

Ms Abbie Galvin, The NSW Government Architect
Government Architect NSW
NSW Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Dear Ms Galvin

Re: Submission to the Design and Place State Environmental Planning Policy (SEPP)

The Cancer Institute NSW (the Institute) is a NSW state government Cancer Control agency responsible for the delivery of the [NSW Cancer Plan](#) to lessen the burden of cancer in NSW and the [NSW Skin Cancer Prevention Strategy](#) to reduce the incidence of skin cancer in NSW. The Institute works closely with key stakeholders with health and built environment expertise to reduce the incidence of skin cancer by improving access to adequate shade in NSW. The Institute also promotes healthy behaviours, including physical activity, which reduce the risk of certain cancers.

The Institute would like to make a submission to the NSW Department of Planning, Industry and Environment (DPIE) draft Design and Place SEPP Explanation of Intended Effect (EIE).

This submission:

1. Outlines the importance of well-designed built and natural shade for the prevention of skin cancer
2. Offers specific suggestions for inclusion in the final Design and Place SEPP EIE
3. Offers specific suggestions for inclusion in the proposed supporting guidance documents and tools, including the Apartment Design Guide (appendix A) and the Urban Design Guide (appendix B).

Please note that the Institute made a submission to the Government Architect NSW draft Greener Places framework in 2017 and is pleased for the inclusion of the statement that, 'Good urban tree canopy will provide shade and protect against over-exposure to sunlight, which can cause skin cancer' – Page 16, Greener Places.

1. Skin cancer and shade

Skin cancer is the most common cancer in Australia. At least 95 per cent of melanoma skin cancer and 99 per cent of non-melanoma skin cancers are caused by overexposure to ultra-violet radiation (UVR) from the sun (1). UVR is a carcinogen, and two in three Australians are expected to develop skin cancer before the age of 70 (2). Children and young people are particularly vulnerable to the effects of the sun and skin cancer. High sun exposure in the first 10 years of life doubles the risk of developing melanoma (3). Between 2013 and 2017, 80 of 128 local government areas (LGAs) in NSW had an age-standardised melanoma incidence rate above the NSW average (52.3 per 100,000 population) (4).

Across NSW, UVR levels are high enough to damage unprotected skin for at least 10 months of the year (1). Unlike temperature, UVR can't be seen or felt and damage to unprotected skin can still occur on cool or overcast days. UVR overexposure can be inadvertently increased from reflection off surfaces and bodies of water that are used to reduce the heat island effect.

Record number: E21/04611~1

Skin cancer is highly preventable. In addition to personal protective behaviours (Slip on protective clothing, Slop on sunscreen, Slap on a hat, Seek shade, Slide on sunglasses), it is vital that well-designed and correctly positioned shade is made available as this can reduce exposure to UVR by up to 75 per cent (5). The provision of good quality shade, from both natural vegetation and built structures, in all types and scales of development will assist the community to reduce its exposure to UVR. This needs to be guided through policy and embedded in good design principles.

The following documents may be of use to DPIE in the finalisation of the Design and Place SEPP and development of supporting guidance and tools:

- Shade: A planning and design priority that prevents skin cancer, 2019 provides a summary of the benefits of shade, and its importance in the planning process.
- Guidelines to Shade - A practical guide for shade development in New South Wales, 2013, Cancer Council NSW provides practical design details and guidance for planning and implementing best-practice shade for UVR protection. This resource is referenced in the Government Architect NSW Urban Design Guide for Regional NSW.

2. Suggestions for inclusion in the Design and Place SEPP EIE

It is suggested that more detail be given about the requirements included in 3.2.1 Application requirements on page 27, that the following be added to this list of requirements for all developments:

1. **site analysis** for all development. Add "*shade audits and shade diagrams*".
3. **a design statement.** Add "*good shade design*".
4. **precinct planning supporting documents.** Add "*shade plan (or shade assessment)*".

It is suggested that the following be added to the Benefit column in the third paragraph of the table **7. Green infrastructure** on page 29: "*including... providing shade to pedestrians*" (Add) "*to reduce exposure to ultraviolet (UV) radiation from the sun...*"

It is suggested that the following be added as a risk to the Benefit column in the first paragraph in the table under **8. Resilience** on page 29: "*exposure to ultraviolet (UV) radiation from the sun*".

It is suggested that the following be added to the Proposed consideration column list under **13. Attractive form** on page 31: "*wayfinding, paths, shade and common areas*".

The *Government Architect NSW Open Space for Recreation guide* outlines targets for the provision of shade in outdoor playspaces and parks. It is suggested that this document be referenced as a requirement for maintaining minimum tree canopy targets in paragraph two under **18. Tree canopy** on page 32. It is also suggested that the following be added to paragraph four under the Benefit column on page 32: "*Ensures existing tree canopy is not reduced and promotes increased tree canopy for increased tree canopy for urban heat mitigation...*" (Add) "*sun protection...*".

3. Suggestions for inclusion in proposed supporting guidance documents and tools

Appendix A: Apartment Design Guide

Record number: E21/04611~1

The Institute suggests that shade provision be included and addressed alongside other key concerns for apartments in the revised Apartment Design Guide. Apartment buildings are home to a diverse community of residents including children and young people who are particularly at risk of developing skin cancer. Overexposure to UVR of residents needs to be carefully balanced with solar access requirements. Shady shared spaces can significantly reduce the amount of UVR that people receive and provide co-benefits including improved social connectedness and thermal comfort for play and physical activity (5).

It is suggested that the following be added as a new paragraph under **A2.2 Urban design and site planning** on page A11 and under **5. Building and landscape maintenance** on page A26: *"A shade assessment or shade site plan including shade diagrams must be submitted as a part of development applications which demonstrate the provision of built and natural tree shade in communal open spaces, with adequate protection from the sun during peak UV times (10am-3pm)."*

It is suggested that the following be added to the Benefit column in the table under **2. Landscape and greening** on page A14: *"Deliver green cover... to reduce exposure to UV radiation."*

It is suggested that the following be added to the list under **A.2.3 Residential amenity** on page A16 *"...revise guidance on sunlight and daylight access and control..."* (Add) *"promote window tinting in apartments to reduce the amount of UV radiation and help prevent skin cancer"*. More information about window tinting for building glass is provided in the [Cancer Council Tinted Windows Factsheet](#).

It is suggested that the following be added to the Guidance column of the table under **Shading and glare control** on page A19: *"window tinting with laminated building glass that filters UV radiation"*. It is also suggested that the following be added to the Benefit column of the table under 'Shading and glare control' on page A19: *Reduce exposure to UV radiation to help prevent skin cancer.*

Appendix B: Urban Design Guide

The Institute suggests the inclusion of best-practice shade design principals for UVR and heat protection in the development of the new Urban Design Guide. [Guidelines to Shade - A practical guide for shade development in New South Wales, 2013, Cancer Council NSW](#) provides practical design details and guidance for planning and implementing best-practice shade. This resource is referenced in the *Government Architect NSW Urban Design Guide for Regional NSW*.

It is suggested that the following be added to the list under **B.3.3 Proposed structure** in paragraph five 'Part 3 Form - Site orientation and planning' on page B8: *"general considerations such as shade plans"*. It is also suggested that the following be added to the list in paragraph seven 'Part 6 Documentation' on page B8: *"e.g. shade provision"*.

It is suggested that the following be added to paragraph one under **Part 2 Structure – Green infrastructure** on page B10: *"Urban tree canopy provides shade... mitigates urban heat (Add) and reduces exposure to UV radiation for human health..."*

It is suggested that the following be added to the last paragraph under **Part 6 Documentation** on page B11: *"shade diagrams and shade site plans"*.

It is suggested that the following be added to the list in the last paragraph under **B.3.5 Intended effects – Proposed design criteria** on page B12: “*Guidance on shade site planning, including shade diagrams, and quality shade design for UV and heat protection.*”

Design Review Guide

The Institute suggests that requirements for shade design and shade targets for all types and scales of development be included in the new Design Review Guide. Shade provision should be defined and included as a ‘threshold’ for design review for state and local government. The Institute is currently conducting research to explore potential targets for shade in NSW playgrounds and looks forward to sharing these findings with DPIE when available in mid-2021.

The Institute supports DPIE’s intention for the Design Review Guide to ‘provide case studies of exemplar processes and examples’. The Institute suggests that case studies of best-practice shade examples and processes be developed to support the design review panels and applications and has developed 10 shade case studies which can be used for this purpose: [How schools, councils, community groups and sporting organisations created shade.](#)

Resilience Toolkit

UV radiation from the sun is a climatic risk that requires future planning to ensure rates of skin cancer do not continue to rise. The Institute suggests the inclusion of UV radiation from the sun as risk that requires resilience planning and guidance within the proposed Resilience Toolkit of the SEPP.

Strategic guide to planning for natural hazards in NSW

Planning for UV radiation as a natural hazard has been included in a number of NSW council Local Strategic Planning Statements (LSPSs) as a result of the Institute’s recent submissions to draft LSPSs during their exhibition in 2019 and 2020. Given this recognition of UV radiation as a natural hazard and planning priority at a local government level, the Institute suggest its inclusion in the proposed strategic guide to planning for natural hazards in NSW. This will support the preparation of efforts to protect communities from the sun at regional and district levels as well and help prevent skin cancer.

Thank you for the opportunity to comment on the Design and Places SEPP. We look forward to receiving further information as to the progress of the policy and any further relevant policy or guidelines related to shade and planning for healthy built environments.

Further information and assistance can be obtained from the Institute by contacting:
Nikki Woolley or Nicola Groskops, Skin Cancer Prevention & Healthy Lifestyles
Email: CINSW-SkinCancerPrevention@health.nsw.gov.au or Phone: 02 8374 3661

Yours sincerely,



Ms Sarah McGill
A/Chief Executive Officer, Cancer Institute NSW

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References

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2. Australian Institute of Health and Welfare 2016. *Skin cancer in Australia*. Cat. no. CAN 96. Canberra: AIHW
3. Kricker A, Armstrong BK, Goumas C, Litchfield M, Begg CB, Hummer AJ, et al. *Ambient UV, personal sun exposure and risk of multiple primary melanomas*. Cancer Causes Control 2007 Apr;18(3):295-304 Abstract available at <http://www.ncbi.nlm.nih.gov/pubmed/17206532>
4. Cancer Institute NSW Statistics Portal [https://www.cancer.nsw.gov.au/data-research/access-our-data/cancer-statistics-nsw#//](https://www.cancer.nsw.gov.au/data-research/access-our-data/cancer-statistics-nsw#/)
5. Parsons, P., Neale, R., Wolski, P. & Green, A. 1998, *The shady side of solar protection*, Medical Journal of Australia, 168: 327-330.