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## CASBE Submission: Environmentally Sustainable Development of Buildings and Subdivisions: A Roadmap for Victoria’s Planning System

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## Background

The Council Alliance for a Sustainable Built Environment (CASBE) welcomes the opportunity to provide a submission in response to the Department of Environment, Land, Water and Planning's (DELWP) 'Environmentally Sustainable Development of Buildings and Subdivisions – A Roadmap for Victoria's Planning System' Consultation Paper.

While we generally support the work that DELWP are undertaking to update and expand Environmentally Sustainable Development (ESD) policy within the Victorian planning scheme, we have a number of recommendations which we believe would greatly improve the Roadmap.

## CASBE

[CASBE](#) is a collaborative alliance of Victorian councils committed to the creation of a sustainable built environment within and beyond their municipalities. CASBE provides a forum for the exchange of information and ideas on innovation and best practice in ESD. Our local, ground-up approach has resulted in collaborative local government led action and broad scale positive change to Victoria's built environment and a significant reduction to its consequent environmental impacts.

CASBE is supported by the Municipal Association of Victoria - the peak representative and advocacy body for Victoria's 79 councils.

CASBE [member councils](#) include:

Banyule City Council, Bass Coast Shire Council, Bayside City Council, Brimbank City Council, Darebin City Council, Frankston City Council, Glen Eira City Council, Greater Bendigo City Council, Greater Dandenong City Council, Greater Geelong City Council, Hobsons Bay City Council, Hume City Council, Kingston City Council, Knox City Council, Manningham City Council, Maribyrnong City Council, Maroondah City Council, Melbourne City Council, Melton City Council, Monash City Council, Moonee Valley City Council, Moreland City Council, Port Phillip City Council, Stonnington City Council, Whitehorse City Council, Whittlesea City Council, Wodonga City Council, Wyndham City Council, Yarra City Council, Shire of Yarra Ranges.

Our focus is on applying widely accepted Environmentally Sustainable Development (ESD) principles to the built environment through the Victorian planning system. To enable this, CASBE member councils have developed the Sustainable Design Assessment in the Planning Process (SDAPP) Framework - a streamlined and consistent methodology for requesting, receiving and assessing built environment sustainability outcomes through the planning process. By implementing the SDAPP Framework and using its tools, councils can achieve more sustainable outcomes from their local built environment for the long-term benefit of their community.

It is worth noting that there are concurrent projects being undertaken by CASBE and a number of metropolitan Councils, in particular the City of Moreland, Yarra and Melbourne, that seek to modernise and strengthen ESD outcomes in new development and significant alterations. This work is focused on policy that aims to ensure zero carbon development and is underpinned by a robust evidence base.

## Executive summary

Environmentally Sustainable Development (ESD) is a keystone principle in Victoria's planning system, embedded in the strategic objectives of State and Local Planning Provisions. However, there is often a disconnect between these higher order objectives and achieving on the ground ESD outcomes.

CASBE has long advocated for strong and detailed ESD policy in Victoria's state planning system.

The long-term nature of the built environment is now set against the backdrop of our climate fundamentally changing. By 2070, for example, temperature increases of between 1.5 and 3 degrees are expected. It is therefore critical to take a long-term view and consider the impact of climate change over the entire life of a development. It is also, however, just as important to look at our short-term response to climate change and make rapid changes so that we can meet important imminent targets such as zero net emissions. While the Victorian Government has a target of zero net emissions by 2050, many of our member councils have earlier timelines for this target.

As custodians of place, councils are critically involved in the development process. The risks to councils and their communities due to climate change and associated hazards are significant. Thirty-two Victorian councils have declared a climate and biodiversity emergency, committing to taking action to address climate change. While twenty of these councils are CASBE members, significantly, twelve of them are not, suggesting that support for action on zero emissions extends well beyond the thirty councils who are financial members of our alliance.

The contribution of development to a municipality's greenhouse emissions, and therefore climate change, varies from one municipality to another, as does the rate of development. The rate and scale of development in some municipalities highlights the extreme urgency of action required to address these emissions.

Subdivisions and buildings that are carefully planned to achieve improved quality of life, protect and use resources efficiently and improve the health of the environment and people can be achieved. However, sustainability considerations need to be embedded from the beginning of the design process.

We support mandating resilience, adaptability and mitigation in built form legislation. Implementing strong and robust ESD policies and standards into all planning schemes will have positive and lasting social, environmental and economic development outcomes.

We provide the following detailed submission for your consideration. We note that we have provided detailed feedback beyond what might have been expected for the high-level Stage 1 work, however we seek to provide both rationale for our comments on Stage 1 and preliminary comments for consideration for Stage 2.

We draw your attention to key recommendations below:

- ESD policies and standards developed through this consultation need to be aligned with the net-zero emissions targets legislated under the Climate Change Act 2017.
- The ESD Roadmap must complement, and not delay existing council work that builds towards mandating net-zero emission targets for the built environment in their planning schemes.
- Planning policy changes must establish a baseline across Victoria, while continuing to allow individual communities and councils to lead by pushing for cutting-edge ESD practice that is

tailored to particular needs, contexts and commitments to the community and may be above and beyond state requirements.

- Timing of the review of Councils' Local ESD policies is critical to ensure sustainability outcomes are not diminished. It is recommended that this process is undertaken in collaboration with ESD policy councils after the implementation of Stage 2.
- Current local ESD Policies and standards must remain in place unless they are replaced by state-wide standards that achieve at least the same level of ESD outcomes.
- Local policies should remain as a tool to achieve ESD outcomes in planning and should be able to go above and beyond state requirements where appropriate.
- Councils must continue to be supported to seek the existing local ESD Policy while the state is in the policy development stage.
- CASBE's Elevating Targets objectives and standards are considered and adopted into the Victorian Particular Provisions during Stage 2 of the ESD Roadmap
- The detailed reforms to the PPF should explicitly link back to an overarching climate change objective, as a matter of urgency.
- It is essential that all new development regardless of the size, location or use, is required to respond to ESD.
- Future Particular Provisions must be clear, measurable and simple to demonstrate.
- Future Particular Provisions must enable local government to fulfil their climate change commitments and obligations, including under the *Climate Change Act 2017*.
- That the Victorian Government recognise and include an overarching long-term zero carbon objective within the State-wide Planning Policy Framework.
- A Stage 3 of the process is required, being one that involves the collaborative review of the existing local ESD Policies.
- The process to review the local ESD policy is a collaborative process that involves CASBE member councils, key developers and users of the policy.
- The review of the existing local policies should occur after the implementation and gazettal of the outcomes of Stage 2.
- The translated version of the local policy must retain a description of the term 'Best Practice'.
- The Victorian Government must provide the ability to tailor controls to local circumstances through local schedules to the new Victorian Particular Provisions.
- Guidance materials (such as Planning Practice Notes and Guidelines) must be available at the outset i.e. before changes are gazetted.
- That the Victorian Government support the technical assessment of ESD standards at the planning stage.
- That clear guidance is provided to the industry on acceptable tools to use and / or protocols for local government / private sector assessment tools to follow to enable an appropriate assessment of development.
- That clear guidance is provided from the Victorian Government on how the technical aspects of ESD will be assessed at planning stage.
- That the Victorian Government gives serious consideration to the BESS tool being an option for assessing the state ESD requirements.
- Planning policy should not explicitly be linked to any NCC performance measures.
- Any economic consideration on the sustainability measures must go beyond upfront costs, to consider the lifecycle economic impact. Upfront costs should be considered as a mortgage or loan addition as these are the predominant financing approaches related to development.
- Strengthen state-based compliance measures to ensure that outcomes are being measured and reported and non-compliance issues can be appropriately managed.

5 March Feb 2021 - CASBE submission:

**Environmentally sustainable development of Buildings and Subdivisions:**

A roadmap for Victoria's Planning system, DELWP, January 2021

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- Potential reforms to the National Construction Code should not prevent Victoria from implementing necessary ESD provisions in planning regulations.

Detailed feedback on each of the environmental categories is provided in the sections below.

## 1 Sustainability in the built environment

### CASBE RECOMMENDATIONS:

- Include a planning definition of 'Environmentally Sustainable Development' to articulate a consistent understanding.
- ESD policies and standards developed through this consultation need to be aligned with the net-zero emissions targets legislated under the Climate Change Act 2017.
- The ESD Roadmap must complement, and not delay existing council work that builds towards mandating net-zero emission targets for the built environment in their planning schemes.
- Planning policy changes must establish a baseline across Victoria, while continuing to allow individual communities and councils to push for cutting-edge ESD practice that is tailored to particular needs, contexts and commitments to the community and may be above and beyond state requirements.

CASBE welcomes the proposed inclusion of state-wide ESD standards in planning policy. We welcome your acknowledgement that significant additional changes are needed to provide a more comprehensive response to ESD.

Stage One of the Roadmap seeks to update the Planning Policy Framework (PPF) to more comprehensively embed ESD considerations. This effort is supported in principle. The new ESD objective as a purpose of the Planning Scheme is supported in principle. Clarification is required on how the Smart Planning reforms translation of the new PPF format might impact on local policies. Other recommendations related to the proposed Stage One updates include the need for refinement of the currently proposed terminology. These recommendations are included under Appendix A below.

We note on page 5, that "*[t]his directions paper provides a Roadmap for how the planning system will help ensure that new residential, commercial and industrial developments incorporate environmentally sustainable development (ESD) features to support our current and future needs.*" We would suggest that the term "incorporating" treats ESD like it's an add-on, while language such as "designed and developed to be environmentally sustainable" or similar embeds ESD into a good design outcome.

This statement also acknowledges that there is currently a lack of ESD in the planning scheme. It acknowledges that while councils have provided leadership with ESD considerations in planning over the last 20 years, the Victorian Government only formally supported local ESD policy in the past 5-7 years and that state based ESD policy is long overdue.

When comparing ESD legislation to other important built environment aspects such as disability access, we can see it is comprehensively governed by federal legislation through the Disability Discrimination Act 1992. ESD does not currently have any formal legislation and the opportunity exists now to ensure that it is comprehensively covered in the Planning and Environment Act.

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## Environmentally Sustainable Development Definition

The Roadmap presents three existing definitions of **Environmentally Sustainable Development** and proposes that

- they broadly align with the intention of the Planning and Environment Act, and
- that they be used to '*inform the approach taken to addressing ESD in this Roadmap*'.

CASBE recommends that there is value in the inclusion of a planning definition of 'Environmentally Sustainable Development' to articulate a consistent understanding of what it encompasses. This is especially important as ESD encompasses processes and resources focussed not only on ecological systems but also on our social systems to improve the quality of life now and into the future (as detailed on page 5 of the Roadmap). CASBE recommends that DELWP liaise with local government and industry through the Stage 2 Working Group process to determine a definition of ESD for the purposes of the Victorian Planning system.

The existing local ESD policies include a definition of **Best Practice** as follows:

*"In the context of this policy best practice is defined as a combination of commercially proven techniques, methodologies and systems, appropriate to the scale of development and site specific opportunities and constraints, which are demonstrated and locally available and have already led to optimum ESD outcomes. Best practice in the built environment encompasses the full life of the build."*

This provides a clear understanding of how the term Best Practice is to be interpreted, while also providing flexibility to enable changes as industry standards evolve over time. In a similar way, a common understanding of ESD would enable the same opportunity.

The Planning and Environment Act states that

*The objectives of planning in Victoria are—*

*(a) to provide for the fair, orderly, economic and sustainable use, and development of land;*

The use of the word 'sustainable' should be structured to avoid 'greenwash'. Planning applicants note their developments are 'sustainable' where they have only introduced some minor ESD initiatives. It should be clear where mitigation of negative impacts vs net neutral vs net positive impacts is expected.

## Sustainable development and Victoria's planning system

### Supporting legislation

The Roadmap refers to both the Climate Change Act 2017 (CC Act) and the Planning and Environment Act 1987 (P&E Act), noting that the CC Act will have significant implications for future development across Victoria through establishing a long-term target of net zero greenhouse gas emissions by 2050. The Roadmap articulates that '*planning measures can help support achievement of these targets*' and proposes reference to the CC Act in revisions to 19.01-1S Energy supply and 19.01-2S Renewable energy. CASBE supports these revisions. Refer to our specific comments on the proposed PPF changes below. It is of utmost importance that ESD policies and standards developed through this consultation are aligned not only with the net-zero emissions target legislated in the CC Act, but also enable transition to a carbon positive target which will be an inevitable outcome as the impacts of climate change unfold in the coming months and years.

To this end, CASBE submits that climate change must be addressed as an overarching principle in the planning scheme, and that policy is developed to reflect this. Climate change must be afforded the same level of concern as other objectives in the P&E Act, and as other purposes of the planning

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system. This could be achieved by aligning the P&E Act and the Local Government Act (LG Act) with the CC Act to reflect the objectives and targets contained in the CC Act. CASBE would support changes to the P&E Act and planning schemes to facilitate this. We note that the CC Act is not referenced in Table 2 or Figure 1 of the Roadmap. Inclusion of the CC Act in these diagrams would have given a visual indication of how this key Act interacts with the other Acts and policies relevant to ESD requirements.

We note that in Table 1 under Energy, other clauses also should [indirectly] fall here, such as daylight, solar access to POS as they cover passive design and also have some overlap with Indoor Environment Quality (IEQ).

We also note that the Air and Noise category should be expanded to also consider IEQ. Refer to comments later in this submission.

### **Restrictive covenants**

We draw to your attention to restrictive covenants. Currently restrictive covenants on titles exist that may be counter to ESD outcomes; e.g.: only one dwelling per lot, dwellings must have a minimum floor area of 'x', buildings must be constructed of all new materials, external cladding must be brick veneer, cladding must be of a particular colour (e.g. black tile roof). For ESD principles to be fully realised, the P&E Act and the Building Act (and possibly the Transfer of Land Act) need to be amended, to enable planning and building permit decisions to override restrictive covenants, to the extent that they may be counter to ESD outcomes.

## **CASBE and Local ESD Policies**

### **CASBE RECOMMENDATIONS:**

- Current local ESD Policies and standards must remain in place unless they are replaced by state-wide standards that achieve at least the same level of ESD outcomes.
- Local policies should remain as a tool to achieve ESD outcomes in planning and should be able to go above and beyond state requirements where appropriate.
- Timing of the review of Councils' Local ESD policies is critical to ensure sustainability outcomes are not diminished. It is recommended that this process is undertaken in collaboration with ESD policy councils after the implementation of Stage 2.
- Councils must continue to be supported to seek the existing local ESD Policy while the Victorian Government is in the policy development stage.
- CASBE's Elevating Targets objectives and standards are considered and adopted into the Victorian Particular Provisions during Stage 2 of the ESD Roadmap.
- Planning policy should not explicitly be linked to any NCC performance measures.

Thank you for your recognition of the significant advances that CASBE councils have made in ESD Planning Policy.

### **Existing ESD Policy**

Firstly, it is of utmost importance that the current ESD policies and standards held by numerous councils are not diluted. These policies and standards have been in use over many years and developers operating in these municipalities understand and accept these requirements into their development feasibilities. New state planning controls must not lessen these existing standards.

The local ESD policy includes objectives and strategies across numerous categories including: Energy, Water, Stormwater, Indoor Environment Quality, Transport, Urban Ecology and Waste. Management



and Innovation are also covered. Therefore, consideration of all these issues in the VPP are required to incorporate the spectrum of the ESD policy.

Local policies should remain as a tool to achieve ESD outcomes in planning. Local ESD policies express the specific sustainability objectives of councils and help provide direction where locally specific policy guidance on a particular matter is needed or where it not addressed by Victorian Government policy. Local governments should be able to include local requirements that are more ambitious than state requirements where appropriate to meet individual council goals and community expectations.

Timing of the review of existing Local ESD policies is critical to ensure sustainability outcomes are not diminished. CASBE recommends that this process is undertaken in collaboration with ESD policy councils after the implementation of Stage 2. We provide further comment on the review of the current ESD Policies below, *Stage three: review of existing local ESD policies*.

Councils must continue to be supported to seek the existing local ESD Policy while the state is in the policy development stage. Timing of gazettal of the state-wide ESD policy is uncertain, and many councils have spent considerable time progressing this work and need it to be progressed as a matter of urgency.

#### **CASBE's Elevating Targets Project**

Over the past 12 months, CASBE has been working with member councils to review local ESD policy and develop recommendations for changes to achieve improved sustainability outcomes. This review not only looks at the environmental targets of different environmental building categories in the *Sustainable Design Assessment in the Planning Process* (SDAPP) Framework, but also the tools to best achieve the targets. This work is occurring alongside the work outlined in the Roadmap. The group working on this within CASBE is called the Elevating Targets Working Group. Objectives and standards are being developed under the following thematic areas: Energy & Carbon, Water, Integrated Water Management, Waste & Circular Economy, Indoor Environment Quality, Transport, Urban Ecology and Climate Resilience.

CASBE strongly recommends that the Elevating Targets objectives and standards being developed by CASBE are considered and adopted into the Victorian Particular Provisions during Stage 2 of the ESD Roadmap. We have previously shared the 'raw' objectives and standards for the purposes of informing the development of the state policy work. CASBE is committed to working transparently with DELWP and will forward revised objectives and standards developed in the Elevating Targets work as they become available.

Following the development of these objectives and standards, it is the intention of a number of CASBE member councils to pursue a revised ESD policy by way of a planning scheme amendment.

#### **Working alongside the building system**

Figure 1 on page 10 of the Roadmap outlines the objectives in the Building Act 1993, that includes:

- To enhance the amenity of buildings
- To promote plumbing practices which protect the safety and health of people and the integrity of water supply and waste water systems
- To facilitate the construction of environmentally and energy efficient buildings

The Roadmap indicates the planning and building systems work in combination to deliver ESD outcomes. CASBE agrees with this statement.

The Roadmap suggests that, for energy efficiency at least, planning siting and design measures should '*support achievement of energy performance standards of the National Construction Code (NCC)*'. CASBE is concerned that the NCC generally has only covered energy efficiency to a baseline level and linking to the NCC, over which the Victorian Government has no direct control, will not address the state's own zero emission targets or those of CASBE councils.

Further, building regulations have historically lagged many years behind beneficial Victorian planning requirements. For example, NatHERS was first introduced through the Victorian planning system and is now nationwide. Such forward thinking should not be constrained in the ESD space by limiting opportunities for quality improvement and environmental impact reduction.

#### Amenity

Amenity is a very broad aspect to enhance. CASBE submits that the NCC sets a very low standard for daylight and natural ventilation, and that requirements for enhanced amenity are being better delivered by development that complies with best practice tools such as the Built Environment Sustainability Standard (BESS), Green Star and the WELL Building Standard.

#### Plumbing

The NCC is also unable to promote holistic plumbing practices across all development types. Currently it is only the Victorian Building regulations that require single dwellings in Victoria to have a rainwater tank for re-use (or a gas boosted solar hot water system). There is nothing in the NCC to address the 'integrity of water supply' requirement for a broad range of development types. We would argue, for example, that a requirement for rainwater tanks across all development types would assist with the 'integrity of water supply'.

#### Environmentally and energy efficient buildings

There is limited consideration of environmental issues in the NCC beyond energy.

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## 2 Environmentally sustainable development roadmap

### A new approach for sustainable buildings and subdivisions

The Roadmap states that the current level of ESD requirements in planning schemes are limited in scope and have been implemented in a piecemeal way. The design of the Victorian planning system limits the degree to which councils can unilaterally implement policy.

CASBE acknowledges that inconsistent planning standards of any kind between local government municipalities can create an uncertain environment for industry, and CASBE exists for the express purpose of reducing that inconsistency when it comes to ESD standards. As the Roadmap states, *“noting the absence of a comprehensive state-wide approach to ESD at the lot scale, the Advisory Committee and Panel Report on Environmentally Efficient Design Local Policies (2014) supported adoption of local policies into specific planning schemes until such time as a state-wide approach is developed in the VPP.”*

The Sustainable Design Assessment in the Planning Process (SDAPP) Framework established common language, and clear best practice standards for ESD. While currently under review by CASBE councils, these have meaningfully lifted real-world ESD standards. Furthermore, the terms Sustainable Design Assessment (SDA) and Sustainability Management Plan (SMP) have been successfully taken up by industry in Victoria.

The application of the SDAPP Framework through CASBE member councils has changed attitudes to ESD within the Victorian community, development industry, DELWP, Planning Panels Victoria, and the Victorian Civil and Administrative Tribunal. CASBE believes that significant value could be added to this foundation work by the introduction of state-wide prescriptive standards and requirements.

CASBE submits that the publication referred to in the Roadmap document, *Local Government for a Better Victoria: An Inquiry into Streamlining Local Government Regulation*, is outdated and predates the introduction of local ESD policies introduced in 2015, five years later. Currently, as of March 2021, nineteen councils throughout the state have a very consistent local ESD policy. All ESD objectives articulated throughout each ESD policy are identical between all councils that have adopted a local ESD policy. Several other councils have similar policies outlining ESD requirements and several more are seeking to introduce consistent local ESD policies.

Further clarity is required as to how, when and with whom *‘DELWP will work with the Local Government sector to review how local ESD policies are amended to complement the new state provisions and avoid any repetition or duplication with state objectives’* (page 13). Several representatives from Local Government authorities, including CASBE, must be represented at such forums. We provide further comment on the review of the current ESD Policies below, *Stage three: review of existing local ESD policies.*

### ESD in rural and regional areas

CASBE recognises that regional and rural municipalities have a somewhat different planning context than metropolitan municipalities, in terms of type, number and scale of development. These communities have no less desire for a sustainable, climate resilient built environment. Indeed, these councils have expressed a strong desire that the planning system be strengthened state-wide, and that they not be left as the ‘poor cousins’ to their metropolitan peers, with a lower standard of ESD.

Regional and rural councils have been active CASBE participants for many years; these councils have informed and codesigned an approach to ESD that is applicable across Victoria. Regional and rural councils were part of the original SDAPP Roll Out Project, and since then as ESD policy councils (City of Greater Bendigo, City of Greater Geelong), and particularly the Sustainable Subdivisions Framework project. CASBE works to facilitate consistency in standards and assessment, knowledge sharing and capacity building across its network.

The success of the ESD policy in the City of Greater Bendigo is proof of concept that best practice ESD objectives can be achieved in a regional city context.

The interest and engagement in the Sustainable Subdivisions Framework project demonstrates firstly the need for better outcomes and secondly the commitment of local government to improving ESD outcomes in subdivisions. The full (extensive) list of pilot councils is:

- Alpine Shire Council
- Ballarat City Council
- Bass Coast Shire Council
- Cardinia Shire Council
- East Gippsland Shire Council
- Golden Plains Shire Council
- Greater Bendigo City Council
- Greater Geelong City Council
- Greater Shepparton City Council
- Horsham Rural City Council
- Hume City Council
- Indigo Shire Council
- Knox City Council
- Latrobe City Council
- Macedon Ranges Shire Council
- Melton City Council
- Mildura Rural City Council
- Moorabool Shire Council
- Mornington Peninsula Shire Council
- Murrindindi Shire Council
- Pyrenees Shire Council
- Strathbogie Shire Council
- Swan Hill Rural City Council
- Towong Shire Council
- Wangaratta Rural City Council
- Warrnambool City Council
- Whittlesea City Council
- Wodonga City Council
- Yarra City Council

It is true that regional and rural councils are more likely to be resource constrained. CASBE has worked with regional and rural councils to investigate the feasibility of shared resource models, similar to the model used for heritage advice in these councils. The study showed there is interest and need for these services in regional and rural councils.

## Stage one: Update the planning policy framework (PPF)

### CASBE RECOMMENDATIONS:

- The detailed reforms to the PPF should explicitly link back to an overarching climate change objective, as a matter of urgency.
- That the range of environmental issues included in the PPF align with those used in the SDAPP Framework, specifically the updated categories being developed as part of the Elevating Targets project.

CASBE supports the two-stage process, with Stage 1 being the inclusion of more comprehensive ESD policy into the PPF.

CASBE supports the view that a comprehensive approach to ESD covers a range of environmental issues, namely the issues long used in the SDAPP Framework, which are now being updated as part of the Elevating Targets project.

The detailed reforms to the PPF should explicitly link back to an overarching climate change objective, as a matter of urgency. Zero carbon development explicitly addresses the targets outlined in the CC Act of zero carbon by 2050. An urgent planning response is required given that these proposed policies will not see actual on ground construction for potentially 2-5 years after the policy is introduced, meaning it will be some time before these policies will deliver outcomes that can contribute to the 5-year increment goals that are set in the Climate Change Act.

We note that the Roadmap doesn't mention sustainable materials or resource efficiency. External materials and structural systems are usually known by the early planning stage and are a critical element when considering the environmental impact of a building. Consideration of materials use and construction waste must be considered alongside resource recovery.

Refer to our detailed comments on the proposed changes to the VPPs in Appendix A.

We note the commentary on the local ESD Policies on page 14. We provide further comment on the review of the current ESD Policies below, *Stage three: review of existing local ESD policies*.

## Stage two: Update particular provisions

### CASBE RECOMMENDATIONS:

- It is essential that all new development regardless of the size, location or use, is required to respond to ESD.
- Future Particular Provisions must be clear, measurable and simple to demonstrate.
- Regional areas must be supported with applying state-based provisions.
- Consideration of ESD should be a requirement for single dwelling planning applications that currently require planning approval.
- Future Particular Provisions must enable local government to fulfil their climate change commitments and obligations, including under the *Climate Change Act 2017*.
- That the Victorian Government recognise and include an overarching long-term zero carbon objective within the State-wide Planning Policy Framework.

CASBE strongly supports the development and inclusion of expanded and new particular provisions with clear ESD performance standards. We encourage the development of particular provisions that are clear, measurable and simple to demonstrate. This will greatly assist both development applicants and local government statutory planning teams in determining what is an acceptable level of ESD.

CASBE welcomes the opportunity to work with DELWP and participate in the consultation on the detailed particular provisions through the Working Group process. We strongly encourage the broad and open participation of Victorian councils in this process.

### Industrial and commercial development

CASBE supports the new particular provision for industrial and commercial development. However, it will be essential to ensure all new development (and relevant refurbishments) are captured in such a provision. Specifically, close attention must be paid to any exemptions under the provision to not miss smaller commercial and industrial developments. For example, clause 53.18 (Stormwater) excludes VIC-SMART applications, however many industrial developments of a simple form (e.g. warehouse with small ancillary office areas upwards) yet on a lot size greater than 2,000m<sup>2</sup> qualify for VIC-SMART and hence, are not applicable for assessment. This is considered a missed

opportunity (for the theme of stormwater management and quality) and must be avoided for any ESD provision that will capture several sustainability themes.

### **ESD requirements for single dwellings**

Consideration of ESD should be a requirement for single dwelling planning applications that currently require planning approval. Some metro councils, for different reasons (land size triggers or overlay requirements) assess a large proportion of applications for single dwellings and single dwelling extensions that have the potential to collectively improve sustainable development outcomes. It is understood that land size triggers and property sizes differ between local government areas, and peri-urban and rural councils do not have triggers for single dwellings on a lot or land sizes are on average higher than the associated planning trigger. There are other opportunities including planning sub-division approval processes and Precinct Structure Plans to capture some of this development however the Roadmap seems to lack any analysis within this critical space to progressing sustainable development for this typology.

### **Supporting regional and rural communities**

To date, the bulk of the development industry experience with the existing local ESD policy requirements is within the Melbourne metropolitan area or large regional centres. However, this has caused an inequitable community experience of the good design that results from the consideration of ESD, between metro and rural areas, with the majority of rural councils unable to resource the implementation of a local ESD Policy. This should not be interpreted as regional and rural councils not wanting climate resilient, environmentally sustainable developments within their municipality. It is imperative that state-wide provisions are established and that regional areas are supported with applying the provisions.

### **Structure of any amended or proposed new Particular Provision**

CASBE has a diverse mix of member councils who have different views on how ESD should be incorporated both in the Planning Policy Framework but also within the Particular Provision performance standards. At this stage there is not enough detail provided about the proposed particular provisions to comment in detail about how they may be applied.

We provide the following commentary regarding the options for structuring the inclusion of ESD in the Particular Provisions.

#### One specific ESD focused 'umbrella' particular provision

- The framework around the local ESD policy has been successful due to the way the ESD elements are considered together in one policy, acknowledging that the measures collectively influence each other for a holistic approach to sustainability design. To replicate this at state level, an ESD focused 'umbrella' particular provision (ie Clause 53.XX) that refers to the various particular provisions it seeks to fulfill, captures all (or most) ESD categories, includes objectives and standards and applies to all residential, mixed use, commercial and industrial buildings would operate in a similar way to the existing local ESD policies. This kind of structure would assist in addressing duplication throughout the planning scheme by creating a central area focused on ESD requirements and provide the opportunity for local schedules to be used by councils to develop local requirements where appropriate for all ESD categories. ESD submissions from planning applicants would therefore respond to this single umbrella provision, rather than a piecemeal reference to various provisions.
- A Scheme structure that provides opportunities for local requirements for each of the ESD categories is essential to ensure that councils have the ability to tailor planning policy to respond to their local conditions or go beyond the Victorian Government targets where appropriate.



- Removing Clause 15.02-1S, and moving and aligning existing clauses to the relevant thematic area, risks losing or diluting the intent and purpose of the original policy.

#### Including ESD in multiple particular provisions

Including ESD across multiple clauses embeds sustainability throughout the scheme, demonstrating the ability for it to be integrated with every aspect of development. Thematic categories align with the objectives of the Smart Planning Program (addressing inconsistent and contradictory planning controls; making planning regulation easier to understand and interpret; facilitating more effective and consistent decision making). However, this approach will require strong guidance to ensure that an applicant's response to ESD covers all relevant issues and is coherent for the internal referrals process at council. For example, perhaps guidance should be provided for applicants as to how to structure documents (planning reports etc) to be submitted as part of a planning permit application, to avoid ESD being scattered throughout multiple reports, the assessment of which will be more difficult.

Including ESD in multiple particular provisions will increase the need for and pressure placed upon a 'navigator' tool - similar to the approach taken with the stormwater clauses (though at a new scale due to the breadth of issues to be considered).

#### **Preliminary comment on the content of the future Particular Provisions**

We provide the following commentary around performance standards as both discussion and justification to support the proposed changes to the VPPs but also as early advice for work on the proposed Particular Provisions.

#### Measurable performance standards

An internal study conducted by CASBE and Moreland City Council in 2018, reviewed the effectiveness of the local ESD policies using past VCAT cases to determine level of support or otherwise. The following is an excerpt from this report.

*"It should be noted that my suggestions about clearer benchmarks to some extent may push against the prevailing culture at DELWP – and, perhaps, Planning Panels Victoria – about how controls should be drafted, both with regards to ESD and the inclusion of any kind of guidance or benchmark in policy that may be regarded as a prescriptive standard. Nevertheless, there is no legitimate system reason why policies should not include benchmarks as an assistance to achieving overall policy objectives, as long as neither the wording nor the use of the policy purports to make them mandatory or to apply them in an inflexibly prescriptive manner".*

*Ref: Dr Stephen Rowley, RCI Planning, Effective Application of ESD Policy, Report prepared on behalf of CASBE and Moreland City Council, 2018, p.23-24*

CASBE supports the provision of clear policy objectives and measurable performance standards as part of an assessment methodology of ESD in planning.

Measurable performance standards are an important part of ESD assessment in planning for the following reasons:

- Clarifies sustainability expectations by Victorian State and Local Governments,
- Allows industry to efficiently systemise responses, and
- Allows state and municipal level targets such as zero net carbon to be expressed and measured at the lot scale towards collectively achieving the state or municipal level target.



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CASBE recommends the inclusion of appropriate measurable performance standards in the Particular Provisions, including standards relating to but not limited to zero carbon development. All performance standards must be designed to enable developers the ability to respond with a range of design responses that suit the context and typology of the development.

#### Zero carbon development

It is unclear in the Roadmap document the extent to which the proposed changes to the Particular Provisions will go towards meeting the CC Act target of zero emissions by 2050. We suggest that if we are not targeting zero carbon development now, we are unlikely to achieve a net zero carbon outcome in 2050 given that the majority of development constructed now will be standing in 2050. The longer we wait, the more buildings will have to be subsequently retrofitted.

CASBE recommends that the Victorian Government recognise and include an overarching long-term zero carbon objective within the State-wide Planning Policy Framework.

Furthermore, CASBE recommends that the future Particular Provisions (or other proposed changes which embed ESD standards into the Scheme) must enable local government to fulfil their climate change commitments and obligations under the *Climate Change Act 2017*, by requiring zero carbon emissions from new development.

There are several CASBE councils seeking planning policy change to support a requirement for the staged introduction of zero carbon development into their municipalities. These efforts respond to council specific and endorsed climate change commitments, as well as statutory Climate Change Pledges under the Victorian Climate Change Act 2017 (Vic).

CASBE notes the strong economic case for increased ESD standards in development particularly in the face of the COVID-19 economic recovery. Specifically, we posit that transitioning towards a zero carbon economy in planning will strengthen economic competitiveness. By way of example, in a business-as-usual scenario, the impacts of climate change and the missed economic opportunities of transitioning to a low carbon economy will cost \$12.6billion to the City Melbourne's economy by 2050 (*City of Melbourne, Climate Change Mitigation Strategy to 2050, 2018*). Buildings contribute 66 percent of current annual greenhouse gas emissions in the City of Melbourne and so have the potential to mitigate a significant proportion of this cost. If all new building constructed in the municipality are zero emissions by 2030, with all existing buildings net zero by 2050, the economic benefit to the municipality will be over \$4billion, with a benefit:cost ratio of 1:86 (*City of Melbourne, Climate Change Mitigation Strategy to 2050, 2018*). Green Star rated buildings produce 55 per cent fewer greenhouse gas emissions and use 66 percent less electricity than the average Australian building. As well as reductions in costs associated with highly thermally efficient and energy efficient buildings, these design measures also make buildings, and their occupants, less vulnerable to higher external temperatures and extreme heat.

#### Carbon positive development

As mentioned above, the PPF should include reference to carbon positive development (draws down greenhouse gas emissions) to set the scene for where buildings need to be in the coming decades.

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## Stage three: review of existing local ESD policies

### CASBE RECOMMENDATIONS:

- A Stage 3 of the process is required, being one that involves the collaborative review of the existing local ESD Policies.
- The process to review the local ESD policy is a collaborative process that involves CASBE member councils, key developers and users of the policy.
- The review of the existing local policies should occur after the implementation and gazettal of the outcomes of stage 2.
- The translated version of the local policy must retain a description of the term 'Best Practice'.
- The Victorian Government must provide the ability to tailor controls to local circumstances through local schedules to the new Victorian Particular Provisions.

CASBE recommends that a Stage 3 of the process is required, being one that involves the collaborative review of the existing local ESD Policies.

CASBE agrees that reviewing local ESD policy as part of the implementation of state ESD planning reforms is needed to ensure there is no duplication, however the Roadmap is not clear around what will happen to the local ESD policy in stage 2; it is just noted that it will be reviewed to avoid duplication. Further clarity is required as to how, when and with whom *'DELWP will work with in the Local Government sector to review how local ESD policies are amended to complement the new state provisions and avoid any repetition or duplication with state objectives'* (page 13).

CASBE recommends that the process to review the local ESD policy is a collaborative process that involves CASBE member councils, key developers and users of the policy. These policies have facilitated councils in providing the leadership their communities have called for, have created understanding, a new nomenclature, and best practice standards. They acted as a 'petri-dish' where ESD advancement in the Victorian Planning Scheme has been proven.

The local ESD Policies contain a sunset clause that states that they will be replaced when comparable provisions are included in the VPP. CASBE strongly recommends that the review of the local ESD Policies occurs after the gazettal of the stage 2 outcomes, ie the ESD Local Policy must be retained while the Particular Provisions and other planning mechanisms (e.g. schedules to zones or the Design and Development Overlay) are explored. This is to ensure:

- the nuance of the existing local ESD policy is understood,
- changes are appropriate to continue to achieve sustainability outcomes currently being realised by the existing local policy and assessment tools, and
- local sustainability outcomes are not lost while Stage 2 is being developed and implemented.

Local ESD Policy has been consistently introduced and successfully implemented into 19 Victorian Planning Schemes, with a number of others currently in development. A key reason that these policies have been able to influence sustainability in the built environment across Victoria is due to the supporting tools and their inter-relationship with the policy, and the collaborative way they are managed through CASBE. Part of the success of this work has been establishing clear expectations from industry, which has been based on a clear understanding of the term 'best practice'.

Page 14 of the Roadmap refers to the *'DELWP format'* for the ESD local policies being translated into the new PPF format under the Smart Planning reforms. The DELWP format for ESD local policies must retain a description of 'best practice' as it is currently defined in the existing version of the

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local ESD Policy. The term 'best practice' and the associated clarifying description of the term, serves as the overarching objective and primary function of the local ESD policy through evoking continual improvement for development against industry standards and legislative reform such as the emission targets and obligations specified under the *Climate Change Act*.

### **Importance of local variations**

The Roadmap details that the ESD reforms will provide an opportunity for local objectives and strategies relevant to each municipality to be inserted in the PPF. However, the Roadmap is not clear whether there will be opportunity for councils to include local standards to achieve particular performance outcomes beyond what state policy directs. How will DELWP facilitate suitable ESD provisions for those councils that have the desire and the capacity to deliver cutting edge ESD provisions that deliver real outcomes with respect to mitigating climate change?

CASBE is currently working to elevate the existing targets within the SDAPP Framework and develop new sustainability measures to align with modern day sustainability outcomes that will support councils in their pledges to transitioning to net zero emissions communities and economies. As such, it is important that the planning reforms include a framework that will enable councils to include local performance measures and additional sustainability categories to achieve their own climate targets.

To that end, CASBE strongly recommends that the Victorian Government structure the proposed changes to enable councils to implement policies beyond the minimum requirements established by a state-wide policy. A state-wide policy would raise the level of understanding of ESD within the development industry across the state, however local variations are also important to support industry leaders in driving change.

Furthermore, the planning scheme has many examples of where local variations are allowed and supported to meet individual council goals and aspirations. We draw your attention to these recently gazetted examples in the scheme.

- Heritage Overlay (HO936) to the Greater Bendigo Planning Scheme – gazetted 4 March 2021
- Amendment C285STON including neighbourhood character overlay to the Stonnington Planning Scheme – gazetted 12 November 2020

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## Further assessment, guidance and tools to support delivery of ESD

### CASBE RECOMMENDATIONS:

- Guidance materials (such as Planning Practice Notes and Guidelines) must be available at the outset i.e. before changes are gazetted.
- That the Victorian government support the technical assessment of ESD standards at the planning stage.
- Any economic consideration on the sustainability measures must go beyond upfront costs, to consider the lifecycle economic impact.
- That clear guidance is provided to the industry on acceptable tools to use and / or protocols for local government / private sector assessment tools to follow to enable an appropriate assessment of development.
- That clear guidance is provided from the Victorian government on how the technical aspects of ESD will be assessed at planning stage.
- That the Victorian Government gives serious consideration to the BESS tool being an option for assessing the state ESD requirements.
- The Victorian Government financially supports the Loddon Campaspe Regional Partnership Councils wanting to test the implementation of the ESD service delivery roadmap now and use this data to inform future resource requirements.
- That the Victorian Government consider state-wide application of the Green Factor tool.

### Resources

CASBE recommends that guidance materials (such as Planning Practice Notes and Guidelines) must be available at the outset, for example when changes to the Particular Provisions (or other provisions of the VPPS) are gazetted to aid in interpretation by councils and to assist development applicants.

CASBE recommends that additional resources are provided to councils without existing ESD policies to fund in-house training and referrals once the controls change. We would be happy to work with DELWP in the development and provision of these resources. It is possible that a number of existing resources already being applied through the SDAPP Framework and the Sustainable Subdivisions Framework (SSF) would be suitable for use in a state context.

CASBE recommends the Victorian Government financially supports the Loddon Campaspe Regional Partnership Councils wanting to test the implementation of the ESD service delivery roadmap they delivered as a result of Victorian Government funding. The implementation plan was developed in anticipation of a state-wide ESD policy being introduced to test its transferability across other regional areas and understand and resource implications of this occurring.

### Economic factors

The Roadmap outlines that:

*“Economic factors must also be assessed – improved sustainability standards can reduce the operational costs of a building and improve whole of community outcomes, but care is needed to ensure new performance standards are cost effective and do not impose unreasonable costs. All new ESD standards will be subject to economic assessment and stakeholder feedback”*

Any economic consideration needs to go beyond just the additional costs to build in ESD measures into a development. There needs to be strong consideration to the long-term benefits, which will be necessary to meet Victorian Government climate and sustainability commitments. ‘Lost opportunity costs’ need to also be considered. It is known that the early stages of design provide the most economical opportunity to improve building design. The consequences of stymied responses in the

present day become locked-in for the life of buildings (60 years for some aspects). Other considerations include:

- It is cheaper to integrate ESD strategies in new construction than to retrofit
- More efficient buildings have lower operational costs
- Market value of an efficient, healthy and resilient building
- Improved health and environmental outcomes

Previous cost benefit studies for the existing local ESD planning policies indicated favourable return on investments for a range of building typologies with present value benefits (at a 7% real discount rate) exceed present value of costs (at the same discount rate) by between 3.1 and 6.8 times.

### **ESD Assessment tools**

The Roadmap refers to the use of assessment tools '*to assess the overall design of the development in regard to ESD*', and states that the project will review opportunities to incorporate the use of an ESD assessment tool at a state level.

Currently, the local ESD policy requires ESD reporting on residential developments for (typically) 2+ dwellings and non-residential developments (typically) >500sqm. The policy also makes reference to council adopted and industry tested design standards. The reporting requirement allows developments to be assessed on their appropriateness against the local policy and design standards. BESS has been specifically developed to enable this assessment. We provide detailed commentary on the BESS tool in the next section.

Clear guidance from the Victorian government on how the technical aspects of ESD will be assessed at planning stage is required. We note that preliminary feedback from DELWP suggest that the Victorian government is more likely to develop a guidance tool ('navigator') along the lines of the guidance document for the stormwater planning clauses, rather than an analytical tool like BESS. We strongly recommend that the Victorian government support the technical assessment of ESD standards at the planning stage by providing clear guidance to industry and local government on the use of tools, and / or that the state develop protocols for local government / private sector assessment tools to follow to enable an appropriate assessment of development.

The use of independent certifications as sustainability benchmarks is well established in the planning scheme. There are many benefits to embedding an independent third-party sustainability tool, such as BESS or Green Star, into technical standards. It is critical that the use of sustainability tools are based on an agreed and consistent methodology for setting targets and measuring progress towards benchmarks. CASBE supports the use of well-established, best-practice and industry-accepted tools and assessment methods including BESS, Green Star, STORM (once upgraded), MUSIC, NABERS and NATHERS. These tools have a long track record and strong governance and are well-regarded.

However, the STORM example, where a tool initially funded by a Victorian water authority has not been resourced over time and has subsequently declined in applicability, has left councils having to create guidelines, educate the community and bear the burden of compliance. It is strongly suggested that this scenario is avoided with ESD tools.

CASBE seeks to understand the extent to which the Victorian Government proposed changes will support the use of tools such as BESS and the proposed Green Factor Tool by the City of Melbourne. Where assessment tools (e.g. BESS or Green Star) include positive design initiatives beyond the coverage of specific provisions pointed in the Roadmap, we recommend that these be considered to "*assess the overall design of the development in regard to ESD*".

## **BESS**

CASBE commends the BESS tool to the Victorian Government and seeks to work collaboratively with representatives at DELWP to develop and refine existing reporting and governing mechanisms for the BESS tool, that would suit the use of BESS as an option for assessing state ESD requirements.

BESS has been utilised by Councils and industry for the past 6-7 years with its development based upon the foundation of the former STEPS and SDS sustainability/ESD assessment tools. BESS is in fact used more extensively by planning and sustainability professionals than the rating tools GreenStar and EnviroDevelopment referenced on page 5 of the Roadmap. (*Local ESD Planning Policies Monitoring Report, Cities of Banyule, Port Phillip, Moreland, Stonnington, Whitehorse and Yarra, September 2018*)

While BESS was initially developed to support local ESD Policies, it was designed and has always been held that the tool could be applied across the state. Current use of the tool demonstrates that it is effectively being applied across a range of council types. BESS is a flexible and adaptable tool and already works with various levels of policy. Inclusions in BESS complement building regulation, assist in delivery of state policy, and align with CASBE member best practice standards and local ESD policies.

BESS can be used to assess any building development type, including mixed use and multi building sites. Upgrades to BESS have responded to changing development types, technology changes, regulatory changes (e.g. NCC2019) and user requirements. Ongoing upgrades of BESS are planned to continue this work to continue to streamline and clarify ESD assessments.

CASBE recommends that the Victorian Government gives serious consideration to the BESS tool being an option for assessing the state ESD requirements. We provide the following rationale to support this position:

- The BESS tool is used in approximately 90% of relevant planning applications where an ESD assessment is required. This emphasises the strong industry uptake, familiarity and acceptance of the BESS tool given its market share and dominance.
- BESS is supported by local government enabling easy access by the industry.
- BESS is governed by local government with direct experience in applying local ESD policy.
- BESS offers a streamlined approach to assessing the sustainability outcomes of a proposed design.

Both Victorian state and local government have significantly invested in the BESS tool to date. Ongoing financial and in-kind contributions from CASBE member councils enable the continual development and refinement of the BESS tool. A new state ESD tool would scatter the marketplace, require further education, upskilling and training by both government and industry to familiarise with the tool, and complicate the planning application approval process.

CASBE does not consider there would be any benefits to industry or government if the Victorian Government was to develop another new ESD tool.

## **Green Factor**

CASBE commends the Green Factor tool to the Victorian government. The City of Melbourne will continue to work with DELWP to seek Ministerial support for the recently developed Green Factor Tool which has been developed and is underpinned by a strong evidence-base and best practice design standards for green infrastructure. Green Infrastructure assessment tools, or green factor tools, have emerged as planning, modelling and assessment tools to encourage the integration of green infrastructure into developments. In developing the City of Melbourne Green Factor Tool, the



incorporation of contextual considerations, geographic zoning requirements and variations in green factor scores based on development types and scales have been considered.

## Verification and compliance

### CASBE RECOMMENDATIONS:

- Strengthen state-based compliance measures to ensure that outcomes are being measured and reported and non-compliance issues can be appropriately managed.

Ensuring ESD measures committed to as part of the planning process are implemented is critical. Strong compliance measures ensure that outcomes are being measured and reported and non-compliance issues can be appropriately managed. Robust and proactive measures to ensure that ESD requirements that are stipulated at the Planning permit stage are in fact carried through to as-built completion are required.

A number of local councils have been undertaking Verification programs within their municipalities. Moreland City Council's Enforcement and approved ESD Officers have been carrying out on-site inspections, including random checks [on problematic developers and sites] at various stages of construction, resulting in the discovery of many compliance issues and breaches. Post-construction Implementation reports related to Sustainability Management Plans (SMP) are currently being prepared to give to developers.

City of Port Phillip ESD Officers have been working with their Statutory Planners and Compliance Officers and have found that standard permit conditions that require an ESD compliance report at occupancy were applied inconsistently, even when they were in fact received. In light of this, their referral process has changed with templates created to review applications early, proactively asking for Implementation reports by reviewing lists and finding applications that are likely to require ESD.

## Concurrent building reform processes

### CASBE RECOMMENDATIONS:

- Potential reforms to the National Construction Code should not prevent Victoria from implementing necessary ESD provisions in planning regulations.

CASBE agrees with commentary in the ESD Roadmap that the regulatory systems need to work together and complement each other to ensure effective ESD outcomes for Victoria's built environment.

We believe that to be effective, ESD must be addressed through both the planning and building control systems. Potential future changes to the NCC should not prevent Victoria implementing the policy needed to reach a net-zero target.

The local ESD Policies already provide policy support for some of the proposed measures to be introduced in the NCC such as:

- 'Solar ready' building design
- The provision of electric vehicle infrastructure

The reporting requirements of the local ESD policy currently does involve a level of interaction with the NCC; e.g. preliminary energy rating assessments, daylight analysis, ventilation optimisation.



### 3 ESD planning reforms: key areas

The Victorian planning scheme currently includes some state based prescriptive performance measures to direct particular sustainable outcomes for a range of ESD categories:

- Energy efficiency of buildings and renewable energy usage
- Stormwater management and water usage
- Recycling and waste minimisation
- Active and sustainable transport
- Cooling of the urban environment
- Air and noise pollution

However, they are presently not consistently applied across the different building typologies and often do not provide enough detail to enable meaningful environmental outcomes. CASBE welcomes the progress made by the Roadmap to clarify and expand these performance measures.

The commentary and feedback we provide in the thematic sections below provide a background to the suggested changes to the proposed VPP Stage 1 reforms. In some instances, we also provide a discussion that is offered as a recommended approach for the Stage 2 Particular Provisions.

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## Energy

### CASBE RECOMMENDATIONS:

- An overall building energy performance standard is better suited as a strategy to meet the targets contained in the Victorian Climate Change Act 2017.
- Change the objective associated with Energy clauses to 'measures that support net zero emissions buildings and communities', in line with the national *Trajectory for Low Energy Buildings* outcomes and with the Vic Gov Climate Change Act targets.

The Roadmap breaks energy into three separate categories which we will respond to in turn.

### Energy Efficiency

The Roadmap identifies strategies for energy efficiency as siting and design measures to support measures in the National Construction Code (NCC). The NCC currently considers the performance of the envelop and some consideration of active systems depending on the building type. Non-residential buildings are covered more completely than residential, however hot water systems are poorly covered in Victoria. The NCC includes the thermal performance of dwellings with the Victorian variation of solar hot water (or rainwater tank) for Class 1 only. This is a limited consideration of what influences energy use in buildings.

Planning policy that has as its main goal to support the NCC performance standards risks missing opportunities for healthy and resilient buildings. It is not the role of planning to align with the NCC standards. Planning policy, and associated ESD provisions need to be flexible. Envelop performance is only one aspect of an energy efficient response. For planning to contribute to energy efficiency, a holist approach is necessary. Furthermore, linking energy efficiency outcomes to the NCC risks the Victorian planning system being tied to the standards in that code which are, by the very nature of that document, the minimum accepted level of construction in the Australian industry. We acknowledge the work underway to update the energy performance requirements in the NCC, however it is generally accepted by ESD leaders in the Australian industry that the NCC energy performance requirements are outdated (refer ASBEC and ClimateWorks' *Built to Perform* report, AECOM reports for the *Trajectory for Low Energy Buildings*, GBCA and numerous articles in *Renew*, *Fifth Estate*, *Sanctuary*), in that they lag behind technical capacity, similar international standards and do not deliver the desired outcomes.

As you are aware, council have had local ESD Policies for five years (some longer) and the associated standards operated under trial conditions for many years prior to that. Alignment of planning policy with the NCC would be a step back from the position that these local policies have established during this time. The SDAPP Framework standards specifically require an improvement over the minimum regulatory standards of industry. This underpins the concept of Best Practice, an arguably accepted performance standard in the Victorian industry hard won by local government leaders.

Limiting energy objectives to those described in the Roadmap does not allow for performance measures targeting zero emissions buildings. This outcome requires a range of strategies including improving energy efficiency over NCC minimum standards, use of onsite and offsite renewable energy, and design, construction and management to achieve operational emissions standards. In a dense urban environment, the role of building and subdivision orientation is relatively limited, as is the role of onsite renewable energy.

CASBE recommends that the objective associated with Energy clauses is changed to 'measures that support net zero emissions buildings and communities', in line with the national *Trajectory for Low Energy Buildings* outcomes and with the Victorian Government Climate Change Act targets. This also

aligns with some of our members who have more ambitious targets for net zero emissions. We anticipate this may be further supported by forthcoming Victorian government Interim Emissions Targets and sector plans.

We would argue that an energy performance standard for the overall building is better suited as a strategy to meet the requirements of the Victorian Climate Change Act. An overall energy performance standard requires consideration of the buildings' energy system. This extends beyond siting and design responses and must include building operations. For sites where options to alter siting and / or orientation are limited, energy performance comes down to envelope design, building systems, fuel choice and onsite renewables.

CASBE recommends that a Zero Carbon target be established for all buildings. The need is clear, highlighted by continuing declarations of the Climate and Biodiversity Emergency by the MAV, CASBE councils and governments. The ability of the building industry to deliver zero carbon buildings is also clear. This is evidenced by the growing number of zero net carbon (ZNC) buildings and by research reports (e.g. *Built to Perform* by Climateworks for ASBEC, *Trajectory for Low Energy Homes* by AECOM for the Building Minister's Forum). For lower density buildings, achieving ZNC is physically possible and economically responsible through on-site strategies, where offsite offsets (such as purchase agreements for renewable energy purchase) may be required for higher density developments. Preliminary legal advice sought by CASBE suggests that planning scheme mechanisms requiring offsite renewable energy purchasing or carbon offsets could be appropriate.

We also strongly recommend that the VPPs are drafted to enable the inevitable shift to carbon positive development. This is considered inevitable due to half of the 2050 building stock being built under future planning policy and the clear need given climate change projections continue to be at the upper end of scenario planning. We have included recommended strategies and Clauses in Appendix A to demonstrate how this could be included.

CASBE also highlights the use of natural gas as an energy source as a design aspect requiring attention. Supplying natural gas connections to new development is not consistent with the target of zero emissions, as per the Victorian Draft 30-year infrastructure strategy which states: "...Burning natural gas emits greenhouse gases, meaning Victoria will need to transition away from natural gas during the next 30 years to achieve its net zero emissions goal." (section Future technology will shape energy options and use, page 55). CASBE recommends that DELWP investigate and undertake the necessary research required to disallow natural gas connection in appropriate development.

CASBE recommends amending Clause 55.02 Neighbourhood Character and Infrastructure, Standard B4 to remove the reference to gas as it currently requires connection to reticulated gas to be amended to read "Development should be connected to reticulated services, including reticulated sewerage, drainage and electricity, if available."

#### *Residential development*

Proposed actions for residential development include 'improved guidance on passive design including building and subdivision orientation'. While this is welcome, there is no suggestion of planning policy change in this area. We would argue that there is a place for planning policy to direct design measures to support the energy efficiency of buildings and the comfort within them more comprehensively, not relying on the NCC (refer earlier comments).

We would also argue that planning policy is required to provide greater direction to residential subdivision lot orientation, which is often compromised in lieu of yield.

### *Commercial and industrial development*

We recommend that '*improved guidance on passive design including building and subdivision orientation*' should also apply to industrial and commercial. This should also extend to orientation and location of plant/equipment so as not to cause inefficient operating conditions particular for energy intensive plant.

### *Overshadowing*

Consideration should be given to updating Standard B29 (new buildings) as there is only one requirement to achieve this objective - when there is a south facing POS. The requirement under standard B21 for existing buildings should also be applied to B29 (i.e. min 5 hrs of solar access to 75% of the POS during equinox period).

### **Renewable energy systems on buildings**

The design of a roof form in terms of area, pitch and orientation are all elements that need to be considered to ensure the roof design can occupy an efficient solar PV system. Related planning policy should therefore acknowledge and detail these elements as requirements to facilitate renewable energy systems in new buildings (rather than be in guidance material). If the roof design is not resolved during the planning stage, it will require landowners/developers to seek a variation of their planning approval in order to install a solar PV system and/or obtain building approval. In some instances, such as with apartment buildings, retrofitting solar systems is particularly difficult due to the different and competing elements already included on their roofs.

Moreland City Council has undertaken extensive work investigating the feasibility of specific solar PV requirements for new development, including developing 'solar ready' zones and detailing minimum solar photovoltaic requirements for a range of different building typologies. The evidence to date outlines that:

- There is space to include solar PV in residential, mixed use and industrial development.
- Solar PV on an industrial building could offset the energy use of the building.
- Solar PV for residential and mixed-use buildings in conjunction with energy efficient services and appliances and some offsite renewable energy purchases (for higher density developments), would support renewable energy as the sole source for the building.
- The cost to include a solar PV system is a very small percentage of the cost of the total construction costs. Whilst this is an additional cost, their inclusion will generate long term electricity cost savings.

Solar ready building design standards must also pertain to commercial and industrial development and not only residential development. Additionally, there is opportunity to expand the State ESD planning reforms to require solar energy systems within the design for all residential, commercial and industrial buildings.

Planning policy has the opportunity to direct development to go beyond just being solar ready by including prescriptive measures to incorporate solar photovoltaic infrastructure in development.

Experience with applying the local ESD Policy suggests that solar panels are not only able to be accommodated during the design phase but are a readily accepted ESD feature in the Victorian planning and building system, for a range of building types. (Between 1st July 2018 – 30 April 2019), the Moreland Sustainability Built Environment Unit assessed in excess of 372 formal planning applications which included approximately 283kW solar photovoltaic (solar PV) committed to being installed.)

The City of Melbourne endorsed position as per Amendment C376 is that all development should incorporate renewable energy generation and should not incorporate connections to gas services or other non-renewable energy.

**Precinct renewable energy systems**

CASBE supports investigating how micro-grids could be supported/ enabled via planning as this is currently lacking in the planning system.

**Off-site**

CASBE recommends that offsite renewable energy and carbon offsetting is recognised as a legitimate consideration for planning, when other measures have been exhausted, by the ESD Roadmap within the Energy category and contributing to carbon emission reduction targets.

Additional concepts for offsets need to be defined including consideration on rules for local compared to regional, national and or international offsets if required.

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## Water

### CASBE RECOMMENDATIONS:

- Conservation of drinking water supplies should include both water efficiency and appropriate use of alternative supplies, not “supporting use of alternative water supplies” alone.
- That Clause 53.18 is expanded to apply to single dwellings.
- That Clause 53.18 is expanded to apply to significant industrial and commercial buildings that are currently exempt from the Clause 53.18.
- That stormwater tools or requirements are reviewed to consider the challenges associated with some treatment options, allowing some to be precluded by the tools for known areas of unsuitable hydrology.
- That the stormwater management requirements are reviewed to include stormwater management on site during the construction process.
- That all development must achieve the best practice water quality performance objectives set out in the Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO 1999 (or as amended).
- That all developments should use alternative water for all non-potable uses on-site where technically achievable.
- That all development should connect to a precinct scale recycled water source if available, and/or foster readiness for yet to be realised third-pipe (as is currently the case in Fishermans Bend).
- That stormwater management and water efficiency / potable substitution be considered as an integrated approach.
- The development of IWM specific guidance material and tools that are applicable for the different types of development, including typical urban development typologies.
- That updates to flooding policy are required to ensure future modelling takes account of climate change across Victoria.

The Roadmap breaks water into two separate categories which we will respond to in turn.

### **Stormwater Management**

The Roadmap identifies that the planning system was updated in 2018 and that proposed actions include enhanced planning system guidance for residential, commercial and industrial development, and improving stormwater assessment within Vic Smart processes.

Currently Clause 53.18 – Stormwater Management in Urban Areas directs development to address the management of stormwater in the design ‘to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits’. Clause 53.18 however does not universally apply to all development applications, with Clause 53.18.1 providing a number of exemptions. Stormwater management however is critical to all areas of Victoria, not just urban areas or particular types of development. CASBE supports the expansion of this Clause to apply to all development types including single dwellings.

There is also an opportunity in these reforms to expand the application of Clause 53.18 (Water Management in Urban Development) beyond just to single dwellings as detailed in the Roadmap. For example, there are a number of developments that fall under the VicSmart class of applications, such as (but not limited to) ‘buildings and works’ applications in an Industrial Zone where the cost of the works can be up to \$1,000,000, or in a Commercial Zone if the works is up to \$500,000. These

type of VicSmart developments can be a substantial building that would generate considerable stormwater impacts if not managed appropriately, however, they are exempt from Clause 53.18.

Raingardens are detailed as a useful tool for stormwater management at page 25 of the Roadmap. Raingardens however impose a number of challenges when included in developments, especially within medium density developments (construction, maintenance and enforcement). Moreland has developed a number of resources to assist applicants in choosing design measures, including a hierarchy of treatment options, that can be accessed via the following links.

<https://www.moreland.vic.gov.au/planning-building/environmentally-sustainable-design/water-sensitive-urban-design/>

Any review of stormwater tools or requirements should consider these challenges and potentially rely more heavily on simpler forms of stormwater management.

CASBE supports a review of the stormwater management requirements to include stormwater management on site during the construction process.

The proposed responses for water management in the Roadmap should be specific. Confirmation is required in relation to:

- Any exceptions for specific type or size of developments (e.g. small developments or extensions).
- The proportion of the water demand to be supplied by alternative water sources.

CASBE recommends that all development must achieve the best practice water quality performance objectives set out in the Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO 1999 (or as amended) with priority given to onsite measures with offsets as a measure of last resort. All developments should use alternative water for all non-potable uses on-site where technically achievable. All development should connect to a precinct scale recycled water source if available.

### **Water efficiency / potable water substitution**

The Roadmap proposes that planning measures will be reviewed to support water efficiency and the use of alternative water sources. CASBE supports this review.

We provide the following comments for your consideration in this review process:

- Conservation of drinking water supplies should include both water efficiency and appropriate use of alternative supplies, not “supporting use of alternative water supplies” alone. Efficient use of water is distinct from choice of water supply and should be prioritised to improve resilience related to all water supplies.
- The figure on page 18 suggests the planning reforms will include direction for the re-use of grey water in the water management of development. CASBE supports this direction. Currently, it is not popular to include the re-use of grey water in the design due to the perceived health impacts and maintenance issues. Policy reforms by DELWP, including improved guidance material on the benefit of grey water re-use and how to incorporate it in the water management of new buildings will assist in greater uptake.
- Greater use of pumped hydro integrated with WSUD and complementary solar / wind power could also be used to introduce bushfire buffers.

### **Integrated Water Management (IWM)**

CASBE recommends that stormwater management and water efficiency / potable substitution be considered as an integrated approach. As outlined in the Integrated Water Management Framework for Victoria, an 'IWM approach involves understanding the water cycle, how water cycle services are



provided and the drivers or constraints that influence its management, such as climate change, population growth, land use change, environmental decline and community preferences.'

There are instances where local government has found that the current state standards for stormwater are not sufficient, for example in highly built up and urbanised areas. There are existing specific local schedules that are stronger than the state clauses (the local WSUD policies and Clause 37.04 s4 Fishermans Bend Urban Renewal Area.). CASBE is working on revised Integrated Water Management (IWM) standards as part of the Elevating Targets project. Please refer to the attached draft standards.

CASBE recommends the development of IWM specific guidance material and tools that are applicable for the different types of development, including typical urban development typologies.

The ESD Roadmaps should strengthen wording around precinct scale integrated water management and use of alternative water sources for on-site green cover.

#### **Integrated Water Management assessment tool**

As a part of supporting the implementation of earlier stormwater reforms also under consideration, DELWP must pursue developing a revised stormwater assessment tool that extends beyond assessing merely stormwater quality and facilitates the broader integrated water management framework (i.e. flow, volume and water efficiency etc.). This will align with the future requirements proposed under the Environment Protection Authority Victoria's 'Draft urban stormwater management guidance' (publication 1739).

The solutions dashboard should be aligned with the Water Sensitive Cities tool or similar to reduce the risk of multiple, potentially inconsistent assessment methods.

#### **Accounting for a changing climate**

CASBE recommends that updates to flooding policy are required to ensure future modelling takes account of climate change across Victoria.

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## Waste and recycling

### CASBE RECOMMENDATIONS:

- That the PPF uses the term circular economy when discussing waste, recycling and materials to support the transition to a circular economy for building related resources.
- That planning reforms should expand the existing waste policy to direct space and waste management for four waste streams (glass, organics, recycling and garbage) for all multi dwelling developments, and expand to apply to commercial and industrial development. This should include guidance for the provision on onsite green waste treatment (ie composting)
- That guidance material should be provided for subdivision design to include on site, separation, storage and collection for e-waste, hard waste, soft plastics and charity bins and apply other development types (and allow space to 'future-proof' development to allow further future stream separation).
- That the PPF and future Particular Provisions address construction and demolition waste at both subdivision and development stages to prevent commercial waste to landfill.

The whole-of-government policy *Recycling Victoria – a new economy*, sets out 4 goals in which to transition to a circular economy, encompassing innovation and design to last, repair and recycle of materials, product life cycle impacts, smart purchasing, reduction of hazardous waste and pollution along with mandating separation of commercial recyclable materials. This strategy acknowledges on page 30 there is scope to improve the separation of commercial waste as part of Goal 3. Separation of commercial waste could occur at the demolition and construction phase of both subdivisions and buildings and not focus on simply the end users of constructed buildings.

DELWP has stated on both their website and the *Circular Economy Policy Fact sheet July 2019*, that this policy is imminent, and while stating that there is no one definition it has adopted a rather lengthy one. Although this shall be a policy within itself, it has not been incorporated within the Waste and recycling category or indeed mentioned as a term.

The proposed PPF and particular provisions must be aligned with addressing the broader circular economy matters and not limited to Sustainability Victoria's Better Practice Guide. This includes capturing the relevant goals detailed under the 'Recycling Victoria: A new economy' strategy, as well as, addressing the use of materials from a lifecycle assessment (energy, water, greenhouse gas emissions) and a climate resilience/adaptation perspective. This will also support the Adaptation Action Plans required for the built environment system under the *Climate Change Act*.

Addressing material use has largely been omitted from a local ESD Policy however coverage of this topic has been displayed in many Sustainable Design Assessment and Sustainability Management Plan reports accompanying a planning permit application. It is pertinent and opportune that materials are now addressed through a policy framework and/or the particular provisions.

CASBE recommends the use of the term circular economy when discussing waste, recycling and materials to support the transition to a circular economy for building related resources.

### Resource recovery

Currently the planning scheme addresses waste for apartment buildings in Clauses 55.07-11 and Clause 58.06-3. The focus is on three waste streams: organics, recycling and garbage streams. The Victorian Government's 'Recycling Victoria: a new economy (2020)' outlines reforms to the recycling system, including expanding the waste streams from three waste streams to four to include glass. The planning scheme should align with these changes to Victoria's recycling system. The planning

reforms should expand the existing waste policy to direct space and waste management for four waste streams (glass, organics, recycling and garbage) for all multi dwelling developments, and expand to apply to end users of commercial and industrial development.

This includes guidance for the provision on onsite green waste treatment (ie composting).

Sustainability Victoria's Better Practice Guide is yet to be updated to reflect changes to waste management as outlined in Recycling Victoria. Work has been underway to amend the [Waste management and recycling in multi-unit developments](#) (MUD's), however no final amended guidelines have been released. Updated guidance material for how to meet ESD 'waste' will be extremely helpful as the current guidelines are not considered to be user friendly and subsequently not embraced by Council and planning applicants.

Additionally, at present the guide relies heavily on kerbside collection of mobile garbage bins for all development types. The introduction of a four-stream waste system for all residential properties will mean it is not feasible to store the required number of bins on site much less collect them at kerbside for many medium and high-density developments. Planning for on-site collection of bulk storage bins will be required for these developments in preparation for the introduction of the 4-stream system.

#### *Subdivisions*

The reforms also seek to encourage opportunities for subdivision infrastructure to include small scale recycle and resource recovery technology. Guidance material should also include onsite separation, storage and collection for e-waste, hard waste, soft plastics and charity bins and should apply to other development types.

We commend the Sustainable Subdivisions Framework to you and recommend that the proposed PPF be framed to support the specific objectives in the SSF in the event that local government seeks to pursue local policy to bring the SSF objectives into effect.

#### **Construction and demolition waste**

Currently the Roadmap indicates that the waste and recycling considerations are primarily focused on how the end user will recycle. This is linked to councils' service delivery areas (rubbish, recycling, FOGO and soon to be introduced glass). There is an opportunity here for the planning system to look at waste during the demolition (preferably repurposing first) and construction of subdivisions and developments at a lot scale. CASBE recommends a focus on construction and demolition waste for both subdivision and development stages to prevent commercial waste to landfill in line with Goal 3 of Recycling Victoria: a new economy strategy for mandatory separation of commercial recyclable materials at the source of disposal.

#### **Materials**

Selection of materials for reduced environmental impact and health should be considered. Supporting sustainable selection of building materials supports the Recycling Victoria – e.g. timber from sustainable sources, materials with low embodied energy and high recycled content, taps with very low lead content.

Sustainability is global. Victorian urban development cannot be 'sustainable' when it leads to environmental damage caused by deforestation (or forest de-carbonisation), and other such external impacts. Simple and clear leadership with the SDAPP framework has seen meaningful reduction in materials impacts in development which is currently not addressed in planning or building controls in Victoria.

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CASBE recommends inclusion of material selection in the state-wide ESD standards. Sufficient technical knowledge and assessment tools are currently available to allow such inclusion.

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## Transport

### CASBE RECOMMENDATIONS:

- That the rates for the number of bicycle spaces be revised to be a minimum of one secure bicycle space per dwelling for residents and a minimum of one space per 10% of building users for non-residential development.
- That there is an increase in the requirements for the number and quality of end of trip facilities.
- That there are requirements regarding the location of bicycle parking and end of trip facilities and access.
- That security of bicycles against theft is sought for bicycles of regular building occupants.
- That principles for design and location of visitor bicycle parking are included.
- That there is provision of e-bike charging and appropriate 'on-ground' or 'no-lift' parking for larger/heavier bicycles.
- That consideration is given to surrounding bicycle and pedestrian infrastructure connections with development sites.
- That the Victorian Government consider developer contributions for large developments at locations where upgrades of any immediate surrounding cycling / pedestrian facilities are required.
- That the review of Clause 52.06 reconsider what is the adequate provision of off-street parking to reduce car use, ease traffic congestion and increase sustainable modes.
- That the review of Clause 52.05 considers car park design that can facilitate the future adaptation to alternate uses in the short and long term.
- That consideration be given to directing building design that encourages a mode shift away from car ownership, supported by changes to the car parking requirements in the Scheme for new developments.
- That consideration to given to develop policy that requires developments to consider how EV's will be used and design accordingly to support the growing uptake of low emission vehicles.
- That consideration is given to requiring EV infrastructure requirements in a range of development technologies.
- That standards for EV infrastructure be developed for all residential development with reference to 'multi-unit' development not limited to apartment developments only. Medium density development should also be considered.
- That consideration is given to the draft objectives and standards for incorporating electric vehicle infrastructure and charging systems for a range of building typologies developed by Moreland City Council.
- That consideration is given to mandating EV charging points now.
- That innovation in transport is supported and that the Victorian Government consider opportunities such as the adaptive use of commercial car parks after business hours for EV charging, and the rollout of 'vehicle to building' energy sharing systems and technology.
- That the Victorian Government consider requirements in larger developments for EV car share bays and public EV charging facilities during Stage 2 of the ESD Roadmap.
- That the proposed updates to the PPF are expanded to consider a precinct parking approach to parking provisions in new developments including consolidated parking.

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The Roadmap breaks transport into three separate categories which we will respond to in turn.

### **Active transport**

Bike parking has become a standard design for medium density developments, with bike racks/space easily incorporated in garages. Similarly, with apartment typologies this rate is generally achieved by locating bicycle parking in within the basement. There are challenges however locating bike parking in apartment basements due to the competition for space. This can subsequently lead to poor quality bike parking. Improved outcomes could be achieved with stronger planning policy such as:

- Requirements for a minimum bike space rate of one bike space per dwelling for residents.
- Design measures in accordance with bike parking related Australian Standard to ensure the spaces are large enough and spaced out enough for safe and easily accessible bike parking.
- Requirements for / encouragement of bike spaces in apartment buildings being located on the ground level and/or close to entrances of basements.

### Bicycle parking 52.34 review

The review of Clause 52.34 is welcomed. CASBE councils typically currently pursue one space bicycle parking space per dwelling for residents for medium density and apartment typologies. This is considered an appropriate and important element of new dwellings to encourage active transport mode shift.

CASBE recommends revised rates for the number of bicycle spaces to be a minimum of one secure bicycle space per dwelling for residents and a minimum of one space per 10% of building users for non-residential development and based on benchmarking research of what is adequate to meet future demand / align with local and State policies to support uptake of cycling.

This must be supported by an increase in the number and quality of end of trip facilities. Requirements regarding the location of the bicycle parking and end of trip facilities and access must be reconsidered. For example, resident / employee bicycle parking should be located at the ground floor and within close proximity to the end of trip facilities.

CASBE recommends that bicycle security be considered with a real-world assessment of risk of theft for a given location and that security of bicycles against theft is sought for bicycles of regular building occupants (e.g. enclosures, movement sensitive security lighting).

CASBE recommends including principles for design and location of visitor bicycle parking that acknowledge that options may be needed for sites with constraints such as heritage or limited footpath space.

CASBE recommends provision of e-bike charging and appropriate 'on-ground' or 'no-lift' parking for larger/heavier bicycles such as e-bikes and cargo bikes.

CASBE recommends consideration of surrounding bicycle and pedestrian infrastructure connections with development sites and any alterations / upgrades required.

### Bicycle infrastructure

CASBE recommends the Victorian Government consider developer contributions for large developments at locations where upgrades of any immediate surrounding cycling / pedestrian facilities are required.

### Car parking

A review of Clause 52.06 (Car Parking) and the development of additional strategies for car parking provisions should be included in the ESD reforms to address State objectives that encourage mode shift and minimise car dependency. This is not only needed to help achieve State emission targets but also support compact, high density neighbourhoods and improved sustainable transport options that are a directive of Plan Melbourne.

CABSE recommends that review of Clause 52.06 reconsider what is the adequate provision of off-street parking to reduce car use, ease traffic congestion and increase sustainable modes. The Victorian Government should carefully reflect on the implications of oversupply of parking on strategic transport objectives.

CABSE recommends that the review of Clause 52.05 consider car park design that can facilitate the future adaptation to alternate uses in the short and long term.

### **Public transport**

The Roadmap outlines on page 23:

*'There is an opportunity to significantly reduce the state's emissions through prioritising walking, cycling, public transport and use of low emission vehicles (e.g. electric vehicles).'*

It further states:

*'Plan Melbourne supports the role of compact, higher-density neighbourhoods to create demand for more sustainable transport options including public transport, walking and cycling, and to reduce overall travel time.'*

And includes in the proposed Clause 18.02-2S Public Transport the following updated objective:

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

But confusingly the Roadmap also outlines that the reforms seek to make changes to development design so to not impact on the public transport system.

*'To support these positive changes, it is also vital to adequately consider the additional pressure new developments can put on the existing public transport system. By taking actions in the planning and design phase of new developments these effects can be better managed for the benefit of future and current residents.'*

Investment in public transport systems to cater for the growing population is key to support sustainable 'compact high-density neighbourhoods' sought by Plan Melbourne, rather than relying purely on building design.

Directing a building design that encourages a mode shift away from car ownership however would be a useful policy directive to include in these ESD planning reforms, supported by changes to the car parking requirements in the Scheme for new developments. Mode shift can:

- Contribute significantly towards a reduction of carbon emissions given transport currently accounts for about 20% of Victoria's greenhouse emissions;
- Allow a greater proportion of roads space and limited public spaces to be used for greening and open space to improve the quality of streets and public places, while also addressing the Urban Heat Island effect;
- Provide opportunity for improvements to the pedestrian and cycling networks;
- Improve health through increasing physical activity and improving air quality; and
- Facilitate better quality development outcomes if less car parking is required to be provided.



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### **Low emissions vehicles**

The Roadmap is vague on how the planning policy reforms will address supporting low emission vehicle infrastructure in new development, ie direct buildings to be 'electric vehicle (EV) ready'. There is a need for the Scheme to include policy that requires developments to consider how EV's will be used and design accordingly to support the growing uptake of low emission vehicles. For example, a recent planning permit application for an apartment building in Moreland containing in excess of 200 dwellings provided only 1 'EV ready' car space which could only be accessed by 1 car space in the future (as each car parking was allocated to particular dwellings). Clear and unambiguous planning policy is needed to prevent this outcome as well as guidance on how to demonstrate a development is EV ready.

The Roadmap notes that "the UK Government anticipates the need for every new home to have a charge point at the home will be "central to the future charging ecosystem"." This raises the question of whether "being EV ready" is a sufficient standard considering the time between policy reviews and updates. Such a response is not expected to drive the change required at an appropriately fast rate.

The consideration to include EV infrastructure requirements in a range of development technologies is encouraged. Standards for EV infrastructure should be developed for all residential development with reference to 'multi-unit' development not limited to apartment developments only. Medium density development should also be considered.

Moreland City Council is proactively investigating the feasibility for new residential development to include either low emission infrastructure or ensure buildings are EV ready (ie that the building has the energy capabilities and EV infrastructure within the building, or, is built so the infrastructure can be easily installed at a later date). This is part of a broader project to develop objectives and standards to incorporate electric vehicle infrastructure and charging systems for a range of building typologies. The evidence to date outlines that electric vehicle infrastructure can easily be installed in medium density development with charging provided from dwelling electricity. Moreland City Council has developed objectives and standards for incorporating electric vehicle infrastructure and charging systems for a range of building typologies (supported by evidence). CASBE suggests that these would be a useful inclusion in the State ESD planning policy reforms.

CASBE supports future proofing new multi-unit buildings by building in cable routes for EV charging, however we would argue that mandating actual EV charging points now makes sense. If this was introduced as mandatory in 2021, by 2025 we would begin to see this coming through in completed building stock, which in turn would enhance consumer confidence that the infrastructure is arriving to support EVs. That would then support EV take-up.

CASBE recommends supporting innovation in transport and recommends the Victorian Government consider opportunities such as the adaptive use of commercial car parks after business hours for EV charging, and the rollout of 'vehicle to building' energy sharing systems and technology.

CASBE recommends the Victorian Government consider requirements in larger developments for EV car share bays and public EV charging facilities during Stage 2 of the ESD Roadmap.

In principle CASBE supports off-street charging, including in new developments. All of the initiatives proposed in the ESD Roadmap assume a traditional approach to parking where each building provides parking to cater for the demand generated. Adopting a consolidated parking approach would better facilitate EV-readiness.

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CASBE supports a precinct parking approach to parking provisions in new developments including consolidated parking. We recommend significantly expanding the proposed updates to the PPF to reflect current best practice.

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## Landscaping and biodiversity

### CASBE RECOMMENDATIONS:

- That greening measures and green infrastructure strategies, beyond tree protection and provision of canopy cover targets, be acknowledged in the both the PPF and VPP.
- That canopy cover equivalence is included.
- That clearer objectives, standards and definitions of Biodiversity, as well as Urban Ecology are provided.
- That expert ecological and zoological advice is sought for changes to PPF concerning biodiversity.
- That the Victorian Government consider state-wide application of the Green Factor tool.

The Roadmap breaks Landscaping and Biodiversity into two separate categories which we will respond to in turn.

The proposed PPF updates to further strengthen landscaping and biodiversity is supported in principle, however at this stage there is a lack of detail included in the Roadmap and further clarity is sought as part of Stage 2.

### Tree canopy

The current focus of the VPP landscaping updates is tree protection and the provision of canopy cover targets. It is strongly recommended that other greening measures and green infrastructure strategies be acknowledged in the both the PPF and VPPs.

It is strongly recommended that updates to the VPP include canopy cover equivalence to better suit the diversity of building and development typologies and to better align with the Better Apartment Design v2 Standard 10. Applying the same landscaping standards as BADSv.2 would ensure that standards around canopy cover equivalence, deep soil, minimum dimensions and canopy size definitions are included to better support development typologies and zones.

The ESD Roadmap refers to DELWPs Cooling and Greening project which was noted as 'under development' and which will seek to include new canopy cover targets within the VPPs. We note that this project is yet to go out for consultation. Clarification is needed around the timing of the consultation process and interfacing of the Cooling and Greening project with the ESD Roadmap project.

### Biodiversity

The ESD Roadmap does not provide details regarding the VPP updates to better protect biodiversity. Currently, the ESD Roadmap only commits to '*consideration*' of measures regarding VPP updates.

There is a growing evidence-base that cities and urban environments are hot spots for Biodiversity. Ives et al. concludes that over 30 percent of Australia's nationally threatened species are found to occur within urban environments (Ives et al. 2016. *Cities are hotspots for threatened species. Global Ecology and Biogeography* 25: 117-126). A key strategy to support the protection and enhancement of biodiversity is to ensure better connected and greener places through both canopy and green infrastructure. The provision of both multi-layered and locally indigenous and bio-diverse vegetation is important. Australian studies have found that green rooftops host a larger number and variety of organisms than conventional bare roofs and support habitat for invertebrate and avian communities.

CASBE recommends clearer objectives, standards and definitions of Biodiversity, as well as Urban Ecology are provided. The proposed changes to strengthen Biodiversity should be referenced against the Flora and Fauna Guarantee Act.

Biodiversity is one particular area where local planning schemes currently do and should continue to be tailored to protect specific biodiversity attributes and values that are of local significance regardless of their relative importance at the state level. Local planning schedules are a critical tool for effective biodiversity planning and further consideration with a nuanced approach to how the planning scheme supports Biodiversity Protection is necessary. This should also consider the extent to which local municipalities have conducted field ecological studies including habitat corridor modelling, as the evidence-base for biodiversity-related schedules and incorporated documents. We recommend seeking expert ecological and zoological advice for changes to PPF concerning biodiversity.

Other points to note:

- Consider requirements for infrastructure to be being placed outside root zones to allow for large canopy trees.
- Consider requirements for larger road reserves to accommodate more urban ecology and canopy cover.
- Damage to Root protection zones should be looked into and possibly be included in the control as this has significant impact on health of tree often causing their destruction.
- Consider the impact of overhead powerlines have on existing and potential tree canopies.
- Clause 54 and 55 should adopt similar standards to Clause 58 re deep soil and canopy provisions. Canopy cover equivalence needs to included (along with standard Canopy) for better greening outcomes especially in commercial and mixed-use zones.
- Can you clarify what is defined as a canopy tree, height, circumference?
- There are Councils that are both rural and part of the Resilient Melbourne area - can consideration be given to canopy goals being consistent across the board? Also the great mapping that has been done for Resilient Melbourne's - Urban forest strategy should be extended to regional (and often more resource constrained) councils.
- Consider the interplay between clause 13.02 (Bushfire Policy) and ESD principles that seek urban canopies (especially in growth areas)? If not, there could be a significant clash of policy objectives. Eg vegetation planting along waterways, biodiversity protection and vegetation planting requirements all have bushfire risk considerations which need input from the CFA.
- Retention of tree canopy/urban forest without protection of growing medium, minimum tree envelopes on developments for meaningful "canopy trees" - requiring deep soil areas etc is not effective trees need space, aerated roots and access to water - not much evidence of that in current practice
- Would like to reiterate the suggested merit of standardising penalties for Tree Vandalism as a direct complement to the Tree Canopy component of this work.
- Permeable paving is a very good way of achieving healthier trees and more canopy cover - while having hard surfacing for functional needs. So permeable paving should also be advocated for healthier trees in dense developments.
- Other forms of vegetation and green infrastructure should be supported in addition to canopy cover given the benefits associated with urban cooling and biodiversity outcomes.
- Road and Rail exemptions should be reviewed to ensure appropriate tree protection, canopy provision and landscape opportunities are achieved along major transport networks and corridors and as part of future major projects.

- Additional strategies are needed in the PPF to recognise that the building layout and design needs to provide space for healthy trees and vegetation.
- Likewise, there should be greater focus to ensure buildings are designed in ways to ensure they are not detrimentally impacted on by tree or vegetation growth.
- Protections for trees and vegetation with ecological value which do not meet the size for trigger of tree removal permits need to be considered further.
- Greater focus on climate-adapted species and integrated water management measures to provide alternative water sources for landscaping is needed.
- With policy reforms that elevate Biodiversity, Greening and Urban Heat mitigation outcomes, guidance is needed from DELWP to support planners and developers to balance housing growth with these competing elements.

## Urban heat

### **CASBE RECOMMENDATIONS:**

- That consideration be given to a broader uptake of a suite of climate resilience and adaptation objectives and standards as part of this category.
- That consideration be given to the impact of dark-coloured roofs on urban heat mitigation, currently incentivised by higher NatHERS ratings.

CASBE supports the inclusion of urban heat considerations however we would argue that a broader uptake of a suite of climate resilience and adaptation objectives and standards should be considered as a part of this category. Currently, the planning scheme does not have sufficient provisions to explicitly address climate resilience matters other than flooding and bushfires. We refer you to comments below under 13.01.1S and 13.01.3S.

Urban heat is an important consideration for subdivision regulations. We note that the current NatHERs rating system incentivises black roofs through higher star ratings. This is a direct clash with the objectives of urban heat mitigation. Using materials that have a higher solar reflective index (SRI) will lower the heat absorption leading to urban heat island mitigation. Design Guidelines can be used to ensure lighter materials, such as light-coloured roofs, are selected. This should be considered when working through the relationship of building and planning regulations.

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## Air and noise pollution

### CASBE RECOMMENDATIONS:

- CASBE strongly recommends that an additional category be added to address Indoor Environment Quality (IEQ), and that this sustainability component includes measures such as thermal comfort, access to natural daylight and natural ventilation (in buildings other than apartments).

We provide the following general comments regarding air and noise pollution.

- CASBE supports the inclusion of air pollution and sensitive use facilities in the planning scheme. When preparing the proposed standards consideration should be given to vehicle numbers and EPA air quality standards, bearing in mind that there is no safe level of exposure to diesel exhaust.
- Noise pollution could also include aircraft and train noise (e.g. bells at level crossings)
- Consideration should be given to open or closed solid fuel/log burners in urban areas for human health reasons relating to clean air, toxic particulate matter and fog.
- Consideration should be given to other potential noise and pollutant sources including industry.
- Passive design approaches often include natural ventilation strategies which can be at odds with air pollution objectives.
- Co-location of childcare centre and petrol stations needs to be addressed.
- Co-location of childcare centre and major roads needs to be addressed.
- Consider investigating standards which address other gaps in the scheme such as commercial and industrial plant and equipment, music (noting that support of the live music industry and related economic activities needs to be carefully considered), patrons (new outdoor patron areas and new residential development near existing outdoor patron areas), and apartments (noise from apartment developments to existing dwellings and noise from apartment common areas to apartments within the development).
- Consideration be given when setting setbacks from major roads for sensitive use facilities. Children, the aged sector and the sick are much more affected by poor air quality. The health of the facility residents must be paramount in any setback provisions.

### **Expanding the ESD categories to include Indoor Environment Quality (IEQ)**

The comfort of living, working or visiting in and around a building is directly related to the environmentally sustainable design elements of a building. This is important to remember, as a key focus of sustainable development is around the human experience, as acknowledged in the Roadmaps definitions of ESD that sustainable development is development that 'improves the total quality of life'. An obvious omission in the framework is explicit planning policy (objectives and measures) around indoor environment quality (IEQ) and associated matters such as thermal comfort, access to fresh air and daylight.

We are of the view that IEQ as important as the other ESD categories and is a key design measure sought in current planning applications directed by local policy. IEQ should be elevated beyond simply guidance material and be incorporated as objectives and measures within the state VPP and Particular Provisions. CASBE strongly recommends that an additional category be added to address indoor environment quality (IEQ), and that this sustainability component includes measurable standards for thermal comfort, daylight and natural ventilation for all development typologies.



## Appendix A

### Proposed VPP stage one reforms

#### *Planning Policy Framework changes*

##### **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~~ enable the delivery of environmentally sustainable development.

To deliver climate resilient communities that facilitate sustainable development.

##### **CASBE RECOMMENDATIONS:**

The proposed update to the purpose of this planning scheme is supported in principle with the following recommendations:

- The word 'promote' needs to be replaced and strengthened. Promote means to support or actively encourage and is therefore not binding or enforcing on development which must be the case. Consider wording such as: 'ensure', 'provide', 'enable', 'deliver'. Reference should also be made to the objectives of the *Climate Change Act 2017* (Vic).
- Include an additional purpose as follows: *To deliver climate resilient communities that facilitate sustainable development.*

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## 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**.
- **Net zero emissions settlements.**
- **Enabling development that is carbon positive.**
- Prevention of pollution to land, water and air.
- Protection of environmentally sensitive areas and natural resources.
- Accessibility.
- Land use and transport integration, **including sustainable transport.**
- **Waste minimisation, resource recovery and waste management.**
- **To cool and green the urban environment.**
- **Climate change adaptation and mitigation.**

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

**Planning is to deliver climate resilient communities which facilitate sustainable development.**

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.

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations:

- The Climate Change Act establishes a long-term emissions reduction target of net zero by 2050. The Roadmap outlines that planning can help support achieving this target and supports this statement by referencing emissions targets under the Climate Change Act 2017 in proposed objectives and strategies of the PPF. As such, CASBE recommends that Clause 11 (Settlement) should acknowledge planning's role by including an additional dot point '**net zero emissions**' under "*Planning is to recognise the need for, and as far as practicable contribute towards:*"
- Include a point about enabling development that is carbon positive (draws down GHG). It doesn't have to be a conditional requirement for all developments, but carbon positive developments should now at least be mentioned in the PPF to set the scene for where we need to be in the coming decades.
- Acknowledge the role of sustainable transport by revising the current dot point to '*Land use and transport integration including sustainable transport*' or similar.
- Include an additional point: "*to cool and green the urban environment*" in alignment with DELWP's Cooling and Greening project outcomes.
- Include additional words: *Planning is to deliver climate resilient communities which facilitate sustainable development.*

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## 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 and equitable 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 energy efficiency and renewable energy sources to achieve zero net emissions settlements.
- Enabling development that is carbon positive.
- Adopting energy efficient construction and operational practices as part of settlement development.
- Encouraging the use of repurposed, reused and recycled materials in all development.
- Adopting integrated water management and greening as part of settlement development.
- Adopting localised energy generation, water treatment and waste recovery 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 \(as specified under Part 5 of the \*Climate Change Act 2017\*\)](#)

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Include the words: *'and equitable'* in the first strategy.
- Include an additional point: *'Adopting energy efficiency and renewable energy sources to achieve zero net emissions settlements'*
- Include an additional point: *'Enabling development that is carbon positive'*
- Include an additional point: *Adopting energy efficient construction and operational practices as part of settlement development.*
- Include an additional point: *Encouraging the use of repurposed, reused and recycled materials in all development.*
- Revise the currently proposed dot point to include greening as follows: *'Adopting integrated water management and greening as part of settlement development.'*
- Include an additional point: *Adopting localised energy generation, water treatment and waste recovery as part of settlement development.*
- CASBE strongly supports the inclusion of the emission reduction pledges specified under the Vic Climate Change Act 2017 under the "Policy Documents" section of the settlement clause.
- The use of the word regional could be interpreted as this strategy only applies to regional settlements, however, this strategy should apply to all areas of the State.

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## 11.02-2S Structure planning

### Objective

To facilitate the orderly and environmentally 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 and enhance areas of natural or cultural significance.
- Provide cool and green built environments.
- Deliver net zero carbon development as a minimum.
- Enable carbon positive development.
- Respond to the impacts of climate change.
- Deliver development that assists communities to respond to the impacts of climate change.
- Mitigate climate change.

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Insert "*environmentally sustainable*" development, not just "*sustainable development*", for clarity.
- Revise newly proposed dot point to "*Protect and enhance areas of natural or cultural significance.*"
- Include an additional point: "*provide cool and green built environments*" in alignment with the Cooling and Greening project objectives.
- Include an additional point: '*Deliver net zero carbon development as a minimum*'
- Include an additional point: '*Enable carbon positive development*'
- Include an additional point: '*Deliver development that assists communities to respond to the impacts of climate change.*'
- Include an additional point: '*Mitigate climate change*'

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## 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.

### 12.01-1S Protection of biodiversity

#### Objective

To [protect, conserve, restore and enhance](#) ~~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), 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~~ [connecting and networking](#) of green spaces and large-scale native vegetation corridor projects [within urban environments](#).

[Support land use and development that contributes to protecting and enhancing biodiversity and urban ecology. biodiversity values.](#)

[Ensure the use of biodiversity as a natural resource is ecologically sustainable.](#)

#### 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*)

## CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Revise the objective as follows: *'to protect, conserve, restore and enhance'*
- Include wording around better *'connecting and networking of green spaces and corridors within urban environments'*, with regard to the growing evidence-base that a significant percentage of Australia's biodiversity exists within urban environments.
- The new strategy is an aspirational strategy that in practical sense is unlikely to be delivered. Based on this strategy, support would only be for designs that contribute to biodiversity and discourage those that don't. Would need guidance on how to balance biodiversity with managing growth directed by Plan Melbourne.
- What are 'urban biodiversity values', and how does urban biodiversity differ from other types of biodiversity? This needs to be explained. For example, a diverse range of weeds could contribute to biodiversity but perhaps is not the intent of the phrase. Perhaps 'biodiversity of urban areas' is a clearer phrase.
- There is federal biodiversity information available on the location of threatened species, which should also be considered and referenced in the policy guidelines.
- Biodiversity is a broad term and is applied broadly. Consider reviewing the objectives of the [Flora and Fauna Guarantee Act](#) for current terminology.
- Revise the strategy as follows: *'Support land use and development that contributes to protecting and enhancing biodiversity and urban ecology.'*
- Include new strategy: *'to ensure the use of biodiversity as a natural resource is ecologically sustainable'*.

### 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.

#### **CASBE RECOMMENDATIONS:**

We make the following comments regarding this clause:

- The 2014 Advisory Committee and Panel Report recommended that improvements to the PPF could include “*the recognition at Clause 13 – Environmental Risks that sustainable design is critical in adapting to climate change*”. This point remains valid under the current Clause 13.
- There is some confusion surrounding this clause. Does it relate to risks associated with natural hazards intensified by climate change or does it relate to adapting to the impacts of climate change. The objective talks about adapting to the impacts of climate change, however all the strategies are about risk. If it only relates to natural hazards and addressing the risk, then we provide the following recommendation:
- Create a new PPF Schedule devoted to climate change and provide specific adaptation strategies relating to development and use.

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### 13.01-3S Urban heat mitigation

#### Objective

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

To reduce urban heat exposure through land use and development, including subdivisions and built form design responses, construction and ongoing operation and maintenance.

#### Strategies

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

Support the delivery of green and cool urban developments including subdivisions, buildings, transport corridors and open spaces through retention of existing vegetation, use of additional vegetation, integrated water management and appropriate use of materials with high solar reflectance.

Support the delivery of networked and connected green corridors for cooling of streetscapes, common spaces and the public realm within urban environments.

Support the retention and enhancement of tree canopy coverage in development.

Ensure the building layout and design provides space for healthy trees.

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

Protect and enhance the urban canopy, vegetation and greening along with water sensitive urban design that cools the urban environment.

Support co-location of services within the public realm to allow retained and new vegetation to achieve a mature canopy coverage.

#### CASBE RECOMMENDATIONS:

CASBE welcomes the inclusion of urban heat mitigation in the planning scheme and support the intention of Clause 13.01-3S Urban heat mitigation noting that it will also aid Integrated Water Management and Cooling and Greening strategies.

The inclusion of Clause 13.01-3S is supported in principle. We provide the following recommendations and comments:

- Revise the objective as follows: *To reduce urban heat exposure through land use and development including subdivisions and built form design responses, construction and ongoing operation and maintenance.*
- Revise the proposed new strategy as follows: *Support the delivery of green and cool urban development's including, subdivisions, buildings, transport corridors and open spaces through retention of existing vegetation, use of additional vegetation, integrated water management and appropriate use of materials with high solar reflectance.* The term 'appropriate materials' is very subjective and should be defined.
- Include new strategy '*networked and connected green corridors for cooling of streetscapes, common spaces and the public realm within urban environments*' which would be delivered as part of larger precinct and greenfield developments.
- This clause should be further expanded to include strategies that expand beyond tree health such as supporting other vegetation types and greening measures which also provide urban cooling. As a suggestion, revise the currently proposed strategy to '*Protect and enhance the urban canopy, vegetation and greening along with water sensitive urban design that cools*

*the urban environment.'* Alternatively add another strategy to *'support alternative greening forms such as vegetation and canopy cover equivalence for cooling of built environments.*

- Include new strategy: *'Support the retention and enhancement of tree canopy coverage in development.'*
- Include new strategy: Tree health also relies on adequate space for the tree to grow (root and canopy). Provide an additional strategy recognising that the building layout and design needs to provide space for healthy trees. This will also support the long-term retention of trees, as the strategy (and supporting policy in the particular provisions) ensures tree planting numbers and location balances the greening and cooling outcomes with access to sunlight and having useable recreational space.
- Include new strategy: *Support co-location of services within the public realm to allow retained and new vegetation to achieve a mature canopy coverage.*
- The objectives and strategies detailed should align and encompass reciprocal objectives and strategies developed as per Action 91: Whole-of-government approach to cooling and greening Melbourne. For additional objectives and standards related to this clause, please also refer to the Draft Urban Ecology and Urban Heat Elevating Environmental Targets document previously shared by the CASBE Elevating Targets Working Group

### 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)*

#### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- The interplay between acoustic comfort and cross flow ventilation must be addressed - or at least ensure that these do not conflict.

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### 13.06-1S Air quality management

#### Objective

To assist in the protection and improvement of air quality and minimise its effects on residential developments and other sensitive land uses.

#### 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 and some industry and land uses such as service stations, through suitable separation, 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)*

#### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Revise the objective as follows: *To assist in the protection and improvement of air quality and minimise its effects on residential developments and other sensitive land uses.*
- The proposed new strategy '*Limiting air emissions, including dust*' could present issues if applied to the construction of a building. It could lead to a requirement for construction management plans. This is a concern, as this should be managed through other compliance processes rather than by planning. We suggest further clarity is needed in the PPF to ensure that this strategy relates to limiting air emissions from a proposed use rather than during the construction phase of a building.
- Sources of air pollutant exposure should be expanded to include some industry and land uses such as service stations.
- Responses for minimising air pollutant exposure to occupants of residential development should include separation as 'siting' could be interpreted as referring to the location of the building on the site which would not be sufficient to meet the objective.
- We note that 53.10 provides performance standards being threshold distances for uses and activities with potential adverse impacts.
- Consideration should be given to providing guidance on application. For example is it intended that the strategy '*Ensure, wherever possible, that there is suitable separation between land uses that pose a health and amenity risk and sensitive uses.*' applies in both directions? i.e. not to locate sensitive uses near health and amenity risks as well as not to locate land uses that pose and health and amenity risk near sensitive uses?

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## 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 **sustainably constructed** 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 that proactively:

- Responds to climate change impacts.
- Assists communities to respond to the impacts of climate change.
- Mitigates climate change.
- ~~Minimises greenhouse gas emissions.~~
- Delivers net zero carbon outcomes as a minimum.
- Enables carbon positive outcomes.
- Conserves energy and water.
- ~~Minimises~~ Avoids waste generation and increases resource recovery during both construction and operation.
- Supports human health and community wellbeing.
- ~~Minimises detrimental impacts on~~ Enhances the built and natural environment.

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Revise the strategy as follows: *'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 sustainably constructed buildings and urban design.'*
- Revise the proposed new strategy as follows: *Planning must support development that is environmentally sustainable and that proactively:*
- Revise the strategy as follows: *Responds to climate change impacts.*
- Include new strategy: *'Assists communities to respond to the impacts of climate change.'*
- Include new strategy: *'Mitigates climate change.'*
- Revise the strategy as follows: ~~Minimises greenhouse gas emissions.~~ *Delivers net zero carbon outcomes as a minimum.*
- Include new strategy: *'Enables carbon positive outcomes.'*



- Revise the strategy as follows: *Avoids waste generation and increases resource recovery during both construction and operation.*
- Revise the strategy as follows: *'Enhances the built and natural environment.'* The use of the term detrimental is open for interpretation and has a subjective application. What is the test for 'detrimental'? Is this linked or traded off with the precautionary principle as to what is considered detrimental to the built and natural environment? Should this be built 'or' natural environment and not 'and'. The reason being, the two should be treated mutually exclusive and both not deemed to be satisfied to qualify 'detrimental' impact. The aim should not be to minimise detriments to the built environment when providing new development, it should be to enhance the built environment. Enhancement of the natural systems should also be sought in development.

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## 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 proactively support environmentally sustainable development through an integrated approach.**

### 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 ensure 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~~ avoids waste generation and increases resource recovery during both construction and operation. ~~and the efficient use of water.~~**

**Ensure the layout and design of the development supports 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.~~

Ensure development achieves a net zero carbon outcome as a minimum energy performance.

Ensure development supports human health and wellbeing.

Support the 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 supporting carbon positive buildings and communities.

### 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)

### CASBE RECOMMENDATIONS:

We provide the following recommendations and comments:

- Revise the objective as follows: *'To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and proactively support environmentally sustainable development through an integrated approach.'*
- Revise the proposed new strategy as follows: *'Encourage retention of existing vegetation and **ensure** planting of new vegetation as part of new developments.'* Include the word **ensure** to the policy to affirm that new vegetation is an expectation to support greening and cooling outcomes and realise Urban Heat Mitigation objectives.
- Revise the proposed new strategy as follows: *'Ensure the layout and design of the development avoids waste generation and increases resource recovery during both construction and operation'*.
- Include new strategy: *'Ensure the layout and design of the development supports the efficient use of water.'*
- Limiting energy objectives to those described in the roadmap does not allow for performance measures targeting zero emissions buildings. This outcome requires a range of strategies including improving energy efficiency over NCC minimum standards, use of onsite and offsite renewable energy, and design, construction and management to achieve operational emissions standards. In a dense urban environment, the role of building and subdivision orientation is relatively limited, as is the role of onsite renewable energy. A more holistic approach is required to enable the Climate Change Act 2017 target of zero emissions by 2050. We note that many councils have zero emissions targets with a closer end date. Planning measures are required that support net zero energy buildings and communities.
- Replace the proposed new strategy regarding energy performance with a net zero carbon strategy as follows: *Ensure development achieves a net zero carbon outcome as a minimum energy performance.*
- Further to the above dot point we provide specific comment on the strategy related to cost compliance and the NCC:
  - There has been no strategic justification or background reports provided or shared by DELWP to support the inclusion of the National Construction Code and 'cost-effective' compliance to the Victorian Planning Scheme.
  - Reference to the National Construction Code by way of improving the energy performance of buildings through design measures that support cost effective compliance is significantly limiting. The need for cost effective considerations is covered by the objectives of the *Planning and Environment Act 1987* (Vic), particularly s 4(1)(a) 'to provide for the fair, orderly, economic and sustainable use, and development of land'.
  - We believe this action is contradictory to the reduction of greenhouse gas emission. If an energy performance standard is targeted that only complies with the minimum requirement under the NCC, then carbon emissions will not be reduced below what is already the legal maximum.
  - The reference to the National Construction Code should be removed. Delete the proposed new strategy as follows: *'Cost effective compliance with energy performance standards in the National Construction Code'*.
- Include new strategy: *'Ensure development supports human health and wellbeing.'*
- Include new strategy: *'Support the 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 supporting carbon positive buildings and communities.'*

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## 15.01-3S Subdivision design

### Objective

To facilitate subdivisions that achieve attractive, safe, accessible, diverse and sustainable neighbourhoods communities that are climate resilient and net zero carbon.

### 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 both during construction and operation.
  - Support resource conservation.
  - Support the reuse, repurposing and use of recycled products during construction and ensure excess resources as a result of demolition and construction are recovered.
  - Support energy efficiency through urban layout and lot orientation.
  - Support the uptake of renewable energy technology, including microgrids and batteries.
  - Support achievement of zero carbon targets under the Climate Change Act 2017 and the transition to a low-carbon economy by adopting renewable energy and supporting zero carbon buildings and communities.
  - Enable carbon positive development.
  - 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)

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Revise the objective as follows: *'To facilitate subdivisions that achieve attractive, safe, accessible, diverse and sustainable communities that are climate resilient and net zero carbon.'*
- Reconsider Strategy - *'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: etc ...'* The 'should' in this strategy undermines the importance of the objective and strategy and suggests liveable and sustainable communities are discretionary outcomes. Suggest the strategy is reframed to necessitate the design outcomes directed in the strategy.
- Revise the strategy as follows: *Respond to climate change (delete hazards) and contribute to reduction of greenhouse gas emissions both during construction and operation.'*
- Include new strategy: *'Strategies first dot point: Support the reuse, repurposing and use of recycled products during construction and ensure excess resources as a result of demolition and construction are recovered.'*
- Reconsider Strategy - *'Support energy efficiency through urban layout and lot orientation'*. This strategy is supported but needs stronger language as the requirement for greater density/yield will always override that for lot orientation.
- Include new strategy: *'Support achievement of zero carbon targets under the Climate Change Act 2017 and the transition to a low-carbon economy by adopting renewable energy and supporting zero carbon buildings and communities.'*
- Include new strategy: *'Enable carbon positive development'*
- Examples on how ESD can be incorporated in subdivisions would be useful guidance material. CASBE has prepared a Sustainable Subdivision Framework which may be a useful reference and can be accessed via the following link:  
<https://www.casbe.org.au/resources/sustainable-subdivisions-resources/>
- We note that the Sustainable Subdivisions Framework (SSF) trial will conclude in March 2022 - after the proposed Stage 2 changes. Is there an opportunity for DELWP to consider amendments to the Scheme in light of the outcomes of the SSF trial?

## 16.01-2S Location of residential development

### Objective

To locate new housing in designated locations that offer good access to jobs, services and transport.

### Strategies

Increase the proportion of new housing in designated locations within established urban areas and reduce the share of new dwellings in greenfield and dispersed development areas.

Encourage higher density housing development on sites that are well located in relation to jobs, services and public transport.

Ensure an adequate supply of redevelopment opportunities within established urban areas to reduce the pressure for fringe development.

**Ensure** residential development is **located to support** ~~cost~~ effective infrastructure provision and use, energy efficiency, water efficiency and public transport use.

Identify opportunities for increased residential densities to help consolidate urban areas.

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Revise the strategy as follows: '*Ensure residential development is located to support effective infrastructure provision and use, energy efficiency, water efficiency and public transport use*' as the existing wording does not seek best practice outcomes. The objective appears to conflict with Cl.18.01S which focuses on transport responding to land use.
- We note that current planning schemes (e.g. the translated Moonee Valley Planning Scheme) have Housing Affordability at 16.01-2S. Is a change to the order intended?

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## 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.

[Support a precinct parking approach to parking provision in new developments, including consolidated parking.](#)

### 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)

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Include new strategy: '*Support a precinct parking approach to parking provision in new developments, including consolidated parking*'. The strategy to develop integrated and accessible networks is applicable to new development and greenfields but less relevant to urbanised environs where land use should instead be developed around existing quality transport, or in some cases in tandem with infrastructure projects. The strategy to ensure access if provided to developments in accordance with forecast demands is similar to predict and provide methodology which is not in accordance with the Transport Integration Act. We recommend alignment of all transport related strategies with the Transport Integration Act.



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## 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 \(including electric vehicles\).](#)

[Support a precinct parking approach to parking provision in new developments, including consolidated parking.](#)

### 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)*

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Include new strategy: *'Support a precinct parking approach to parking provision in new developments, including consolidated parking'*.
- Some comments above about reduction of private car usage would be useful to better promote active transport.
- Consider including strategies to separate cyclists from pedestrians as a desirable outcome.

## 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.

[Connect high and medium density 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)

### CASBE RECOMMENDATIONS:

The inclusions are supported with the following recommendations and comments:

- Include new strategy as follows: '*Connect high and medium density areas through high-quality public transport.*' as this is where people are more willing to cycle to as part of reducing road congestion.
- Minimising car dependency also relates to land use and transport planning and should also be detailed in Clause 18.01-1S.
- Additional strategies are needed in this clause, and in the particular provisions to be developed, to understand how planning can support this mode shift away from car use.

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## 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 should minimise the impact of use and development on biodiversity loss and ensure sufficient space is allocated to urban ecology within the transport network and public realm as a way of reducing greenhouse gas emissions.

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

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Include new strategy as follows: *'Planning should minimise the impact of use and development on biodiversity loss and ensure sufficient space is allocated to urban ecology within the transport network and public realm as a way of reducing greenhouse gas emissions'*

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## 19.01-1S Energy supply

### Objective

To facilitate appropriate development of **net zero emissions** energy supply infrastructure.

### Strategies

Support the development of **net zero emissions** 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.**

**Avoid connections to gas services or other non-renewable energy sources.**

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

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- It is commendable to add reference to Climate Change Act greenhouse gas emission reduction targets for energy supply / infrastructure policies.
- Include reference to mechanisms such as embedded networks, power purchase agreements (PPAs) and offsets to ensure that the net zero emission greenhouse gas objectives of the *Climate Change Act* will be achieved.
- Revise the objective as follows: *'To facilitate appropriate development of net zero emissions energy supply infrastructure'*, in line with the national *Trajectory for Low Energy Buildings* outcomes and with the Vic Gov Climate Change Act targets. We anticipate this may be further supported by forthcoming Victorian government Interim Emissions Targets and sector plans.
- Revise the strategy as follows: *'Support the development of net zero emissions energy infrastructure in appropriate locations where it provides benefits to industry and the community and takes advantage of existing infrastructure*. It is not clear what an 'appropriate location' is, further clarity is needed. We are of the view that all locations are capable of harnessing low emission infrastructure. If 'appropriate locations' is referring to particular land uses than this needs to be stated for clarity.
- Add new strategy as follows: *'Avoid connections to gas services or other non-renewable energy sources.'*

## 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)

### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- It is commendable to add reference to Climate Change Act greenhouse gas emission reduction targets for renewable energy supply policies.

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### 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.](#)
- [Provide precinct scale recycled 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)

#### CASBE RECOMMENDATIONS:

The inclusions are supported in principle with the following recommendations and comments:

- Include new strategy: '*Provide precinct scale recycled water sources*'

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### 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.~~

To reduce reliance on landfills and minimise environmental, community amenity and public health impacts, ensuring subdivisions and developments are constructed with end-of-life considerations enabling resources recovery at end-of-life, minimising lifecycle impacts and reducing greenhouse gas emission in construction, use and embodied carbon.

#### 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, both during construction and during operation.**

Encourage development that **provides for:**

- **Systems that support waste minimisation and increase resource recovery.**
- **Use of recycled and reusable materials where appropriate and only when repurposing and reuse of existing materials on site cannot occur.**

**Provide precinct scale waste management and to maximise resource recovery.**

#### Policy guidelines

Consider as relevant:

- Any applicable Regional Waste and Resource Recovery Implementation Plan.

#### Policy documents

Consider as relevant:

- *State-wide Waste and Resource Recovery Infrastructure Plan* (Sustainability Victoria, 2015)
- *Metropolitan Waste and Resource Recovery Implementation Plan* (Metropolitan Waste and Resource Recovery Group, 2016)



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- *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)

### **CASBE RECOMMENDATIONS:**

The inclusions are supported in principle with the following recommendations and comments:

- Revise the objective as follows: *'To reduce reliance on landfills and minimise environmental, community amenity and public health impacts, ensuring subdivisions and developments are constructed with end-of-life considerations enabling resources recovery at end-of-life, minimising lifecycle impacts and reducing greenhouse gas emission in construction, use and embodied carbon.'*
- Revise the new strategy as follows: *'Ensure developments provide for segregation, storage and collection of waste and recyclable materials, both during construction and during operation.'*
- Revise the new strategy as follows: *'Use of recycled and reusable materials where appropriate and only when repurposing and reuse of existing materials on site cannot occur.'*
- Include new strategy: *'Provide precinct scale waste management and to maximise resource recovery'*.

This submission has been prepared by the CASBE Secretariat on behalf of CASBE member councils.

We acknowledge and thank the many different people from our member councils who have contributed to the drafting of this submission.

We would welcome the opportunity to discuss this submission with DELWP and look forward to your response to our feedback.

Natasha Palich  
CASBE Executive Officer  
Council Alliance for a Sustainable Built Environment  
Municipal Association of Victoria  
[casbe@mav.asn.au](mailto:casbe@mav.asn.au)  
03 9667 5561

Notes:

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*CASBE submission: Environmentally sustainable development of Buildings and Subdivisions: A Roadmap for Victoria's Planning system has been prepared by the CASBE staff at the MAV for discussion with CASBE member councils, and the Victorian Government regarding ESD in buildings and subdivisions.*

*CASBE is auspiced by the Municipal Association of Victorian (MAV). This submission is made on behalf of CASBE member councils and the views represented in this submission do not necessarily represent the views of the MAV. While this paper aims to broadly reflect the views of CASBE member councils, CASBE has a diverse mix of member councils and the views represented in this submission do not necessarily represent the views of all CASBE members individually.*

*Individual councils may also respond to issues specific to, and on behalf of, their communities. The CASBE staff thanks and acknowledges the contribution of those who have provided their comments and advice in the development of this submission.*