air temperatures across the City, during a warm fortnight in December 2019. Figure 8 compares these maps and indicates that, although areas in the north of the City had high daytime temperatures, these areas cooled to lower temperatures at night compared with urban areas, demonstrating the urban heat island effect.

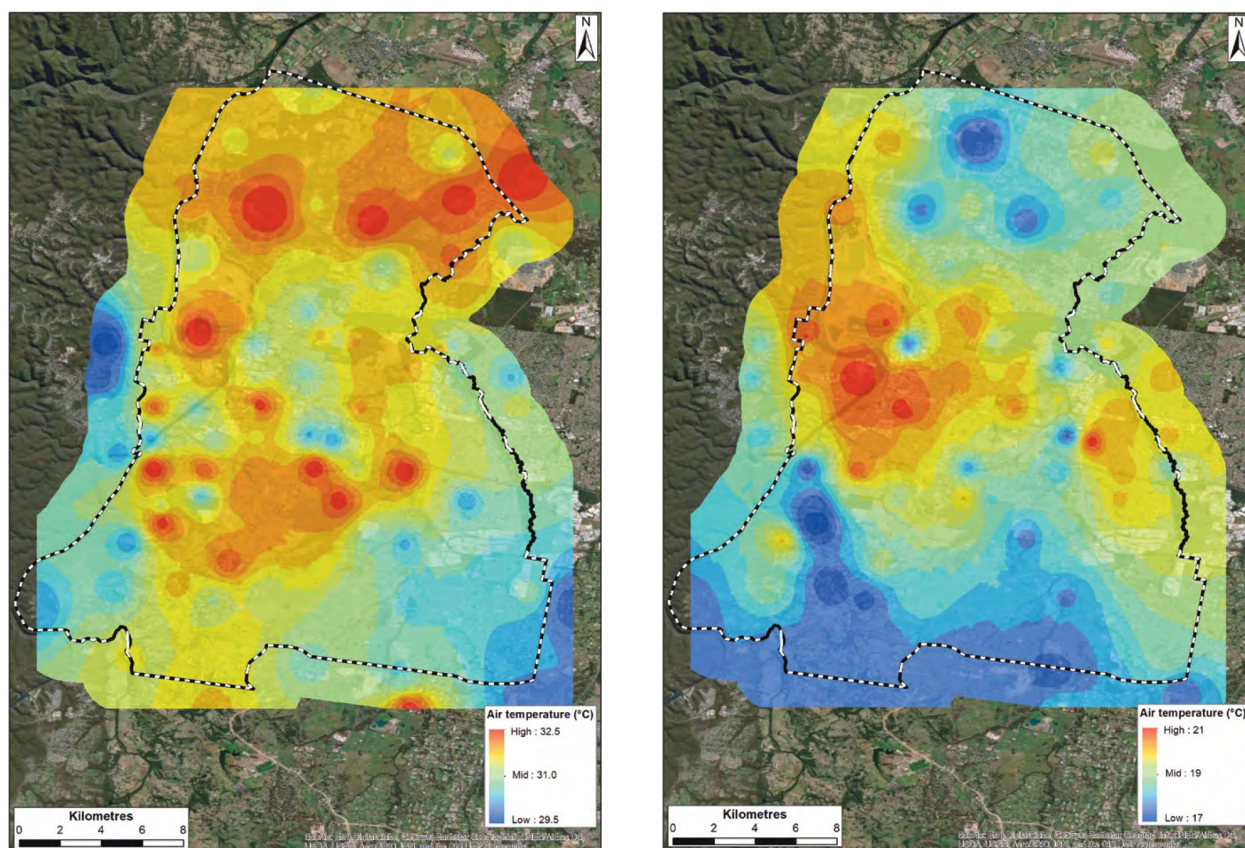
<sup>7</sup> Penrith City Council (2015) *Cooling the City Strategy*. p 9.

<sup>8</sup> Adapt NSW *Urban Heat*, <https://climatechange.environment.nsw.gov.au/Impacts-of-climate-change/Heat/Urban-heat>, accessed 5 October 2021.



The benchmarking summer heat project confirmed that, during summer, areas with large expanses of open space and vegetation cover had lower mean night time temperatures and were able to cool down quicker than areas with a higher cover of buildings, roads and other hard surfaces.

**Figure 8: Mean daytime and night time air temperatures across Penrith City during a warm fortnight in December 2019** <sup>9</sup>



### ***Need for Planning Controls***

Council's *Cooling the City Strategy* and *Resilient Penrith Action Plan* identify the need for planning controls for new development to mitigate urban heat and the urban heat island effect. The *Penrith Local Strategic Planning Statement* also includes an action to introduce objectives, planning and development controls to deliver a cooler city.

Specific targeted building and design responses can significantly help to mitigate urban heat. Examples include using light-coloured surfaces to promote reflectivity, increasing ventilation, protecting and increasing vegetation for shade, using water sensitive urban design to harvest and reuse water for cooling, and adopting building design principles that are suited to our local climate. The *WSROC Urban Heat Planning Toolkit* provides a comprehensive range of planning and design measures that could be incorporated into development.<sup>10</sup>

<sup>9</sup> Pfautsch S., Wujeska-Krause A. Rouillard S. (2020) *Benchmarking Summer Heat Across Penrith, New South Wales*. Western Sydney University, pp 35-36.

<sup>10</sup> Western Sydney Regional Organisation of Councils (2021) *Urban Heat Planning Toolkit*, pp 15-33.



Preserving and extending the urban tree canopy is a particularly effective measure as it provides shade, which reduces ambient temperatures and mitigates the urban heat island effect. Every 10 per cent increase in tree canopy cover can reduce land surface temperatures by more than 1°C.<sup>11</sup> The urban tree canopy is a form of green infrastructure. The term 'green infrastructure' includes all types of vegetation including native and exotic species, remnant and planted vegetation, trees, shrubs, grasses and groundcovers, it also includes elements such as green walls and roofs, rain gardens, wetlands and swales, turfed areas, as well as productive, ornamental and native gardens. It therefore includes both natural systems and semi-natural systems.

The DPIE's *Draft State Environmental Planning Policy (Design and Place) 2021* is currently on public exhibition and defines green infrastructure as "a network of green spaces, natural systems and semi-natural systems including waterways, bushland, tree canopy, green ground cover, parks and open spaces that supports sustainable communities and is strategically designed and managed to support a good quality of life in an urban environment".<sup>12</sup>

To achieve better building and design responses to urban heat and the urban heat island effect, this Planning Proposal has been prepared, which seeks to introduce a new local provision in Penrith LEP 2010. The Planning Proposal is part of a package of urban heat planning controls that also includes introducing a new Urban Heat chapter into the Penrith Development Control Plan 2014 (DCP 2014) providing additional development controls aimed at achieving cooler buildings and cooler outdoor spaces.<sup>13</sup>

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<sup>11</sup> NSW Office of Environment and Heritage (2015) *Technical Guidelines for Urban Green Cover in NSW*. State of New South Wales, p 3.

<sup>12</sup> Department of Planning, Industry and Environment (2021) *Draft State Environmental Planning Policy (Design and Place) 2021*. State of New South Wales, p 25.

<sup>13</sup> Note: Some of the development controls in the Urban Heat chapter of the Penrith DCP 2014 may need to be updated following the making of State Environmental Planning Policy (Design and Place) to ensure they are consistent with this SEPP.

## Part 1 – Objectives or Intended Outcomes

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The objective of this Planning Proposal is to amend the Penrith LEP 2010 to ensure the mitigation of the urban heat island effect is a major consideration for development.

The intended outcomes of the Planning Proposal are to:

- Ensure development incorporates effective planning and design measures to reduce the urban heat island effect in Penrith;
- Ensure buildings and outdoor spaces are thermally comfortable, particularly during summer, for people living and working in Penrith; and
- Promote green infrastructure and water in the landscape for their cooling benefits.

The Planning Proposal recommends an amendment to the LEP 2010 written instrument. There are no amendments proposed to the LEP 2010 map tiles.

## Part 2 – Explanation of Provisions

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The objective and intended outcomes of the Planning Proposal will be achieved by amending LEP 2010. The proposed changes are presented in this Part of the Planning Proposal.

The proposed outcomes will be achieved by including a new local provision on the urban heat island effect that:

- Confirms the objectives of the clause, which are:
  - To ensure development incorporates effective planning and design measures to reduce the urban heat island effect in Penrith;
  - To ensure buildings and outdoor spaces are thermally comfortable, particularly during summer, for people living and working in Penrith; and
  - To promote green infrastructure and water in the landscape for their cooling benefits.
- Confirms the clause applies to development on land in the following zones:
  - All residential zones - R1 General Residential, R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential and R5 Large Lot Residential
  - All business zones - B1 Neighbourhood Centre, B2 Local Centre, B3 Commercial Core, B4 Mixed Use, B5 Business Development, B6 Enterprise Corridor and B7 Business Park
  - All industrial zones - IN1 General Industrial and IN2 Light Industrial
  - All special purpose zones - SP1 Special Activities, SP2 Infrastructure and SP3 Tourist
  - All recreation zones - RE1 Public Recreation and RE2 Private Recreation
  - RU5 Village zone; and
  - C4 Environmental Living zone.

The clause is not intended to apply to the rural zones (except for the RU5 Village zone), the conservation (previously known as environmental protection) zones (except for the C4 Environmental Living zone) or the waterways zones as these zones are not considered to contribute significantly to the urban heat island effect.

- Ensures development consent is not granted unless the consent authority is satisfied that planning and design measures have been considered and incorporated into the development to reduce the urban heat island effect including:
  - measures to retain and extend green infrastructure, including vegetation that contributes to the local tree canopy;
  - measures to retain water in the landscape, including permeable surfaces, rainwater harvesting, water reuse and water features;
  - passive design measures, including siting, orientation, natural ventilation and external shading;
  - use of building, paving and other materials to minimise heat impacts, including green and cool roofs and walls, light-coloured materials and permeable paving; and
  - measures to reduce reliance on mechanical ventilation and cooling systems to conserve energy and minimise heat sources.

The intention of the clause is to ensure a development application demonstrates that planning and design measures have been incorporated into the proposed development (for example, in terms of its siting, building layout and passive design) and will be incorporated once developed (for example, in terms of landscaping and planting street trees or installing water features). The intention of the clause is to also ensure that planning and design measures are properly considered in the preparation and assessment of the development application so the consent authority is satisfied as to the outcome before granting consent.

- Defines the term 'green infrastructure'.

It is intended that the definition of green infrastructure is consistent with the definition in the proposed Design and Place State Environmental Planning Policy (SEPP), depending on the timing for finalising this SEPP. The DPIE is currently exhibiting a draft SEPP for feedback, which defines green infrastructure as *"a network of green spaces, natural systems and semi-natural systems, including waterways, bushland, tree canopy, green ground cover, parks and open spaces, that*  
*(a) supports sustainable communities, and*  
*(b) is strategically designed and managed to support a good quality of life in an urban environment"*.

While this Part provides an explanation of the proposed new clause, the clause will be subject to legal drafting and its wording may alter under this process.



## Part 3 – Justification

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This part of the Planning Proposal provides details on the need for the proposed amendment to the Penrith LEP 2010, the relationship with the strategic planning framework, the impacts of the proposed amendment, and State and Commonwealth interests.

### Section A – Need for the Planning Proposal

#### **Q1. Is the Planning Proposal a result of an endorsed local strategic planning statement, strategic study or report?**

The *Penrith Local Strategic Planning Statement* (LSPS), adopted by Council on 23 March 2020, sets out the 20-year vision for land use in the Penrith Local Government Area (LGA) taking into consideration the economic, social and environmental needs of the community. It recognises the special characteristics that contribute to Penrith's local identity and outlines how growth and change will be managed into the future.

The LSPS highlights the need to address urban heat and the urban heat island effect in Penrith City and includes Planning Priority 21: Cool our City and Action 21.3: Introduce objectives, planning and development controls to deliver a cooler city. The Planning Proposal is in response to this planning priority and action.

The LSPS also acknowledges, under Planning Priority 18: Connect our green and blue grid, that increasing and connecting urban tree canopies across the City will create shading and assist in mitigating the urban heat island effect. The Planning Proposal responds to this planning priority by proposing an objective in the provision to promote green infrastructure and water in the landscape for their cooling benefits and measures to retain and extend green infrastructure including urban tree canopies.

The Planning Proposal is also the result of a number of outcomes from the following documents:

- *Cooling the City Strategy* 2015 - This document identifies strategies to cool Penrith City and the region in a way that improves liveability and prioritises protection from heat for our community. Among the strategies is the need for planning and development controls for new developments to mitigate urban heat.
- *Benchmarking Summer Heat Across Penrith, New South Wales* 2020 – Undertaken in partnership with Western Sydney University, this project recorded localised air temperatures in the Penrith LGA during the summer of 2019-20 and provides Council with a better understanding of local heat and hot spots. The report recommends several actions that can, in part, be addressed through planning and development controls;
- *Resilient Penrith Action Plan 2021-2030* – This Action Plan aims to build awareness and preparedness and enhance the capacity of Council and the community to adapt and be more resilient to risks, shocks and stresses, including extreme heat and heatwaves. It identifies a specific action to include urban heat and cooling the city principles in the Penrith LEP and DCP; and

- *Green Grid Strategy 2021* – This Strategy, endorsed by Council on 25 October 2021, puts forward a plan to support the creation of cool and green neighbourhoods and active transport by connecting schools, public transport and town centres to green infrastructure such as green spaces, parks, waterways and bushland. It identifies and addresses challenges including how to increase tree canopy to reduce heat. The draft Strategy includes several recommendations that can, in part, be supported through planning and development controls.

**Q2. Is the Planning Proposal the best means of achieving the objectives or intended outcomes, or is there a better way?**

The Planning Proposal is part of an urban heat planning controls package that also includes introducing a new Urban Heat chapter into the Penrith Development Control Plan 2014 (DCP 2014) that will provide additional development controls aimed at achieving cooler buildings and cooler outdoor spaces. The draft Urban Heat chapter is included in Appendix 3.

This two-pronged approach, proposing changes to both the LEP and DCP, is considered the best means of delivering better building and design responses to the urban heat island effect in Penrith. The approach will elevate a key planning priority of Council and the community (expressed in the LSPS) to the LEP as a planning consideration. The Planning Proposal proposes a broad outcomes-based approach to the new provision, which will be supported by specific controls in the DCP that can be more easily adapted in response to new research and thinking on urban heat and the built environment. This approach is similar to that taken with other provisions in the LEP, such as clause 7.4 Sustainable Development and clause 8.4 Design Excellence, which are supported by more detailed controls in the DCP.

***Clause 6.12 of Cumberland LEP 2021***

The DPIE's Gateway Determination, provided in Appendix 4, requires the Planning Proposal to identify and justify any departure from the approach taken in Clause 6.12 of the Cumberland LEP 2021. This clause is reproduced below.

Published on 5 November 2021 as part of the Cumberland LEP, the clause has, arguably, set a precedent for an urban heat local planning provision. The objective of this clause is to ensure that new development incorporates effective design and ongoing operation to reduce and remove urban heating from the environment and protect community health and wellbeing.

The proposed objectives of the Penrith clause are also to ensure development incorporates effective planning and design measures to reduce urban heat. Its intention is to also ensure these measures operate throughout the life of the development. The Penrith clause, however, refers to the urban heat island effect to recognise that Penrith City includes both urban and non-urban areas (rural, environmental and waterway areas) and to ensure a focus on those areas where the density of development means there is less green cover and more hard surfaces which absorb, store and radiate heat, and where rainwater runs off these surfaces, leaving little moisture on or in the ground and less opportunity for cooling; that is, those areas that experience the urban heat island effect.

While the Penrith clause also seeks to protect community health and wellbeing by reducing urban heat, it proposes a specific objective to ensure buildings and outdoor spaces are thermally comfortable for people living and working in Penrith. This objective is considered to be easier to

assess as part of a development application. The third objective of the Penrith clause seeks to highlight the cooling benefits of green infrastructure and water in the landscape.

**Cumberland LEP 2021 – Clause 6.12 Urban heat**

- (1) *The objective of this clause is to ensure new development incorporates effective design and ongoing operation to –*
- (a) reduce and remove urban heating from the environment, and*
  - (b) protect community health and wellbeing.*
- (2) *In deciding whether to grant development consent for the purposes of commercial premises, industries or residential accommodation, the consent authority must consider whether –*
- (a) the facade and roof of the proposed building and paved surfaces are designed to reduce adverse effects of solar heat on the surrounding land, including private open space and the public domain, and*
  - (b) the awnings and eaves of the building are designed to provide shelter from the sun and improve public comfort at street level, and*
  - (c) the heating, ventilation and air conditioning systems of the building are designed to minimise the release of heat in the direction of private open space and the public domain, and*
  - (d) the development maximises the use of green infrastructure that is strategically designed and managed to support a good quality of life in an urban environment, and*
  - (e) the development accommodates sufficient tree canopy, open space and deep soil zones to achieve urban cooling benefits, and*
  - (f) the building is designed to achieve high passive thermal performance.*

- (3) *In this clause –*

**deep soil zone -**

*(a) means the soft landscaped part of a site area used for growing trees, plants and grasses that -*

- (i) is unimpeded by buildings or structures above and below ground, and*
- (ii) provides opportunities for groundwater infiltration and canopy trees, and*

*(b) does not include basement car parks, services, swimming pools, tennis courts and impervious surfaces including car parks, driveways and roof areas.*

**green infrastructure** *means the network of green spaces, natural systems and semi-natural systems that support sustainable communities and includes waterways, bushland, tree canopy and green ground cover, parks and open spaces.*

**solar heat** *means radiant heat contained in the full spectrum of sunlight.*

The Cumberland clause applies to commercial premises, industries and residential accommodation. While the Penrith clause proposes to apply to these development types, it is also intended to apply to other development types in urban zones, such as child care and respite care facilities, community facilities, health services facilities and seniors housing, where there are likely to be people more vulnerable to urban heat. Council's *Resilient Penrith Action Plan* identifies older people, young children and people with existing illnesses as generally more vulnerable to urban heat.

In relation to the matters for consideration, the Penrith and Cumberland clauses share some similarities in their approach by including broad outcomes-based considerations, for example, relating to green infrastructure and passive building design. The Cumberland clause, however, includes more specific considerations, for example, relating to the design of facades, roofs, awnings and eaves. The matters for consideration proposed in the Penrith clause are all intended to be broad outcomes-based considerations. They also identify some of the key elements to consider when preparing and assessing a development application, recognising the clause will be supported by more detailed development controls in DCP 2014. The approach in the Penrith clause is considered to provide greater flexibility in deciding how the outcomes will be achieved without prescribing specific measures.

Further, the matters for consideration in the Penrith clause explicitly address the need for measures to retain water in the landscape for their cooling benefits.

Consistent with the advice of the Penrith Local Planning Panel, the Penrith clause seeks to ensure the consent authority is satisfied that measures have been both considered and incorporated into a development to achieve the outcomes sought in the clause.

The Cumberland clause defines green infrastructure as “the network of green spaces, natural systems and semi-natural systems that support sustainable communities and includes waterways, bushland, tree canopy and green ground cover, parks and open spaces”. The Penrith clause proposes a definition that is consistent with the definition in the Design and Place SEPP. Although the definitions vary slightly, their intent is considered to be the same.

In accordance with the Gateway Determination, this section identifies and justifies the differences between the Cumberland and Penrith clauses on urban heat and the urban heat island effect and their different intent. However, it should be noted that while the Cumberland clause may have set a precedent, it is not a model local clause and consultation has not been undertaken with other councils or stakeholders on this clause or its approach. The public exhibition of this Planning Proposal provides an opportunity to seek feedback on Penrith's proposed approach from the community and other stakeholders, including industry.

As discussed under Q9 in Section C of the Planning Proposal, in preparing the package of urban heat planning controls, particularly those in the DCP, consideration has been given to ensuring the controls are both flexible and affordable. Many of the proposed controls already exist within DCP 2014 and represent no significant additional cost to development. The DCP controls have been brought into a new chapter to highlight the importance of reducing urban heat and the urban heat island effect and to provide a clear link to the clause proposed in the LEP. New DCP controls, such as lighter roof colours, tree provision and cool refuges will not necessitate different or expensive materials, plans or designs. They will allow for alternative outcomes that can be easily adapted from existing materials and processes. The package of planning controls provide flexibility and enable cost friendly solutions.



## Section B – Relationship to Strategic Planning Framework

**Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional, or district plan or strategy (including any exhibited draft plans or strategies)?**

### ***Greater Sydney Region Plan***

In March 2018, the Greater Sydney Commission published the *Greater Sydney Region Plan – A Metropolis of Three Cities*. The Plan sets a 40-year vision (to 2056) of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. The Plan also establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters, and guide the delivery of infrastructure. It also informs district and local plans and the assessment of planning proposals.

The Plan confirms that heatwaves and extreme heat are a significant hazard in Greater Sydney, with Penrith and the Western Parkland City more exposed to extreme heat than other parts of Greater Sydney. Heatwaves and extreme heat have a significant impact on human health and local amenity, and place pressure on infrastructure, particularly on the electricity network during times of peak demand. The Plan recognises that cooler building materials, including lighter-coloured roofs and paving and more permeable paving, can be effective in helping to mitigate the urban heat island effect. The Plan also recognises that the urban tree canopy plays an important role in providing shade, which reduces ambient temperatures and helps to mitigate the urban heat island effect.

The Plan includes two key objectives and strategies in response to the urban heat island effect:

- Objective 38: Heatwaves and extreme heat are managed, supported by Strategy 38.1: Mitigate the urban heat island effect and reduce vulnerability to extreme heat; and
- Objective 30: Urban tree canopy cover is increased, supported by Strategy 30.1: Expand urban tree canopy in the public realm.

The Planning Proposal will give effect to these objectives and strategies through the assessment of development proposals.

### ***Western City District Plan***

In March 2018, the Greater Sydney Commission published the *Western City District Plan*. This is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It guides the implementation of the Greater Sydney Region Plan at a district level and provides the link between regional and local planning. The District Plan informs local strategic planning statements, like the Penrith LSPS, and local environmental plans, like Penrith LEP 2010. It also informs the assessment of planning proposals.

Like the Greater Sydney Region Plan, the District Plan recognises the significant impact of heatwaves and extreme heat on communities and infrastructure networks. The District Plan notes that more highly developed parts of the District, including areas in Penrith City, are exposed to extreme heat as a result of the urban heat island effect. It also notes the importance of retaining water in the landscape, enhancing and extending the urban tree canopy and using cooler building and paving materials to help mitigate the urban heat island effect.

The District Plan includes two key planning priorities and actions in response to the urban heat island effect:

- Planning Priority W20: Adapting to the impacts of urban and natural hazards and climate change, supported by Action 89: Mitigate the urban heat island effect and reduce vulnerability to extreme heat; and
- Planning Priority W15: Increasing urban tree canopy cover and delivering Green Grid connections, supported by Action 75: Expand urban tree canopy in the public realm.

The Planning Proposal will give effect to these planning priorities and actions through the assessment of development proposals.

**Q4. Will the planning proposal give effect to a council's endorsed local strategic planning statement, or another endorsed local strategy or strategic plan?**

The Planning Proposal will give effect to the Penrith LSPS and specifically Planning Priority 21: Cool our City and Action 21.3: Introduce objectives, planning and development controls to deliver a cooler city. The Planning Proposal will also help to give effect to Planning Priority 18: Connect our green and blue grid.

As discussed under Q1 above, the Planning Proposal will also give effect to:

- Council's *Cooling the City Strategy* which identifies the need for planning and development controls for new developments to mitigate urban heat;
- *Resilient Penrith Action Plan 2021-2030* which has an action to include urban heat and cooling the city principles in the Penrith LEP and DCP; and
- *Green Grid Strategy 2021* which includes several recommendations that can, in part, be supported through planning and development controls.

The *Penrith Community Plan* was adopted by Council on 26 June 2017 and represents the community's vision for the City as it grows over the next 20 years. That vision is one of a sustainable and prosperous Regional City with a harmony of urban and rural qualities and a strong commitment to environmental protection and enhancement.

The Plan identifies seven community outcomes:

1. We can work close to home
2. We plan for our future growth
3. We can get around our City
4. We have safe, vibrant places
5. We care for our environment
6. We are healthy and share a strong community spirit
7. We have confidence in our Council.

Under outcome 5, the Plan acknowledges the risk of heatwaves and extreme heat. It includes Strategy 5.3: Minimise risks to our community from natural disasters and a changing climate. It indicates that Council will look at ways to reduce the impact of extreme heat on our City and to consider this risk when assessing proposed development.

The Planning Proposal is consistent with the Community Plan and will give effect to Strategy 5.3.

**Q5. Is the planning proposal consistent with applicable State Environmental Planning Policies?**

The NSW Government publishes State Environmental Planning Policies (SEPPs) and Sydney Regional Environmental Plans (deemed SEPPs). These documents deal with matters of State or regional planning significance. The Planning Proposal is consistent with applicable SEPPs, as demonstrated in Table 1.

**Table 1: State Environmental Planning Policies**

<b>SEPP Title</b>	<b>Applicable</b>	<b>Consistent</b>
State Environmental Planning Policy No 19—Bushland in Urban Areas	Yes	Consistent - The Planning Proposal supports the aim of this SEPP to protect and preserve bushland within Penrith's urban areas, albeit for the purpose of mitigating the urban heat island effect. The new provision proposes an objective to promote green infrastructure and measures to retain and extend green infrastructure, including bushland.
State Environmental Planning Policy No 21—Caravan Parks	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy No 33—Hazardous and Offensive Development	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy No 36—Manufactured Home Estates	No	Not applicable
State Environmental Planning Policy No 47—Moore Park Showground	No	Not applicable
State Environmental Planning Policy No 50—Canal Estate Development	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy No 55—Remediation of Land	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy No 64—Advertising and Signage	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development	Yes	Consistent - The Planning Proposal supports the aims of this SEPP: <ul style="list-style-type: none"> <li>To improve the design quality of residential apartment development to ensure it contributes to sustainable housing (particularly development that incorporates</li> </ul>

SEPP Title	Applicable	Consistent
		<p>measures to reduce the urban heat island effect);</p> <ul style="list-style-type: none"> <li>• To maximise amenity (particularly thermal comfort) for the benefit of its occupants and the wider community; and</li> <li>• To minimise the consumption of energy and reduce greenhouse gas emissions (particularly measures to reduce reliance on mechanical ventilation and cooling systems).</li> </ul>
State Environmental Planning Policy No 70—Affordable Housing (Revised Schemes)	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (Aboriginal Land) 2019	No	Not applicable
State Environmental Planning Policy (Activation Precincts) 2020	No	Not applicable
State Environmental Planning Policy (Affordable Rental Housing) 2009	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP. The new provision (and supporting urban heat DCP controls) will complement the existing energy efficiency and thermal performance outcomes for buildings under BASIX. The new provision is intended to ensure a broader consideration of matters relating to the urban heat island effect beyond a building's sustainability.
State Environmental Planning Policy (Coastal Management) 2018	No	Not applicable
State Environmental Planning Policy (Concurrences and Consents) 2018	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	Yes	Consistent – This SEPP applies to the Penrith LGA, however, the new provision will not apply to exempt or complying development. It is noted that some complying development, such as



SEPP Title	Applicable	Consistent
		new homes and renovations of \$50,000 or more, will continue to require a BASIX certificate.
State Environmental Planning Policy (Gosford City Centre) 2018	No	Not applicable
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP. The new provision is consistent with the design principles relating to solar access and design for climate in the SEPP.
State Environmental Planning Policy (Infrastructure) 2007	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (Koala Habitat Protection) 2020	No	Not applicable
State Environmental Planning Policy (Koala Habitat Protection) 2021	No	Not applicable
State Environmental Planning Policy (Kosciuszko National Park—Alpine Resorts) 2007	No	Not applicable
State Environmental Planning Policy (Kurnell Peninsula) 1989	No	Not applicable
State Environmental Planning Policy (Major Infrastructure Corridors) 2020	No	Note: The Planning Proposal does not apply to land to which this SEPP applies.
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (Penrith Lakes Scheme) 1989	No	Note: Not applicable as the land is a 'deferred matter' under LEP 2010.
State Environmental Planning Policy (Primary Production and Rural Development) 2019	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (State and Regional Development) 2011	Yes	Consistent – Nothing in the Planning Proposal will prevent the application of this SEPP.
State Environmental Planning Policy (State Significant Precincts) 2005	No	Not applicable

SEPP Title	Applicable	Consistent
State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011	No	Not applicable
State Environmental Planning Policy (Sydney Region Growth Centres) 2006	No	Not applicable
State Environmental Planning Policy (Three Ports) 2013	No	Not applicable
State Environmental Planning Policy (Urban Renewal) 2010	No	Not applicable
State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017	Yes	Consistent - The Planning Proposal supports the aim of this SEPP to preserve the amenity of Penrith's non-rural areas through the preservation of trees and other vegetation, albeit for the purpose of mitigating the urban heat island effect. The new provision proposes an objective to promote green infrastructure and measures to retain and extend green infrastructure, including vegetation.
State Environmental Planning Policy (Western Sydney Aerotropolis) 2020	Yes	Consistent –Nothing in the Planning Proposal will prevent the application of this SEPP including its provisions for airport safeguards. The Planning Proposal does not apply to land shown on the SEPP's Land Application Map.
State Environmental Planning Policy (Western Sydney Employment Area) 2009	No	Note: The Planning Proposal does not apply to land to which this SEPP applies.
State Environmental Planning Policy (Western Sydney Parklands) 2009	No	Not applicable

**Q6. Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?**

The Minister for Planning and Public Spaces issues Local Planning Directions that councils must follow when preparing planning proposals. The directions cover the following broad categories:

- Employment and resources;
- Environment and heritage;
- Housing, infrastructure and urban development;
- Hazard and risk;
- Regional planning;
- Local plan making; and
- Metropolitan planning.

The Planning Proposal is considered to be consistent with all applicable Section 9.1 Local Planning Directions, as demonstrated in Table 2.

**Table 2: Section 9.1 Ministerial Directions - Local Planning Directions**

Direction	Applicable	Consistent	Comment
<b>1 Employment and Resources</b>			
1.1 Business and Industrial Zones	Yes	Yes	The Planning Proposal will not reduce employment land or potential floor space area in business or industrial zones. It will require development in these zones to consider and incorporate effective planning and design measures to reduce the urban heat island effect.
1.2 Rural Zones	Yes	Yes	The Planning Proposal applies to development on land in the RU5 Village zone. It will not rezone land or increase the density of development within the RU5 zone.
1.3 Mining, Petroleum Production and Extractive Industries	No	N/A	
1.4 Oyster Aquaculture	No	N/A	
1.5 Rural Lands	No	N/A	
<b>2 Environment and Heritage</b>			
2.1 Environment Protection Zones	Yes	Consistent	The Planning Proposal applies to development on land in the C4 Environmental Living zone. The Planning Proposal will not affect existing environmental protection standards in LEP 2010 relating to land in the C4 zone and the City more generally. It will require development in the C4 zone to consider and incorporate effective planning and design measures to reduce the urban heat island effect. These measures, such as retaining and extending green infrastructure and retaining water in the landscape, are expected to complement environmental protection standards.
2.2 Coastal Management	No	N/A	
2.3 Heritage Conservation	Yes	Consistent	The Planning Proposal will not affect existing heritage conservation provisions in LEP 2010. The new provision, with its broad outcomes-based measures, has sufficient flexibility to enable suitable planning

Direction	Applicable	Consistent	Comment
			and design measures to be chosen based on the heritage circumstances of the site and development.
2.4 Recreation Vehicle Areas	No	N/A	
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	No	N/A	
2.6 Remediation of Contaminated Land	Yes	Consistent	The Planning Proposal does not propose a change of use of land and will not prevent the application of SEPP No 55—Remediation of Land.
<b>3 Housing, Infrastructure and Urban Development</b>			
3.1 Residential Zones	Yes	Consistent	The Planning Proposal applies to development in residential zones and in zones where residential development is permitted; i.e. RU5, B4 and C4 zones. It will require development in these zones to consider and incorporate effective planning and design measures to reduce the urban heat island effect. As such, it will support the objectives of this direction to make efficient use of existing infrastructure (e.g. green infrastructure, water and electricity) and minimise the impact on the environment (e.g. urban heat island effect).
3.2 Caravan Parks and Manufactured Home Estates	No	N/A	
3.3 - Revoked 9 November 2020	No	N/A	
3.4 Integrating Land Use and Transport	Yes	Consistent	The new provision will require development to consider and incorporate measures to retain and extend green infrastructure, including trees (on private and public land) that contribute to the local tree canopy. Increasing the urban tree canopy will help to cool local environments and facilitate more opportunities for walking and cycling. This will complement the objective of this direction to increase the choice of available transport and reduce dependence on cars.

Direction	Applicable	Consistent	Comment
3.5 Development Near Regulated Airports and Defence Airfields	Yes	Consistent	The Planning Proposal will not affect any provisions relating to residential development within the 20 ANEC/ANEF contour for Western Sydney Airport.
3.6 Shooting Ranges	No	N/A	
3.7 Reduction in non-hosted short term rental accommodation period	No	N/A	
<b>4 Hazard and Risk</b>			
4.1 Acid Sulfate Soils	No	N/A	
4.2 Mine Subsidence and Unstable Land	No	N/A	
4.3 Flooding	Yes	Consistent	The Planning Proposal will not affect existing provisions in LEP 2010 relating to flood planning and the flood planning area.
4.4 Planning for Bushfire Protection	Yes	Consistent	<p>The Planning Proposal applies to some land that is mapped as bushfire prone land or in proximity to land mapped as bushfire prone land.</p> <p>The Planning Proposal does not propose to rezone any land or increase development densities. It proposes to require development to consider and incorporate effective planning and design measures to reduce the urban heat island effect</p> <p>In accordance with this direction and the Gateway Determination, consultation with the NSW Rural Fire Service is being undertaken and any comments made will be addressed.</p>
<b>5. Regional Planning</b>			
5.1 - Revoked 17 October 2017	No	N/A	
5.2 Sydney Drinking Water Catchments	No	N/A	
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	No	N/A	
5.4 Commercial and Retain Development along the Pacific Highway, North Coast	No	N/A	
5.5 – 5.8 - Revoked	No	N/A	

Direction	Applicable	Consistent	Comment
5.9 North West Rail Link Corridor Strategy	No	N/A	
5.10 Implementation of Regional Plans	Yes	Consistent	The Planning Proposal applies to land within the Greater Sydney Region Plan and Western City District Plan. The Planning Proposal will give effect to these Plans as discussed under Q3 above.
5.11 Development of Aboriginal Land Council land	No	N/A	
<b>6. Local Plan Making</b>			
6.1 Approval and Referral Requirements	Yes	Consistent	The Planning Proposal will not include any provisions requiring concurrence, consultation or referral of development applications to a Minister or public authority or identify development as designated development.
6.2 Reserving Land for Public Purposes	Yes	Consistent	The Planning Proposal applies to land for public purposes, including land zoned SP1 Special Activities, SP2 Infrastructure and RE1 Public Recreation. It will not create, alter or reduce existing zones or reservations of land for public purposes.
6.3 Site Specific Provisions	Yes	Consistent	The Planning Proposal does not propose a provision allowing a particular development to be carried out. It proposes a new provision requiring development in a range of zones to consider and incorporate effective planning and design measures to reduce the urban heat island effect.
<b>7. Metropolitan Planning</b>			
7.1 – Revoked 9 November 2020	No	N/A	
7.2 – 7.7 - Revoked or not applicable	No	N/A	
7.8 Implementation of the Western Sydney Aerotropolis Plan	Yes	Consistent	The Planning Proposal does not apply to land shown on the Aerotropolis SEPP's Land Application Map. It also does not apply to the additional land shown on the Aerotropolis Boundary Map, as that land is zoned for rural purposes.



Direction	Applicable	Consistent	Comment
			The Planning Proposal will not prevent the application of the airport safeguards provisions in the SEPP. Therefore, the Planning Proposal is consistent with the Western Sydney Aerotropolis Plan.
7.9 – 7.13 – Not applicable	No	N/A	

## Section C – Environmental, Social and Economic Impacts

### **Q7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

The Planning Proposal will not affect existing requirements under Commonwealth and State legislation to assess whether a site may contain critical habitat or threatened species, populations or ecological communities, or their habitats.

The Planning Proposal proposes a new local provision that will require development to consider and incorporate effective planning and design measures to reduce the urban heat island effect. These measures include retaining green infrastructure, including vegetation that is assessed as critical habitat or threatened species, populations or ecological communities, or their habitats.

### **Q8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?**

The Planning Proposal proposes a new local provision aimed at:

- ensuring development incorporates effective planning and design measures to reduce the urban heat island effect in Penrith;
- ensuring buildings and outdoor spaces are thermally comfortable for people living and working in Penrith; and
- promoting green infrastructure and water in the landscape for their cooling benefits.

While the provision and measures are focused on cooling local environments, there are likely to be additional environmental benefits resulting from the incorporation of the measures into a development. For example, retaining and extending green infrastructure can also help protect habitat and biodiversity values, improve air quality, capture rainwater and preserve or improve local amenity. Retaining water in the landscape can help improve water quality and water conservation outcomes. Passive design measures and the use of light-coloured or permeable materials can help to reduce energy usage and create attractive outdoor spaces. The likely environmental effects of the Planning Proposal are expected to be positive.

### **Q9. Has the planning proposal adequately addressed any social and economic effects?**

Council's *Cooling the City Strategy* and *Resilient Penrith Action Plan* highlight the significant impact urban heat has on the health and wellbeing of the community. The Strategy and Action Plan also highlight those groups in the community that are particularly vulnerable and the socio-economic factors that can potentially increase impacts.

The Planning Proposal responds to the Strategy and Action Plan by proposing a local provision requiring development in the majority of the LEP's zones, including residential, business and industrial zones, to incorporate planning and design measures to reduce the urban heat island effect and ensure buildings and outdoor spaces are thermally comfortable for people living and working in Penrith.

Given its broad outcomes-based measures, the proposed provision is considered to have sufficient flexibility to enable suitable planning and design measures to be chosen based on the circumstances of the site and development.

Council has sought some initial feedback from the local development industry on potential urban heat controls, which would primarily be contained within the DCP. This feedback was sought through a survey that included questions on the feasibility of controls relating to roof colour, tree canopy, irrigation, cool materials and cool refuges. The survey also asked developers what they are already doing to address urban heat.

Overall, the feedback received was positive, with developers largely supportive of Council's initiative to introduce controls to address urban heat in Penrith. Developers noted that there is increased demand from customers for development to be more sustainable, and they have started to include elements to address urban heat in their products and development designs.

Feedback on specific DCP controls was mixed with a large amount of support being given to controls focused on tree canopy, cool materials and roof colours as these were seen to be achievable with no real impact on costs. Feedback also indicated a preference for controls not to be so specific that they limit the choice of product as this is often dictated by availability. This feedback supports the intention to include a local provision in the LEP that has broad outcomes-based planning and design measures.

There was mixed feedback on the DCP controls for irrigation, with developers who undertake low density residential development, raising concern that often irrigation systems are removed by owners due to the expense of maintenance. However, it was noted that the cost to replace landscaping that does not thrive may be sufficient inducement to ensure irrigation systems are functioning and that these systems would balance out any establishment costs in the long term.

The least support was given to the DCP controls for cool refuges, however, it was noted that many of the developers surveyed did not fully understand the concept of these types of spaces and were unsure if they would contribute to increased costs. It was noted, that if implemented, these spaces would be better incorporated into the design of lobbies and communal areas as required by the DPIE's *Apartment Design Guide*<sup>14</sup>. Feedback also noted that these spaces would work well in commercial and industrial development and were unlikely to be included in residential development design.

From this preliminary feedback it can be surmised that there is general support in the development industry for controls to address urban heat and the urban heat island effect, with some developers already incorporating these elements into their products. This indicates that many of the design responses proposed have already been demonstrated as feasible and cost effective on a development-by-development basis.

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<sup>14</sup> Department of Planning, Industry and Environment (2015) *Apartment Design Guide – Tools for improving the design of residential apartment development*. State of New South Wales.

In response to this feedback, the planning controls, particularly those in the DCP, have been drafted to ensure they are both flexible and affordable. Many of the proposed controls already exist within the DCP and have been brought into a new chapter to highlight the importance of reducing urban heat and the urban heat island effect and to provide a clear link to the clause proposed in the LEP. New DCP controls, such as lighter roof colours, tree provision and cool refuges will not necessitate different or expensive materials, plans or designs. They will allow for alternative outcomes that can be easily adapted from existing materials and processes. Overall, the LEP and DCP planning controls provide flexibility and enable cost friendly solutions.

The draft DCP controls are being exhibited concurrently with this Planning Proposal to provide an understanding on how they will complement the proposed LEP provision. The draft controls are included in Appendix 3.

The exhibition also provides a further opportunity to identify and assess any additional social and economic effects of the Planning Proposal.

## **Section D – State and Commonwealth Interests**

### **Q10. Is there adequate public infrastructure for the planning proposal?**

The Planning Proposal proposes a new local provision that will require development to consider and incorporate effective planning and design measures to reduce the urban heat island effect. Among them are:

- Measures to retain and extend green infrastructure, including trees that contribute to the local tree canopy. Increasing the urban tree canopy will help to cool local environments and facilitate more opportunities for walking and cycling. This will reduce reliance on motor vehicles, roads and parking facilities;
- Measures to retain water in the landscape, including rainwater harvesting and water reuse. This which will help to reduce the demand on potable water and associated infrastructure; and
- Measures to reduce reliance on mechanical ventilation and cooling systems. This will help to conserve energy and place less pressure on the electricity network.

### **Q11. What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?**

The Gateway Determination in Appendix 4 provides details on the consultation to be undertaken with State and Commonwealth public authorities. It includes conditions requiring consultation with the NSW Rural Fire Service (prior to exhibition of the Planning Proposal), Sydney Water and Endeavour Energy.

The NSW Rural Fire Service has been consulted and its submission is included in Appendix 5. The Planning Proposal has addressed the comments made by updating the draft DCP controls in Appendix 3 to include further explanation that:

- Development on land identified as bush fire prone must address the bush fire protection measures set out in *Planning for Bush Fire Protection 2019 (PBP)*; and
- While applicants should seek to achieve the outcomes sought by the urban heat DCP controls, where there is an inconsistency between the PBP provisions and the DCP controls, the PBP provisions prevail.

## Part 4 – Mapping

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There are no amendments proposed to the LEP 2010 map tiles.

## Part 5 – Community Consultation

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The Gateway Determination in Appendix 4 outlines the community consultation to be undertaken.

The Planning Proposal will be publicly exhibited at the Penrith Council Civic Centre, Penrith Library, Council's St Marys Office and St Marys Library, subject to Orders under the Public Health Act 2010 relating to the public health risk of COVID-19. All exhibition material will be available on Council's website.

Notice of the public exhibition will be given in the local newspaper and on Council's website. Consultation with public authorities will be undertaken in accordance with the requirements of the Gateway Determination.

In accordance with Section 9.1 Direction 4.4, Council has consulted the NSW Rural Fire Service on the Planning Proposal. A copy of the Rural Fire Service's submission is provided in Appendix 5.

## Part 6 - Project Timeline

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Milestone	Timeframe
Local Planning Panel's advice on the Planning Proposal	22 September 2021
Council's endorsement to send the Planning Proposal to the Department of Planning, Industry and Environment	25 October 2021
Submission to the Department of Planning, Industry and Environment	1 November 2021
Gateway Determination issued	30 November 2021
Public exhibition and public authority consultation	February 2022
Consideration of submissions	March 2022
Reporting of the Planning Proposal to Council	April 2022
Submission to the Department of Planning, Industry and Environment	May 2022
Publication of LEP amendment	July 2022

These timeframes are estimates only and subject to change due, in part, to factors beyond Council's control.



## Appendices

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## APPENDIX 1

### Penrith Local Planning Panel advice

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<b>PLANNING PROPOSAL REF</b>	RZ21/0002
<b>PLANNING PROPOSAL DESCRIPTION</b>	Planning Proposal – Mitigating the Urban Heat Island Effect
<b>DATE OF LPP MEETING</b>	Wednesday 22 September 2021
<b>PANEL MEMBERS</b>	Jason Perica (Chair) Mary-Lynne Taylor (Expert) John Brunton (Expert) Geoff Martin (Community Representative)
<b>APOLOGY</b>	
<b>DECLARATIONS OF INTEREST</b>	

### Executive Summary

The purpose of this report is to present Penrith City Council's (Council) Planning Proposal for a new provision in the Penrith Local Environmental Plan (LEP) 2010 to ensure the mitigation of the urban heat island effect is a major consideration for new development. It is proposed that the new provision will require a consent authority to be satisfied that planning and design measures will be taken as part of a development to reduce the urban heat island effect. The measures relate to retaining and extending green infrastructure, retaining water in the landscape, passive design, using building, paving and other materials to minimise heat impacts and reducing reliance on mechanical ventilation and cooling systems.

The Planning Proposal is part of an urban heat planning package that also includes introducing a new Urban Heat chapter into the Penrith Development Control Plan (DCP) 2014 that will provide additional development controls aimed at achieving cooler buildings and cooler outdoor spaces.

The Local Planning Panel's advice on the Planning Proposal is sought in accordance with the requirements of Section 2.19 of the *Environmental Planning and Assessment Act 1979*. It is recommended that the Planning Proposal generally be supported and progressed through the next steps in the Gateway process.

It is intended that the Planning Proposal will be reported to an upcoming Council meeting for consideration, with a recommendation to endorse and forward the Planning Proposal to the Minister for Planning and Public Spaces requesting a Gateway Determination to enable public exhibition.

### Background

As our City grows and becomes more urbanised, reducing and removing heat from the urban environment is critical to achieving an environment that has high amenity, provides opportunities for active, healthy and safe activities and is comfortable throughout summer.

Council's *Cooling the City Strategy* identifies strategies to cool our City and region in a way that improves liveability and prioritises protection from heat for our community. Among those strategies is adopting planning and development controls for new developments to mitigate urban heat.

In 2019-20, Council partnered with Western Sydney University to record localised summer air temperatures to gain a better understanding of local heat and hot spots. The project confirmed that there are some areas across the City that are significantly cooler than others. These predominantly included areas with water, such as the river, creeks, irrigated sporting fields and parks, and areas with ground or tree cover. The project also found that during the summer months, areas with large areas of open space and green infrastructure had lower mean night time temperatures and were able to cool down quicker than areas with a higher cover of buildings and roads.

We know that specific targeted building and design responses, like using light-coloured surfaces to promote reflectivity, increasing ventilation, protecting and increasing vegetation for shade, planning for water in the landscape, and using water sensitive urban design to harvest and reuse water for cooling, can significantly help to mitigate urban heat.

To achieve better building and design responses to urban heat, Council is preparing an urban heat planning package that proposes a two-pronged response with changes to both the Penrith LEP 2010 and Penrith DCP 2014.

The package is supported by recommendations provided by JOC Consulting, who were engaged by Council earlier this year to assist with this work. The scope of the work undertaken by JOC included reviewing and identifying opportunities within the current LEP and DCP to address urban heat, reviewing other relevant State and local plans, and consideration of the *Urban Heat Planning Toolkit* developed by the Western Sydney Regional Organisation of Councils (WSROC).

The package builds on the recommendations provided by JOC and aims to provide planning and development controls that are practical and can be implemented.

### **Planning Proposal**

The Planning Proposal seeks to introduce a new provision in Penrith LEP 2010 to ensure the mitigation of the urban heat island effect is a major consideration for new development.

The objectives of the new provision are:

- to ensure development incorporates effective planning and design measures to reduce the urban heat island effect in Penrith;
- to ensure buildings and outdoor spaces are thermally comfortable, particularly during summer, for people living and working in Penrith; and
- to promote green infrastructure and water in the landscape for their cooling benefits.

The provision is intended to apply to development on land in the following zones:

- All residential zones - R1 General Residential, R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential and R5 Large Lot Residential
- All business zones - B1 Neighbourhood Centre, B2 Local Centre, B3 Commercial Core, B4 Mixed Use, B5 Business Development, B6 Enterprise Corridor and B7 Business Park
- All industrial zones - IN1 General Industrial and IN2 Light Industrial
- All special purpose zones - SP1 Special Activities, SP2 Infrastructure and SP3 Tourist
- All recreation zones - RE1 Public Recreation and RE2 Private Recreation

- RU5 Village zone; and
- E4 Environmental Living zone.

The provision is not intended to apply to the rural zones (except for RU5 Village), the environmental zones (except for E4 Environmental Living) or the waterways zones as these zones are not considered to contribute significantly to the urban heat island effect.

It is proposed that the new provision will require a consent authority to be satisfied that planning and design measures will be taken as part of a development to reduce the urban heat island effect. This would be a similar approach to the existing clause 7.5 Protection of Scenic Character and Landscape Values in the LEP. While the intention of the new provision is to include broad outcomes-based measures, supported by specific controls in the DCP, two options are currently being considered.

*Option 1:*

Development consent must not be granted for development on land to which this clause applies unless the consent authority is satisfied that planning and design measures will be taken to reduce the urban heat island effect including:

- measures to retain and extend green infrastructure;
- measures to retain water in the landscape;
- passive design measures;
- use of building, paving and other materials to minimise heat impacts; and
- measures to reduce reliance on mechanical ventilation and cooling systems to conserve energy and minimise heat sources.

*Option 2:*

Development consent must not be granted for development on land to which this clause applies unless the consent authority is satisfied that planning and design measures will be taken to reduce the urban heat island effect including:

- measures to retain and extend green infrastructure, including vegetation that contributes to the local tree canopy;
- measures to retain water in the landscape, including permeable surfaces, rainwater harvesting, water reuse and water features;
- passive design measures, including siting, orientation, natural ventilation and external shading;
- use of building, paving and other materials to minimise heat impacts, including green or cool roofs and walls, light-coloured materials and permeable paving; and
- measures to reduce reliance on mechanical ventilation and cooling systems to conserve energy and minimise heat sources.

Option 2 provides more details on key elements that may be considered when assessing a Development Application, whereas Option 1 provides broader principles and may provide greater flexibility. The Panel's views on the two Options are sought to help identify a preferred clause.

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## Supporting controls in Penrith DCP 2014

Although not part of the Planning Proposal, the urban heat planning package proposes to introduce a new Urban Heat chapter into the Penrith DCP 2014 that will provide additional development controls aimed at achieving cooler buildings and cooler outdoor spaces. The chapter will consolidate existing controls on urban heat in the DCP, as well as introduce new controls. They are proposed to complement existing energy efficiency and thermal performance outcomes for buildings under the NSW Government's Building Sustainability Index (BASIX) provisions.

The DCP controls aim to address the following:

- minimise hard surfaces and increase permeable surfaces
- maximise tree canopy to provide shade
- use cool materials and light-coloured surfaces to promote reflectivity of building roofs, external walls and paved surfaces
- protect and increase vegetation
- use water in the landscape to encourage evaporation and evapotranspiration
- increase the use of water sensitive urban design to assist in harvesting and reusing water for cooling
- use building design principles that are suited to our local climate
- improve energy efficiency and install solar panels
- incorporate cooling elements into the design of outdoor spaces.

Should the Planning Proposal be supported, it is intended to exhibit the Urban Heat chapter at the same time as the Planning Proposal.

## Key considerations

### Relationship to strategic planning framework

The Planning Proposal is consistent with the *Greater Sydney Region Plan 'A Metropolis of Three Cities'* and the *Western City District Plan*. The Planning Proposal responds to strategy 38.1 and action 89, respectively, which seek to "Mitigate the urban heat island effect and reduce vulnerability to extreme heat".

The Planning Proposal is also consistent with the *Penrith Local Strategic Planning Statement*, adopted by Council in March 2020. The Planning Proposal responds to Planning Priority 21 Cool our City and action 21.3 Introduce objectives, planning and development controls to deliver a cooler city.

### Need for and approach to a new LEP provision

As part of its justification, the Planning Proposal should demonstrate that the proposed approach is the best, most efficient and most time effective approach to delivering the desired outcome.

The two-pronged approach, proposing changes to both the Penrith LEP 2010 and Penrith DCP 2014 to deliver better building and design responses to the urban heat island effect, is considered the best approach at this stage of the Gateway process. It will elevate a key priority of Council to the LEP as a planning consideration. It will take a broad outcomes-based approach, supported by specific controls in the DCP, which can be more easily adapted in response to new research and thinking on urban heat and the built environment. While it is recognised that further work is necessary to establish clear and robust quantitative

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controls on urban heat for Penrith, the approach enables the urban heat island effect to at least be considered ahead of this work. The proposed approach is also similar to that taken with other provisions in the LEP, such as clause 7.4 Sustainable Development and clause 8.4 Design Excellence, which have no quantitative controls, but are supported by more detailed controls in the DCP.

By seeking to progress to public exhibition, there will be an opportunity for feedback from a range of stakeholders including business and industry, state agencies, urban heat experts, as well as the community.

### **Next Steps**

It is intended that the urban heat planning package, including the Planning Proposal, will be reported to an upcoming Council meeting for consideration. The report proposes to seek Council's endorsement to forward the Planning Proposal to the Minister for Planning and Public Spaces with a request to issue a Gateway Determination to enable public exhibition. The report also proposes to seek Council's approval to exhibit the full package of planning and development controls to mitigate urban heat.

### **Panel's Advice**

In accordance with the requirements of Section 2.19 of the Act, the Planning Proposal is referred to the Penrith Local Planning Panel for advice.

A record of the Panel's advice will be included in the report seeking Council's decision on the Planning Proposal and provided to the Department of Planning, Industry and Environment.

### **Conclusion**

This report outlines Council's Planning Proposal for a new provision in the Penrith LEP 2010 to ensure the mitigation of the urban heat island effect is a major consideration for new development.

The Planning Proposal is part of an urban heat planning package that also includes introducing a new Urban Heat chapter into the Penrith DCP 2014 that will provide additional development controls aimed at achieving cooler buildings and cooler outdoor spaces.

### **RECOMMENDATION**

It is recommended that the Planning Proposal generally be supported and progressed through the next steps in the Gateway process.

### **ATTACHMENTS**

There are no attachments for this report.





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**Panel Advice provided pursuant to Section 2.19 of the EP&A Act 1979**

The Panel has considered the Planning Proposal and the preliminary assessment prepared by Council Officers and provides the following advice:

1. The Panel supports and commends the initiative, including providing suitable provisions in the Penrith LEP and DCP.
  2. The Planning Proposal is justified in terms of strategic consistency for the following reasons:
    - a. The Planning Proposal is consistent with the *Greater Sydney Region Plan 'A Metropolis of Three Cities'* and the *Western City District Plan*, as it responds to strategy 38.1 and action 89, respectively, which seek to "Mitigate the urban heat island effect and reduce vulnerability to extreme heat".
    - b. The Planning Proposal is consistent with the *Penrith Local Strategic Planning Statement*, as it responds to Planning Priority 21 Cool our City and action 21.3 Introduce objectives, planning and development controls to deliver a cooler city.
  3. The Planning Proposal is supported and should be progressed through the next steps in the Gateway process for the following reasons:
    - a. The two-pronged approach, which proposes changes to both the Penrith LEP 2010 and Penrith DCP 2014 to deliver better building and design responses to the urban heat island effect, is considered the best approach because:
      - i. It elevates a key priority of Council to the LEP as a planning consideration.
      - ii. It takes a broad outcomes-based approach, supported by specific controls in the DCP, which can be more easily adapted in response to new research and thinking on urban heat and the built environment.
      - iii. It enables the urban heat island effect to be considered ahead of further work necessary to establish clear and robust quantitative controls on urban heat for Penrith.
  4. The Panel makes the following comments:
    - a. The Panel supports the approach of providing more detail in the LEP provisions on how objectives may be achieved.
    - b. The term "green infrastructure", if used, should be defined and also be re-considered as it is potentially confusing if it is intended to apply to vegetation.
    - c. Consideration should be given to including an appropriate aim within Clause 1.2 of the LEP.
    - d. Consideration should be given to the application of the LEP clause to the E3 Environment Management zone (as intensive urban development in this zone may occur).
    - e. The LEP clause should ensure planning and design measures are considered during the assessment of a development application so that the consent authority is satisfied as to the outcome before approval. The term "will be taken" seems weak and a DA should demonstrate such measures have been taken.
    - f. In the DCP, clear quantitative measures will assist applicants and the consent authority.
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- g. Council is encouraged to continue undertaking appropriate education measures to support this worthwhile initiative.

Jason Perica – Chair 	Mary-Lynne Taylor – Expert 
Geoff Martin – Community Representative 	John Brunton – Expert 

## APPENDIX 2

### Council report and minutes

## 6 Planning Proposal - Mitigating the Urban Heat Island Effect

**Compiled by:** Elizabeth Hanlon, Senior Planner  
Nicole Dukinfield, Principal Planner

**Authorised by:** Natasha Borgia, City Planning Manager  
Kylie Powell, Director - City Futures

<b>Outcome</b>	<i>We plan for our future growth</i>
<b>Strategy</b>	<i>Facilitate development in the City that considers the current and future needs of our community</i>
<b>Service Activity</b>	<i>Facilitate appropriate land use outcomes for our city that are consistent with our Local Strategic Planning Statement</i>

**Previous Items:** Penrith Urban Heat Planning Controls Package - Councillor Briefing - 20 Sep 2021

**Procedural note:** Section 375A of the Local Government Act 1993 requires that a division be called in relation to this matter.

### Executive Summary

The purpose of this report is to seek Council's endorsement of a Planning Proposal to amend the Penrith Local Environmental Plan 2010 (LEP 2010) to introduce a new local provision to ensure the mitigation of the urban heat island effect is a major consideration for development. Councillors were briefed on 20 September 2021 on the proposal to move this work ahead of the comprehensive LEP Review.

The Planning Proposal is part of a planning controls package that is being prepared to mitigate the impacts of urban heat. The package also includes introducing a new Urban Heat chapter into the Penrith Development Control Plan 2014 (DCP 2014), which is the subject of a separate report to this meeting.

This report recommends that the Planning Proposal be forwarded to the Minister for Planning and Public Spaces requesting a Gateway Determination, including to publicly exhibit the Planning Proposal.

Should the Planning Proposal be endorsed by Council and a Gateway Determination issued, it is intended to exhibit the Planning Proposal and the development controls in the Urban Heat DCP chapter at the same time for community and stakeholder feedback.

### Background

Our City is susceptible to urban heat impacts due to the region's existing climate and topography, geographic position, large and growing residential population and rapid urban development. As our City grows and becomes more urbanised, reducing and removing heat from the urban environment is critical to achieving an environment that has high amenity, provides opportunities for active, healthy and safe activities and is comfortable throughout summer.

Council's *Cooling the City Strategy* identifies strategies to cool our City and region in a way that improves liveability and prioritises protection from heat for our community. Among those strategies is the need for planning controls for new development to mitigate urban heat.

Council's *Resilient Penrith Action Plan 2021-2030* aims to build awareness and preparedness and enhance the capacity of Council and the community to adapt and be more resilient to risks, shocks and stresses, including urban heat. The Action Plan also identifies a specific action to incorporate urban heat and cooling the city principles in the Penrith LEP.

In 2019-20, Council partnered with Western Sydney University to record localised summer air temperatures to gain a better understanding of local heat and hot spots. The *Benchmarking Summer Heat Across Penrith* project confirmed that some areas within the City are significantly cooler than others. These predominately included areas with water, such as the river, creeks, irrigated sporting fields and parks, and areas with ground and tree cover. The project also found that during the summer months, areas with large expanses of open space and green infrastructure had lower mean night time temperatures and were able to cool down quicker than areas with a higher cover of buildings and roads.

The urban heat island effect is essentially where urban areas become significantly warmer than surrounding areas because there is less green cover and more hard surfaces which absorb, store and radiate heat, and where rainwater runs off these surfaces, leaving little moisture on or in the ground and less opportunity for cooling to occur.

We know that specific targeted building and design responses, like using light-coloured surfaces to promote reflectivity, increasing ventilation, protecting and increasing vegetation for shade, planning for water in the landscape, and using water sensitive urban design to harvest and reuse water for cooling, can significantly help to mitigate the urban heat island effect.

To help achieve better building and design responses to urban heat, Council officers have prepared a Planning Proposal, which seeks to introduce a new local provision in the Penrith Local Environmental Plan 2010 (LEP 2010) to ensure that the mitigation of the urban heat island effect is a major consideration for development. The Planning Proposal is part of an urban heat planning controls package that also includes introducing a new Urban Heat chapter into the Penrith Development Control Plan 2014 (DCP 2014), which is the subject of a separate report to this meeting.

Councillors were briefed on the intention to include urban heat considerations in LEP 2010 as part of the broader Phase 2 LEP review briefing provided in April 2021. Councillors were further briefed in September 2021 on the urban heat planning controls package and the intention to bring forward a separate Planning Proposal to specifically address urban heat ahead of the Phase 2 review to provide a timely planning response.

### **The Planning Proposal**

The preparation of a Planning Proposal is the first step in the Department of Planning, Industry and Environment's (DPIE) Gateway Process for making and amending local environmental plans.

This Planning Proposal proposes to introduce a new provision in LEP 2010 to ensure that the mitigation of the urban heat island effect is a major consideration for development. A copy of the Planning Proposal has been provided as Attachment 1 of this report.

The proposed objectives of the new provision are:

- To ensure development incorporates effective planning and design measures to reduce the urban heat island effect in Penrith;
- To ensure buildings and outdoor spaces are thermally comfortable, particularly during summer, for people living and working in Penrith; and
- To promote green infrastructure and water in the landscape for their cooling benefits.



The provision is intended to apply to development on land in the following zones:

- All residential zones;
- All business zones;
- All industrial zones;
- All special purpose zones;
- All recreation zones;
- RU5 Village zone; and
- E4 Environmental Living zone.

The provision is not intended to apply to the rural zones (except for RU5 Village), the environmental zones (except for E4 Environmental Living) or the waterways zones as these zones are not considered to contribute significantly to the urban heat island effect.

It is proposed that the new provision will require a consent authority to be satisfied that planning and design measures will be taken as part of a development to reduce the urban heat island effect. This is a similar approach to the existing clause 7.5 Protection of Scenic Character and Landscape Values in the LEP.

The intention of the new provision is to include broad outcomes-based measures, which will be supported by specific controls in the DCP. This is a similar approach to the existing clause 7.4 Sustainable Development and clause 8.4 Design Excellence of the LEP.

The measures proposed to be included are:

- Measures to retain and extend green infrastructure;
- Measures to retain water in the landscape;
- Passive design measures;
- Use of building, paving and other materials to minimise heat impacts; and
- Measures to reduce reliance on mechanical ventilation and cooling systems to conserve energy and minimise heat sources.

The new LEP provision and supporting DCP controls are intended to complement existing energy efficiency and thermal performance outcomes for buildings under the NSW Government's Building Sustainability Index (BASIX) provisions. *State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004* will continue to prevail over LEP 2010. The new provision seeks to ensure a broader consideration of matters relating to the urban heat island effect beyond a building's sustainability.

The new LEP provision will not apply to development undertaken as complying development, however, certain complying development, such as new homes and renovations of \$50,000 or more, will continue to require a BASIX certificate.

The Planning Proposal is consistent with the *Greater Sydney Region Plan 'A Metropolis of Three Cities'* and the *Western City District Plan*. The Planning Proposal responds to Strategy 38.1 and Action 89, respectively, which seek to "Mitigate the urban heat island effect and reduce vulnerability to extreme heat".

The Planning Proposal is also consistent with the *Penrith Local Strategic Planning Statement*, adopted by Council on 23 March 2020. The Planning Proposal responds to Planning Priority 21: Cool our City and Action 21.3 which seeks to "Introduce objectives, planning and development controls to deliver a cooler city".

## Local Planning Panel Advice

In accordance with the requirements of Section 2.19 of the *Environmental Planning and Assessment Act 1979* (the Act), the Planning Proposal was presented to Council's Local Planning Panel on 22 September 2021 to obtain advice. Advice provided by the Panel is to be taken into consideration in Council's assessment and preparation of the Planning Proposal.

The Local Planning Panel advised the following:

1. *The Panel supports and commends the initiative, including providing suitable provisions in the Penrith LEP and DCP;*
2. *The Planning Proposal is justified in terms of (its) strategic consistency ...*
3. *The Planning Proposal is supported and should be progressed through the next steps in the Gateway process for the following reasons ...*
  - *It elevates a key priority of Council to the LEP as a planning consideration;*
  - *It takes a broad outcomes-based approach, supported by specific controls in the DCP, which can be more easily adapted in response to new research and thinking on urban heat and the built environment;*
  - *It enables the urban heat island effect to be considered ahead of further work necessary to establish clear and robust quantitative controls on urban heat for Penrith.*
4. *The Panel makes the following comments:*
  - *The Panel supports the approach of providing more detail in the LEP provisions on how the objectives may be achieved.*

The Panel was presented with two options on the level of detail that could be included in the new provision in relation to the proposed planning and design measures. The Panel supported the following option, which contains additional details on key elements that may be considered when preparing and assessing development applications:

- Measures to retain and extend green infrastructure, including vegetation that contributes to the local tree canopy;
- Measures to retain water in the landscape, including permeable surfaces, rainwater harvesting, water reuse and water features;
- Passive design measures, including siting, orientation, natural ventilation and external shading;
- Use of building, paving and other materials to minimise heat impacts, including green or cool roofs and walls, light-coloured materials and permeable paving; and
- Measures to reduce reliance on mechanical ventilation and cooling systems to conserve energy and minimise heat sources.

The Planning Proposal has been amended to indicate the intention to include these more detailed measures in the new provision.

- *The term “green infrastructure”, if used, should be defined and also be reconsidered as it is potentially confusing if it is intended to apply to vegetation.*

While the term “green infrastructure” includes all types of vegetation including native and exotic species, remnant and planted vegetation, trees, shrubs, grasses and groundcovers, it also includes elements such as green walls and roofs, rain gardens, wetlands and swales, turfed areas, as well as productive, ornamental and native gardens. It therefore includes both natural systems and semi-natural systems.

The Explanation of Intended Effect (EIE) for the proposed Design and Place State Environmental Planning Policy (SEPP) defines green infrastructure as “the network of green spaces, natural systems and semi-natural systems that support sustainable communities and includes waterways, bushland, tree canopy, green ground cover, parks and open spaces that are strategically planned, designed and managed to support a good quality of life in the urban environment”. The EIE further describes green infrastructure as “networks of green spaces ... that support human and ecological health and improve the connection of bushland and waterways to protect habitat and biodiversity ... (with trees an essential part having) manifold human benefits including improving air quality, absorbing carbon and rainfall, cooling local environments, supplying shade and shelter, and providing attractive, seasonal variety that creates neighbourhoods where people want to live”.

In response to the Panel's comment, the Planning Proposal has been amended to indicate the intention to include a definition for “green infrastructure” in the new provision consistent with the definition in the EIE for the proposed Design and Place SEPP and/or the definition adopted in the final SEPP, depending on its timing.

- *Consideration should be given to including an appropriate aim in Clause 1.2 of the LEP.*

Clause 1.2 contains the aims of the LEP and includes an aim “to ensure that development incorporates the principles of sustainable development through the delivery of balanced social, economic and environmental outcomes, and that development is designed in a way that assists in reducing and adapting to the likely impacts of climate change”. This aim is considered adequate as it not only captures urban heat, and more generally heatwaves and extreme heat, it also captures other potential climate change impacts such as the increased risks of drought, bushfire, storms and floods.

No amendments have been made to the Planning Proposal in response to this comment.

- *Consideration should be given to the application of the LEP clause to the E3 Environmental Management zone (as intensive urban development in this zone may occur).*

LEP 2010 permits a limited range of development in the E3 Environmental Management zone such as animal boarding and training establishments, cellar door premises, cemeteries, community facilities, dual occupancies, dwelling houses, eco-tourist facilities, extensive agriculture, farm buildings, funeral homes, information and education facilities, rural supplies, some forms of tourist and visitor accommodation and veterinary hospitals. While some of these uses are also permitted in the City's urban areas, these uses are more consistent with those in the rural zones.

Given the aim of the new provision is to mitigate the urban heat island effect and to exclude development in most rural and environmental zones because these zones are not considered to contribute significantly to the urban heat island effect, it is not proposed to include the E3 zone.

No amendments have been made to the Planning Proposal in response to this comment.

- *The LEP clause should ensure planning and design measures are considered during the assessment of a development application so that the consent authority is satisfied as to the outcome before approval. The term “will be taken” seems weak and a DA should demonstrate such measures have been taken.*

The intention of the new provision is to ensure a development application demonstrates that planning and design measures have been incorporated into the proposed development (for example, in terms of its siting, building layout and passive design) and will be incorporated once developed (for example, in terms of landscaping and planting street trees or installing water features). The intention of the provision is to also ensure that planning and design measures are properly considered in the preparation and assessment of the development application so the consent authority is satisfied as to the outcome before granting consent.

The Panel’s comment is valid. The Planning Proposal has been amended to indicate the above intentions, noting that the provision will be subject to legal drafting.

- *In the DCP, clear quantitative measures will assist applicants and the consent authority.*

This comment is discussed in the separate report to this meeting on the Urban Heat DCP controls.

- *Council is encouraged to continue undertaking appropriate education measures to support this worthwhile initiative.*

The Panel’s comment is noted.

A copy of the Local Planning Panel’s advice is included in Attachment 2 of this report.

## Industry Engagement

To receive feedback on industry’s response, Council commissioned a consultant to undertake a survey of local developers who have lodged applications with Council to gain feedback. The consultant contacted 16 developers. Out of the total of 16 developers contacted, 8 opted to participate in the survey.

Overall, the feedback received from the developers was positive. Developers were largely happy with Council taking the initiative to introduce controls to address urban heat in Penrith. Developers also noted that there is increased demand from consumers for development to be more sustainable and have taken the initiative to start including elements to address urban heat in their products and development designs.

## Next Steps

Should Council endorse the recommendations of this report, the following steps are:

1. The Planning Proposal will be updated with any additional comments raised by Council at this meeting and forwarded to the Minister for Planning and Public Spaces with a request to issue a Gateway Determination. The submission will include a request to issue Council with Delegation for plan making authority.
2. Council officers will liaise with the DPIE to negotiate any changes sought to the Planning Proposal by DPIE in the lead up to the Gateway Determination.
3. DPIE will issue a Gateway Determination, authorising the LEP plan making process to proceed. The Gateway Determination will, among other things, provide details of

the public authorities that Council must consult and the requirements for undertaking the public exhibition.

4. Council officers will make any necessary changes to the Planning Proposal prior to public exhibition in response to the conditions of the Gateway Determination and negotiations with stakeholders.
5. Council officers will publicly exhibit the Planning Proposal in accordance with the requirements of the Gateway Determination, the Act and the *Environmental Planning and Assessment Regulation 2000*.

It is intended to exhibit the Planning Proposal and the proposed development controls in the Urban Heat chapter of the DCP at the same time for community and stakeholder feedback.

6. Submissions received in response to the public exhibition of the Planning Proposal will be reviewed and recommendations prepared for Council's consideration.
7. A further report will be presented to Council detailing the results of the exhibition and recommendations, including whether to endorse the Planning Proposal and make the LEP amendment.

### **Financial Implications**

There are no significant financial implications for Council associated with this report. While the proposed local provision will apply to Council developments, it will complement Council's existing 'cooling the city' commitments, which include consideration of urban heat in the design of new community buildings and spaces, and tree planting initiatives.

### **Risk Implications**

The DPIE's decision to issue a Gateway Determination, including to publicly exhibit the Planning Proposal, will affect the exhibition of the proposed DCP controls, discussed in a separate report to this meeting, given the intention to exhibit them at the same time as the Planning Proposal.

The risk of not proceeding with the Planning Proposal (and supporting DCP controls) is that the outcomes of the *Greater Sydney Region Plan* and *Western City District Plan* and the actions in Council's strategic documents relating to urban heat will not be progressed.

### **Conclusion**

To help achieve better building and design responses to urban heat, Council officers have prepared a Planning Proposal to amend the Penrith LEP 2010 to introduce a new local provision to ensure the mitigation of the urban heat island effect is a major consideration for development. The Planning Proposal is part of an urban heat planning controls package, which also includes introducing a new Urban Heat chapter into the Penrith DCP 2014.

The Planning Proposal and DCP controls are in response to outcomes in the *Cooling the City Strategy*, *Resilient Penrith Action Plan* and *Penrith Local Strategic Planning Statement*.

The Local Planning Panel supports the Planning Proposal progressing through the next steps of the Gateway Process and has provided advice, which is discussed in this report, resulting in some amendments to the Planning Proposal.

Should Council endorse the recommendations of this report, the Planning Proposal will be forwarded to the Minister for Planning and Public Spaces requesting a Gateway Determination, including to publicly exhibit the Planning Proposal.

### **RECOMMENDATION**

That:

1. The information contained in the report on Planning Proposal - Mitigating the Urban Heat Island Effect be received.
2. Council endorse the Planning Proposal presented in this report which has been provided as Attachment 1 of this report and is publicly available on Council's website.
3. The General Manager be granted delegation to update and finalise the Planning Proposal referred to in resolution 2 prior to Council's submission of the Planning Proposal to the Minister for Planning and Public Spaces.
4. Council officers forward the Planning Proposal to the Minister for Planning and Public Spaces with a request to issue a Gateway Determination. The submission will include a request to issue Council with Delegation for plan making authority.
5. The General Manager be granted delegation to make any necessary changes to the Planning Proposal in the lead up to the Gateway Determination and prior to the public exhibition in response to the conditions of the Gateway Determination and negotiations with stakeholders.
6. Council publicly exhibits the Planning Proposal for a period specified in the Gateway Determination and in accordance with the community consultation requirements of the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulation 2000.
7. A further report be presented to Council following the public exhibition.

#### ATTACHMENTS/APPENDICES

1. Planning Proposal - Urban Heat Island	35 Pages	Attachments Included
2. Local Planning Panel Advice - Urban Heat Island Planning Proposal	2 Pages	Attachments Included

**CONFIRMED MINUTES  
OF THE ORDINARY MEETING OF PENRITH CITY COUNCIL HELD REMOTELY USING  
AUDIO VISUAL LINKS AND AUDIO STREAMED ON THE COUNCIL WEBSITE ON  
ON MONDAY 25 OCTOBER 2021 AT 7:04PM**

**NATIONAL ANTHEM**

The meeting opened with the National Anthem.

**WEBCASTING STATEMENT**

Her Worship the Mayor, Councillor Karen McKeown OAM read a statement advising that Council Meetings are recorded and webcast.

**STATEMENT OF RECOGNITION**

Her Worship the Mayor, Councillor Karen McKeown OAM read a statement of recognition of Penrith City's Aboriginal and Torres Strait Islander Cultural Heritage.

**PRAYER**

The Council Prayer was read by Rev Christine Bayliss Kelly.

**PRESENT**

Her Worship the Mayor, Councillor Karen McKeown OAM, Deputy Mayor, Councillor Tricia Hitchen, and Councillors Jim Aitken OAM, Bernard Bratusa, Todd Carney, Brian Cartwright, Robin Cook, Marcus Cornish, Kevin Crameri OAM, Greg Davies, Mark Davies, Ross Fowler OAM, Kath Presdee and John Thain.

**APOLOGIES**

216 RESOLVED on the MOTION of Councillor John Thain seconded Councillor Brian Cartwright that the apology from Councillor Aaron Duke be received.

**CONFIRMATION OF MINUTES - Ordinary Meeting - 27 September 2021**

217 RESOLVED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Marcus Cornish that the minutes of the Ordinary Meeting of 27 September 2021 be confirmed.

**DECLARATIONS OF INTEREST**

Councillor Mark Davies declared a Non-Pecuniary Conflict of Interest – Less than Significant in *Item 7 - Luddenham Road Planning Proposal* as he knows a number of owners of land in the area affected by this planning proposal.

Councillor Mark Davies declared a Non-Pecuniary Conflict of Interest – Less than Significant in *Item 8 - Submission to Greater Sydney Parklands Trust Bill 2021* as his wife is the Member for Mulgoa and was involved in the State Government's purchase of the site.



Councillor Ross Fowler OAM declared a Pecuniary Interest in *Item 5 - 57 Henry Street, Penrith Planning Proposal and VPA offer* as he is a Director of the company which owns property adjoining the subject property. Councillor Fowler stated that he would not take part in debate or voting on this matter and would leave the meeting during consideration of the item.

Councillor Ross Fowler OAM declared a Pecuniary Interest in *Item 7 - Luddenham Road Planning Proposal* as he acts for the landowner. Councillor Fowler stated that he would not take part in debate or voting on this matter and would leave the meeting during consideration of the item.

## **SUSPENSION OF STANDING ORDERS**

218 RESOLVED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Todd Carney that Standing Orders be suspended to allow members of the public to address the meeting, the time being 7:10pm.

### **Karen Taylor**

#### *Item 15 - 2020-21 Draft Financial Statements*

Ms Karen Taylor, Director, Financial Audit Services at the Audit Office of New South Wales addressed Council on the Draft 2020-21 Financial Statements, and advised that she would be issuing an unqualified audit report, noting that there were no material misstatements and that the Statements present fairly.

### **Grace McDonald**

#### *Item 4 - Amendment to Penrith City Wide 7.12 Development Contributions Plan for Non-Residential Development*

A Council staff member read out Ms McDonald's application to address the Ordinary Meeting and outlined her reasons for addressing the meeting as follows:

Ms McDonald submitted an objection to the proposed amendment on behalf of the Mamre Road Landowners Group (LOG), which includes several logistics developers, noting that the repeal of the Section 7.12 Plan has significant implications on the ability of the LOG and other developers in the Precinct to respond to industrial land shortfall in Greater Sydney. The submission requested Council to defer the repeal of the Section 7.12 Plan until Council has tabled the final Mamre Road Precinct Section 7.11 Contribution Plan for endorsement, stating that progression of this repeal in lieu of an alternative contribution plan would prevent immediate and direct investment into the Local Government Area.

## **RESUMPTION OF STANDING ORDERS**

219 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Robin Cook that Standing Orders be resumed, the time being 7:28pm.

**Procedural Motion**

220 RESOLVED on the MOTION of Councillor Ross Fowler OAM seconded Councillor Marcus Cornish that *Item 15 - 2020-21 Draft Financial Statements* be considered before all other items of business.

**DELIVERY PROGRAM REPORTS**

**OUTCOME 7 - WE HAVE CONFIDENCE IN OUR COUNCIL**

**15 2020-21 Draft Financial Statements**

221 RESOLVED on the MOTION of Councillor Kath Presdee seconded Councillor Ross Fowler OAM

That:

1. The information contained in the report on 2020-21 Draft Financial Statements be received.
2. Pursuant to s413(2)(c) it is the Council's opinion that:
  - a. The Financial Statements and schedules have been drawn up in accordance with the Local Government Act 1993 and Regulations, the Local Government Code of Accounting Practice and Financial Reporting, the Local Government Australian Infrastructure Management Guidelines, and Australian Accounting Standards. The Statements comply with Australian Statements of Accounting Concepts.
  - b. The Financial Statements present fairly the Council's financial position as at 30 June 2021 and the operating result for the year then ended.
  - c. The statements are in accord with Council's accounting and other records.
3. Pursuant to the Local Government Code of Accounting Practice and Financial Reporting and Section 215 of the Local Government (General) Regulation 2005 it is the Council's opinion that:
  - a. The accompanying Special Purpose Financial Report has been drawn up in accordance with the Local Government Act 1993 and Regulations, the Local Government Code of Accounting Practice and Financial Reporting and the requirements of National Competition Policy. The Code requires the inclusion of various charges and subsidies which are not actually paid or payable.
  - b. The Special Purpose Financial Report is a special purpose report and is not required to comply with Australian Accounting Standards. The above legislative requirements differ from Australian Accounting Standards and hence the report does not comply with Australian Accounting Standards.
  - c. The Special Purpose Financial Statements present a modelled scenario for comparative purposes. They do not report an actual result.
4. The Statements be forwarded to Council's Auditors.

5. The Financial Statements be placed on public exhibition.
6. A further report be presented to Council following the public exhibition period.
7. Council staff be congratulated for preparing the Statements in a timely manner under trying circumstances.

## **MAYORAL MINUTES**

### **1 Congratulations to the Panthers**

222 RESOLVED on the MOTION of Councillor Karen McKeown OAM seconded Councillor Tricia Hitchen that the Mayoral Minute on Congratulations to the Panthers be received.

## **NOTICES OF MOTION**

### **1 Planning Proposal – 1-4 Old Bathurst Road, Emu Plains**

A MOTION was moved by Councillor John Thain seconded Councillor Greg Davies that Council resolve to charge the proponent for the site at 1-4 Old Bathurst Road, the minor fee in accordance with the Council's Fees and Charges.

The MOTION was PUT.

#### **For**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Kevin Crameri OAM  
Councillor Karen McKeown

#### **Against**

Councillor Marcus Cornish  
Councillor Bernard Bratusa  
Councillor Mark Davies  
Councillor Ross Fowler OAM  
Councillor Tricia Hitchen  
Councillor Brian Cartwright  
Councillor Jim Aitken OAM

The MOTION was declared LOST on the casting vote of the Mayor.

### **2 Road Re-sealing Budget**

223 RESOLVED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Marcus Cornish that Council consider increasing the road re-sealing budget at the next budget.

## QUESTIONS ON NOTICE

### 1 12 Judd Street, Berkshire Park

#### Councillor Kevin Crameri OAM ASKED:

Does the subject property at 12 Judd Street, Berkshire Park meet the exempt and complying criteria in the SEPP where it refers to:

The standards specified for that development are that the development must—  
(b) be located at least 1m from each lot boundary, and

(i) if the land is in a rural zone or an environmental zone—not be fill of more than 100 cubic metres on each lot?

## REPORTS OF COMMITTEES

### 1 Report and Recommendations of the Local Traffic Committee Meeting held on 11 October 2021

224 RESOLVED on the MOTION of Councillor Robin Cook seconded Councillor Tricia Hitchen that the recommendations contained in the Report and Recommendations of the Local Traffic Committee meeting held on 11 October, 2021 be adopted.

### 2 Report and Recommendations of the Policy Review Committee Meeting held on 11 October 2021

225 RESOLVED on the MOTION of Councillor Todd Carney seconded Councillor Marcus Cornish that the recommendations contained in the Report and Recommendations of the Policy Review Committee meeting held on 11 October, 2021 be adopted.

## DELIVERY PROGRAM REPORTS

## OUTCOME 2 - WE PLAN FOR OUR FUTURE GROWTH

### 1 Endorsement of the Green Grid Strategy

226 RESOLVED on the MOTION of Councillor Tricia Hitchen seconded Councillor Ross Fowler OAM

That:

1. The information contained in the report on Endorsement of the Green Grid Strategy be received
2. Council note the feedback received as part of the exhibition of the draft *Green Grid Strategy* provided in Attachments 1, 2, 3 and 4
3. Council endorse the amended *Green Grid Strategy* provided in the separate enclosure

4. Delegation be granted to the General Manager to make minor changes to the *Green Grid Strategy* prior to publication on Council's website, if required.

## **2 Endorsement of the Employment Lands Strategy**

227 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Ross Fowler OAM

That:

1. The information contained in the report on Endorsement of the Employment Lands Strategy be received.
2. Council endorses the amended Employment Lands Strategy provided in Attachment 1.
3. Council notes the feedback received during exhibition and in the Community Engagement Report for the draft Employment Lands Strategy provided in Attachment 2.
4. Council notes the responses to the submissions in the table provided in Attachment 3.
5. Delegation be granted to the General Manager to make minor changes to the Employment Lands Strategy and supporting documents prior to publication on Council's website, if required.

## **9 Accelerated Infrastructure Fund Nomination - Aldington Road, Kemps Creek**

228 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Ross Fowler OAM

That:

1. The information contained in the report on Accelerated Infrastructure Fund Nomination - Aldington Road, Kemps Creek be received.
2. Council authorise the General Manager to submit two formal applications to the Department of Planning, Industry & Environment for Accelerated Infrastructure Funding for Aldington Road in the Mamre Precinct, as detailed in this report.
3. Council be notified of the result of the Accelerated Infrastructure Fund applications, when announced.
4. Council authorise the General Manager to execute a Funding Agreement (Attachment 1 to this report) where Council has been approved for Accelerated Infrastructure Funding by the Minister for Planning and Public Spaces.

**3 Amendment to Penrith Development Control Plan 2014 - Urban Heat Controls**

229 A MOTION was moved by Councillor Tricia Hitchen seconded Councillor Robin Cook  
That:

1. The information contained in the report on Amendment to Penrith Development Control Plan 2014 - Urban Heat Controls be received.
2. The General Manager be authorised to make any minor changes to the draft Penrith Development Control Plan 2014 prior to exhibition.
3. Amendments to draft Penrith Development Control Plan 2014 be publicly exhibited, in accordance with the relevant provisions of the Environmental Planning and Assessment Act, 1979 and associated Regulations and Councils Community Participation Plan.
4. A further report be presented to Council following the public exhibition.

An AMENDMENT was moved by Councillor Bernard Bratusa seconded Councillor Jim Aitken OAM that consideration of this matter be deferred.

The AMENDMENT was PUT.

In accordance with Section 375A of the Local Government Act 1993, a DIVISION was then called with the following result:

**For**

Councillor Bernard Bratusa  
Councillor Mark Davies  
Councillor Tricia Hitchen  
Councillor Jim Aitken OAM

**Against**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Ross Fowler OAM  
Councillor Kevin Crameri OAM  
Councillor Brian Cartwright  
Councillor Marcus Cornish  
Councillor Karen McKeown

The AMENDMENT was LOST.

The MOTION was PUT.

The MOTION was CARRIED and on becoming the SUBSTANTIVE MOTION was also CARRIED.

In accordance with Section 375A of the Local Government Act 1993, a DIVISION was then called with the following result:

**For**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney

**Against**

Councillor Bernard Bratusa  
Councillor Mark Davies  
Councillor Tricia Hitchen  
Councillor Jim Aitken OAM

Councillor John Thain  
Councillor Ross Fowler OAM  
Councillor Kevin Crameri OAM  
Councillor Brian Cartwright  
Councillor Marcus Cornish  
Councillor Karen McKeown

**4 Amendment to Penrith City Wide 7.12 Development Contributions Plan for Non-Residential Development**

230 RESOLVED on the MOTION of Councillor Ross Fowler OAM seconded Councillor Marcus Cornish

That:

1. The information contained in the report on Amendment to Penrith City Wide 7.12 Development Contributions Plan for Non-Residential Development be received.
2. Council adopt the draft amendment to Penrith Section 7.12 Development Contributions Plan as outlined and attached to this report.
3. The amended Plan be brought into effect in accordance with the requirements of the Environmental Planning and Assessment Regulation 2000.
4. Details of Council's decision be provided to the authors of the submissions received.

In accordance with Section 375A of the Local Government Act 1993, a DIVISION was then called with the following result:

**For**

**Against**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Ross Fowler OAM  
Councillor Kevin Crameri OAM  
Councillor Jim Aitken OAM  
Councillor Mark Davies  
Councillor Brian Cartwright  
Councillor Tricia Hitchen  
Councillor Bernard Bratusa  
Councillor Marcus Cornish  
Councillor Karen McKeown

## 6 Planning Proposal - Mitigating the Urban Heat Island Effect

231 RESOLVED on the MOTION of Councillor Ross Fowler OAM seconded Councillor Greg Davies

That:

1. The information contained in the report on Planning Proposal - Mitigating the Urban Heat Island Effect be received.
2. Council endorse the Planning Proposal presented in this report which has been provided as Attachment 1 of this report and is publicly available on Council's website.
3. The General Manager be granted delegation to update and finalise the Planning Proposal referred to in resolution 2 prior to Council's submission of the Planning Proposal to the Minister for Planning and Public Spaces.
4. Council officers forward the Planning Proposal to the Minister for Planning and Public Spaces with a request to issue a Gateway Determination. The submission will include a request to issue Council with Delegation for plan making authority.
5. The General Manager be granted delegation to make any necessary changes to the Planning Proposal in the lead up to the Gateway Determination and prior to the public exhibition in response to the conditions of the Gateway Determination and negotiations with stakeholders.
6. Council publicly exhibits the Planning Proposal for a period specified in the Gateway Determination and in accordance with the community consultation requirements of the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulation 2000.
7. A further report be presented to Council following the public exhibition.

In accordance with Section 375A of the Local Government Act 1993, a DIVISION was then called with the following result:

### For

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Ross Fowler OAM  
Councillor Kevin Crameri OAM  
Councillor Jim Aitken OAM  
Councillor Brian Cartwright  
Councillor Marcus Cornish  
Councillor Karen McKeown

### Against

Councillor Mark Davies  
Councillor Bernard Bratusa  
Councillor Tricia Hitchen



Having previously declared a Pecuniary Interest in Items 5 and 7, Councillor Ross Fowler OAM left the meeting, the time being 8:43pm.

**5 57 Henry Street, Penrith Planning Proposal and VPA offer**

232 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor John Thain

That:

1. The information contained in the report on 57 Henry Street, Penrith Planning Proposal and VPA offer be received.
2. Council support the Planning Proposal and VPA offer presented in this report, and requests the Department of Planning, Industry and Environment to gazette the LEP amendment sought by the Planning Proposal after a Planning Agreement reflecting the VPA offer has been executed.
3. The Planning Proposal is submitted to the Department of Planning, Industry and Environment, requesting the LEP clause includes:
  - a. A deferred commencement of 12 months or alternative agreed timeframe to allow for the necessary infrastructure to be designed, approved and secured before the new controls come into effect; and
  - b. A concurrence clause, where the Planning Secretary must be satisfied that there is adequate infrastructure to support the development before any development consent is issued under the new controls.
4. The draft VPA be reported back to Council for its consideration.
5. A VPA be prepared in accordance with the Environmental Planning & Assessment Act 1979 and be notified and executed.
6. The General Manager be granted delegation to update and finalise the Planning Proposal prior to Council's submission of the Planning Proposal to the Department of Planning, Industry and Environment for making of the amendment to the Penrith Local Environmental Plan 2010. The update to the Planning Proposal is to reflect the changes recommended in this report, include recommendation 3 and address any minor or typographical errors, and contemporise the document.

In accordance with Section 375A of the Local Government Act 1993, a DIVISION was then called with the following result:

**For**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Jim Aitken OAM  
Councillor Mark Davies  
Councillor Brian Cartwright

**Against**

Councillor Kevin Crameri OAM  
Councillor Marcus Cornish

Councillor Tricia Hitchen  
Councillor Bernard Bratusa  
Councillor Karen McKeown

Having previously declared a Non-Pecuniary Conflict of Interest – Less than Significant in Items 7 and 8, Councillor Mark Davies left the meeting, the time being 8:49pm.

**7 Luddenham Road Planning Proposal**

233 RESOLVED on the MOTION of Councillor Bernard Bratusa seconded Councillor Greg Davies

That:

1. The information contained in the report on Luddenham Road Planning Proposal be received
2. Council endorse the Planning Proposal at Attachment 1 to this report, subject to any further changes resulting from Item 4 below.
3. Council officers forward the Planning Proposal to the Minister for Planning with a request to issue a Gateway Determination. (The submission will include a request to issue Council with Delegation for plan making authority).
4. The General Manager be granted delegation to make any necessary changes to the Planning Proposal referred to in Item 2 above:
  - a. prior to Council's submission of the Planning Proposal to the Minister for Planning to request a Gateway Determination.
  - b. as a result of negotiated changes sought by DPIE in the lead up to the issuing of the Gateway Determination.
  - c. prior to public exhibition in response to the conditions of the Gateway Determination or negotiations with public authorities and other stakeholders.
5. A Development Control Plan be prepared for the subject site, to be publicly exhibited concurrently with the Planning Proposal.
6. Council publicly exhibit the Planning Proposal for a period to be specified in the Gateway Determination, and in accordance with the community consultation requirements of the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment Regulation 2000.
7. A further report be presented to Council following the public exhibition.

In accordance with Section 375A of the Local Government Act 1993, a DIVISION was then called with the following result:

**For**

**Against**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Kevin Crameri OAM  
Councillor Jim Aitken OAM  
Councillor Brian Cartwright  
Councillor Tricia Hitchen  
Councillor Bernard Bratusa  
Councillor Marcus Cornish  
Councillor Karen McKeown

Councillor Ross Fowler OAM returned to the meeting, the time being 8:51pm.

**8 Submission to Greater Sydney Parklands Trust Bill 2021**

234 RESOLVED on the MOTION of Councillor Brian Cartwright seconded Councillor Greg Davies

That:

1. The information contained in the report on Submission to Greater Sydney Parklands Trust Bill 2021 be received.
2. Council endorse the Submission at Attachment 1 to be forwarded to the Department of Planning, Industry and Environment for its consideration.

Councillor Mark Davies returned to the meeting, the time being 8:52pm.

**OUTCOME 3 - WE CAN GET AROUND THE CITY**

**10 Sydney Metro Interface Agreement**

235 RESOLVED on the MOTION of Councillor Tricia Hitchen seconded Councillor Ross Fowler OAM

That:

1. The information contained in the report on Sydney Metro Interface Agreement be received.
2. Council enter into the Interface Agreement with Sydney Metro as outlined in the separate enclosure to this report.
3. Delegation be provided to the General Manager to sign the Interface Agreement.

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**OUTCOME 4 - WE HAVE SAFE, VIBRANT PLACES**

**11 Renewal of Service NSW Partnership Agreement - Easy to do Business**

236 RESOLVED on the MOTION of Councillor Kath Presdee seconded Councillor Robin Cook

That:

1. The information contained in the report on Renewal of Service NSW Partnership Agreement - Easy to do Business be received.
2. Council delegates authority to the General Manager to enter into an agreement with Service NSW; and
3. Any necessary documents be authorised for execution under the Common Seal of Council.

**12 RFT21/22-02 Construction of Mulgoa Rural Fire Service Station**

237 RESOLVED on the MOTION of Councillor Brian Cartwright seconded Councillor Kevin Crameri OAM

That:

1. The information contained in the report on RFT21/22-02 Construction of Mulgoa Rural Fire Service Station be received.
2. Rogers Construction Group Pty Ltd be awarded the contract subject to the execution of a formal agreement for Construction of Mulgoa Rural Fire Service Station, for an amount of \$1,399,818.46 excluding GST.
3. The General Manager (or their delegate) be authorised to sign all necessary legal documents in relation to this matter.

**13 RFT21/22-06 Tree Planting Services**

238 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Kevin Crameri OAM

That:

1. The information contained in the report on RFT21/22-06 Tree Planting Services be received
2. That the tender from Summit Open Space Services for Tree Planting Services be accepted, for an initial period of three (3) years, with an option to extend for a further two (2) x one (1) year periods subject to satisfactory performance and mutual agreement.
3. The General Manager (or their delegate) be authorised to sign all necessary legal documents in relation to this matter.

**OUTCOME 7 - WE HAVE CONFIDENCE IN OUR COUNCIL**

**14 Pecuniary Interest Returns 2020 - 2021**

239 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Marcus Cornish that the information contained in the report on Pecuniary Interest Returns 2020 - 2021 be received.

**16 Audit, Risk and Improvement Committee**

240 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Marcus Cornish that the information contained in the report on Audit, Risk and Improvement Committee be received.

**17 Summary of Investment & Banking for the Period 1 September 2021 to 30 September 2021**

241 RESOLVED on the MOTION of Councillor Greg Davies seconded Councillor Marcus Cornish

That:

1. The information contained in the report on Summary of Investment & Banking for the Period 1 September 2021 to 30 September 2021 be received.
2. The certificate of the Responsible Accounting Officer and Summary of Investments and Performance for the period 1 September 2021 to 30 September 2021 be noted and accepted.
3. The graphical Investment Analysis as at 30 September 2021 be noted.

**Procedural Motion**

242 RESOLVED on the MOTION of Councillor Marcus Cornish seconded Councillor Ross Fowler OAM that Council waive the period of insufficient notice in order to *consider Item 18 - RFT 21/22 Police Cottage Construction Works*.

**18 RFT 21/22 Police Cottage Construction Works**

243 RESOLVED on the MOTION of Councillor Marcus Cornish seconded Councillor Tricia Hitchen

That:

1. The information contained in the report on RFT 21/22 Police Cottage Construction Works be received
2. The tender from AMA Projects Pty Ltd, for the amount of \$1,687,471.00 (excluding GST) be accepted for RFT 21/22 Police Cottage Construction Works
3. The General Manager (or their delegate) be authorised to sign all necessary legal documents in relation to this matter.

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**REQUESTS FOR REPORTS AND MEMORANDUMS AND URGENT BUSINESS**

**RR 1      Topiary - Roundabout at Castlereagh and Andrews Roads, Cranebrook**

Councillor Ross Fowler OAM requested that remediation and improvement works be carried out to the topiary planted on the roundabout at Castlereagh and Andrews Roads, Cranebrook.

**RR 2      Penrith Lakes**

Councillor John Thain requested a report to Council detailing options for a waterside recreational area that could be provided for residents of the Penrith LGA, at Penrith Lakes, similar to that which is located at Southbank in Brisbane.

**RR 3      Access to Tench Avenue**

Councillor Mark Davies requested a briefing detailing options for providing access off Blaikie Road to car parking for the East Bank restaurants along Tench Avenue in order to reduce traffic congestion along Tench Avenue.

**RR 4      Montgrove College - Provision of Pedestrian Crossing**

Councillor Mark Davies requested that the Local Traffic Committee investigate all options for installing a pedestrian crossing for school children and the general public on or near Montgrove College, Orchard Hills due to increased traffic in this area since the intersection upgrade at Northern Road and the new bus route that been established.

**RR 5      Missed Bin Collections**

Councillor Mark Davies requested that Council staff investigate the efficiency of the process when residents bin collections are missed and reported to council, in particular in Bringelly Road, Kingswood.

**RR 6      Masterplan - St Marys**

Councillor Todd Carney requested that a masterplan for St Marys be prepared as a matter of priority with work on this to be commenced early next year.

**RR 7      Legal Matter**

Councillor Kevin Crameri OAM requested that a matter be referred to committee of the whole as it refers to information that would, if disclosed, prejudice the maintenance of law and discussion of the matter in open meeting would be, on balance, contrary to the public interest.

**RR 8      Drainage Issues - Fourth Avenue, Llandilo**

Councillor Kevin Crameri OAM requested information as to what is happening with the group houses on Fourth Avenue, as the water is still running down the road and into the culvert and into a paddock with green slime.

**RR 9 Status of Requests**

Councillor Kevin Crameri OAM requested a memo response on a number of requests he has been waiting on answers for including trees, local land services, why we don't apply etc, and a report on rural gutters.

**RR 10 Recognition of Jessica Fox**

Councillor Tricia Hitchen requested that Council name the section of road that leads from McCarthys Lane into Penrith Whitewater Stadium Jessica Fox Drive and that a plaque be erected at the entrance to Whitewater Stadium outlining her amazing achievements.

**RR 11 City Park for St Marys**

Councillor Tricia Hitchen requested that consideration be given to creating a City Park for St Marys to provide a meeting and recreational space for the St Marys community.

**RR 12 Changes to Child Care Fees**

Councillor Tricia Hitchen requested that an investigation take place into the recent changes to times and fees at Council's child care centres and also advise if there is a fee relief process available to users of this service.

**UB 1 Installation of Signs at the Community Kitchen**

Councillor Tricia Hitchen requested that Council staff assist with installing new signs at the Community Kitchen at PCYC.

244 RESOLVED on the MOTION of Councillor Tricia Hitchen seconded Councillor Marcus Cornish that the matter be brought forward and dealt with as a matter of urgency. Her Worship the Mayor, Councillor Karen McKeown OAM, ruled that the matter was urgent and should be dealt with at the meeting.

245 RESOLVED on the MOTION of Councillor Tricia Hitchen seconded Councillor Marcus Cornish that Council staff assist with installing new signs at the Community Kitchen at PCYC.

**RR 13 Boat Ramps - Trench Reserve**

Councillor Marcus Cornish requested a memo reply regarding the situation at the boat ramps in Trench Reserve, with a view to Council Rangers patrolling the area around the boat ramps to manage traffic and to prevent cars without trailers parking in trailer parking bays; also that Council write to the State Government requesting funding for managing this situation.

**RR 14 Salvinia in Waterways**

Councillor Marcus Cornish requested that Council write to the Department Planning, Environment and Industry seeking action to remove Salvinia in waterways in the Penrith LGA as it poses a danger to the water quality of the Nepean River.

**RR 15      Linking of Green Recreational Spaces in Glenmore Park**

Councillor Kath Presdee requested a memo reply investigating ways in which we can link and improve the green recreation spaces in and around Glenmore Park, providing additional amenities, pathways and signposting to create a network of parks and reserves across the suburb. The memorandum should also include indicative funding levels and options to be considered by the new Council and the community.

**RR 16      Recycling Strategies**

Councillor Kath Presdee requested a briefing on ways of expanding Council's recycling strategies to encompass soft plastic waste and clothing and textiles, including ways in which Council can make better use of recycled materials in the provision of local infrastructure such as play equipment and road base.

Councillor Mark Davies left the meeting and did not return the time being 9:38pm.

**UB 2      Civic and Ceremonial Functions**

Councillor Kath Presdee requested that Penrith Council delegate the authority to the Mayor, Cllr Karen McKeown, and the General Manager, Warwick Winn, to carry out civic and ceremonial functions of the office of Mayor between election day and the holding of the Mayoral Election at the first meeting of the new Council in January 2022.

246 RESOLVED on the MOTION of Councillor Kath Presdee seconded Councillor Todd Carney that the matter be brought forward and dealt with as a matter of urgency.

Her Worship the Mayor, Councillor Karen McKeown OAM, ruled that the matter was urgent and should be dealt with at the meeting.

A MOTION was moved by Councillor Kath Presdee seconded Councillor Todd Carney that Penrith Council delegate the authority to the Mayor, Cllr Karen McKeown, and the General Manager, Warwick Winn, to carry out civic and ceremonial functions of the office of Mayor between election day and the holding of the Mayoral Election at the first meeting of the new Council in January 2022.

Councillor Marcus Cornish called for a DIVISION.

**For**

Councillor Kath Presdee  
Councillor Robin Cook  
Councillor Greg Davies  
Councillor Todd Carney  
Councillor John Thain  
Councillor Karen McKeown

**Against**

Councillor Ross Fowler OAM  
Councillor Brian Cartwright  
Councillor Kevin Crameri OAM  
Councillor Marcus Cornish  
Councillor Jim Aitken OAM  
Councillor Tricia Hitchen  
Councillor Bernard Bratusa



**Note:**

**Councillor Kath Presdee agreed to withdraw this motion and gave Notice for the Motion to be listed on the November Ordinary Meeting agenda.**

**RR 17      Pink Up Penrith - McGrath Foundation Golf Day - 29 October 2021**

Councillor Bernard Bratusa highlighted Friday's event to be held at Twin Creeks and requested support for the Golf Day which is being held to raise funds for the McGrath Foundation.

**RR 18      November Ordinary Council Meeting**

Councillor Bernard Bratusa requested that, as this will be the last Ordinary meeting of the current Council, the meeting be held in person in the Council Chambers.

**RR 19      Melbourne Cup Luncheon - Regatta Centre**

Councillor Greg Davies advised that a Melbourne Cup luncheon will also be held at the Regatta Centre this year raising funds for the McGrath Foundation.

**RR 20      Function for Jessica Fox**

Councillor Greg Davies requested consideration of holding a celebratory function for Jessica Fox at the same time as the celebratory function for Panthers is planned to be held later this year.

**RR 21      Planning Reports - Details of Board of Directors**

Councillor Greg Davies requested that information be provided to Councillors detailing the names of all persons who are on the Board of Directors of companies who are landowners and proponents for planning reports.

**RR 22      Boarding Houses - Cnr of Coreen Avenue and Kareela Avenue, Penrith**

Councillor Todd Carney requested information as to whether the development of a boarding house at the corner of Coreen Avenue and Kareela Avenue, Penrith has been submitted to the Local Planning Panel.

**RR 23      Civic Reception - Panthers**

Councillor Greg Davies requested a memorandum advising whether a civic reception congratulating the Panthers on their 2021 Premiership win would be included in the planned December celebrations.

**RR 24      1-4 Old Bathurst Road**

Councillor Bernard Bratusa requested information as to whether there is an existing precedent for Council reducing fees in regard to planning proposals in the past.

**RR 25      12 Judd Street, Berkshire Park**

Councillor John Thain requested information as to whether this was a retrospective development application or a complying development.

**RR 26      Re Item 3 – Amendment to Penrith DCP 2014 - Urban Heat Controls**

Councillor Mark Davies requested a memo reply detailing why this matter was not brought to a Councillor Briefing as previously requested by him.

**COMMITTEE OF THE WHOLE**

247 RESOLVED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Todd Carney that the meeting adjourn to the Committee of the Whole to deal with the following matters, the time being 9:48pm.

Councillors Jim Aitken OAM left the meeting at 9:48pm and did not return.

**1      Presence of the Public**

CW1 RESOLVED on the motion of Councillor Kevin Crameri OAM seconded Councillor Todd Carney that the press and public be excluded from Committee of the Whole to deal with the following matters:

**Outcome 7**

**2      RFT 20/21-39 The Police Cottage Food and Beverage Operator**

*This item has been referred to Committee of the Whole as the report refers to information that would, if disclosed, prejudice the maintenance of law and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

**3      Agreement to Lease - 4 Punt Road Emu Plains**

*This item has been referred to Committee of the Whole as the report refers to information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

**4      Unsolicited Proposal - Lang and Kokoda Park St Marys**

*This item has been referred to Committee of the Whole as the report refers to commercial information of a confidential nature that would, if disclosed (i) prejudice the commercial position of the person who supplied it; or (ii) confer a commercial advantage on a competitor of the Council; or (iii) reveal a trade secret and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

**5 Partial Road Closure of Northend Avenue, South Penrith**

*This item has been referred to Committee of the Whole as the report refers to commercial information of a confidential nature that would, if disclosed (i) prejudice the commercial position of the person who supplied it; or (ii) confer a commercial advantage on a competitor of the Council; or (iii) reveal a trade secret and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

**6 Penrith Stadium Lease**

*This item has been referred to Committee of the Whole as the report refers to information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

**7 Licence of Temporary Carpark located at the corner of Rodgers and Somerset Street Kingswood**

*This item has been referred to Committee of the Whole as the report refers to information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

**8 Legal Matter**

*This item has been referred to Committee of the Whole as the report refers to information that would, if disclosed, prejudice the maintenance of law and discussion of the matter in open meeting would be, on balance, contrary to the public interest.*

The meeting resumed at 10:27pm and the General Manager reported that the Committee of the Whole met at 9:48pm on 25 October 2021, the following being present

Her Worship the Mayor, Councillor Karen McKeown OAM, Deputy Mayor, Councillor Tricia Hitchen, and Councillors Bernard Bratusa, Todd Carney, Brian Cartwright, Robin Cook, Marcus Cornish, Kevin Cramer OAM, Greg Davies, Ross Fowler OAM, Kath Presdee and John Thain.

and the Committee of the Whole excluded the press and public from the meeting for the reasons set out in CW1 and that the Committee of the Whole submitted the following recommendations to Council.

**CONFIDENTIAL BUSINESS**

**2 RFT 20/21-39 The Police Cottage Food and Beverage Operator**

RECOMMENDED on the MOTION of Councillor Marcus Cornish seconded Councillor Tricia Hitchen

CW2 That:

1. The information contained in the report on RFT 20/21-39 The Police Cottage Food and Beverage Operator be received
2. The recommended tender 2773 Pty Ltd be accepted for RFT20/21-39 The Police Cottage Food and Beverage Operator

3. The common seal of the Council of the City of Penrith be affixed to all documents as required, and the General Manager (or his delegate) be authorised to sign all necessary legal documents in relation to this matter.
4. A copy of this report be made available on Council's website at an appropriate time.

**3 Agreement to Lease - 4 Punt Road Emu Plains**

RECOMMENDED on the MOTION of Councillor Ross Fowler OAM seconded Councillor Kath Presdee

CW3 That:

1. The information contained in the report on Agreement to Lease - 4 Punt Road Emu Plains be received
2. Council agree to enter into an agreement to lease under the terms and conditions listed within the report to 2773 Pty Ltd.
3. The Common Seal of the Council of the City of Penrith be affixed to all documents as required, and the General Manager (or his delegate) be authorised to sign all necessary legal documents in relation to this matter.

**4 Unsolicited Proposal - Lang and Kokoda Park St Marys**

A MOTION was moved by Councillor Marcus Cornish seconded Councillor Kevin Crameri OAM

RECOMMENDED

That:

1. The information contained in the report on Unsolicited Proposal - Lang and Kokoda Park St Marys be received
2. Council decline the current Unsolicited Proposal submitted by Pacific Planning based on the details provided within this report
3. Council proceed with the development of a High Level Business Case over the subject Council owned land in St Marys.

An AMENDMENT was moved by Councillor Bernard Bratusa seconded Councillor Tricia Hitchen:

RECOMMENDED

CW4 That:

1. The information contained in the report on Unsolicited Proposal - Lang and Kokoda Park St Marys be received
2. Council defer the current Unsolicited Proposal submitted by Pacific Planning as requested and set a specific date in the first quarter of 2022 for the proponent to table an offer.

3. Council proceed with the development of a High Level Business Case over the subject Council owned land in St Marys.

The AMENDMENT was PUT.

The AMENDMENT was CARRIED and on becoming the SUBSTANTIVE MOTION was also CARRIED.

## **5 Partial Road Closure of Northend Avenue, South Penrith**

RECOMMENDED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Kath Presdee

CW5 That:

1. The information contained in the report on Partial Road Closure of Northend Avenue, South Penrith be received
2. Part Northend Avenue South Penrith, as identified within the report, be permanently closed in accordance with the Roads Act 1993 and classified as operational land.
3. Upon closure of the road, the subject land form part of a land swap agreement between Council and the Applicant as detailed in this report with compensation subject to market valuation at that time.
4. The land transferred to Council is to be dedicated as Public Road in accordance with the Roads Act.
5. The common seal of the Council of the City of Penrith be affixed to all documents as required, and the General Manager (or his delegate) be authorised to sign all necessary legal documents in relation to this matter.

## **6 Penrith Stadium Lease**

RECOMMENDED on the MOTION of Councillor Greg Davies seconded Councillor Ross Fowler OAM

CW6 That:

1. The information contained in the report on Penrith Stadium Lease be received
2. Council provides financial relief as outlined in the report.

## **7 Licence of Temporary Carpark located at the corner of Rodgers and Somerset Street Kingswood**

RECOMMENDED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Greg Davies

CW7 That:

1. The information contained in the report on Licence of Temporary Carpark located at the corner of Rodgers and Somerset Street Kingswood be received.

2. Council commence the advertising process for a new 2 year Licence Agreement with 2 year option to Healthscope Limited over the existing temporary carpark on the corner of Rodgers & Somerset Streets, Kingswood in accordance with Section 47A of the Local Government Act 1993.
3. Upon completion of the advertising process Council enter into a new 2 year Licence Agreement with 2 year option to Healthscope Limited over the existing temporary carpark on the corner of Rodgers & Somerset Streets, Kingswood.

#### ADOPTION OF COMMITTEE OF THE WHOLE

248 RESOLVED on the MOTION of Councillor Kevin Crameri OAM seconded Councillor Todd Carney that the recommendations contained in the Committee of the Whole and shown as CW1, CW2, CW3, CW4, CW5, CW6 and CW7 be adopted.

Her Worship the Mayor, Councillor Karen McKeown OAM then advised that *Urgent Business Item 2 - Civic and Ceremonial Functions* would need to be recommitted to Council as the Governance Coordinator advised the vote with respect to that item had not been accurate. Rather than recommit the item however, Councillor Kath Presdee agreed to withdraw the motion and list it as a Notice of Motion for the next Ordinary Council Meeting in November.

There being no further business the Chairperson declared the meeting closed the time being 10:31pm.

I certify that these 23 pages are the Confirmed Minutes of the Ordinary Meeting of Penrith City Council held on 25 October 2021.

 22/11/2021

## APPENDIX 3

### Proposed amendment to Penrith Development Control Plan 2014 – Draft Urban Heat Management Development Controls

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## C14 Urban Heat Management

### A. Background

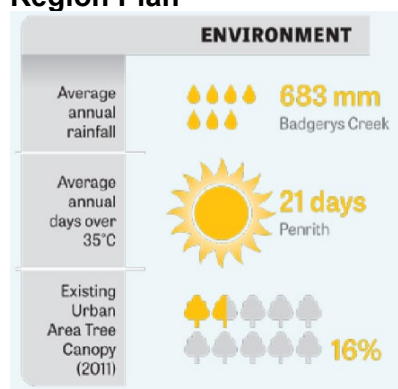
The Western Parkland City has been experiencing a trend of reduced rainfall, increasing temperatures and an increasing duration of extended periods of heat.

In addition to the above impacts, the Western Parkland City has experienced increased heat in developed areas, when compared with the temperatures in nearby areas with less development. This is called an Urban Heat Island Effect. This effect results from the impacts of increased urbanisation including the increase in hard, dark surfaces which retain heat and prevent the absorption of water. It is further exacerbated by loss of vegetation.

Land in the Western Parkland City is susceptible to urban heat impacts due to the region's existing climate, topography, and geographic position, as well as a large and growing residential population and rapid urban development.

As our city grows and becomes more urbanised, reducing and removing heat from the urban environment is critical to achieving an environment that has high amenity, provides opportunities for active, healthy, and safe activities and is comfortable throughout summer.

**FIGURE 1: Western Parkland City environment context** Source: Greater Sydney Region Plan



Poorly designed development contributes to the impact of the Urban Heat Island Effect by reducing vegetation, preventing rainwater infiltration, using materials which absorb heat and producing buildings which are not designed to mitigate the impacts of hot weather, thus increasing the risk to the Penrith community.

### B. Other Relevant Sections of this DCP

This section should be considered in conjunction with other relevant chapters of the Penrith DCP 2014, to achieve sustainable outcomes and reduce the impacts of the urban heat island effect. Council will consider each development application on its merit, and in conjunction with consideration of other relevant instruments outlined in Part E, Application.

### C. Aims of this Section

This section is intended to support Penrith Local Environmental Plan 2010 Part 7 Additional Local Provisions, clause **X (to be determined)**, the Penrith Local Strategic Planning Statement, and the Penrith Cooling the City Strategy and Penrith Resilience Action Plan in managing and mitigating the Urban Heat Island Effect.

## D. Definitions

**Cool refuges:** provide temperatures of no more than 27°C on extreme heat days and should also aim to achieve between 40% to 60% relative humidity. Principally through passive design for thermal comfort.

**Efficient/Efficiency:** The operational effectiveness of the subject is maximized by its design and location and any impacts on the effectiveness of the subject are managed or mitigated.

**Extreme Heat:** days where maximum air temperatures exceed 40°C.

**Green roof:** A green roof is vegetation covering at least 30% of available rooftop space -that is, space which is not occupied by structures housing plant, equipment, or stairway accesses. A green roof should provide measurable environmental benefits. The green roof includes a vegetated layer, growing medium, and a waterproof membrane. Plants grown in sectioned lots are acceptable, however, potted plants/planter boxes which cover less than 30% of available rooftop space are not considered as a green roof. Additional to the minimum 30% vegetation cover, a green roof can include facilities for renewable energy, water collection infrastructure, walkways, furnishings, and the like.

**Green wall:** Green walls are either free standing or part of a building that is partially or completely covered with vegetation. The wall may incorporate soil and/or inorganic material as the growing medium. There are two main types of green wall: green façades and living walls. Green façades are made up of climbing plants either growing directly on a wall or on specially designed supporting structures. The plant's shoot system grows up the side of the building while being rooted in the ground. With a living wall, modular panels are affixed to the wall and geo-textiles, irrigation and a growing medium combine to support a dense network of plants.

**High Albedo:** high solar reflectance

**High thermal emittance:** materials that release heat quickly.

**Hot days:** where maximum air temperatures exceed 35°C.

**Solar Reflectance Index:** (SRI) measures a surface's ability to reflect solar heat, as shown by a small temperature rise caused by the materials reflectance and emittance properties. It is defined so that a black surface is 0 and a white surface is 100.

**Thermal comfort/thermally comfortable:** temperatures of between 22°C to 27°C, with a relative humidity of 40% to 60%.

**Urban Heat Island Effect:** increased heat in developed areas, when compared with the temperatures in nearby areas with less development.

## E. Application

This chapter of the DCP applies to all development within the Penrith LGA except for development within the following land use zones:

Zone Type	Does not apply to:
Waterway Zones	All zones

Conservation	C1 National Parks and Nature Reserves, C2 Environmental Conservation, C3 Environmental Management
Rural	RU1 Primary Production, RU2 Rural Landscape, RU4 Primary Production Small Lots

#### *Development involving heritage items*

For development involving heritage items or conservations areas identified under Penrith Local Environmental Plan 2010, a merit assessment will be undertaken to ensure the outcomes sought under this chapter are balanced with heritage conservation outcomes.

#### *Development in bush fire prone areas*

Development on land identified as bush fire prone must address the bush fire protection measures set out in *Planning for Bush Fire Protection 2019 (PBP)*. Section 2.3 Bushfire Management in Chapter C2 Vegetation Management provides further details. While applicants should seek to achieve the outcomes sought in this chapter, where there is an inconsistency between the PBP provisions and the controls in this chapter, the PBP provisions prevail.

#### *Excluded Development*

Certain development may be subject to State Environmental Planning Policies (SEPP) that contain provisions that prevail over some of the controls within this chapter. Applicants are to ensure that the outcomes sought within this chapter are achieved to the extent that they are consistent with applicable SEPPs.

## **F. Development Controls**

### **14.1. Cooling with Landscaping**

#### **1.1 Landscape Design**

##### **A. Objectives**

- a) To ensure outdoor areas incorporate cooling design elements to provide cool refuge during hot weather events.
- b) To reduce the contribution of development on the Urban Heat Island Effect in Penrith through:
  - i) integration of grey, green, and blue infrastructure in development,
  - ii) adequate and appropriate provision of landscaping, and
  - iii) Incorporating permeable materials into landscape design.
- c) Retain and enhance existing vegetation and canopy coverage to reduce the impact of urban heat on the community.
- d) Deliver appropriate quality and quantity of vegetation as green infrastructure with an integrated design approach to reduce development's contribution to the urban heat island effect.
- e) To ensure development provides long term solutions to address the Urban Heat Island Effect in Penrith by:

- i) Delivering green infrastructure which positively contributes to the amenity of the locality, while recognising the context and existing development patterns.
- ii) Ensuring adequate and appropriate vegetation and conditions for healthy growth are provided, including vegetation that contributes to increasing the amount and health of the local tree canopy.
- iii) Supporting passive design principles with landscaping to deliver landscaping that contributes to the conservation of energy and supports thermal comfort.

## **B. Controls**

1) All required Landscape design plans are to be prepared in accordance with appendix F3. Plans are to demonstrate that:

- a) Trees are supported by understorey planting.
- b) Internal and external passive solar access is managed through tree and vegetation selection and location.
- c) Shading is provided to exposed Western façades.
- d) Adequate solar access has been provided to the dwelling and any proposed or future solar panels.
- e) Where feasible, there is shading to parking spaces and paved surfaces.
- f) Vegetation is co-located with existing trees, and/or clustered to improve its cooling effect, where this is not in conflict with other controls such as planning for bushfire prevention.
- g) Plantings include drought tolerant and heat resilient varieties and contribute to canopy coverage.
- h) Where feasible, permeable materials such as dry laid paving, permeable pavers, unbound aggregate, or bound paving are utilised and are appropriate for site conditions.

2) Developments are to be designed to ensure that existing mature trees including street trees can be retained.

3) Tree species selection and location must demonstrate consideration of the Landscape Design and Vegetation Management sections of this DCP, the **List of Appropriate Trees (currently under development)**, as well as the following:

- a) Shading effect, including location and maximisation of possible canopy size and density,
- b) Heat and extreme heat resilience,
- c) The character and constraints of the locality,
- d) Planting density,
- e) Nearby services, public authority requirements, easements, and hardstand areas,
- f) The availability of tree stock and species that are locally endemic and appropriate to the site,
- g) Tree pot sizes and mature growth sizes are appropriate for the site and ensure longevity,
- h) The site conditions, including soil type and salinity,
- i) NATSPEC "Specifying Trees – a Guide to Assessment of Tree Quality" (Clark, R. 2003),
- j) Australian Standard AS2303,
- k) Council's Street and Park Tree Management Plan,
- l) any disruption of solar access for solar panels on existing or adjoining present and future development should be minimised, and

- m) Any services or utilities infrastructure within the road reserve, such as power poles, overhead wires, drainage inlet pits, existing street trees and any existing driveways.

## **1.2 Green roofs and walls**

### **A. Objectives**

- a) Deliver appropriate quality and quantity of vegetation that will contribute to green infrastructure with an integrated design approach to reduce development's contribution to the urban heat island effect.
- b) To ensure development provides long term solutions to address the Urban Heat Island Effect in Penrith by:
  - i) Delivering green infrastructure which positively contributes to the amenity of the locality, while recognising the context and existing development patterns.
  - ii) Ensuring adequate and appropriate vegetation and conditions for healthy growth are provided, including vegetation that contributes to increasing the amount and health of the local tree canopy.

### **B. Controls**

- 1) Where the use of green walls and roofs is proposed, developments should demonstrate consistency with technical guidelines provided in Appendix F4 of this DCP, and ensure:
  - a) Roofs and walls include appropriate load bearing and waterproofing to support installation of green features.
  - b) Plants selected provide coverage and are resilient to extreme heat and drought if provided outside buildings.
  - c) Automatic watering systems are installed to irrigate green roofs and walls, and are connected to sustainable, non-potable water supplies.
  - d) The cooling benefit of green walls should be maximised by co-locating functions within the site that benefit from the cooling effect of the green infrastructure to reduce reliance on mechanical cooling systems.
  - e) Green walls and roofs must be delivered by a landscape architect or designer with experience in successfully delivering this type of infrastructure. Examples of the landscape architect or designer's previous work should be supplied with the landscape design.
  - f) The landscape architect or designer should demonstrate in their plans how wind exposure, local temperature variations and rainfall have been considered in the designs.
  - g) A maintenance plan must be supplied with applications which include green roofs or walls that demonstrates long-term viability and access for maintenance.

## 1.3 Soil Volumes

### A. Objectives

- a) To ensure development provides long term solutions to address the Urban Heat Island Effect by ensuring the longevity of tree plantings through provision of adequate and appropriate conditions for healthy growth, including sufficient deep soil area and structure.

### B. Controls

- 1) Minimum soil volume and planting area to be provided is to be based on minimum tree sizes, in accordance with Table 1:

**TABLE 1: Tree size and planting site area**

Maximum tree size at maturity	Planting site area required	Planting site depth required	Soil Volume per tree
Small (less than 8m tall or under 4m wide)	Less than 9.5m <sup>2</sup>	1.0 to 1.3m	30m <sup>3</sup>
Medium (9-12m tall or under 4-8m wide)	9.5m <sup>2</sup> to 18.5m <sup>2</sup>	1.3m to 2.5m	35m <sup>3</sup>
Large (Taller than 13m or wider than 8m)	More than 18.5m <sup>2</sup>	>2.5m	80m <sup>3</sup>

Guidance on tree sizes is provided in the [List of Appropriate Trees \(currently under development\)](#).

## 1.4 Tree Planting Specifications

### A. Objectives

- a) To ensure development provides long term solutions to address the Urban Heat Island Effect in Penrith by:
  - i) Delivering green infrastructure which positively contributes to the amenity of the locality, while recognising the context and existing development patterns.
  - ii) Ensuring adequate and appropriate vegetation and conditions for healthy growth are provided, including vegetation that contributes to increasing the amount and health of the local tree canopy.
  - iii) Delivering appropriate quality and quantity of vegetation as green infrastructure, with an integrated design approach to reduce development's contribution to the urban heat island effect.

### B. Controls

- 1) Tree Planting location and numbers are to be provided in accordance with development type as detailed in Table 2:

**TABLE 2: Minimum tree canopy cover by development type**

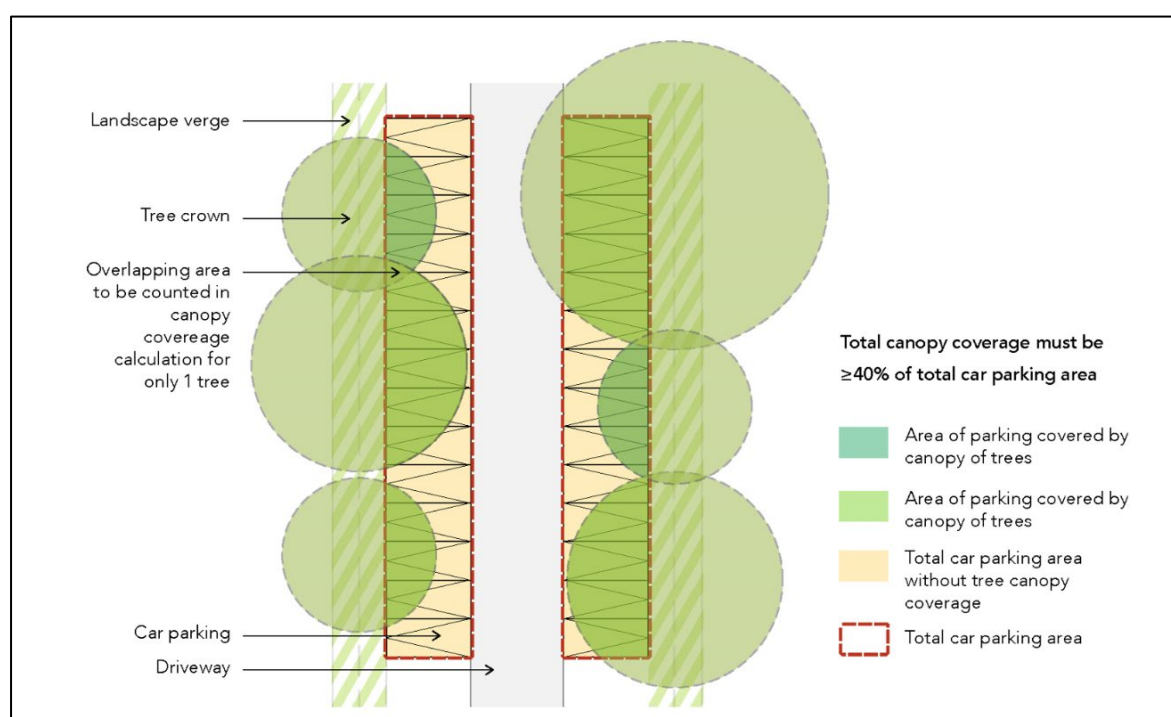
Development type	Tree canopy and planting
Single and Secondary Dwellings	<p><i>Front Setback</i></p> <p>At least 1 small tree positioned to provide summer shade to the dwelling or hard surfaces.</p> <p><i>Side Setback</i></p> <p>Planting alongside boundaries is to provide small-to medium trees for sun-shading.</p> <p><i>Rear Setback:</i></p> <p>At least 3 trees situated to provide an interlocking canopy of small and medium trees and shrubs: predominantly species indigenous to the soils of Penrith City.</p>
Dual Occupancies	<p><i>Front Setback</i></p> <p>At least 1 small tree positioned to provide summer shade to the dwelling or hard surfaces.</p> <p><i>Side Setback</i></p> <p>Planting alongside boundaries is to provide small-to medium trees for sun-shading.</p> <p><i>Rear Setback:</i></p> <p>At least 3 trees situated to provide a corridor of habitat with an interlocking canopy of low to medium-height trees and shrubs.</p>
Multi Dwelling Housing, Boarding Houses, Manor Houses and Group Homes	<p><i>Front Setback</i></p> <p>At least 1 small tree positioned to provide summer shade to the dwelling or hard surfaces.</p> <p><i>Rear Setback:</i></p> <p>At least 3 trees are to contribute to an interlocking canopy of low to medium-height trees and shrubs.</p> <p><i>Alongside boundaries:</i></p> <p>At least 1 small-to medium height canopy tree per dwelling for sun-shading.</p> <p><i>Parking Spaces:</i></p> <p>Open parking spaces that are to be lined by an "avenue" of shady, overhanging trees</p>
Residential Flat Buildings or equivalent	<p><i>Front Setback</i></p>

	<p>At least 3 small to medium trees positioned to provide summer shade to dwellings or hard surfaces.</p> <p><i>Along driveway verges and surrounding parking basements</i></p> <p>Screen plantings of small to medium trees</p> <p><i>Side Setback</i></p> <p>Planting alongside boundaries is to provide small-to medium trees for sun-shading.</p> <p><i>Rear Setback:</i></p> <p>At least 3 trees to contribute to an interlocking canopy of low to medium-height trees and shrubs:</p>
Industrial, Business, Tourism and Commercial development	<p><i>Open car parks on private land</i></p> <ul style="list-style-type: none"> <li>a) A minimum of 40% tree canopy cover must be provided over the total combined area of all car parking spaces, where car parking is to be provided on the development site.</li> <li>b) Canopy cover is to be calculated by finding: The percentage of the specified area covered by the anticipated canopy at 2/3 of the selected species total maximum width, when fully grown. Figure 2 provides an example of how canopy cover should be calculated.</li> <li>c) Trees should be provided across the car park area and can be located within landscaped setbacks and deep soil zones.</li> <li>d) Where tree roots are expected to grow beneath car parking spaces, engineered tree pits or vaults and aeration infrastructure must be provided and designed in accordance with design guidance provided in engineering design guidelines, the Penrith Street and Park Tree Management Plan and this DCP.</li> <li>e) Wherever possible, canopy trees are to be orientated to the north, east or west of parking spaces to maximize shade during the day.</li> <li>f) Trees and woody plants above 200mm high should be planted a minimum of 600mm back from the wheel stop, measured from their trunks. Low planting should be provided in this space.</li> </ul>
Additional controls for Industrial, Business, Commercial and Tourism development where landscaped setbacks are required.	<ul style="list-style-type: none"> <li>a) Landscape setbacks must provide adequate soil area for tree planting and be filled with as many large trees as possible.</li> </ul> <p>Canopy from large trees should be supported with medium and small trees and vegetation to provide a collective cooling effect, where they will not obstruct views, signage, or impact safety.</p>



- 2) All trees, including street trees, should be located to consider:
- a) integration with development design to produce improved cooling effects through measures such as maximisation of shade provided to exposed building walls, hard surfaces, and pedestrian walkways,
  - b) any disruption of solar access for solar panels on existing or adjoining present and future development should be minimised,
  - c) whether there is appropriate soil area for root volume,
  - d) any services or utilities infrastructure within the road reserve, such as power poles, overhead wires, drainage inlet pits, existing street trees and any existing driveways, and
  - e) requirements in the Penrith Street and Park Tree Management Plan.

**FIGURE 2: Canopy cover to be achieved over car parking spaces**



## 1.5 Irrigation

### A. Objectives

- a) To reduce demand on potable water resources through an appropriate and sustainable supply of non-potable water for irrigation for cooling.
- b) To ensure vegetation is irrigated, enabling it to better withstand urban heat impacts and enable the cooling effects of evaporation and evapotranspiration.

### B. Controls

- 1) All development not covered by the State Environmental Planning Policy – BASIX is to provide drip irrigation or passive irrigation to private vegetated landscaped areas, that are:

- a) serviced by sustainable supply of non-potable water that is of a scale that sufficient to supply a minimum of 80% of non-potable demand for the development, including indoor and outdoor use, toilets and laundry,
- b) designed to be gravity fed, and
- c) passive irrigation must be provided to turfed areas, street trees and landscaping where a drip irrigation system is not feasible.

## 1.6 Cooling with water

### A. Objectives

- a) To reduce the contribution of new development on the urban heat island effect by minimising impermeable surfaces to increase rainwater infiltration and allow improved cooling effects of evaporation.
- b) To retain and provide design elements that retain water in landscapes to support cooling and allow for increased rainwater infiltration and evaporation.

### B. Controls

- 1) All development must consider and incorporate features to store water in the landscape. These features must be incorporated into Landscape Plans to create cool zones and support vegetation. This can include:
  - a) swimming pools, subject to controls in this DCP and state legislation,
  - b) fountains and bird baths,
  - c) water play features, subject to Council agreement and asset maintenance requirements when on public land,
  - d) rain gardens, wetlands, ponds, or
  - e) shallow trenches or swales within or near garden beds, where erosion is not an issue.

The selected feature/s should be of an appropriate scale to maximise retention of rainwater on the site without affecting operation.

## 1.7 Street Trees

### A. Objectives

- a) To ensure development provides long term solutions to address the Urban Heat Island Effect in Penrith by:
  - i) Delivering green infrastructure which positively contributes to the amenity of the locality, while recognising the context and existing development patterns.
  - ii) Ensuring that there is adequate and appropriate provision of trees and that conditions for healthy growth and canopy are provided.
  - iii) Delivering appropriate quality and quantity of vegetation as green infrastructure.

### B. Controls

- 1) Street trees are to be provided at a rate of one tree for every 10m of site frontage, rounded down to the nearest 10m. At least one tree must be provided. Where possible,

trees should be of a scale sufficient to produce interlocking canopies, unless specific requirements are provided elsewhere in this DCP.

- 2) Street trees planted on the streets running in an East to West direction are to be native trees and trees planted on streets running from North to South are to be deciduous.

## **14.2. Cool Colours and Materials**

### **A. Objectives**

- a) To ensure new development provides long term solutions to the Urban Heat Island effect.
- b) Design and construct roofs and exterior walls and hardscaping with consideration of the impacts of material selection on urban heat.
- c) Limit negative impacts of heat absorption by demonstrating that materials used are appropriate for the climate and their intended use, such as using green roofs/walls or cool roofs/walls and materials of low Solar Reflectivity Index to ensure high reflectivity and/or high thermal emittance, and that design responses are the most effective for the site.

### **B. Controls**

- 1) A materials and finishes schedule is to be provided, and must include:
  - a) product specifications where certain materials are relied upon to address the criteria of BASIX, Section J of the NCC or this DCP.
  - b) Product specifications should include energy efficiency properties, such as:
    - i) thermal mass,
    - ii) effect on air flow,
    - iii) appropriate colour and reflectivity, and
    - iv) material permeability in landscape design.
- 2) Dark coloured roofs which retain heat will not be supported. All buildings and ancillary development are to minimise their contribution to the urban heat island effect by meeting the following requirements for cool roofs:
  - a) Achieve the nominated Solar Reflectance Index (SRI) minimums:
    - i) for roof pitches less than 15, a SRI minimum of 64, with a minimum 3 year manufacturer guarantee.
    - ii) for roof pitches greater than 15, a SRI minimum of 34, with a minimum 3-year manufacturer guarantee.
    - iii) for rooftop terraces a SRI minimum of 28, with a minimum 3-year manufacturer guarantee.
  - b) At least 75% of the roof area is to meet nominated SRI values and/or be designed as a green roof. Areas where solar panels (PV) are mounted flat on a roof are excluded, all other roof areas with PV count toward the Cool Roof area calculation.
  - c) Buildings in Mixed Use, Business, Tourism, and Industrial zones are to provide roof product cut sheets to confirm the materials used are within the required SRI. Other buildings may demonstrate consistency by illustrating materials and colours to be used within plans and design drawings and providing this information in their

Schedule of Materials and Finishes. Assessing officers may request further product information, if required.

- d) Roofs that are 'downslope' from the publicly accessible places, such as in hilly areas, scenic areas or which are in view from taller adjacent buildings should avoid reflective white or very light-coloured finishes that could cause glare.
  - e) Thermally massive surfaces such as concrete should be avoided as a roofing material where shade or other coverage is not provided, or where roofs are not light in colour.
  - f) Roof tiles may be used, providing that the roofing is insulated in addition to ceiling insulation and provides a sufficient gap between insulation layers to allow for access and air movement. This is to be certified on any plan showing materials and finishes.
- 3) Walls, car parking spaces, driveways and landscaping materials should have a high albedo (be as light as possible) so that heat can be reflected into the landscape and absorbed, or where shade is provided.
- 4) Medium colours and materials with high thermal emittance (which release heat quickly) and/or permeable materials should be used in pedestrian areas where no shade is provided to minimise heat reflection and to mitigate heat retention.

### **14.3. Cooling through Building Design**

#### **A. Objectives**

- a) To ensure development in zones which are vulnerable to urban heat island impacts incorporates additional design responses to effectively manage increased heat loads on hot and extreme heat days.
- b) To reduce carbon emissions from the development, considering both construction and operational emissions.
- c) Design buildings for high passive thermal performance, to reduce reliance on energy for cooling and heating.
- d) To ensure buildings are thermally comfortable by designing:
  - i) Floor plans that respond to the site and building use and orientation,
  - ii) Climate appropriate windows and glazing and the appropriate location of windows,
  - iii) Thermal mass orientated and situated to retain cool temperatures,
  - iv) Improved air movement and ventilation, particularly to encourage the flow of cool breezes and night air and to extract hot air,
  - v) Passive cooling features,
  - vi) Improved insulation and management of air exchanges,
  - vii) Appropriate shading, and
  - viii) Efficient operation of mechanical cooling systems.
- e) To deliver internal spaces within every new development where temperatures remain thermally comfortable all year round.

## **B. Controls**

### ***Air circulation***

- 1) Building design must demonstrate how it responds to the following considerations affecting air movement and ventilation:
  - a) Capture and direction of north-easterly prevailing breezes and internal circulation should be prioritised for window and door design, number, size, and location, and considered in building orientation.
  - b) Shading devices and/or window glazing should be provided to support:
    - i) Minimisation of solar heat gain during summer, and
    - ii) optimisation of solar heat gain during winter.
  - c) Minimising air gaps by ensuring all openings can be closed and sealed when necessary, and that the building is well insulated. Window and door seals should be provided.
  - d) The ability to isolate spaces through zoning sections of the floor area and building services to provide individual control of heating and cooling, particularly where mechanical systems regulate temperature.
  - e) Security screens or fly screens should be provided over openings, where feasible and consistent with safety and fire controls.
  - f) Promoting air circulation.
  - g) Support for any other passive design elements.

### ***External Building Design***

- 2) Buildings should be designed on passive solar design principles which:
  - a) Respond to orientation to maximise the northerly aspect and solar access in the cooler periods. Where the site permits, designs should deliver long, thin buildings with increased northern and southern exposure and limited exposure on eastern and western-facing facades and moderate depths.
  - b) Reduce overheating in summer and promote solar gain in winter.
- 3) Development below 3 storeys must provide eaves with a minimum of 450mm overhang (measured to the fascia board) and a minimum 600mm overhang on western-facing elevations, except where any walls are permitted to be built to the boundary. Alternative solutions to eaves may be considered, where it can be demonstrated that these provide appropriate sun shading and are integrated with the design of the development and have architectural merit.
- 4) Design for moderate size and number of openings with the majority to the north.
- 5) Where east and west facing residential walls are proposed to be brick or concrete and are exposed to summer sun, these walls should either be double brick or wall insulation should be provided and walls should be shaded.
- 6) Where concrete is used for walls in industrial, business, and commercial development and western walls are exposed, at least 50% of western elevations must be shaded from summer afternoon sun using either design features or vegetation. Where there is a zero-lot setback, this control does not apply.
- 7) Ensure roof design maximises opportunities for future installation of solar power and hot water adaptation through the consideration of:
  - a) North-facing surface,
  - b) Overshadowing, and

- c) Structural support.

### **Internal Building Design**

- 8) Cool Refuges for certain buildings are to be provided in accordance with Table 3, and must be identified on floor plans:

**TABLE 3: Cool Refuge Requirements**

<b>Development Type</b>	<b>Cool Refuge Requirements</b>
Residential development	<ul style="list-style-type: none"> <li>At least one habitable room on the ground floor of each dwelling or in the lobby and common rooms of residential flat buildings/ Apartments, should be provided as a cool refuge in summer, and at least one habitable room as a warm refuge in winter.</li> <li>These spaces may be the same or separate.</li> </ul>
Publicly accessible buildings (amenity buildings excluded)	<ul style="list-style-type: none"> <li>A cool refuge which may accommodate a minimum of 20 people.</li> </ul>
Business, industrial, and commercial development (excluding shopping centres)	<ul style="list-style-type: none"> <li>Provide indoor and outdoor staff break areas that act as cool refuges.</li> <li>Where feasible, workspaces should be designed to maintain thermal comfort. This is of particular importance to high density workplaces and commercial spaces.</li> </ul>

- 9) In addition to the ability to be mechanically cooled (i.e., air conditioned), a cool refuge must demonstrate the following design criteria have been addressed to support thermal comfort:
- Use of passive shading principles that considers the location of the refuge within the dwelling and use of moveable shade structures, window boxes or wider eaves,
  - Use of insulation and type in the walls, floor, and ceiling with the highest r-value appropriate for the site, or that the materials provide sufficient insulative properties so that insulations are not required,
  - Use of cross-ventilation is focused to channel north easterly breezes through the space and provide optimal cooling effects,
  - Minimising air exchanges so that spaces can also be enclosed when required.
- 10) At least three of the following design measures are to be provided in a cool refuge:
- be located on the southern side of the building.
  - have increased shade on walls or windows that are exposed to the north or west.
  - have thermal mass levels appropriate to the amount of passive cooling available (cool breezes, consistent diurnal variations) and use thermal mass to delay peak cooling needs until after the peak demand period.
  - have appropriate glazing of windows.
  - provide efficient mechanical cooling or ceiling fans.
  - have space that is zoned to reduce air exchange.

- vii) use of photovoltaic, solar, biomass or wind-powered cooling mechanisms to regulate air temperatures and movement, such as solar chimneys, evaporative cooling or earth coupling.

11) If a cool refuge is provided as an ancillary structure, roofing must be insulated.

## **14.4. Optimising Mechanical Heating and Cooling**

### **A. Objectives**

- a) To minimise excess power usage and heat gain from mechanical heating and cooling systems.
- b) To reduce the impact of heat rejection from heating, ventilation, and cooling systems from contributing to the urban heat island effect and prevent impacts to thermal comfort.
- c) To reduce peak demand on the electricity grid and support a robust electricity network, by improving energy efficiency.

### **B. Controls**

- 1) To mitigate the impact of heat rejection from mechanical cooling, units should not vent into areas where they may result in the heating of the public or private domain. This includes venting onto outdoor recreation spaces, windows of adjoining properties and hard surfaces that may retain heat including, paths, balconies, and courtyards.
- 2) Where it cannot be demonstrated that heat rejection cannot be achieved without venting into these spaces, this area must be excluded from any calculation of private and communal open space.
- 3) Mechanical cooling systems must be sited so that:
  - a) airflow isn't impeded from and around units,
  - b) there is ease of maintenance access, and
  - c) any structure complies with controls for cool roofs and finishes.

## APPENDIX 4

### Gateway Determination



## Gateway Determination

**Planning proposal (Department Ref: PP-2021-6479):** to amend Penrith Local Environmental Plan 2010 to insert a local provision to mitigate urban heat island effect.

I, the Director, Central River City and Western Parkland City, Central (Western) at the Department of Planning, Industry and Environment, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to Penrith Local Environmental Plan (LEP) 2010 to insert a local provision, should proceed subject to the following conditions:

1. Prior to public exhibition Council is to –
  - (a) Update the planning proposal to:
    - i. identify and justify any departure from the approach taken in Clause 6.12 of the Cumberland LEP 2021;
    - ii. insert the draft DCP as an attachment to the Planning Proposal so that it is exhibited concurrently with the planning proposal;
  - (b) Consult with NSW Rural Fire Service in accordance with section 9.1 Direction 4.4 Planning for Bushfire Protection and address any comments of this agency;
2. Public exhibition is required under section 3.34(2)(c) and schedule 1 clause 4 of the Act as follows:
  - (c) the planning proposal must be made publicly available for a minimum of **28 days**; and
  - (d) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 6.5.2 of *A guide to preparing local environmental plans* (Department of Planning and Environment, 2018).
3. Consultation is required with the following public authorities/organisations under section 3.34(2)(d) of the Act and/or to comply with the requirements of relevant section 9.1 Directions:
  - Sydney Water
  - Endeavour Energy

Each public authority/organisation is to be provided with a copy of the planning proposal and any relevant supporting material and given at least 21 days to comment on the proposal.

4. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).
5. Council is authorised as the local plan-making authority to exercise the functions under section 3.36(2) of the Act subject to the following:
  - (a) the planning proposal authority has satisfied all the conditions of the Gateway determination;
  - (b) the planning proposal is consistent with section 9.1 Directions or the Secretary has agreed that any inconsistencies are justified; and
  - (c) there are no outstanding written objections from public authorities.
6. The time frame for completing the LEP is to be **9 months** following the date of the Gateway determination. The proposal must be exhibited by March 2022 and reported to Council post exhibition by June 2022.

Dated 30th day of November 2021.



**Jane Grose**  
**Director, Central (Western)**  
**Central River City & Western Parkland**  
**City**  
**Department of Planning, Industry and**  
**Environment**

**Delegate of the Minister for Planning**  
**and Public Spaces**

## APPENDIX 5

### NSW Rural Fire Service Submission



## NSW RURAL FIRE SERVICE

Penrith City Council  
PO Box 60  
PENRITH NSW 2751

Your reference: (PP-2021-6479) REF-1086  
Our reference: SPI20211215000221

**ATTENTION:** Elizabeth Hanlon

Date: Wednesday 19 January 2022

Dear Sir/Madam,

**Strategic Planning Instrument**  
**LEP Amendment – Gateway**  
Planning Proposal to mitigate the urban heat island effect

I refer to your correspondence dated 14/12/2021 inviting the NSW Rural Fire Service (NSW RFS) to comment on the above Strategic Planning document.

The NSW RFS has considered the information submitted and provides the following comments.

The proposed urban heat management controls may conflict with *Planning for Bush Fire Protection 2019* (PBP) provisions, particularly regarding management to the standards of an Asset Protection Zone and landscaping requirements.

Other conflicts may include green roofs and walls where building materials must be constructed from particular bush fire-resistant materials under *AS3959 Australian Standard: Construction of Buildings in Bush Fire Prone Areas*.

The NSW RFS recommends that a clause or preamble be included in the proposed heat management section of the Development Control Plan about PBP prevailing in the event of inconsistency for developments in bush fire prone areas.

The Council may wish to seek further advice from a landscape architect to examine potential conflicts and provide guidelines about designing specific heat management controls for developments in bush fire prone areas.

For any queries regarding this correspondence, please contact Simon Derevnin on 1300 NSW RFS.

Yours sincerely,

Adam Small  
**Supervisor Development Assessment & Plan**  
**Built & Natural Environment**

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