Green Building Council Australia

Building a sustainable future

Peter Durkin
Principal Policy Advisor – Environment
Department of Environment, Land, Water and Planning

Via email:
Peter.durkin@delwp.vic.gov.au

Dear Mr Durkin,

Green Building Council of Australia (GBCA) is pleased to provide input to the Victorian Government's consultation on the ESD Roadmap for Victoria's planning system. We commend the Victorian Government for its commitment to ESD outcomes in the built environment and appreciate the opportunity to contribute to this important reform.

GBCA is an industry association for Australia's sustainable development sector, with a mission to drive the creation of more sustainable, liveable cities and communities. With a membership that encompasses organisations across the public and private sectors, we have worked closely with governments at all levels in Australia to help shape policies and develop initiatives that make meaningful contributions to emissions reductions and climate change adaptation. We note that approximately 15 per cent of our membership is comprised of state government agencies and departments, as well as local governments. We regularly partner and support those organisations to deliver better sustainability outcomes across their own assets, and through strategic and statutory planning.

Today, GBCA works to accelerate the decarbonisation of Australia's built environment sector through our advocacy, education and our rating system, Green Star. Green Star is a robust, internationally recognised rating tool for measuring and benchmarking sustainability in buildings and communities. Many governments currently use Green Star to drive the transition to low and zero net emissions buildings and precincts through planning, since the rating system is committed to a decarbonisation trajectory in line with the Paris Agreement. GBCA has also worked closely with local government members and stakeholders across the country to review, refine and update ESD local policies, recognising the important role that government leadership plays in improving the performance and resilience of the built environment[1].

GBCA welcomes the opportunity to share our experience and work closely with the Victorian Government on its journey to develop a new approach for sustainable buildings in the planning system. We provide the following observations and recommendations in response to the ESD roadmap paper:

Key observations and recommendations:

1. GBCA welcomes a state-wide approach to embedding ESD in planning policies to improve building performance and resilience across Victoria. We believe this approach will strengthen the connection between state-level objectives and strategies and local planning policies.

[1] Most recently, we collaborated with governments and industry on a City of Sydney-led project to develop ambitious planning pathways for net zero buildings from 2026: https://www.smh.com.au/national/nsw/city-of-sydney-s-ambitious-plan-for-net-zero-buildings-from-2026-20210315-p57ay3.html#comments

greenstar

2. Noting the importance of providing greater certainty for industry, GBCA supports a consistent approach to achieving minimum state-wide objectives whilst still allowing councils to address local priorities and aspirations. This is important for councils that wish to 'raise the bar' higher on ESD than the state-wide objectives, especially with respect to climate change adaptation and mitigation. We believe achieving the right balance between these priorities will be important for securing both industry and council buy-in of the reforms in the ESD roadmap.

3. There is an opportunity to strengthen the link between the ESD roadmap and Victoria's emissions reduction targets. Victoria has a net zero emissions target legislated under the *Climate Change Act 2017*, which should serve as an overarching objective of the ESD Roadmap.

4. GBCA believes that upskilling industry and councils in these changes will be critical to ensuring the roadmap's success. We recommended a more targeted support program to complement resources such as practice notes in helping ensure smooth implementation and compliance with the reforms.

5. GBCA commends the use of the Green Star rating and certification system as an ESD assessment tool for demonstrating compliance against the objectives and standards established in the ESD roadmap. Green Star is a leading, robust, internationally recognised sustainability rating tool for buildings and communities, operated by the Green Building Council of Australia. Green Star certified buildings are on a trajectory of decarbonisation that will see all new buildings and fitouts operating at net zero by 2030 and is well positioned to support industry and governments as they transition to low and zero carbon buildings.

Our general comments in regards to the ESD Roadmap and our comments on Appendix A: proposed VPP stage 1 reforms can be found in the enclosed documents. Should you have questions regarding our feedback, please contact Sandra Qian, Senior Manager – Policy & Government Relations at sandra.qian@gbca.org.au

Yours Sincerely,

Davina Rooney
Chief Executive Officer

Green Building Council of Australia

General Comments

The Green Building Council of Australia supports the introduction of an integrated planning system approach to ESD, including new additions to the Planning Policy Framework (PPF) and new ESD objectives and standards for residential, commercial and industrial developments in the Victorian Planning Provisions (VPP). Land use planning policy and regulation is critical to driving ESD in our communities and cities, and GBCA believes that a state-wide approach to ESD in planning would be the most effective way to achieve sustainability outcomes whilst providing improved coverage, consistency, fairness and simplicity.

Proposed approach

GBCA supports the two-step process presented by the roadmap, with stage one focused on inserting ESD considerations at the development scale into Victorian planning policy, and stage two focused on incorporating specific planning objectives and standards. During the second stage, it is proposed that a review of ESD local policy will be conducted to minimise duplication with state policy and understand ways to support implementation.

GBCA looks forward to further detail on the process by which this review will occur, noting there are several councils currently working towards planning scheme amendments to drive net zero carbon developments in their local communities. On this, the roadmap is currently unclear on whether councils will be enabled to achieve performance outcomes beyond what is established in state policy. While we strongly support the shift to a state-based policy, we note that a more streamlined approach to ESD should not preclude councils from pursuing more ambitious ESD targets on climate action. As the 2014 Efficiency Design Advisory Committee noted, “even if a state-wide policy is introduced, local policies may still be appropriate where municipalities seek to ‘raise the bar higher’ either in specific locations, or where the community has higher sustainability expectations.” We believe that striking an appropriate balance between consistency and localisation is possible within these reforms and is indeed crucial for securing the buy-in from different stakeholders. We look forward to assisting with further exploration of viable options and stress the importance of meaningful and thorough engagement with industry on these matters.

GBCA submits that the ESD roadmap should, where possible, support councils working to establish net zero emissions targets for new developments through their planning schemes. Climate change poses a growing risk to local communities, and those communities that plan and act early will be able to reduce their exposure to economic, social and environmental risks such as damage to homes and assets, loss of business productivity, disrupted services and loss of life. Besides lowering emissions, planning for net zero energy buildings will also contribute to a positive and sustainable business recovery for Victoria and further catalyse the adoption of adaptation and mitigation measures by industry.

GBCA is working to drive the built environment in Australia to net zero through a combination of rating tool changes, advocacy, and education. Through a series of updates to Green Star, we are gradually cascading the requirement to deliver net zero carbon buildings across our entire suite of Green Star tools, which address the design, construction, operation of buildings. The launch of the Green Star Buildings tool last year saw the introduction of new requirements for highest rated buildings under the tool (6 stars – World Leadership) to be net zero in operations, defined as fossil fuel free, highly efficient, powered by renewables, built with lower upfront emissions, and offset with nature. The GBCA plans to cascade this requirement over time to all rated buildings by 2026.

Strengthening planning’s contribution to Victoria’s climate change commitments

Victoria has a robust target of net zero greenhouse gas emissions by or before 2050, established through the *Climate Change Act 2017* (the Act). The Act provides Victoria with a legislative basis to manage climate change risks, maximise opportunities that arise from decisive action, and drive the transition to a climate resilient community and economy with net zero emissions by 2050. Section 20 of the Act requires that government decision making or any policy, program or process developed or implemented by the government takes account of climate change, with reference to the policy objectives and guiding principles in the Act. Since the Roadmap acknowledges that planning measures can help deliver against this target, we submit that climate change should be clearly articulated as an overarching principle in these reforms, and ESD policies developed through these reforms aligned to emissions reduction targets under the Act.

Further assessment, guidance, and tools to support delivery of, and compliance regime for ESD

The ESD Roadmap notes that resources such as practice notes and guidelines will be provided to support the delivery of ESD across Victoria. While these materials are useful as aides for key stakeholders, we believe that a targeted support program would go further to promote implementation of the changes. Examples of support could

include education resources that build industry's capacity on ESD, and from a council perspective, shared ESD officers jointly funded by state and local governments or a Victorian Government 'community of practice' for local government planners to share learnings and strategise for overcoming challenges.

Resources and tools with consideration to how ESD commitments are delivered in practice will be particularly important. GBCA understands that a key challenge faced by councils that currently implement ESD local policies is ensuring the delivery of as-built outcomes. For councils which do not yet have ESD local policies, this package of reforms can present a significant advancement on previous approaches to planning assessment. We believe that greater support for ensuring compliance during and after construction is critical for driving outcomes in line with the ESD reforms. Special attention to compliance at the planning, design, occupancy and building permit stages are recommended.

The application of rating systems to demonstrate ESD outcomes is well established, and we note the extensive adoption of well-recognised rating systems such as Green Star and NABERS for this purpose. In Green Star's case, correct use of the rating tool sees projects independently assessed on the merits of their design and as-built outcomes. This gives the planning authorities added assurance that environmental claims made on certified projects are robust and well evidenced, which is critical to driving compliance with ESD local policy.

Green Star has been used by many governments around Australia to help benchmark and verify ESD standards in local policy. A recent national survey commissioned by the Commonwealth Government to gain insights into the ways that councils influence the energy efficiency of new commercial buildings, found that close to half (46%) of those using policies and tools to influence ESD outcomes, preferred Green Star and a third used both Green Star and NABERS. Green Star was most often applied to mixed-use, office buildings and shopping centre developments. Respondents also indicated that Green Star and NABERS were a valued way to establish and formalise requirements from industry as well as providing processes, reporting as well as checks and balances around the final building.

To understand the suitability of different rating schemes for assessing state ESD outcomes, we commend the following criteria (developed by Arup to support the Victorian Government's assessment of tools for establishing planning controls in the Fishermans Bend Urban Renewal Area, and adapted by the GBCA for this context).

Align with the objectives and provisions established by the ESD Roadmap: Does the rating system cover the same or wider scope than the principles, objectives and standards established by the ESD roadmap?

Deliver best-practice outcomes: Does the rating system align with accepted best practice sustainability outcomes for the built environment in Australia that is informed by global best practice schemes?

Provides benchmarks for emissions reduction: Does the rating system have carbon performance targets that align with internationally accepted science-based targets, and facilitates the delivery of Victorian Government's carbon targets as defined in the *Victorian Climate Change Act 2017*?

Deliver best-practice governance: Does the rating system have a robust set of industry –accepted governance processes and procedures, ensuring high levels of probity are maintained through independent third party processes. Is the certification labelling associated with the rating system an Australian Trademark, following best practice principles for environmental labelling?

Provide design stage assessment, as built certification, and the option of performance certification: Does the rating system provide feedback during the design stage of the development, as well as certification of the building at 'as built' stage? Is there an option to assess and certify the performance of the development?

Assure quality: Has the rating system been formally assured by internationally recognised quality standards such as ISO 9001?

Is industry accepted: Does the rating system have a proven record of certification in the Australian context, and is it governed/managed by an organisation with a local presence and track record for promoting and supporting sustainable built form in Australia?

Is evidence-based: Does the evidence required to support a claim for certification allow for adequate unambiguous third party technical assessment to validate performance outcomes, and ensure claims made are followed through at an as-built stage?

GBCA would seeks further detail from the Department on how rating tools such as Green Star can be used to help industry demonstrate compliance against the specific planning objectives and standards developed during stage two.

GBCA comments on Appendix A: proposed VPP stage 1 reforms

01 PURPOSES OF THIS PLANNING SCHEME

To provide a clear and consistent framework within which decisions about the use and development of land can be made.

To express state, regional, local and community expectations for areas and land uses.

To provide for the implementation of State, regional and local policies affecting land use and development.

To promote environmentally sustainable development.

GBCA comment: Support.

11 SETTLEMENT

Planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.

Planning is to recognise the need for, and as far as practicable contribute towards:

- Health, wellbeing and safety.
- Diversity of choice.
- Adaptation in response to changing technology.
- Economic viability.
- A high standard of environmental sustainability, urban design and amenity.
- Energy efficiency and renewable energy adoption.
- Prevention of pollution to land, water and air.
- Protection of environmentally sensitive areas and natural resources.
- Accessibility.
- Land use and transport integration.
- Waste minimisation, resource recovery and waste management.
- Climate change adaptation and mitigation.

Planning is to prevent environmental and amenity problems created by siting incompatible land uses close together.

Planning is to facilitate sustainable development that takes full advantage of existing settlement patterns and investment in transport, utility, social, community and commercial infrastructure and services.

GBCA comment: State and local planning approaches should also contribute towards positive outcomes for urban ecology and biodiversity, beyond protection of environmentally sensitive areas and natural resources. The difference being the recognition of urbanisation as an opportunity for ecological outcomes (and not just a threat). There are many examples of local governments implementing strategies aimed at increasing the uptake of green infrastructure and incorporating urban ecology into planning and management, such as through urban forest, open space and biodiversity strategies.

11.01-1S Settlement

Objective

To promote the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.

Strategies

Develop sustainable communities through a settlement framework offering convenient access to jobs, services, infrastructure and community facilities.

Focus investment and growth in places of state significance in Metropolitan Melbourne and the major regional cities of Ballarat, Bendigo, Geelong, Horsham, Latrobe City, Mildura, Shepparton, Wangaratta, Warrnambool and Wodonga.

Support sustainable development of the regional centres of Ararat, Bacchus Marsh, Bairnsdale, Benalla, Castlemaine, Colac, Echuca, Gisborne, Hamilton, Kyneton, Leongatha, Maryborough, Portland, Sale, Swan Hill, Warragul/Drouin and Wonthaggi.

Ensure regions and their settlements are planned in accordance with their relevant regional growth plan.

Guide the structure, functioning and character of each settlement taking into account municipal and regional contexts and frameworks.

Create and reinforce settlement boundaries.

Provide for growth in population and development of facilities and services across a regional or sub-regional network.

Plan for development and investment opportunities along existing and planned transport infrastructure.

Promote transport, communications and economic linkages between settlements through the identification of servicing priorities in regional land use plans.

Strengthen transport links on national networks for the movement of commodities.

Deliver networks of high-quality integrated settlements that have a strong identity and sense of place, are prosperous and are sustainable by:

Building on strengths and capabilities of each region across Victoria to respond sustainably to population growth and changing environments.

Developing settlements that will support resilient communities and their ability to adapt and change.

Balancing strategic objectives to achieve improved land use and development outcomes at a regional, catchment and local level.

Preserving and protecting features of rural land and natural resources and features to enhance their contribution to settlements and landscapes.

Encouraging an integrated planning response between settlements in regions and in adjoining regions and states in accordance with the relevant regional growth plan.

Providing for appropriately located supplies of residential, commercial, and industrial land across a region, sufficient to meet community needs in accordance with the relevant regional growth plan.

Improving transport network connections in and between regional cities, towns and Melbourne.

Adopting integrated water management as part of settlement development.

Encourage a form and density of settlements that supports sustainable transport to reduce greenhouse gas emissions.

Limit urban sprawl and direct growth into existing settlements.

Promote and capitalise on opportunities for urban renewal and infill redevelopment.

Develop compact urban areas that are based around existing or planned activity centres to maximise accessibility to facilities and services.

Ensure retail, office-based employment, community facilities and services are concentrated in central locations.

Ensure land that may be required for future urban expansion is not compromised.

Plan for regional responses to climate change adaptation and mitigation.

Policy documents

Consider as relevant:

- Central Highlands Regional Growth Plan (Victorian Government, 2014)
- G21 Regional Growth Plan (Geelong Region Alliance, 2013)
- Gippsland Regional Growth Plan (Victorian Government, 2014)
- Great South Coast Regional Growth Plan (Victorian Government, 2014)
- Hume Regional Growth Plan (Victorian Government, 2014)
- Loddon Mallee North Regional Growth Plan (Victorian Government, 2014)
- Loddon Mallee South Regional Growth Plan (Victorian Government, 2014)
- Wimmera Southern Mallee Regional Growth Plan (Victorian Government, 2014)
- Plan Melbourne 2017-2050: Metropolitan Planning Strategy (Department of Environment, Land, Water and Planning, 2017)
- Plan Melbourne 2017-2050: Addendum 2019 (Department of Environment, Land, Water and Planning, 2019)

Applicable emission reduction pledges and adaptation action plans (as specified under Part 5 of the *Climate Change Act 2017*)

GBCA comment: Support.

11.02-2S Structure planning

Objective

To facilitate the orderly and sustainable development of urban areas.

Strategies

Ensure effective planning and management of the land use and development of an area through the preparation of relevant plans.

Undertake comprehensive planning for new areas as sustainable communities that offer high-quality, frequent and safe local and regional public transport and a range of local activities for living, working and recreation.

Facilitate the preparation of a hierarchy of structure plans or precinct structure plans that:

- Take into account the strategic and physical context of the location.
- Provide the broad planning framework for an area as well as the more detailed planning requirements for neighbourhoods and precincts, where appropriate.
- Provide for the development of sustainable and liveable urban areas in an integrated manner.
- Assist the development of walkable neighbourhoods.
- Facilitate the logical and efficient provision of infrastructure.
- Facilitate the use of existing infrastructure and services.
- Protect areas of natural or cultural significance.
- Respond to the impacts of climate change.

GBCA comments:

The preparation of structure plans or precinct structure plans should also:

- **Protect, value, restore and enhance our natural and cultural heritage assets, both water and land based.**
- **Promote biodiversity through the creation of habitats, spaces and environments across the community.**
- **Reduce greenhouse gas emissions, contaminants and other pollutants to land, water and the atmosphere.**
- **Minimise the risk factors associated with extreme natural events, and the impacts of climate change.**
- **Promote environmentally efficient systems for water and wastewater management and reuse, sustainable energy generation and distribution and waste management and recycling.**
- **Encourage greater resource efficiency within a life-cycle context.**
- **Reuse and retrofit existing sites and buildings.**
- **Provide sustainable transport opportunities and encourage the use of those opportunities.**

We also note the following attributes of the 20-minute neighbourhood from VPA's (draft) PSP Guidelines[2], which provides the hallmarks of integrated features for living locally, living sustainably and social connectedness:

- **Provide for safe, accessible and well connected sites to optimise active transport.**
- **Offer high quality public realm and open space.**
- **Provide services and destinations that support local living.**
- **Facilitate access to quality public transport that connects people to jobs and higher-order services.**

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[2] Guidelines for Precinct Structure Planning in Melbourne's Greenfields – Draft for Public Engagement, September 2020, accessed from https://vpa-web.s3.amazonaws.com/wp-content/uploads/2020/09/Guidelines-for-Precinct-Structure-Planning-in-Melbournes-Greenfields-Draft-for-Public-Engagement-September-2020.pdf

- **Deliver housing/population at densities that make local services and transport viable.**

At minimum, we recommend replacing 'Respond to the impacts of climate change' with 'Respond, adapt to and promote greater resilience to the impacts of climate change'.

12 ENVIRONMENTAL AND LANDSCAPE VALUES

Planning should help to protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values.

Planning must implement environmental principles for ecologically sustainable development that have been established by international and national agreements. Foremost amongst the national agreements is the Intergovernmental Agreement on the Environment, which sets out key principles for environmental policy in Australia. Other agreements include the National Strategy for Ecologically Sustainable Development, National Greenhouse Strategy, the National Water Quality Management Strategy, Australia's Strategy for Nature 2019-2030, the National Forest Policy Statement and National Environment Protection Measures.

Planning should protect, restore and enhance sites and features of nature conservation, biodiversity, geological or landscape value.

GBCA comments: The United Nations 2030 Agenda for Sustainable Development is a comprehensive and innovative international agenda that seeks to integrate the social, environmental and economic dimensions of sustainable development. It comprises 17 Sustainable Development Goals, including 169 targets and 232 indicators. The SDGS cover many aspects of ESD, such as energy, climate change, biodiversity and ecology. Interlinkages between the 17 goals also ensures that environmental aspects facilitate delivery of other economic and social goals. For example, GBCA has mapped direct and indirect biodiversity impact in the targets found within the 17 SDGS[3].

12.01-1S Protection of biodiversity

Objective

To assist the protection and conservation of Victoria's biodiversity.

Strategies

Use biodiversity information to identify important areas of biodiversity, including key habitat for rare or threatened species and communities, and strategically valuable biodiversity sites.

Strategically plan for the protection and conservation of Victoria's important areas of biodiversity.

Ensure that decision making takes into account the impacts of land use and development on Victoria's biodiversity, including consideration of:

- Cumulative impacts.
- Fragmentation of habitat.
- The spread of pest plants, animals and pathogens into natural ecosystems.
- Avoid impacts of land use and development on important areas of biodiversity.

Consider impacts of any change in land use or development that may affect the biodiversity value of national parks and conservation reserves or nationally and internationally significant sites; including wetlands and wetland wildlife habitat designated under the Convention on Wetlands of International Importance (the Ramsar Convention) and sites utilised by species listed under the Japan-Australia Migratory Birds Agreement (JAMBA),

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[3] GBCA, 2018, Building with Nature – Prioritising ecology and biodiversity for better buildings and cities, discussion paper, https://gbca-web.s3.amazonaws.com/media/documents/gs-future-focus-building-with-nature-fa-web_emZlpIB.pdf

the China-Australia Migratory Birds Agreement (CAMBA), or the Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA).

Assist in the identification, protection and management of important areas of biodiversity.

Assist in the establishment, protection and re-establishment of links between important areas of biodiversity, including through a network of green spaces and large-scale native vegetation corridor projects.

Support land use and development that contributes to protecting and enhancing urban biodiversity values.

Policy guidelines

Consider as relevant:

- State biodiversity information maintained by the Department of Environment, Land, Water and Planning.

Policy documents

Consider as relevant:

- *Protecting Victoria's Environment – Biodiversity 2037* (Department of Environment, Land, Water and Planning, 2017)
- *Guidelines for the removal, destruction or lopping of native vegetation* (Department of Environment, Land, Water and Planning, 2017)
- Any applicable biodiversity strategies, including the relevant Regional Catchment Strategy (prepared under Part 4 of the *Catchment and Land Protection Act 1994*)

GBCA comments:

The GBCA undertook a review of the approach to biodiversity and ecology in Green Star in 2018, which resulted in five key principles to underpin our approach to biodiversity and ecology in the tool as well as the broader environment, which are relevant for consideration as strategies. These are:

1. **Protect ecological value, by encouraging development on land of limited value.**
2. **Minimise ecological impact, by reducing the impact on on-site ecology and biodiversity during and after construction.**
3. **Enhance ecological value and biodiversity, by improving the site as a first priority, and only then should off-site ecology be considered. This key principle will achieve gains in ecological value.**
4. **Connect ecological networks, by linking or maintaining connections, between native or built landscape corridors.**
5. **Create and manage on-site and off-site natural spaces, by constructing new natural environments within the built environment and encouraging the maintenance of enhancements on-site and off-site.**

We recommend updating the objective to read 'Protection, conservation and enhancement of biodiversity'.

At minimum, we recommend replacing 'Support land use and development that contributes to protecting and enhancing urban biodiversity values' with 'Support land use planning and development that contributes to protecting, conserving, restoring, enhancing and creating urban biodiversity values'.

13.01-1S Natural hazards and climate change

Objective

To minimise the impacts of natural hazards and adapt to the impacts of climate change.

Strategies

Consider the risks associated with climate change in planning and management decision making processes.
Identify at risk areas using the best available data and climate change science.
Integrate strategic land use planning with emergency management decision making.
Direct population growth and development to low risk locations.
Develop adaptation response strategies for existing settlements in risk areas to accommodate change over time.
Ensure planning controls allow for risk mitigation or risk adaptation strategies to be implemented.
Site and design development to minimise risk to life, health, property, the natural environment, and community infrastructure from natural hazards.

GBCA comments:

Consider updating the objective to reflect both the direct and indirect impacts of climate change.

Replace 'Consider the risks associated with climate change in planning and management decision making processes' with 'Consider the risks associated with climate change in planning, land use, built form and design responses'.

Include as a strategy 'Planning should support developments that are resilient to the impacts of a changing climate and address high or extreme system level interdependency risks from natural hazards.'.

13.01-3S Urban heat mitigation

Objective

To reduce urban heat exposure through land use, built form and design responses.

Strategies

Green and cool urban areas, buildings, transport corridors and open spaces through use of vegetation, integrated water management and appropriate materials.

Support tree health and cool the urban environment through water sensitive urban design.

GBCA comments:

We recommend 'Green and cool urban areas, buildings, transport corridors and open spaces through the use of vegetation, integrated water management, green facades, hardscaping elements and materials'.

Strategies for mitigating urban heat include the use of vegetation, green roofs, roofing materials (including shading structures) with minimum solar reflect indices, unshaded hard-scaping elements with a three year SRI minimum, hardscaping elements shaded by overhanging vegetation or roof structures, including solar hot water panels and PV panels, water bodies and water courses.

13.05-1S Noise abatement

Objective

To assist in the control of noise pollution and minimise its effects on residential developments and other sensitive land uses.

Strategy

Ensure that human health and community amenity is protected, and that development is not adversely impacted by noise emissions, using a range of building design, urban design and land use separation techniques.

Policy documents

Consider as relevant:

- *State Environment Protection Policy (Control of Music Noise from Public Premises) No. N-2*
- *State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1* in metropolitan Melbourne
- *Noise from Industry in Regional Victoria* (Environment Protection Authority, 2011)
- *A Guide to the Reduction of Traffic Noise* (VicRoads, 2003)

GBCA comment: Support

13.06-1S Air quality management

Objective

To assist in the protection and improvement of air quality.

Strategies

Ensure that land use planning and transport infrastructure provision contribute to improved air quality by:

- Integrating transport and land use planning to improve transport accessibility and connections.
- Limiting air emissions, including dust.
- Locating key developments that generate high volumes of trips in the Central City, Metropolitan Activity Centres and Major Activity Centres.
- Providing infrastructure for public transport, walking and cycling.

Ensure, wherever possible, that there is suitable separation between land uses that pose a health and amenity risk and sensitive uses.

Minimise air pollutant exposure to occupants of residential development and other sensitive uses near transport infrastructure through suitable siting, layout and design responses.

Policy documents

Consider as relevant:

- *State Environment Protection Policy (Air Quality Management)*
- *Recommended Separation Distances for Industrial Residual Air Emissions – Guideline* (Environment Protection Authority, 2013)

GBCA comments: Support

15 BUILT ENVIRONMENT AND HERITAGE

Planning is to recognise the role of urban design, building design, heritage and energy and resource efficiency in delivering liveable and sustainable cities, towns and neighbourhoods.

Planning should ensure all land use and development appropriately responds to its surrounding landscape and character, valued built form and cultural context.

Planning should protect places and sites with significant heritage, architectural, aesthetic, scientific and cultural value.

Planning must support the establishment and maintenance of communities by delivering functional, accessible, safe and diverse physical and social environments, through the appropriate location of use and development and through high quality buildings and urban design.

Planning should promote excellence in the built environment and create places that:

- Are enjoyable, engaging and comfortable to be in.
- Accommodate people of all abilities, ages and cultures.
- Contribute positively to local character and sense of place.
- Reflect the particular characteristics and cultural identity of the community.
- Enhance the function, amenity and safety of the public realm.

Environmentally sustainable development

Planning must support development that is environmentally sustainable and:

- Responds to climate change impacts.
- Minimises greenhouse gas emissions.
- Conserves energy and water.
- Minimises waste generation and increases resource recovery.
- Supports human health and community wellbeing.
- Minimises detrimental impacts on the built and natural environment.

GBCA comments:

We recommend following additional ESD outcomes that planning should drive in developments:

- **Protects environmentally significant areas.**
- **Emits less carbon in construction and during operations.**
- **Provides improved air, light, acoustics and product finishes.**
- **Promotes physical activity.**
- **Manages environmental impacts during construction.**
- **Embraces the diversity of our population.**
- **Supports responsible procurement practices, such as the selection of lower-impact materials.**
- **Enhances the comfort and wellbeing of occupants through improvements to indoor environment quality.**
- **Promotes resilience to non-climate related shocks and stresses (such as pandemics and infrastructure failure).**
- **Builds the resilience of the community that interacts with the building.**
- **Promotes the adoption of renewable energy.**
- **Reduces the impact of private vehicle use in the built environment.**
- **Provides communal spaces to foster a sense of belonging.**
- **Limits the development's impact on urban ecologies.**
- **Drives biodiversity in urban settings that is indigenous and resilient to climate change impacts.**
- **Protect waterways by reducing harmful pollutants that leave the building.**

15.01-2S Building design

Objective

To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.

Strategies

Ensure a comprehensive site analysis forms the starting point of the design process and provides the basis for the consideration of height, scale and massing of new development.

Ensure development responds and contributes to the strategic and cultural context of its location.

Minimise the detrimental impact of development on neighbouring properties, the public realm and the natural environment.

Ensure the form, scale, and appearance of development enhances the function and amenity of the public realm.

Ensure buildings and their interface with the public realm support personal safety, perceptions of safety and property security.

Ensure development is designed to protect and enhance valued landmarks, views and vistas.

Ensure development provides safe access and egress for pedestrians, cyclists and vehicles.

Encourage retention of existing vegetation and planting of new vegetation as part of new developments.

Ensure development provides landscaping that responds to its site context, enhances the built form and creates safe and attractive spaces.

Ensure the layout and design of the development supports waste and resource recovery and the efficient use of water.

Improve the energy performance of buildings through siting and design measures that support:

- Cost effective compliance with energy performance standards in the National Construction Code.
- Passive design responses that minimise the need for heating and cooling.
- Adoption of renewable energy and storage technologies.

Policy documents

Consider as relevant:

- *Urban Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)
- *Apartment Design Guidelines for Victoria* (Department of Environment, Land, Water and Planning, 2017)

GBCA comments

We recommend the inclusion of the following siting and design measures that support improvements to energy performance of buildings:

- **Better low carbon design and selection of materials.**
- **Energy efficiency design that lessens the building's reliance on the grid.**
- **Supports the procurement of renewable energy**
- **Lowering the life-cycle impacts of the building.**

15.01-3S Subdivision design

Objective

To facilitate subdivisions that achieve attractive, safe, accessible, diverse and sustainable neighbourhoods.

Strategies

In the development of new residential areas and in the redevelopment of existing areas, subdivision should be designed to create liveable and sustainable communities by:

Creating compact neighbourhoods that have walkable distances between activities.

Developing activity centres in appropriate locations with a mix of uses and services and access to public transport.

Creating neighbourhood centres that include services to meet day to day needs.

Creating urban places with a strong sense of place that are functional, safe and attractive.

Providing a range of lot sizes to suit a variety of dwelling and household types to meet the needs and aspirations of different groups of people.

Creating landscaped streets and a network of open spaces to meet a variety of needs with links to regional parks where possible.

Protecting and enhancing native habitat.

Facilitating an urban structure where neighbourhoods are clustered to support larger activity centres served by high quality public transport.

Reduce car dependency by allowing for:

- Convenient and safe public transport.
- Safe and attractive spaces and networks for walking and cycling.
- Subdivision layouts that allow easy movement within and between neighbourhoods.
- A convenient and safe road network.

Being accessible to people with disabilities.

Creating an urban structure and providing utilities and services that:

- Responds to climate change hazards and contributes to reduction of greenhouse gas emissions.
- Support resource conservation.
- Support energy efficiency through urban layout and lot orientation.
- Support the uptake of renewable energy technology, including microgrids and batteries.
- Incorporate integrated water management.
- Support waste minimisation and increased resource recovery.
- Minimise exposure of sensitive uses to air and noise pollution.

Policy documents

Consider as relevant:

Urban Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2017)

GBCA comments: Support

18.01-1S Land use and transport planning

Objective

To create a safe and sustainable transport system by integrating land use and transport.

Strategies

Develop integrated and accessible transport networks to connect people to jobs and services and goods to market.

Plan urban development to make jobs and services more accessible by:

Ensuring equitable access is provided to developments in accordance with forecast demand, taking advantage of all available modes of transport and to minimise adverse impacts on existing transport networks and the amenity of surrounding areas.

Coordinating improvements to public transport, walking and cycling networks with the ongoing development and redevelopment of urban areas.

Requiring integrated transport plans to be prepared for all new major residential, commercial and industrial developments.

Focussing major government and private sector investments in regional cities and centres on major transport corridors, particularly railway lines, in order to maximise the access and mobility of communities.

Integrate public transport services and infrastructure into new development.

Improve transport links that strengthen the connections to Melbourne and adjoining regions.

Policy documents

Consider as relevant:

The Victorian Transport Plan (Victorian Government, 2008)

Public Transport Guidelines for Land Use and Development (Victorian Government, 2008)

Victorian Cycling Strategy 2018-28 (Department of Economic Development, Jobs, Transport and Resources, 2017)

Principal Public Transport Network 2017 (Department of Economic Development, Jobs, Transport and Resources, 2017)

GBCA comments:

Suggest the addition of the strategy:

Encourage integrated responses to transport and movement that encourage the people-focused hierarchy.

18.02-1S Sustainable personal transport

Objective

To promote and support the use of low-emission forms of personal transport.

Strategies

Ensure development and the planning for new suburbs, urban renewal precincts, greyfield redevelopment areas and transit-oriented development areas (such as railway stations) provide opportunities to promote more walking and cycling.

Encourage the use of walking and cycling by creating environments that are safe and attractive.

Develop high quality pedestrian environments that are accessible to footpath-bound vehicles such as wheelchairs, prams and scooters.

Ensure cycling routes and infrastructure are constructed early in new developments.

Provide direct and connected pedestrian and bicycle infrastructure to and between key destinations including activity centres, public transport interchanges, employment areas, urban renewal precincts and major attractions.

Ensure cycling infrastructure (on-road bicycle lanes and off-road bicycle paths) is planned to provide the most direct route practical and to separate cyclists from other road users, particularly motor vehicles.

Require the provision of adequate bicycle parking and related end-of-trip facilities to meet demand at commercial buildings, multi-residential developments, education, recreation, transport, shopping and community facilities and other major attractions when issuing planning approvals.

Provide improved facilities, particularly storage, for cyclists at public transport interchanges, rail stations and major attractions.

Encourage building and subdivision layout and design responses that:

- Facilitate low emission forms of transport including walking and cycling.
- Include infrastructure for low emission vehicles (including electric vehicles).

Policy documents

Consider as relevant:

Guide to Road Design, Part 6A: Paths for Walking and Cycling

Victorian Cycling Strategy 2018-28 (Department of Economic Development, Jobs, Transport and Resources, 2017)

GBCA comment: support

18.02-2S Public Transport

Objective

To facilitate greater use of public transport, promote increased development close to high-quality public transport routes and minimise car dependency.

Strategies

Maintain and strengthen passenger transport networks.

Connect activity centres, job rich areas and outer suburban areas through high-quality public transport.

Improve access to the public transport network by:

Ensuring integration with walking and cycling networks.

Providing end-of-trip facilities for pedestrians and cyclists at public transport interchanges.

Plan for bus services to meet the need for local travel.

Ensure development supports the delivery and operation of public transport services.

Plan for and deliver public transport in outer suburban areas that is integrated with land use and development.

Provide for bus routes and stops and public transport interchanges in new development areas.

Policy documents

Consider as relevant:

Public Transport Guidelines for Land Use and Development (Victorian Government, 2008)

The Victorian Transport Plan (Victorian Government, 2008)

GBCA comment:

Suggest the addition of the strategy

Reduce the dependency on single vehicle transport for travel, by promoting active movement within the community and the use of public transport.

19 INFRASTRUCTURE

Planning for development of social and physical infrastructure should enable it to be provided in a way that is efficient, equitable, accessible and timely.

Planning is to recognise social needs by providing land for a range of accessible community resources, such as education, cultural, health and community support (mental health, aged care, disability, youth and family services) facilities.

Planning should ensure that the growth and redevelopment of settlements is planned in a manner that allows for the logical and efficient provision and maintenance of infrastructure, including the setting aside of land for the construction of future transport routes.

Planning should facilitate efficient use of existing infrastructure and human services. Providers of infrastructure, whether public or private bodies, are to be guided by planning policies and should assist strategic land use planning.

Planning should minimise the impact of use and development on the operation of major infrastructure of national, state and regional significance, including communication networks and energy generation and distribution systems.

Planning of infrastructure should avoid or minimise environmental impacts and incorporate resilience to natural hazards, including future climate change risks.

Planning authorities should consider the use of development and infrastructure contributions in the funding of infrastructure.

GBCA comment: Support

19.01-1S Energy supply

Objective

To facilitate appropriate development of energy supply infrastructure.

Strategies

Support the development of energy infrastructure in appropriate locations where it provides benefits to industry and the community and takes advantage of existing infrastructure.

Support achievement of greenhouse gas emission reduction targets under the *Climate Change Act 2017* and the transition to a low-carbon economy by adopting renewable energy and low emission technologies.

Facilitate local energy generation to help diversify the local economy and improve sustainability outcomes.

GBCA comment: Support

19.01-2S Renewable energy

Objective

To support the provision and use of renewable energy, and achievement of greenhouse gas emission reduction targets under the *Climate Change Act 2017* in a manner that ensures appropriate siting and design considerations are met.

Strategies

Facilitate renewable energy development in appropriate locations.

Protect energy infrastructure against competing and incompatible uses.

Develop appropriate infrastructure to meet community demand for energy services.

Set aside suitable land for future energy infrastructure.

Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.

Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.

Policy documents

Consider as relevant:

- *Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria* (Department of Environment, Land, Water and Planning, March 2019)
- *Solar Energy Facilities Design and Development Guideline* (Department of Environment, Land, Water and Planning, August 2019)

GBCA Comment: Support

19.03-3S Integrated water management

Objective

To sustainably manage water supply, water resources, wastewater, drainage and stormwater through an integrated water management approach.

Strategies

Plan and coordinate integrated water management, bringing together stormwater, wastewater, drainage, water supply, water treatment and re-use, to:

- Take into account the catchment context.
- Protect downstream environments, waterways and bays.
- Manage and use potable water efficiently.
- Reduce pressure on Victoria's drinking water supplies.
- Minimise drainage, water or wastewater infrastructure and operational costs.
- Minimise flood risks.
- Provide urban environments that are more resilient to the effects of climate change.

Integrate water into the landscape to facilitate cooling, local habitat improvements and provision of attractive and enjoyable spaces for community use.

Facilitate use of alternative water sources such as rainwater, stormwater, recycled water and run-off from irrigated farmland.

Ensure that development protects and improves the health of water bodies including creeks, rivers, wetlands, estuaries and bays by:

- Minimising stormwater quality and quantity related impacts.
- Filtering sediment and waste from stormwater prior to discharge from a site.
- Managing industrial and commercial toxicants in an appropriate way.
- Requiring appropriate measures to mitigate litter, sediment and other discharges from construction sites.

Manage stormwater quality and quantity through a mix of on-site measures and developer contributions at a scale that will provide greatest net community benefit.

Provide for sewerage at the time of subdivision or ensure lots created by the subdivision are capable of adequately treating and retaining all domestic wastewater within the boundaries of each lot.

Ensure land is set aside for water management infrastructure at the subdivision design stage.

Minimise the potential impacts of water, sewerage and drainage assets on the environment.

Protect significant water, sewerage and drainage assets from encroaching sensitive and incompatible uses.

Protect areas with potential to recycle water for forestry, agriculture or other uses that can use treated effluent of an appropriate quality.

Support development that is water efficient and encourages use of alternative water sources.

Policy documents

Consider as relevant:

- *State Environment Protection Policy (Waters of Victoria)*
- *Water for Victoria - Water Plan* (Victorian Government, 2016)
- *Urban Stormwater Best Practice Environmental Management Guidelines* (Victorian Stormwater Committee, 1999)
- *Guidelines for Environmental Management: Code of Practice - Onsite Wastewater Management* (Publication 891.4, Environment Protection Authority, 2016)
- *Planning Permit Applications in Open, Potable Water Supply Catchment Areas* (Department of Sustainability and Environment, 2012)

GBCA comment: support

19.03-5S Waste and resource recovery

Objective

To reduce waste and maximise resource recovery so as to reduce reliance on landfills and minimise environmental, community amenity and public health impacts.

Strategies

Ensure future waste and resource recovery infrastructure needs are identified and planned for to safely and sustainably manage all waste and maximise opportunities for resource recovery.

Protect waste and resource recovery infrastructure against encroachment from incompatible land uses by ensuring buffer areas are defined, protected and maintained.

Ensure waste and resource recovery facilities are sited, designed, built and operated so as to minimise impacts on surrounding communities and the environment.

Encourage technologies that increase recovery and treatment of resources to produce high value, marketable end products.

Enable waste and resource recovery facilities to be located in proximity to other related facilities and to materials' end-market destinations to reduce the impacts of waste transportation and improve the economic viability of resource recovery.

Site, design, manage and rehabilitate waste disposal facilities in accordance with the *Waste Management Policy (Siting, Design and Management of Landfills)* (Environment Protection Authority, 2004).

Integrate waste and resource recovery infrastructure planning with land use and transport planning.

Ensure developments provide for segregation, storage and collection of waste and recyclable materials.

Encourage development that provides for:

Systems that support waste minimisation and increase resource recovery.

- Use of recycled and reusable materials where appropriate.

Policy guidelines

Consider as relevant:

- Any applicable Regional Waste and Resource Recovery Implementation Plan.

Policy documents

Consider as relevant:

- *Statewide Waste and Resource Recovery Infrastructure Plan* (Sustainability Victoria, 2015)
- *Metropolitan Waste and Resource Recovery Implementation Plan* (Metropolitan Waste and Resource Recovery Group, 2016)
- *Waste Management Policy (Siting, Design and Management of Landfills)* (Environment Protection Authority, 2004)
- *Environment Protection (Industrial Waste Resource) Regulations 2009*
- *Best Practice Environmental Management Guideline (Siting, Design, Operation and Rehabilitation of Landfills)* (Environment Protection Authority, 2001)
- *Victorian Organics Resource Recovery Strategy* (Sustainability Victoria, 2015)
- *Designing, Constructing and Operating Composting Facilities* (Environment Protection Authority, 2015)
- *Waste Management and Recycling in Multi-Unit Developments* (Sustainability Victoria, 2019)
- *Recycling Victoria A New Economy* (Department of Environment, Land, Water and Planning, 2020)

GBCA comments:

We recommend these additional outcomes that developments should provide for:

- **Effective management of operational waste through separation of waste streams and dedicated waste storage areas.**
- **Diversion of construction and demolition waste from entering landfill.**