Version: Final
Date: 31 July 2023

Melton East PSP – Climate Resilience Assessment - Implementation

Victorian Planning Authority

HIP V. HYPE

WHO WE ARE

HIP V. HYPE Sustainability provides advice that is commercially grounded, yet ambitious. We pursue exceptional outcomes that are socially, economically and environmentally sustainable and enable action across government, institutions and organisations.

We seek to partner with those who are willing to think strategically to achieve better. We lead, collaborate and support others to deliver impact and build Better Cities and Regions, Better Buildings, and Better Businesses.

DISCLAIMER

This document and any information provided have been prepared in good faith based on the best and most up-to-date advice available. HIP V. HYPE Sustainability cannot be held liable for the accuracy of the information presented in this document. Any images included are for illustrative purposes only.

REV	DATE	DETAILS	NAME, POSITION	SIGNATURE
1	31.05.23	Implementation plan (draft)	Gavin Ashley, Head BC & R	
2	31.07.23	Implementation plan (final)	Gavin Ashley, Head BC & R	

HIP V. HYPE

HIP V. HYPE Sustainability Pty Ltd is a Climate Active certified carbon neutral business.

HIP V. HYPE is Equal Assurance ISO 9001, ISO 14001 and ISO 45001 certified.

Contents

Introduction

HIP V. HYPE has been engaged by the Victorian Planning Authority to undertake a Climate Resilience Assessment of the Melton East PSP area as a background technical study into the project.

The work identified critical climate impacts in the PSP area, provided climate adaptation recommendations and highlighted carbon reduction opportunities for the development of the area. These were translated into a number of recommended actions in regard to process, infrastructure investment, design and operational opportunities.

This implementation guidance provides a final summary of recommended content to be included under relevant PSP themes and plans in the form of objectives, requirements and guidelines, and additional recommendations in regard to process and operational opportunities.

These are seen as crucial in the development of Melton East as a climate resilient community.

An example of the existing conditions within the Melton East PSP site. Image by VPA

Implementation advice
Objectives - Climate adaptation

The following content is recommended to be considered for distribution under relevant PSP themes in the form of objectives, noting when other consultant inputs are considered, there may potentially be some duplication.

NATURAL CAPITAL

- Manage natural resources and local ecosystems to promote biodiversity health and resilience
- Manage stormwater to ensure waterway health outcomes, while supporting increased vegetation through passive irrigation
- Consider topography and other natural features in community design and the transport network
- Provide green infrastructure for a range of ecosystem services (including CO2 reduction and habitat for biodiversity), to reduce the heat island effect, and to provide shade for active transport pathways
- Protect, retain and enhance native vegetation and habitat over the long term and promote the creation of conservation and habitat corridors
- Ensure ecological assets are resilient to increasing extreme weather and other climate impacts

SOCIAL CAPITAL

- Provide community infrastructure and services that supports vulnerable communities and promotes social justice and equality
- Deliver a socially connected, inclusive and diverse community with infrastructure and programming to support
- Promote governance and operational arrangements that allow clear roles and responsibilities and partnership between Council, the community and key stakeholders to support participation and community connection
- Design infrastructure including telecommunications and transportation to allow social connection to be maintained during extreme weather events

FINANCIAL CAPITAL

- Support climate-smart and green businesses to operate and flourish
- Ensure climate change adaptation and emission reduction is integrated into relevant governance arrangements, including investment and decision making
- Support the local economy by procuring local materials and labour
- Ensure the design of physical assets reduces the future cost of maintenance and repair
- Reduce climate-related insurance liability through resilient design and operational arrangements
- Ensure life-cycle cost is a core driver of infrastructure planning and design

HUMAN CAPITAL

- Ensure urban environments are safe for pedestrian movements and maintain human health through anticipated climate impacts (i.e. heat waves and flooding)
- Support a healthy and happy community through the provision of key services, and the integration of natural features for passive recreation and active connection opportunities
- Provide long-term employment, education, creative and recreation opportunities for all members of the community
- Embed physical and mental health as core drivers of the design of infrastructure and services

PHYSICAL CAPITAL

- Design and deliver resilient infrastructure that supports the community through effective adaptation and disaster responses
- Support physical and technological innovation that responds to climate change mitigation efforts globally and community needs (i.e. battery storage, recycled material use, next- gen telecommunications)
- Prioritise a human-centred pedestrian network and 20-minute neighbourhood that supports active travel
- Locate open space assets alongside key community infrastructure and pedestrian routes while ensuring adaptability to climate impacts
- Ensure the entire built environment system including housing and non-residential buildings are adapted to climate change and contribute to emission reduction
- Integrate land use and transport, including providing for safe, efficient operation of public transport and the comfort and convenience of public transport users
- Ensure buildings are fit for purpose and equipped to respond to increasing frequency and severity of extreme weather events
- Locate and design physical infrastructure and buildings to reduce exposure to climate change impacts (e.g. flooding and extreme heat)

Implementation advice
Objectives - Carbon reduction

The following content is recommended to be considered for distribution under relevant PSP themes in the form of objectives, noting when other consultant inputs are considered, there may potentially be some duplication.

STATIONARY ENERGY

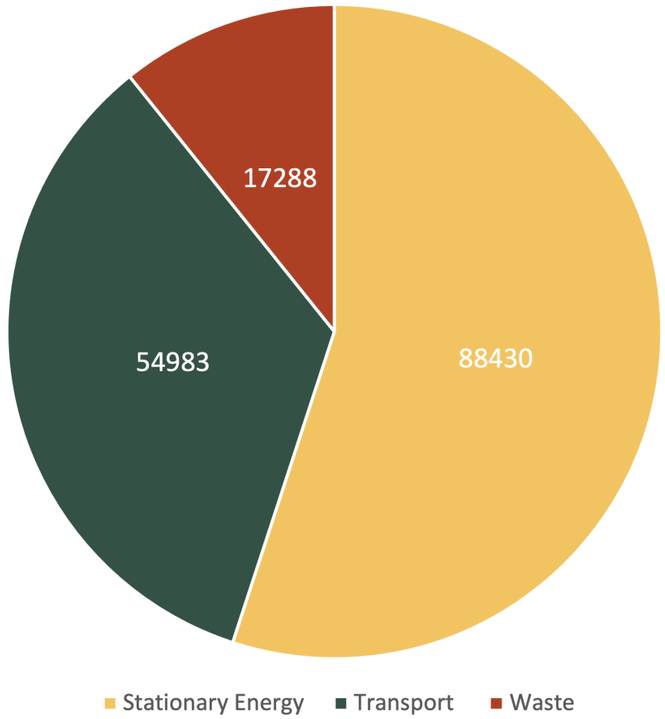
- Deliver the foundation for net zero greenhouse gas emissions by 2050
- Reduce energy use through energy efficient design and construction
- Reduce reliance on fossil fuels through prioritising the delivery of an all-electric approach
- Maximise the generation of renewable energy locally

TRANSPORT

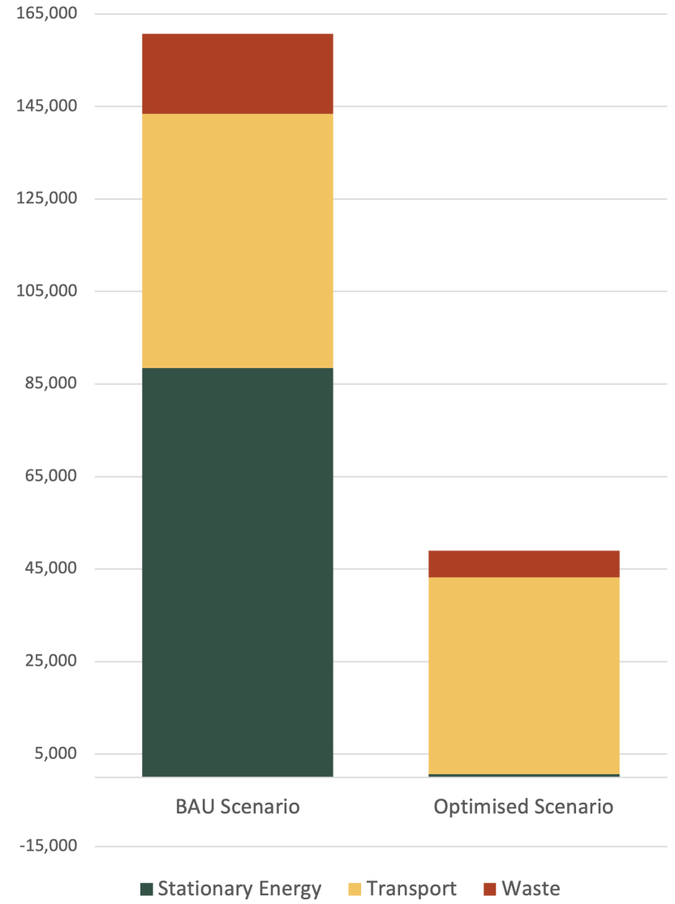
- Integrate land use and transport
- Provide for safe, efficient operation of public transport and the comfort and convenience of public transport users
- Provide a safe, fully connected and integrated active travel network
- Provide for convenient community and retail infrastructure to reduce the length and number of transport trips

WASTE

- Prioritise a transition towards a circular economy by reducing new material inputs, and implementing systems to support reductions in waste to landfill
- Increase waste stream separation (organics, glass and e-waste) and creating markets for post-consumer resources
- Enable waste education and practice through appropriate community infrastructure and programming



The breakdown of baseline emissions (tonnes C02) for stationary energy, transport and waste. Image by HIP V. HYPE



Melton East can reduce carbon emissions by approximately 70% – from 160,701 (left) to 49,006 (right) tonnes of C02e / year. Image by HIP V. HYPE

Implementation advice
Requirements

The following items are recommended to be considered for distribution under relevant PSP themes in the form of requirements.

RECOMMENDED PSP REQUIREMENTS	RELEVANT PSP SECTIONS	RESPONSIBILITY	SUPPORTING IMPLEMENTATION STAGES & MECHANISMS
Subdivision applications must demonstrate capability for at least 40% canopy tree cover to be delivered within streets to the satisfaction of the Responsible Authority (RA) in accordance with the method outlined in the Tree Canopy Guidance Note	– Built form / residential development – Built form / activity centre and non-residential development – Open space & biodiversity – Other (environmental risks / urban heat)	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision via: + Planning permit conditions (SSMP / ESD design guidelines)
Subdivision applications must demonstrate a minimum 30% permeability target within streets to the satisfaction of the RA	– Built form / residential development – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivisions via: + Planning permit conditions (SSMP / ESD design guidelines)
Consistent with the Victorian Gas Connection Ban, residential areas must not provide mains gas connection	– Built form / residential development – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning application for subdivision / buildings and works via: + Planning permit conditions (SSMP / ESD design guidelines) until the Gas Connection ban comes into effect (January 2024)
All residential development to demonstrate best-practice environmental sustainable design / performance at the subdivision planning permit stage, to the satisfaction of the RA, including: – the inclusion of a solar PV system and pre-wiring to support future EV charging – the use of light coloured roofs, with materials used meeting a minimum Solar Reflective Index (SRI) of 50 or greater – meeting maximum cooling load requirements (30MJ/m2), consistent with the Better Apartment Design Standards	– Built form / residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision / buildings and works via: + Planning permit conditions (SSMP / Design guidelines) + S173 agreement / restriction on plan of subdivision; note the restriction could include a sunset clause for when similar measures are introduced in the National Construction Code

Implementation advice
Requirements (cont.)

The following items are recommended to be considered for distribution under relevant PSP themes in the form of requirements.

RECOMMENDED PSP REQUIREMENTS	RELEVANT PSP SECTIONS	RESPONSIBILITY	SUPPORTING IMPLEMENTATION STAGES & MECHANISMS
All commercial / non-residential development to demonstrate best-practice environmental sustainable design / performance at buildings and works planning permit stage via the use of a recognised rating tool (i.e. Greenstar Buildings, BESS, etc) to the satisfaction of the RA	– Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for buildings and works via: + Planning permit conditions (SMP)
Building services for all public access and non-residential buildings over 2000sqm must be designed to cater for a 50% increase in rainfall intensity	– Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for buildings and works via: + Planning permit condition
All neighbourhood-level activity centres and service stations within the precinct must be designed to accommodate flexible uses and provide EV charging infrastructure (charge capacities should reflect anticipated 'dwell time' of users)	– Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision / buildings and works via: + Planning permit condition
Subdivision applications must provide cool routes / shadeways for access to local destinations like primary schools and neighbourhood parks	– Open space & biodiversity – Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision via: + Planning permit condition
The planting palette for street trees, parks and conservation area(s) must adopt a climate resilient species selection that also responds to underlying soil conditions	– Open space & biodiversity	– Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision via: + Planning permit condition
Early vegetation planting and erosion control measures must meet relevant requirements of any Environmental Management Plan for Kororoit Creek and precinct conservation area	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process)	– Planning application for subdivision via: + Planning permit condition
Soil volumes for street trees must meet a minimum of 12m3 for medium trees and 25m3 for large trees, with subdivision and development applications to include cross-sections to support implementation	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision via: + Planning permit condition

Implementation advice
Requirements (cont.)

The following items are recommended to be considered for distribution under relevant PSP themes in the form of requirements.

RECOMMENDED PSP REQUIREMENTS	RELEVANT PSP SECTIONS	RESPONSIBILITY	SUPPORTING IMPLEMENTATION STAGES & MECHANISMS
Street trees must be passively irrigated using stormwater.	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision via: + Planning permit condition
Sustainable travel must be supported through enhanced connections to local employment opportunities in surrounding activity centres and employment precincts.	– Transport & movement – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process)	– Planning scheme amendment - planning policy and/or control
Dedicated, safe and connected active transport to major destinations outside the precinct including Melton Town Centre in the west, Woodlea Activity Centre in the east, Toolern Employment precinct, Rockbank Train Station and Cobblebank Station must be provided	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control
Multiple crossings across key overland flow paths must be provided to reduce risk, providing more access options for the community and emergency services during storm events	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – DTP (via PSP & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision / buildings and works via: + Planning permit condition
Essential retail and fuel / EV charging facilities must be located on connector or arterial roads for community access during extreme weather events	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – DTP (via PSP & permit process) – Permit applicant / developers	– Planning scheme amendment - planning policy and/or control – Planning application for subdivision / buildings and works via: + Planning permit condition
All development must be connected to the Greater Western Water Class B recycled water scheme if delivered. As an alternative, all residential lots to be required to include an on-site rainwater tank to provide a non-potable source for internal and external demands.	– IWM & utilities	– Greater Western Water – VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers	– Planning application for subdivision / buildings and works via: + Planning permit condition

Implementation advice
Requirements (cont.)

The following items are recommended to be considered for distribution under relevant PSP themes in the form of requirements.

RECOMMENDED PSP REQUIREMENTS	RELEVANT PSP SECTIONS	RESPONSIBILITY	SUPPORTING IMPLEMENTATION STAGES & MECHANISMS
A hydrological regime that caters to seasonal water availability to support Seasonal Herbaceous Wetland vegetation within the conservation area and responds to seasonal water requirements and/or water level monitoring information must be delivered	– IWM & utilities	– VPA (via PSP process) – MCC (via PSA & permit process)	– Planning application for subdivision
The drainage service scheme must control stormwater quality to best practice and reduce reliance on underground grey infrastructure by maximising surface water treatments	– IWM & utilities	– Melbourne Water (lead authority – VPA (via PSP process)	– Planning application for subdivision
Stormwater retention basins must be designed to serve multiple functions, including recreation and biodiversity outcomes, with Melbourne Water and other stakeholders as key partners	– IWM & utilities	– Melbourne Water (lead authority) – VPA (via PSP process)	– Planning application for subdivision

Implementation advice
Guidelines

The following items are to be considered for distribution under relevant PSP themes in the form of guidelines. If the scope of the PSP document does not allow the following to be included as guidelines, we recommend these be considered by the relevant lead authority as key recommendations arising from our work.

RECOMMENDED PSP GUIDELINES	RELEVANT PSP SECTIONS	RESPONSIBILITY
All development to maximise its environmental sustainable design / performance. This may include orientation to maximise solar exposure, building fabric and insulation improvements and glazing as well as optimisation of appliances and building services.	– Built form / residential development – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Residential dwelling designs should include: – At least 7.5 kWp for each single dwelling – At least 4.5 kWp for each town house All other buildings should include solar PV provision to 75% of unencumbered roof space	– Built form / residential development – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Subdivision plans should demonstrate improvements in permeability through a combination of increase of landscaping reserve areas, permeable surface treatments for visitor parking, tree outstands, visitor parking provision, and reduced pavement widths for low traffic volume residential streets	– Built form / residential development – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Town centre designs should include: – Awnings for weather protection in commercial streets – Protection for public transport users at all stops – Thermal performance benchmarks for public and education buildings – Shade and extreme weather protection as key design attributes of civic spaces – A 40% tree canopy target (including in major hardstand areas such as carparks and plazas)	– Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Buildings and works associated with uses providing critical supplies (e.g. essential retail, fuel / EV charging facilities / refuge centre) should be designed to accommodate a minor elevation or improved siting of finished floor levels based on sensitivity analysis in hydraulic and hydrological modelling to RCP 8.5 @ 2070	– Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Buildings located within 1% AEP areas should consider a flood-proof design for lower levels (raised General Power Outlets (GPO's) / masonry finishes) if urban design outcomes would be compromised by significantly raising finished floor levels	– Built form / residential development – Built form / activity centre and non-residential development	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers

Implementation advice
Guidelines (cont.)

The following items are to be considered for distribution under relevant PSP themes in the form of guidelines. If the scope of the PSP document does not allow the following to be included as guidelines, we recommend these be considered by the relevant lead authority as key recommendations arising from our work.

RECOMMENDED PSP GUIDELINES	RELEVANT PSP SECTIONS	RESPONSIBILITY
Critical healthcare, essential retail and community centres should be designed with electricity back-up available during outages batteries (with off-grid capability - islanding) and mobile or fixed diesel generators for critical health care, retail and community services	– Built form / activity centre and non-residential development	– MCC as lead authority – Permit applicant / Developers
At least one community centre / public access buildings (e.g. libraries) should be provided with refuge capability (shelter, air conditioning, entertainment, device recharge, improved thermal performance)	– Built form / activity centre and non-residential development	– MCC as lead authority – Community/residents
Activity areas within recreation reserves should be designed to provide summer shading (e.g. canopy vegetation or shade structures)	– Open space & biodiversity	– MCC as lead authority
Community garden/s should be provided within proximity to high-density areas of the PSP	– Open space & biodiversity	– MCC as lead authority
The urban design layout and open space network should support the delivery of north-south 'green links' that support fauna movements within the precinct and are connected to the Kororoit Creek	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
The planting palette for street trees and parks should be based upon the Melton City Council Street Tree list and modified as necessary	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Species susceptible to higher winds should be avoided, especially on elevated areas in the west of the precinct, where trees should be planted in copses where possible	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Major roads should include appropriate vegetation to stabilise verges, battering and scour-prevention measures	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers – DTP
Support sustainable travel through the provision of cool routes / shadeways between key local destinations (>70% canopy cover)	– Open space & biodiversity	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers

Implementation advice
Guidelines (cont.)

The following items are to be considered for distribution under relevant PSP themes in the form of guidelines. If the scope of the PSP document does not allow the following to be included as guidelines, we recommend these be considered by the relevant lead authority as key recommendations arising from our work.

RECOMMENDED PSP GUIDELINES	RELEVANT PSP SECTIONS	RESPONSIBILITY
Street sections should consider slopes for at-risk major roads (e.g. either sides of bridges) or connectors that dip into inundation zones	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers – DTP
Bridges across overland flow paths should be designed to account for sensitivity analysis in hydraulic and hydrological modelling to RCP 8.5 @ 2070, prioritising their provision for arterial roads first and for connector roads as a secondary priority	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers – DTP – Melbourne Water
Service stations / public EV charging should be located with uninterrupted access to Western Freeway and in conjunction with arterial roads that are elevated 'significantly' above the 1% AEP	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers – DTP
Town centre design should provide circulation for 'click and collect' services to allow for access to key goods and services during extreme weather events	– Transport & movement	– Retail providers
Active transport infrastructure should: – Ensure east-west connectivity for cycling between activity nodes within the precinct, through consideration of active travel in road connections for east-west connection – Integrate shared use paths into Kororoit Creek reserve – Reduce travel speeds in local streets through a range of mechanisms including narrowing of road pavement – Ensure that safe travel is a priority around primary and high schools such that cycling can be encouraged from early age	– Transport & movement	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers
Electricity infrastructure planning and design should consider opportunities for precincts to operate as micro-grids	– Other (electricity)	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers – Distribution Network Service Provider

Implementation advice
Guidelines (cont.)

The following items are to be considered for distribution under relevant PSP themes in the form of guidelines. If the scope of the PSP document does not allow the following to be included as guidelines, we recommend these be considered by the relevant lead authority as key recommendations arising from our work.

RECOMMENDED PSP GUIDELINES	RELEVANT PSP SECTIONS	RESPONSIBILITY
Larger underground stormwater pipes should be considered to ensure capacity for the potential of a 50% or more increase in rainfall intensity	– IWM & utilities – Other (environmental risks / flooding)	– Melbourne Water (lead authority) – Permit applicant / developers
Telecommunications towers should be located on higher land where flooding issues are unlikely to cause interruptions, with larger buildings in activity centres designated for temporary infrastructure to support telecommunications during extreme events (i.e. specified with a portion of flat rooftop to support temporary towers)	– IWM & utilities – Other (environmental risks / flooding)	– Telecommunication providers
Development should seek to: – Minimise levels of embodied carbon within construction materials by favouring the use of locally sourced materials with high recycled content and low embodied carbon – Maximise resource recovery and recycling during construction phase	– Other (circular economy)	– VPA (via PSP process) – MCC (via PSA & permit process) – Permit applicant / developers (including via procurement)

Implementation advice
Process recommendations

The following items have been identified as key opportunities in the PSP and development process that would assist in the delivery of a climate resilient community in Melton East.

PROCESS RECOMMENDATIONS	RESPONSIBILITY	TIMEFRAME
Ensure climate risks and technical information highlighted in the Climate Risk Assessment report are available to both developers and Council as a reference document for the design, delivery and maintenance of assets within the PSP to ensure adaptive capacity is maximised	VPA and MCC	Immediately and ongoing
Undertake a dedicated co-design process specifically to resolve high quality street sections and plans for the PSP. This will include representation from utilities (electricity, water supply), Melton CC (including active transport, civil, landscape), VPA, Melbourne Water and major developer representatives	VPA to facilitate	Immediately / through PSP
Develop further guidance on the sequencing of infrastructure delivery in the PSP area to be included as requirements and guidelines that further support climate adaptation and mitigation objective including by: – Prioritising the delivery of climate-resilience infrastructure, amenities and essential services to ensure that the necessary infrastructure is in place to respond to climate impacts and support the community's needs in a changing environment – Optimising resource utilisation, such as early purchase of land for community and transport infrastructure in the PSP area to ensure essential infrastructure is strategically planned and implemented – Reducing long-term maintenance costs by preventing situations where assets are built too early or left without maintenance (e.g. street trees are planted when water services are available, which will ensure that their survival and health can be maintained or residential development is aligned with road and community services delivery). This approach will reduce the need for costly 'catchup' infrastructure delivery and repairs over time, contributing to long-term cost savings.	VPA to facilitate	Immediately / through PSP
Develop further design guidance and performance targets for non-residential land use areas to be included as requirements and guidelines, including the following: – Awnings for weather protection in commercial streets – Protection for public transport users at all stops – Thermal performance benchmarks for public and education buildings – Shade and extreme weather protection as key design attributes of civic spaces – A 40% tree canopy target – An appropriate Green Star or equivalent BESS rating	VPA and MCC	Immediately / through PSP
Further consider/investigate: – Mandating the inclusion of on-site rainwater tanks for all residential lots to provide a non-potable source for internal and external demands – Providing a centralised / communal rainwater collection for local use in place of lot scale rainwater tanks (Council currently investigating) – Extending the Class B network as far as feasible across the PSP to facilitate the use of Class B recycled water for open space irrigation – The impact of the future Regional Stormwater Harvesting Scheme (RSHS) infrastructure on stormwater availability for on-site solutions	VPA, MCC, Greater Western Water and Melbourne Water	Immediately / through PSP

Implementation advice
Process recommendations (cont.)

The following items have been identified as key opportunities in the PSP and development process that would assist in the delivery of a climate resilient community in Melton East.

PROCESS RECOMMENDATIONS	RESPONSIBILITY	TIMEFRAME
To guide the location of open spaces and active transport infrastructure with respect to flooding; open space planning for the Melton East precinct should outline the key types of open space and active transport assets (different programming needs etc.) and develop minimum service levels with respect to occasional flooding (days unusable per decade for example) and irrigation levels to be maintained (during periods of drought)	VPA and MCC	Immediately / through PSP
Consider a variation to increase the permeability requirement in the Small Lot Housing Code to 20% (to encourage two-storey dwellings of modest scale	VPA and developers	Immediately / through PSP
Prepare an Environmental Management Plan for Kororoit Creek and conservation area (with Wurundjeri consultation) to guide early vegetation planting and erosion control	VPA & MCC	Prior to any development
Provide guidance and support to developers in regard to the procurement of local goods and services (through section in the PSP or engagement workshop between developers and local producers)	VPA and developers	Prior to construction
Consider delivering a behaviour change and education program to support residents to establish good waste management practices as they move into their newly built home and build and maintain their knowledge over time	MCC / Sustainability Victoria	In combination with initial residential development

Implementation advice
Operational opportunities

The following items have been identified as key operational opportunities which beyond the delivery of the precinct, will improve the adaptive capacity of its community over time.

OPERATIONAL OPPORTUNITIES	RESPONSIBILITY	TIMEFRAME
Undertake targeted campaign for new residents on saving water and making landscape decisions that still flourish through periods of extended low rainfall	MCC	In combination with initial residential development
Develop a local preparedness and response planning to consider Strategy and Action plans for disaster and emergency management focusing on: – Establishing centralised connection network hubs / emergency buildings i.e. CFA, community neighbourhood houses utilised for emergency connectivity during a disaster – Pre-deployment and pre-positioning of assets including equipment, personnel, resources i.e. Mobile generators, backup fuel, cell on wheels (COWs), Cell-on-Light Trucks (COLTs),and temporary microwave/satellite communications necessary for service recovery – Path diversification enhancing telecommunication network resiliency (combined utilisation of terrestrial lines, Very Small Aperture Terminal (VSAT) satellite communication network, Cell towers, and traditional emergency responses (COWs, Flying COWs- drone network tethered to vehicle-based ground station) – Expansion of fuel models reliance away from fossil fuels and pre-staged *appropriate for local area (dependent on accessibility- solar, hydro, wind) – Technological innovation utilisation (e.g. mesh extenders and drone networks)	State Emergency Services to lead, with multiple stakeholders	Through PSP and ongoing
Establish a program for new businesses to develop a Business Resilience Plan - which looks at the impacts of climate change and how business processes can be optimised to minimise impact during extreme weather events	MCC	In combination with initial commercial development
Incorporate programming for service delivery for vulnerable households specifically to deal with extended extreme heat scenario	MCC and Department of Health	In combination with initial residential development
Ensure delivery of community health services has capacity for local mental health and support services such as: psychology, counselling, and gambling and substance abuse, misuse and addiction programs	VPA and Department of Health	Through PSP and during detailed design (DD)
Build redundancy into critical health care (hospital and clinics) during extreme heat events to cater for spikes in admissions / presentations	Developers and Department of Health	Through PSP and during DD
Provide dedicated space in community centres with access to outdoor space for raising awareness on and learning relating to climate change and sustainable lifestyle choices	MCC, developers and community	Through PSP and during DD
Provide guidance and financial support for the delivery of community garden/s (in collaboration with Council and developers) located within proximity to higher-density areas of the PSP	MCC, developers and community	In combination with initial residential development

Implementation advice
Operational opportunities (cont.)

The following items have been identified as key operational opportunities which beyond the delivery of the precinct, will improve the adaptive capacity of its community over time.

OPERATIONAL OPPORTUNITIES	RESPONSIBILITY	TIMEFRAME
Provide funding and spatial allocation for local repair cafés (not only facilitate a step-change towards the circular economy, they also provide spaces for social interactions, knowledge sharing and skill building within the community across diverse groups	Developers	In combination with initial residential development
Develop deep engagement and connection with Friends of Kororoit Creek group – with potential connection of a Melton East chapter for environmental stewardship	MCC and Friends of Kororoit Creek Group	In combination with initial residential development
Melton Council to increase compliance relating to avoidance of topsoil removal and excessive cut and fill during construction	MCC	During DD and construction
Consider an infrastructure investment for alternative-fuel bus (EV and/or hydrogen) roll-out in new routes in the Melton East area	DTP & MCC	Ongoing

We respectfully acknowledge that every project enabled or assisted by HIP V. HYPE in Australia exists on traditional Aboriginal lands which have been sustained for thousands of years.

We honour their ongoing connection to these lands, and seek to respectfully acknowledge the Traditional Custodians in our work.

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For additional information, questions unturned, collaboration opportunities and project enquiries please get in touch.

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HIP V. HYPE Sustainability Pty Ltd is a Climate Active certified carbon neutral business.

HIP V. HYPE is Equal Assurance ISO 9001, ISO 14001 and ISO 45001 certified.

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