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- Completed
- Progressing
- On Hold
- Not Progressing
- Not Completed
- Withdrawn



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

GOAL 1: A HEALTHY COMMUNITY: We will be a healthy, inclusive, and thriving community with equitable access to services, cultural opportunities and recreational activities.

Objective 1: WELCOMING & INCLUSIVE CITY: Warrnambool will be a city that is more welcoming to all and fosters diversity.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.1.1	Provide information to new residents that introduces key Council services, organisations and agencies including those in recreation, culture and early childhood.	Manager Communications	75%		Council continues to review the new resident kit makeup. Our graphic designer has been updating a street map of Warrnambool to provide to new residents, which is a frequently requested item. The expansion of residential areas means the previous map from 2014 was missing several new streets. The new completed kit will be ready for distribution to new residents in the new financial year.
1.1.2	Develop and implement a range of Council activities and events to encourage participation from diverse groups within our community.	Manager, Capacity, Access & Inclusion	85%		<p>Harmony day event - 57 guests from over 20 countries including: Thailand, China, Taiwan, Philippines, Indonesia, East Timor, Holland, Egypt, Greece, Argentina, Chile, Japan, Vanuatu, India, South Sudan, Kenya, UK, Ireland, Wales, Belarus, Sri Lanka, New Zealand and Australia.</p> <p>WWNH in partnership with the Warrnambool Multi Cultural Women's Circle and Brophy Family and Youth Services assisted in coordinating a Harmony Day Multicultural Picnic at the Botanic Gardens. Approximately 100 people attended and enjoyed the sunshine and entertainment as well as a very special Welcome to Country and Smoking Ceremony.</p> <p>Intercultural café has commenced operations each Thursday 1-2.30pm. Our target audience new migrants who are learning English language at SW TAFE and anyone else who would like to come along from a cuppa and a chat.</p> <p>Volunteer Connect continues to deliver the Volunteer Diversity project objectives, welcome a new Project Officer who brings extensive experience in working with new migrants.</p> <p>WCC continue to be an active member of the Multicultural network coordinated by South West Healthcare and host the meeting at Archie Graham Community Centre. A number of Branch staff continue to represent WCC at the Wata Watnaenda group</p>



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.1.3	Increase access to participation for all abilities and raise awareness of the needs of people with a disability.	Manager, Capacity, Access & Inclusion	85%		<p>A new Home and Community Care Program for Young People program promotion pack has resulted in increased referral for community care program including domestic assistance, Meals On Wheels and home maintenance.</p> <p>Share the Load Laundry project continues to gain momentum with key stakeholders coming together to develop a service model through co design. Tender process has been completed. Actively working with on the Beach Access Strategy, FY21/22 playground renewal sites and upgrade to Lake Pertobe playground. Currently investigating the possibility of also locating a Liberty Swing in Warrnambool at Lake Pertobe precinct.</p>
1.1.4	Engage with community to ensure that a diversity of voices are informing Council policies, strategies, programs, and services.	Manager Community Policy & Planning	75%		<p>During this quarter significant consultations and engagement occurred with the community on a range of policies, strategies and programs of Council. Key highlights were the engagement around the Council Plan review, the Water Management Asset Management Plan, the Beach Access Strategy, Council's draft Principal Pedestrian Network, feedback on the programs offered by the Archie Graham Community Centre and the Botanic Local Area Traffic Management Plan. A community forum has been planned for the next quarter to discuss the Council Plan and Budget for 2022-23.</p>
1.1.5	Develop and implement programs to improve community connections and reduce social isolation.	Service Manager Community Support	75%		<p>The Local Support Network continued to meet monthly with an average of 20 community groups, volunteer involving organisations and clubs. This network brings together existing community supports, strengthens community participation and expands opportunities to collaborate in the delivery of support, projects and initiatives that decrease social isolation and increase social connection.</p> <p>Delivered Asset Based Community Development Community Builders Workshop in partnership with Jedar Institute and the Local Support Network. Full day workshop with participation of over 50 community organisations, clubs and groups and local council staff. Broad outcomes included strengthening community and council relationships, encouraging collective support systems, collaborative development of new initiatives and projects that increase social connection, and developing a shared vision for improved community building in a COVID recovery phase.</p> <p>Home is Where the Art Is mural was completed</p>



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					at the Bus Shelter on Derby Street by artist Jimmi Buscombe. This project was an initiative of the Let's Get Neighbourly campaign aiming to reach lonely and isolated people and build social connections. Home is Where the Art Is social media posts reached 9,281 people with 566 engagements. A front-page article in the Standard showcased the mural with increased foot and car traffic observed, including dedicated bus visits.
1.1.6	Provide library programs and collections that facilitate inclusion, understanding and acceptance of diversity.	Manager Recreation & Culture	0%		Duplication Outcomes provided in 1.1.7
1.1.7	Establish LOTE, ESL and LGBTQI+ collections in the library to foster diversity.	Manager Recreation & Culture	50%		Officers are working with community to assess need and identify suitable resources and procurement has commenced.
1.1.8	Develop and implement programs and activities that improve community engagement and social connection through West Warrnambool Neighbourhood House.	West Warrnambool Neighbourhood House Coordinator	85%		<p>Summer School Holiday Program held at the Warrnambool West Primary School. Attendance consistent averaging 12 unique families attending the morning and afternoon sessions. Aimed at children aged 0 -13 included mosaics, nature bus, karate and boxercise, playgroup, mini terrariums, sun catchers, creative cooking and a cultural day.</p> <p>Increased demand for online Power Saving Bonus over the quarter with a total of 32 applications processed by the WWNH.</p> <p>A new Supported Playgroup in collaboration with Maternal Child Health Services commenced in February at the Beamish Street location. Eight weeks in and the group is now attracting up to 18 toddlers and their parents every Tuesday mornings.</p> <p>A six week collaboration between the WWNH, Western District AFL, Warrnambool West Primary and St Pius kicked off the West Warrnambool Auskick footy skills workshops in late February, with an average of 18 children attending.</p> <p>Early March WWNH launched its new pop up outreach hub at the WCC Lane Pavilion.</p> <p>Safe Seat Safe Kids, an initiative of NHVIC and Kids Safe Victoria and hosted by WWNH took place at St Pius Catholic School car park. 12 family vehicles over the four hour period.</p> <p>National Neighbour Day - a whole of community event was celebrated on the last day of March at</p>



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					<p>the Warrnambool West Primary School. In excess of 250 people attended the day, which engaged 180 school children, 32 info stall and range of activities.</p> <p>Reduced distribution of food relief over the January - March quarter with 1.125 tonnes of food delivered</p>

Objective 2: ABORIGINAL COMMUNITIES: Council will pursue improved partnerships and meaningful engagement with Aboriginal people to grow opportunities and better outcomes for Aboriginal people.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.2.1	Develop and deliver programs and services in collaboration with Aboriginal people that support inclusiveness, culture and reconciliation	Manager Community Policy & Planning	75%		<p>Council has registered with Reconciliation Australia to progress the development of its first Reconciliation Action Plan (RAP) - REFLECT RAP. The first draft will be submitted to Council to review in the next quarter. The draft will also need to be submitted to Reconciliation Australia for review and approval.</p> <p>The Aboriginal Liaison Officer has been recruited and will be joining Council from the next quarter.</p> <p>Pirtup Meereengeeye (Sandpiper Country) meeting place has been designed and will begin construction at Lake Pertobe in June. This partnership with the Maar Nation- focuses on working with the Maar Youth from the Kalay, Kakay and Clontarf academies to create a space to share cultural traditions, celebrate and share cultural knowledge, and become a place of inspiration and reconciliation. The project will begin with an Arts and Culture overlay with the Maar Youth in 2nd term allowing the young people to lead and have ownership of the space while sharing their own stories and important cultural elements of the Maar Nation with the wider community. The Rotary Clubs of Warrnambool are also partnering with this project.</p> <p>Council is also partnering with stakeholders to observe National Sorry Day on 26 May and for a range of activities to celebration National Reconciliation Week 2022 from 27 May to 3 June.</p>
1.2.2	Explore the process and development of Reconciliation Action Plan with Reconciliation Australia.	Manager Community Policy & Planning	100%		<p>Council has commenced the development of its first Reconciliation Action Plan (RAP). Council has registered with Reconciliation Australia and is developing the REFLECT RAP based on guidance from Reconciliation Australia.</p>

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.2.3	Facilitate and encourage collaborative relationships with Aboriginal and Community Controlled Organisations (ACCOs) to address key barriers to access children's and family services and build a stronger cultural connection.	Manager Children & Family Services	65%		Warrnambool Maternal and Child Health Service (MCH) have worked in collaboration and partnership with Gunditjmara Aboriginal Service, Warrnambool through the pilot Aboriginal Maternal Child Health Initiative program, to develop and provide a model of care which is culturally responsive and client focused MCH service to the families in our community. The access and equity of service is through self-determination working with each individual family to provide the service where they wish to be visited.
1.2.4	Increase participation of Aboriginal families in early years services, with a focus on maternal and child health and kindergarten services.	Manager Children & Family Services	70%		The early years outreach worker has been working toward the key deliverables of the project: <ul style="list-style-type: none"> Increased kindergarten enrolments for three- and four-year-old Aboriginal children in 2021, and in 2022. Maximising attendance at kindergarten in 2021 by Aboriginal children. Supporting the transition to school for Aboriginal children. Increased engagement by Aboriginal families in other early learning supports, such as community playgroups, Maternal Child Health.
1.2.5	Increase community awareness of, and promote, Aboriginal heritage, culture and sites of significance.	Manager Community Policy & Planning	75%		Pirtup Meereengeeye (Sandpiper Country) meeting place has been designed and will begin construction at Lake Pertobe in June. This partnership with the Maar Nation- focuses on working with the Maar Youth from the Kalay, Kakay and Clontarf academies to create a space to share cultural traditions, celebrate and share cultural knowledge, and become a place of inspiration and reconciliation. The project will begin with an Arts and Culture overlay with the Maar Youth in 2nd term allowing the young people to lead and have ownership of the space while sharing their own stories and important cultural elements of the Maar Nation with the wider community. The Rotary Clubs of Warrnambool are also partnering with this project.

Objective 3: HEALTH & WELLBEING: Council will take action to improve health, wellbeing and safety outcomes for Warrnambool's community.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.3.1	Develop and implement the Municipal Health and Wellbeing Plan 2021-25.	Manager Community Policy & Planning	75%		The first meetings of the Communities of Practice was organised in February and March. Discussions are ongoing on partnership with community organisations to implement projects that can have a positive influence across a range of health and wellbeing issues.

Completed	Progressing	On Hold	Not Progressing	Not Completed	Withdrawn
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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					<p>For active living, Council has been organising a swing dance session every week which will run up to end of April as part of the This Girl Can campaign. 31 female participants, all aged 65+, have been attending the sessions, which will run through to the end of April. Work has also been ongoing to improve safety for pedestrians and cyclists across the municipality. A range of programs are being offered through the stadium and Aquazone. In March, 35 people participated in an all abilities multisport event organised at the Warrnambool Stadium in partnership with South West Sport.</p> <p>For healthy eating, the Stephanie Alexander Kitchen Garden program is being implemented across all Council run early years facilities. Programs are also being offered through the West Warrnambool Neighbourhood House to improve health literacy.</p> <p>A campaign to raise awareness on the harms from drinking alcohol has been developed by the Local Drug Action Team with funding from the Alcohol and Drug Foundation Australia. The campaign is currently undergoing field testing and will be launched in June.</p>
1.3.2	Achieve compliance with the Child Information Sharing and Family Violence Information Sharing reforms.	Service Manager Early Years Learning and Development	50%		Continuing to review existing policies to incorporate Multi Agency Risk Framework and develop templates.
1.3.3	Improve children and families' health and wellbeing through attainment of targets set by the Healthy Achievement Program.	Service Manager Early Years Learning and Development	60%		Mental Health and Well-being bench mark surveys have been completed. Action plans to be developed for implementation as required.
1.3.4	Deliver culturally safe early years services.	Service Manager Early Years Learning and Development	60%		Ongoing implementation of actions plans, Preparation for Indigenous Language Art show to occur in term 2.
1.3.5	Develop and implement an Aquatic Strategy, including a new business model for AquaZone, to guide the improvement and strategic use of facilities to increase community participation in physical activity.	AquaZone Service Manager	25%		Pending the availability of funding, Officers are preparing documentation to procure consultancy to complete a feasibility study and develop strategy to guide provision of aquatic leisure facilities in Warrnambool for the next twenty years. The Strategy will incorporate a review of the existing facility's (AquaZone) services and infrastructure, the strategic context including; analysis of local and regional community needs; and regional and Statewide trends and influences on provision of

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					contemporary aquatic facilities in regional coastal communities, assessment of the issues and opportunities that influence the service and infrastructure needs, and be developed in in Strategic Plan with an associated action plan.
1.3.6	Develop an AquaZone fitness and program that supports and encourages wellbeing and water safety.	AquaZone Service Manager	50%		Since November we have relaunched of Group Fitness programs, and implemented new programming. Learn to Swim numbers have returned to over 1000 children a week enrolled. Programs have been impacted by staff shortages and Covid with several classes having to be cancelled over the past month. The position description for Membership Team Leader has been revised to include a strong focus on retention and growth of memberships. This vacancy is currently being recruited to.
1.3.7	Establish a plan to assist gymnastics to move to a sustainable business model.	Service Manager Warrnambool Stadium	30%		The majority of the current committee of Warrnambool Springers Gymnastics Club have only been in place for the past 1 to 2 years. This has been a period where the sport of Gymnastics has been heavily impacted by the pandemic. The club was only able to once again send participants to competition in late 2021. The Club is optimistic that 2022 will see local gymnasts once again consistently compete across the State and that the Warrnambool Gymnastics Centre will once again be a focus for Gymnastics Victoria's activities in the South West. Council officers will continue to meet face to face with the club in 2022 to develop plans to deliver sustainable operation of the Club and the Gymnastics Centre.
1.3.8	Increase community participation in active recreation.	Recreation Planner	50%		Winter sport has commenced within current COVID guidelines which has been well received. Tenant clubs are excited to resume given the previous two years of lockdowns.
1.3.9	Develop systems and policies that maximise the use of the Warrnambool Stadium.	Service Manager Warrnambool Stadium	65%		COVID restrictions have had little impact on Stadium operations in the January to March period other than the continued requirement to check the vaccination status of everyone who visits the facility. Domestic sports competitions, tournaments and school activity has returned to pre COVID levels during this quarter. The new fee model for resident sports associations has received uniform acceptance since its implementation in January. Work continues developing standard sports licenses with the individual associations.
1.3.10	Increase connection with children up to school age through outreach Maternal and Child Health Key Age	Service Manager Early Years Intervention & Support	20%		Meeting with EYLD team and recruitment of MCH to work on this project.



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	Stage visits to early years services.				
1.3.11	Support vulnerable families with young children through the enhanced Maternal and Child Health service.	Service Manager Early Years Intervention & Support	50%		Continuing to deliver EMCH service and supported playgroup increased to running 4 sessions a week.
1.3.12	Provide a broad range of programs for older members of our community.	Manager, Capacity, Access & Inclusion	85%		<p>Archie Graham continue to offer a range of activities for older members in our community, we currently have a survey circulating in the community seeking feedback on our existing services and to identify opportunities for additional programs. Social connection activities are in full swing with our groups and programs at capacity including movie sessions, theatre trips, walking groups, Out and About bus, and Café meals program. Community are encouraged to visit the Archie café that is run by volunteers to enjoy a 'real' coffee and toasted sandwich. We are current developing an EOI to scope what providers in our community require a venue to provide health and wellbeing programs.</p> <p>The Community Care team is current experiencing a spike in the number of referral for our home and community services including domestic assistance, community support, personal care and home/garden maintenance.</p>
1.3.13	Maximise use of sportsgrounds and associated recreational facilities through ensuring shared use, where appropriate.	Recreation Planner	25%		The draft Occupancy of Sport and Recreation Policy and Fee Model club consultation is progressing. All summer clubs have been briefed to date.

Objective 4: ACCESSIBLE CITY: Council will improve the physical and social accessibility to community services, facilities, places and precincts.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.4.1	Complete the principal pedestrian network to guide the footpath construction and improvement programs.	Director City Infrastructure	85%		Final consultation completed and works to be programmed in the footpath linkages budget for 2022/23 fy.
1.4.2	Investigate accreditation of Warrnambool based on the UNICEF Child Friendly City Status.	Manager Children & Family Services	40%		Re-engaging with the Child Friendly City working group, COVID caused the workgroup to re-focus due to work force and COVID priorities.



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.4.3	Meets the current and future needs of our growing population, programs and services through updated Community Services Infrastructure Plan.	Manager Community Policy & Planning	5%		This will start after commencement of planning of neighbourhood community infrastructure assets.
1.4.4	Implement the objectives set out in the Early Years Compact Agreement.	Service Manager Early Years Intervention & Support	20%		Meeting with Early Childhood Learning Advisor (ECLA) LOOKOUT Centre in term 2 to review families in OOHC in early years services.
1.4.5	Implement the Multiple Agency Risk Assessment and Management (MARAM) framework within all Early Years programs.	Service Manager Early Years Intervention & Support	20%		Awaiting further information from MAV, currently surveying the sector to find out the supports needed. MAV have appointed to new position to support the rollout.
1.4.6	Implement plans to improve the accessibility and user-friendliness for aged and those with a disability to Council owned community facilities.	Manager, Capacity, Access & Inclusion	85%		<p>Our Archie Graham walking groups now include a group on NDIS clients who walk regularly with carers and enjoy being connected to the wider community through networks developed in these group.</p> <p>The Vision Group continues with participation numbers increasing.</p> <p>Hydrotherapy pool has an increasing number of patrons accessing the hoist for safe entry and exit of the pool</p> <p>As per Accessibility Capital Fund A&I two Council projects have been selected to increase accessibility. These include the installation of the disability toilet at WCC saleyards and the installation of hearing loop at Lighthouse Theatre</p>
1.4.7	Increased access for people with disabilities by upgrading Council infrastructure through recurrent capital funding.	Manager Facilities & Projects	40%		Accessibility will be a key criteria in designs for CBD path renewals. Facility upgrades place a high priority on accessibility.
1.4.8	Maintain the delivery of high-quality services to enable people to remain as independent as possible in their own homes.	Service Manager Community Support	80%		Home Support: Home support has seen a reduced in the mandatory PPE requirements as COVID-19 restrictions ease. CSW shortages have been experienced across the board due staff testing positive to COVID-19 or mandatory close contact isolation. Home Care has been triaged to ensure that enough staff have been available to maintain our commitment to Personal Care which has been seen as the priority service. Some clients continue to suspend services to minimise the risk of exposure to the virus. Referrals for Home services have spiked



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					<p>and Intake remain unpressured to schedule and process assessments.</p> <p>Social Support: The social support services are running at full capacity with all program full capacity and new referrals remaining steady.</p> <p>Home Maintenance: Waitlists continue to grow in home modification as a result of a back log in Occupational Therapist assessment of the client's requirements. WCC continue to work with SWH to address this issue.</p> <p>Meals On Wheels: Demand for increased MOW continues coupled with reduction in volunteer drivers due to reluctance to receive booster COVID Vaccine. Currently reviewing structure of program to identify efficiencies.</p> <p>Internal Management: New Intake tools and pathways adopted to improved quality of services and efficiencies. New Budget template developed to implement in 22/23 FY to cater for the introduction of CHSP payment in arrears.</p>
1.4.9	Increased engagement of young people aged 12-25 years in youth development programs and activities.	Youth Development Planner	90%		<ul style="list-style-type: none"> Green Futures Now - community engagement campaign "Living Simply Packs + Dream Green Future look like". 6 young leader's coordinated online campaign that connected with 15 other young environmental stewards. The Push All Ages Tour March 4th - 6 young people involved in planning crew meeting on fortnightly/weekly basis through Jan- Mar; 6 young people involved in event crew along with core planning crew; 370 tickets sold for all ages music event with 204 attendees at event Multicultural Leadership group. 25 young people in weekly leadership sessions at Warrnambool College Development of Terms of Reference and recruitment plan for Warrnambool Youth Circle which is to replace Warrnambool Youth Council. Recruitment to begin in April. Development of recruitment plan for Green Futures Now 2022 ready for launch in April 2022.
1.4.10	Implement an accessibility audit of Council playgrounds.	Director City Infrastructure	25%		Auditor appointed and inspections underway. Inspections to be completed by end of this FY.

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

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Objective 5: RECREATION, ARTS, CULTURE & HERITAGE: Council will support opportunities to participate in a wide range of recreational, arts and cultural activities that promote activity, wellbeing, diversity and heritage, and grow connectedness across the community.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.5.1	Deliver the Lake Pertobe Building Better Regions program of projects along with the carpark renewal and upgrade funded through Local Roads and Community Infrastructure Program.	Director City Infrastructure	65%		Car Park works complete. Maar meeting place to be constructed in Q4. Play-Space works underway and on target for practical completion in September. New amenities block at McGennans Car Park will be tendered during Q4.
1.5.2	Complete the Playspace Strategy for community playgrounds and spaces.	Director City Infrastructure	40%		Rate cap exemption has assisted in reducing the renewal backlog. 3 Playgrounds to be renewed in Q4.
1.5.3	Deliver a Lighthouse Theatre program including the annual Primary Performers program, and implement strategies that encourages our community to experience, create, celebrate and participate in the performing arts with a focus on youth (13-25) and the disadvantaged community.	Service Manager Lighthouse Theatre	75%		The Lighthouse Theatre has begun its 2022 Primary performers program; this year's product is Annie and has 55 children participating. This number is lower than pre-COVID participants but shows signs that we are on the road to recovery after a two-year hiatus. Many families enjoy spending Sundays together with almost all parents opting to volunteer in the sets, costume, makeup and props department— a big turnaround from other years when parents would drop and have to run off to other events.
1.5.4	Develop and implement audience engagement and marketing strategies, including a membership program, to increase participation in performing arts presentations and seasons at the Lighthouse Theatre.	Service Manager Lighthouse Theatre	75%		The 2022 Theatre Season has seen a range of performances subscribed to and currently has 183 members. Members have commented about how affordable shows within the season are. New members are very impressed with what the season has offered so far—many adding to their subscriptions in the second half of the year. Confidence in ticket sales is increasing as people feel more comfortable living with COVID.
1.5.5	Deliver Warrnambool Art Gallery exhibitions and experiences that engage community, attract and increase visitors, support artists and build new audience.	Art Gallery Director	80%		WAG presented a suite of new exhibitions and events including a major new exhibition of local artist Annette Iggulden in the Family Learning Centre and 'Pakayn Marree Weerath' the Maar Nation Gallery. The Ngatook Collective project continues to garner significant audience interest and engagement.
1.5.6	Deliver a library program of events and activities that supports lifelong learning and social inclusion.	Service Manager - Library & Learning Hub	75%		Comprehensive program of library events and activities was developed and is continuing to be delivered to library patrons. The library offers a varied range of programs for all demographics delivered by both library staff and in partnership with a diverse range of community organisations that focus on health, well-being, social inclusion and lifelong learning. Programs are well attended,



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					especially regular programming for children and young people. We are working on delivering a day long event focused on Early literacy to the community to be held in May.
1.5.7	Develop a Cultural Strategy for Warrnambool.	Manager Recreation & Culture	65%		Project has been delayed due to other project commitments however a community consultation plan is currently being prepared and the draft plan is almost complete for Councillor review.
1.5.8	Development and implement policies and strategies to maximize use of community assets in areas of art and culture.	Manager Recreation & Culture	75%		A report has been provided to EMT regarding the use and potential for community facilities. This is currently being revised to include feedback. In the meantime discussions with facility tenants have commenced with regards to the implementation of Occupancy Agreements and Officers have developed use and booking guidelines and procedures.
1.5.9	Support community organisations to improve participation opportunities that support health and wellbeing, social, cultural and recreational outcomes through Council's community funding programs.	Manager Recreation & Culture	100%		Community Development Fund 2020/2021 round contributed to 54 sports and recreation, arts and culture, events and festivals or environmental and sustainability community groups. Totally funding distributed \$218,131. Funding supported projects that increased participation or supported club sustainability.

Objective 6: COMMUNITY LEARNING PATHWAYS: Council will support and encourage lifelong learning that helps build community resilience and preparedness for change.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.6.1	Relaunch the Warrnambool City Library under Council Management through a reinvigorated range of activities and programs.	Manager Recreation & Culture	100%		The Warrnambool Library was successfully transitioned from the Corangamite Regional Library Corporation from 1 July 2021.
1.6.2	Deliver the new Warrnambool Library.	Manager Recreation & Culture	70%		Construction of the new library is progressing according to program. Formed concrete external walls have been installed, installation of electrical and mechanical services are well progressed, elevator is currently being commissioned. Glazing is expected to be installed and the building sealed by end of May in time for the wet season. Council officers are currently sourcing furniture and equipment as specified by DET. WCCs first milestone payment has been made to DET. Operational budget for 2022/2023 has been prepared.



Warrnambool City Council Activities & Initiatives

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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
1.6.3	Deliver library early years programs that support language and literacy development and parental efficacy.	Manager Recreation & Culture	0%		Duplication Outcomes provided in 1.5.6
1.6.4	Deliver library programs that develop literacy in all its forms and encourage a love of reading and life-long learning.	Manager Recreation & Culture	0%		Duplication Outcomes provided in 1.5.6
1.6.5	Advocate for opportunities to ensure staff have access to high quality professional development opportunities that support community's needs.	Manager Children & Family Services	60%		The community of practice coaching and mentoring within the kinder and childcare teams is progressing well. Staff have identified goals that they are working towards within their teams. The coaching and mentoring through this program allows staff to be given feedback on an individual level and allowing staff to grow and learn through the process. The coaching has been via zoom and onsite visits.
1.6.6	Deliver Three Year Old kindergarten across services to ensure children have access to 2 years of kindergarten before school.	Service Manager Early Years Learning and Developme	100%		3 year old kindergarten groups commenced in February 2022 across 8 sites. 2023 model being developed to roll out flexible funding of up to 15 hours in 2023. Enrolment open day set in May 2022.
1.6.7	Maintain and further develop Council's partnership with Deakin University to enable research and development opportunities for community and industry.	Director City Growth	70%		Council is working with Deakin University to offer an intensive workshop and mentoring program for businesses under the ManuFutures Ignite Program where participants will qualify for up to \$10,000 of services in addition to a 12 week program. Key deliverables for participants will an understanding of how to rapidly accelerate business ideas, develop business strategy and a commercialisation plan, become seed investment investment pitch ready and tap into expertise, mentoring, research and technology across Deakin University and its research centres. Calls for expressions of interest close May 18.

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

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GOAL 2: A SUSTAINABLE ENVIRONMENT: We will protect and strengthen local ecosystems, enhance biodiversity and enable sustainable communities.

Objective 1: NATURAL ENVIRONMENT: Council will enhance open spaces and infrastructure that support a healthy community, wildlife, flora, fauna and biodiversity.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
2.1.1	Develop and implement Pest Plant and Animal Management Framework for the control of environmental weeds and pests.	Coordinator Natural Environment	35%		Development of the Pest Plant and Animal Framework is progressing. The implementation of the Fox Action Plan continues within the Warrnambool Coastal Reserve and control actions will commence for 2022.
2.1.2	Develop and implement strategy and programs that improve biodiversity and protect and enhance flora and fauna.	Coordinator Natural Environment	35%		Council's Wild Warrnambool bioQuest is currently underway in the Great Australian bioQuest competition. This citizen science program enables members of the community to register sightings of local flora and fauna to be added to CSIRO's Atlas of Living Australia. The Gardens of Warrnambool pilot project is coming to a close with learnings to be reviewed for consideration of an ongoing program.

Objective 2: WATER & COASTAL MANAGEMENT: Council will protect and enhance the health of Warrnambool's coastline and inland waterways to protect and improve biodiversity.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
2.2.1	Implement the Domestic Waste Water Management Plan to improve health and environmental outcomes for our community.	Coordinator Environmental Health	60%		The current database that we are using is being cleaned up and nearly all of the new domestic wastewater management system applications have been updated. We are looking to migrate all of the data from 1000+ systems from the old database (Health Manager Wastewater module) to the current database (TechOne) to have all information centralised, and to link TechOne with ECM (central Council file manager). Letter templates (including to high risk locations, and to all residents as information sheets) are being drafted. Domestic Wastewater Management Officer has completed the Land Capabilities course.
2.2.2	Investigate water use opportunities to improve water resource management.	Director City Infrastructure	25%		No further action on the Japan Street upper catchment. External funding will be required to assist with implementation. Continue to work with the Integrated Water Management Committee.
2.2.3	Implement the Warrnambool Coastal Management Plan to guide the future use, development and	Coordinator Natural Environment	45%		Implementation of the Warrnambool Coastal Management Plan is ongoing and includes implementation of the Wild Coast Landscape Master Plan, which Council has been successful in DELWP funding to support implementation.



Warrnambool City Council Activities & Initiatives

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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	management of Warrnambool's coastline.				
2.2.4	Implement the Moyjil- Point Ritchie Conservation Management Plan.	Coordinator Natural Environment	45%		Implementation of the Moyjil-Point Ritchie Conservation Management Plan is overseen by the Moyjil Advisory Committee and is ongoing.

Objective 3: MINIMISE ENVIRONMENTAL IMPACT & THE IMPACT OF A CHANGING CLIMATE: Council will encourage innovation and initiatives that minimise Warrnambool's environmental impact.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
2.3.1	Investigate new technologies to reduce waste from landfill towards zero waste to landfill.	Coordinator Local Laws Traffic Fire & Animal Control	80%		Working with volunteer Community groups, cleaning the foreshore by collecting the rubbish, and providing monogrammed bags. Providing input etc. in relation to beach access. Join a Regional forum on waste management. Upon the appointment of a new waste mgt officer, investigations into waste to energy options will continue.
2.3.2	Deliver the Smart Buildings energy efficiency program to reduce greenhouse gas emissions and utilise renewable energy.	Coordinator Natural Environment	80%		The delivery of the Smart Building Program is well underway and current projects expected to be completed before the end of the financial year. The installation of the solar panels at the Civic Buildings is well underway with AquaZone almost completed and works at the Civic Centre due to commence on the 4th April. The pool blanket tender for AquaZone has been awarded and installation of the blankets has been scheduled for May 2022. The solar system at the ARC Stadium is now operational and the EV charging station are currently at the design stage for procurement and installation later in the year.
2.3.3	Facilitate and support the delivery of climate change mitigation, adaptation and resilience actions to raise awareness and prepare for a changing climate.	Coordinator Natural Environment	35%		The Barwon South West Climate Alliance has been established and will provide an avenue to progress climate change mitigation, adaptation and resilience actions and programs.

Objective 4: WATER RESOURCE MANAGEMENT: Council will promote and encourage awareness of sustainable practices in our work, and the community including water resource management.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
2.4.1	Develop a drainage system litter and contaminants improvement/management plan to	Director City Infrastructure	15%		No further actions since Q2 report. This project will continue once staffing positions are filled in the Strategic Asset Team.



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	reduce gross pollutants into the waterways.				

Objective 5: WASTE MINIMISATION: Council will pursue programs to minimise waste throughout the community, industry and promote the benefits of reduction, reuse and recycling of materials.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
2.5.1	Reduce contamination of recyclable materials.	Coordinator Local Laws Traffic Fire & Animal Control	90%		Education and initiatives are continuing, whilst a new coordinator is appointed.
2.5.2	Ensure financial efficiency and meeting financial targets by developing a Waste Management Asset Management Plan and Strategy.	Coordinator Local Laws Traffic Fire & Animal Control	95%		The Waste Strategy has been adopted by Council. The appointment of a new Waste Management officer will see the creation and implementation of an action plan from the Strategy.

Objective 6: AWARENESS & CELEBRATION: Council will foster community awareness and recognition of the benefits of positive outcomes for Warrnambool's environment.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
2.6.1	Promote awareness and celebrate the outcomes of environmental work including actions that align with the Green Warrnambool plan.	Coordinator Natural Environment	70%		The Green Futures Now Program involved connecting young people to community groups in the environment and sustainability area along with individuals who are making an impact on the environment and our community. The program participants developed a series of interviews documented on video which highlight and celebrate the outcomes of work to improve environmental sustainability and actions that align with Green Warrnambool.
2.6.2	Monitor and manage organisational greenhouse gas emissions and energy usage.	Coordinator Natural Environment	60%		Council's greenhouse gas emissions and energy usage continues to be monitored and managed in partnership with Service Providers and Facility Managers. Council is part of the Victorian Energy Collaboration (VECO) where 40% of Council's electricity will be provided by renewable energy.



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**Q3,
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GOAL 3: A STRONG ECONOMY: We will support a resilient local and self-sustaining regional economy that encourages economic growth and provides increased employment opportunities attracting ongoing investment.

Objective 1: BUILD ON COMPETITIVE STRENGTHS: Council will support initiatives that foster ongoing development and investment in the industries which underpin Warrnambool's economic strengths and comparative advantages.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
3.1.1	Implement Development Plans and Developer Contributions Plans to provide future resources for improved infrastructure across the municipality.	Manager Infrastructure Services	65%		<p>Development Plan applications and Development Plan amendments continue to be processed and determined by Council, being:</p> <ul style="list-style-type: none"> 15 Dales Road. 147 Wollaston Road. <p>Council approved 119 Bridge Road in Woodford and a permit has since followed for a multi-lot subdivision.</p> <p>Pre app meetings for 158 Wollaston Rd have also occurred.</p> <p>Numerous development applications have been received for subdivision in the growth areas. Where relevant permits include conditions triggering contributions payable in accordance with the relevant DCP.</p> <p>The planning department is developing efficiencies in processing plans to comply to assist developers meet their permit requirements and bring forward land in a timely manner.</p>
3.1.2	Develop programs and collateral to promote Warrnambool as an appealing investment destination.	Coordinator Economic Development & Investment	75%		<p>Council has commenced a round of industry engagement with business in the industrial precincts across the municipality. Business databases are being updated and engagement is also directed towards understanding the investment pipeline of businesses and potential barriers to investment.</p>
3.1.3	Grow engagement with local businesses across the municipality.	Coordinator Economic Development & Investment	75%		<p>Engagement with local businesses occurred through Jan - March with the continuation of the COVID-19 Business Concierge and Hospitality Support Program adding to the existing levels of engagement by Council via the EcoDev Business Support Program. To strengthen Council's engagement with businesses from a wider range of industries, ATO's Local Business Register was downloaded and the ED Team is in the process of cleansing the data to make them available for use. This data will be incorporated with the existing data</p>

Completed

Progressing

On Hold

Not
Progressing

Not
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Withdrawn

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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					so Council will have a complete list of local businesses with and without GST from various industries.

Objective 2: EMERGING INDUSTRIES: Council will encourage emerging industry sectors that contribute to Warrnambool's economic growth and diversity.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
3.2.1	Facilitate and partner in initiatives to progress the implementation of the Great South Coast Economic Futures Plan, including the development of renewables in Warrnambool and the Great South Coast region.	Director City Growth	70%		Council continues to work with government, higher education and industry partners across the region to identify significant and practical paths to higher value, greater productivity and skilled job creation across the region. These include opportunities such as green hydrogen, reform in renewables generation and transmission across the region, higher-value food and value-adding with fully-secure water supply, greater targeted higher education and training support to these sectors, high-value tourism, especially in hot springs and indigenous cultural tourism; and wider region collaboration for scale in these sectors. This work is enhanced by co-operative working across regional peak bodies such as Food and Fibre Great South Coast, Great Ocean Road Regional Tourism and Barwon South West Climate Alliance, and the Great South Coast Group.
3.2.2	Review and implement the Warrnambool Economic Development and Investment Strategy to facilitate investment and employment growth across the Warrnambool municipality.	Coordinator Economic Development & Investment	10%		Planning is under way for the new Warrnambool Economic Development and Investment Strategy and grant funding opportunities are being explored.
3.2.3	Facilitate and promote business support initiatives to grow the local economy.	Coordinator Economic Development & Investment	75%		Economic Development Team are currently working on several new initiatives including: <ul style="list-style-type: none"> • Warrnambool Business Survey to gain an understanding about local businesses' interest in economic projects and issues. • Council's Business Information Portal to provide relevant information efficiently with enhanced navigation and up-to-date information. • Business seminars and training programs for annual planning. • Enhanced newsletters. • Enhanced business database. • Strengthening a 'One Stop Shop' services to businesses. • Planning underway to reintroduce business networking events.



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
3.2.4	Plan for the development and implementation of precinct structure plans to facilitate investment in appropriate development across the municipality.	Coordinator City Strategy	65%		The East of Aberline Precinct Structure Plan is progressing under the lead of the Victorian Planning Authority. Technical reports and studies are currently underway for flooding and drainage, with detailed traffic modelling to commence in 2022. Implementation of the Hopkins / Coastal, North Dennington and North of the Merri structure plans continue with subdivision and development occurring at a growing rate. The Allansford Strategic Framework Plan has been adopted with an implementation plan currently being developed. External funding has recently been successful to implement the Allansford Strategic Framework Plan, including developing technical studies for traffic, drainage and flooding. External funding has also been successful to develop a strategic framework plan for Bushfield/Woodford. Project planning is currently underway for these externally funded projects.

Objective 3: VISITOR GROWTH: Council will facilitate Warrnambool's visitor growth and year-round visitation through industry development, effective destination management and promotion of attractions and experiences leveraging key events.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
3.3.1	Review and implement the Warrnambool Destination Action Plan in partnership with Great Ocean Road Regional Tourism and industry.	Coordinator Economic Development & Investment	15%		With easing on COVID-19 restrictions, Council's Visitor Economy teams are working together with Great Ocean Road Regional Tourism and Industry to develop the Destination Action Plan in the calendar year 2022. Engagement with industry stakeholders will occur later in the year.
3.3.2	Increase visitation with events across the year and enhance the profile of Warrnambool as a destination.	Service Manager, Events & Promotion	50%		<p>A diverse range of events were delivered over summer for the annual BeachFest summer events program. This year the pop up cinema went to Woodford for the first time, with over 400 people attending the day. Over 40 events were processed through the events and promotions branch for Q3.</p> <p>The Melbourne Melbourne to Warrnambool Cycling Classic returned over 2 days with the introduction of the inaugural "Women's Warrny".</p> <p>The summer night markets returned over 3 nights in January, attracting over 1000 people per night.</p> <p>Other hallmark events including the Senior Surf life Saving Championships and Lawn Tennis Open returned with over 2,000 sporting participants.</p> <p>Everyday Gourmet TV show was filmed in Warrnambool, featuring the Warrnambool</p>



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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					Community Garden, Botanic Gardens, Flagstaff Hill and Stingray Bay. Following the Level up Conference in November 2021, remaining funding was used to deliver two Grant Writing and Event Marketing Masterclasses held at the Lighthouse Theatre and delivered by Karen Foster. Both were attended to capacity.
3.3.3	Develop and share economic data and analysis to business and industry to inform the performance of the Warrnambool economy.	Coordinator Economic Development & Investment	70%		Council continues to use Spendmapp, Remplan, ABS data, AU Government's Labour Market Information Portal etc. to monitor economic performance. Economic Development is in the process of publishing user-friendly local economic data on a quarterly basis to share with residents and businesses in and outside the LGA. For the 7 months ending January 2022 Warrnambool reported building values of \$31 million for non-residential activity. Over the past decade the value of non-residential building approvals in Warrnambool have historically averaged around \$35 million each year. Non-residential building are buildings primarily intended for purposes other than long term residence and would include structures such as office, retail, industrial and commercial buildings.
3.3.4	Increase community participation in the delivery of a diverse range of events through a grants program.	Service Manager, Events & Promotion	50%		Activate Warrnambool was a new event funding round created in 2021 to support new event creation and economic impact in response to COVID-19. In total, there were 12 events funded in total to a total amount of \$68,800.00. Of those 12, 2 were cancelled completely due to COVID (money returned). 3 others have been postponed to be held before the end of this financial year. 7 have been delivered, resulting in a total of 7,280 event attendees across those events. All events are new for Warrnambool. Round 2 is now open and closes on Monday 11 April 2022.
3.3.5	Participate in the establishment of the Great Ocean Road Coast and Parks Authority to protect and manage visitation of the Great Ocean Road Coast and Parks.	Director City Growth	50%		Established in late 2020 the Great Ocean Road Coast and Parks Authority's primary purpose is to protect and manage visitation of the Great Ocean Road Coast and Parks. Council continues to engage in workshops with the authority, more recently on the development of an asset methodology to better understand the asset needs and service levels across Crown Coastal land in the region.



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Objective 4: **WORKFORCE CAPABILITY: Council will foster the development of a workforce capable of supporting the needs of the local and regional economy.**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
3.4.1	Deliver the Designated Area Migration Agreement (DAMA) representative role for the Great South Coast region and the Regional Certifying Body function on behalf of the Great South Coast.	Designated Area Migration Agreement Coordinator	75%		<p>Analysis of endorsed employers to date (March 2019 to April 2022). 37 employers endorsed & 5 for a Deed of variation.</p> <ul style="list-style-type: none"> x 1 worker = 23 endorsements. x 2 workers = 6 endorsements. x 3 workers = 8 endorsements. 3+ workers = 4 endorsements. Current Applications in Progress x 3. Total workers endorse to date = 165. <p>60% of the businesses endorsed in the first 3 years are dairy farms.</p> <p>Engagement of LGA's to determine what other occupations might be added? Discussions have opened with all LGA's in the GSC DAMA to review the current list of occupations with the view to expanding it. A workshop has been set for mid-May to allow time for LGA's to consult with local industry and develop their own list of occupations for consideration. This will require a business case and approval from the Department of Home Affairs.</p> <p>A survey among current DAMA approved employers in the first three years of the program has been distributed and will allow us to report on:</p> <ul style="list-style-type: none"> The workers and dependents by each LGA on the ground. Would employers like their business, approved occupations and a contact e-mail on the GSC DAMA webpage? Other questions: Biggest issue facing their industry. Comments and experience in the DAMA process and program.
3.4.2	Partner on projects and initiatives with Deakin University Warrnambool and South West TAFE that help provide a skilled workforce that meets local industry needs.	Coordinator Economic Development & Investment	75%		<p>The Economic Development Team is currently reviewing the DAMA Occupation List with a view to expanding the number of areas for skills shortages. Some of the work will be done in collaboration with Deakin University Warrnambool (and four other LGAs) and South West TAFE.</p> <p>Council is also assisting Deakin University and South West TAFE with industry engagement in various industry sectors for vocational training package development and attracting a skilled workforce within Australia and internationally.</p>
3.4.3	Deliver education and advisory services to business and industry to raise awareness of building,	Manager Infrastructure Services	75%		<p>Council's Heritage Advisory Service is being maintained adhering to COVID-19 restrictions in Victoria and South Australia (where the advisor is based). The service continues to be used frequently</p>

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

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Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	planning and heritage requirements.				including via an online platform eg zoom. Permit activity within the heritage areas continues to be strong. The services is proving essential with several large projects in Warrnambool including the Callaghans site redevelopment, Stanley Street bridge replacement and pre-application advice on other redevelopment sites within the city. The website has recently been updated and there is an opportunity to add content on the planning pages on frequently asked questions and design guidelines.

Objective 5: DIGITAL CAPABILITY: Council will facilitate greater digital capability.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
3.5.1	Participate in the implementation of the Great South Coast Digital Plan to address connectivity issues for industry and households.	Director City Growth	75%		The Great South Coast Digital Plan identifies gaps in the region's current digital infrastructure and makes recommendations on how these gaps can be addressed. As part of this regional implementation, Warrnambool is developing its own digital strategy and action plan with funding support from Regional Development Victoria. A consultancy procurement process has been completed in partnership with other participating municipalities and a program of consultation will commence in late April/May.
3.5.2	Identify and promote investment in digital projects across the Warrnambool municipality to address priority digital infrastructure supply shortfalls, including mobile coverage, and access to business-grade broadband.	Coordinator Economic Development & Investment	40%		The Economic Development Unit represents Council on the Great South Coast Regional Digital Plan. The project will develop a digital strategy and action plan for the local government areas of Warrnambool, Corangamite and Moyne. The project has begun, a consultant has been appointed and industry engagement will occur over coming months.



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GOAL 4: A CONNECTED & INCLUSIVE PLACE: We will provide quality places that all people value and want to live, work, play and learn in.

Objective 1: EFFECTIVE PLANNING: Council will ensure its planning acknowledges the unique character and attributes of local places, and that it supports social connection, equitable access, appropriate housing and sustainable population growth.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
4.1.1	Deliver the building renewal program.	Coordinator Building Strategy & Services	30%		Building renewal program has commenced and is being reported on in detail via the capital works reporting process.
4.1.2	Develop and adopt a Tree Asset Management Plan including significant and heritage trees.	Director City Infrastructure	90%		Tree planting and maintenance policy has been reviewed and will be presented to Council at an Informal Meeting in April and subsequently to the May meeting for adoption.
4.1.3	Complete service level reviews for parks, gardens, roads and drainage services.	Coordinator Municipal Depot Operations	10%		This is completed annually when business plans are reviewed prior to the Budget process. Due to resourcing constraints with Depot Coordinator completing some acting Manager IS duties, this has been delayed, looking to complete in April 2022.
4.1.4	Review the CBD Parking Strategy including the expansion of off-street parking areas.	Coordinator Local Laws Traffic Fire & Animal Contr	70%		A car park design is being completed in the vicinity of the new library. The Parking Strategy has been placed on hold due to COVID lockdowns that will effect data collection.
4.1.5	Finalise the Social Housing Planning Project Report to support delivery of social and affordable housing.	Coordinator City Strategy	100%		Implementation plan has been finalised and reported to Councillors in January 2022.
4.1.6	Deliver the redevelopment of Reid Oval.	Manager Recreation & Culture	95%		The Reid Oval is being played on the Pavilion is awaiting final sign-off. Additional works, previously valued managed out of the project, have been able to be included. These include the perimeter path and upgraded connection and lighting to the netball courts. Official opening will be on 29 April.
4.1.7	Commence planning of neighbourhood community infrastructure assets.	Manager Community Policy & Planning	10%		The Census 2021 data will be released by ABS in June 2022 and this activity will commence after the release of the Census data. The latest data will form the basis of understanding the characteristics of the Warrnambool community and the need for different neighbourhood community infrastructure assets.



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Objective 2: CONNECTED COMMUNITY: Council will enhance Warrnambool's connectivity through the delivery of, or advocacy for, improvement to roads, public transport, footpaths, trails and digital infrastructure.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
4.2.1	Advocate for essential safety and road improvements on the Princes Highway West.	Director City Infrastructure	75%		Works east of Warrnambool continuing. No formal advocacy has been undertaken by the regional group this calendar year.
4.2.2	Advocate for improved passenger and freight rail services between the South West region and Melbourne.	Director City Growth	70%		Work on the Warrnambool Line upgrade is continuing, with signaling upgrades between Waurn Ponds and Warrnambool. More than 24 kilometres of signalling cable has been installed, along with eight kilometres of access tracks along the line. The project will upgrade more than 50 public level crossings on the Warrnambool line with improved train technology to detect when VLocity trains are approaching and add boom gates to 17 of these crossings to boost safety for motorists and train passengers. Once complete, there will be no unprotected public level crossings on the line. The new crossing loop at Boorcan and a fifth weekday return service between Warrnambool and Melbourne will come into operation following the completion of signaling and commissioning works along the line. The stabling facility at Warrnambool Station is to be upgraded to house the longer VLocity trains, allowing them to start and finish their journey at Warrnambool. The Warrnambool Line Upgrade is targeted for completion in late 2023.
4.2.3	Plan for growth and changes in traffic movements by identifying current and future traffic volumes and use this to review the Municipal Road Management Plan and Road Hierarchy.	Director City Infrastructure	0%		Action will commence by the end of 2021/22 FY once the Strategic Asset Coordinator has commenced in their role.
4.2.4	Facilitate the implementation of Cycling Reference Group actions adopted by Council.	Director City Infrastructure	45%		CRG minutes presented to Council regularly. Actions are completed as part of roads safety projects and will continue to be incorporated into designs for safety upgrades.
4.2.5	Review City Centre traffic flows with implementation of new pedestrian crossings.	Coordinator Infrastructure Management	85%		Traffic and Pedestrian completed in March. Analysis of traffic counts will be undertaken in April.
4.2.7	Seek funding for and deliver road safety projects.	Coordinator Infrastructure Management	75%		Application lodged for Lava Street and Kepler Street roundabout and Lava Street Bus Exchange site safety improvements. TAC application made for Breton St/Mortlake Rd intersection. Currently working on applications for pedestrian safety along Caramut Rd, Bridge Rd Hopkins Hwy Intersection, and Foster Skene Intersection.



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Objective 3: STRONGER NEIGHBOURHOODS: Council will fostering neighbourhood connection and capacity building including the development of inclusive recreational and cultural opportunities.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
4.3.1	Implement the key initiatives of the Open Space Strategy, including our review of the strategy.	Coordinator City Strategy	80%		<p>The Warrnambool Open Space Strategy is seven years into its implementation and is progressing on schedule. A detailed progress report was presented to Council in 2021 to highlight achievements to date. Some of the recommendations more recently completed include:</p> <ul style="list-style-type: none"> a Wayfinding Sign Design Package for the Foreshore, City Centre, and Russell's Creek (with several signs now installed), investigation of open space opportunities through the Allansford Strategic Framework Plan, acquisition of new open space adjoining the Merri and Hopkins Rivers, completion of all recommendations from the Jubilee Park Master Plan at Woodford, completion of the South of Merri Open Space Precinct Plan. <p>An implementation plan has been prepared for the South of Merri Precinct, with successful external funding recently received to implement works within the Woodend Road reserve and Platypus Park precincts. Project planning is currently underway to implement these works, in partnership with the Glenelg Hopkins CMA. 100% of City-wide recommendations have commenced or are complete, and 78% of precinct-based recommendations are complete or underway.</p>

Objective 4: SUSTAINABLE PRACTICES: Council will promote and encourage the implementation of sustainable design across the municipality including the attractiveness, safety, accessibility and functionality of our built environment.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
4.4.1	Identify and regularly monitor condition of Council's built assets to ensure effective management.	Director City Infrastructure	30%		Strategy in development to enable a 4 year renewal program to be funded and resourced. Program to be completed and approved by Director in June/July 2022.



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2021/2022**

GOAL 5: AN EFFECTIVE COUNCIL: We will be recognised as a collaborative Council and a high-performing organisation that enables positive outcomes for Warrnambool's community, environment and economy and Victoria's south west.

Objective 1: LEADERSHIP & GOVERNANCE: Council will be a high-functioning team committed to respectful relationships, collaboration, and ongoing engagement. It will provide strong, effective leadership, sound governance and informed decision-making.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.1.1	Ensure key priorities of the community are appropriately reflected in the development and review of the Council Plan with the appropriate prioritisation of resources to key strategic themes.	General Counsel, Strategy & Procurement	100%		The annual review of the Council Plan is underway with community engagement planned and staff review being completed. Any updates to the Council Plan will be reviewed and considered prior to being adopted at the end of this financial year.
5.1.2	Identify and report on changes to Council operations, policies and procedures in line with the Local Government Act.	Governance, Property, Projects & Legal	95%		All items required under the Local Government Act 2020 have been completed and delivered in accordance with the Act with the exception of the Asset Plan under section 92, which is due to be completed by 30 June 2022.
5.1.3	Improve Council's systems and policies through review of Governance Framework.	Governance, Property, Projects & Legal	0%		On hold.
5.1.4	Improve asset management practices.	Director City Infrastructure	35%		State of the Assets Report to be completed and presented by May 2022. Change of language in plans to move away from backlog and gap as descriptions of assets.
5.1.5	Improve the Warrnambool Planning Scheme which controls land use and development within the municipality.	Coordinator City Strategy	75%		<p>The Warrnambool Planning Scheme is continuously monitored to ensure officers are kept abreast of State Government planning reforms and trends and relevant reforms are reported to Council. Recent State Government planning reforms include new reforms and streamlined provisions for transport planning, further streamlined provisions for social and affordable housing; State and Local Government Infrastructure projects, and amended reforms to support extractive industries.</p> <p>Other recent improvements to the Warrnambool Planning Scheme include ongoing work on the new flood controls for the Russells Creek and parts of the Merri River catchments in north Warrnambool to reflect updated and improved flood modelling for these areas, in preparation for the upcoming Independent Planning Panel hearing</p>

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

27



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					scheduled for 26 April. Rezoning of land at Kings College and the adjacent Royal Court subdivision to correctly align the zoning with the ongoing use of the land, will go out on public exhibition in late April 2022.
5.1.6	Work with neighbouring Councils to develop sub-regional and regional plans and advocacy strategies to benefit the region and deliver on the community's aspirations.	Chief Executive	100%		Developed the Great South Coast Advocacy Plan which has been supplied to various Ministers; meetings have also been held with various Ministers regarding the advocacy plan. Ongoing advocacy to take place.
5.1.7	Align the implementation of the Warrnambool 2040 Plan with the Financial Sustainability Plan.	Director Corporate Strategies	100%		The long term financial plan is aligned to Warrnambool 2040. The priorities relevant to Council are picked up in the long term financial plan and Council continues to balance competing demands from many sources. Council continues to review and change its priorities with consultation with its community and updates and modifies its financial plans accordingly.
5.1.8	Ensure achievement and maintenance of organisation-wide Child Safe Standards compliance and currency of Working With Children Checks.	Manager Organisation Development	60%		From July 2022 the Child Safe Standards are changing to provide more consistency with Standards in the rest of Australia and to strengthen protection from child abuse. There will now be 11 Standards required to be met. Work continues to progress with the identification of training in line with these upcoming changes.
5.1.9	Develop and rollout the Regional and Rural Liveability Strategy in partnership with State Government and South West Primary Care Partnership.	Manager City Strategy & Development	30%		South West Primary Care Partnership has undergone a restructure most recently. Once re-established, further updates can be provided.

Objective 2: ENGAGED & INFORMED COMMUNITY: Council will ensure ongoing community engagement to identify changing needs and priorities when developing and delivering services and programs.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.2.1	Improve accessibility, transparency and accountability of Council decision-making.	Governance, Property, Projects & Legal	30%		A trial for projecting motions onto a screen at Council's Meetings is proposed for the May meeting.
5.2.2	Monitor and report on the reach and effectiveness of Council's communications measures.	Manager Communications	75%		Council issued the autumn edition of its Promenade newsletter via unaddressed mail. This has meant the newsletter was delivered directly to more than 16,000 households, greatly increasing the circulation of the newsletter which



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					was previously distributed as a newspaper insert. Receiving a newsletter in the mail has been shown through annual community satisfaction surveys to be a preferred method of delivery. The newsletter is also available online.
5.2.3	Produce the annual State of the Assets Report that identifies the asset renewal funding performance to inform renewal expenditure.	Director City Infrastructure	85%		Report is almost complete and has been undertaken with the assistance of a consulting asset manager.
5.2.4	Review adopted Asset Management Plans for major asset classes to inform operational activities.	Director City Infrastructure	80%		Process of review and adoption is continuing. The latest for adoption is the Waste Management Asset Plan and the Public Tree Planting and Maintenance Policy which is linked to the tree asset management plan.
5.2.5	Review strategies and plans to comply with Council's Asset Management Policy.	Director City Infrastructure	25%		Item to be actioned by the end of 2021/22 FY once the Coordinator of Strategic Assets has commenced in their role.
5.2.6	Provide communications support to promote Council services, facilities, programs and events.	Manager Communications	75%		The Communications Branch has supported the Archie Graham Community Centre team with its surveys of patrons and wider community members. The surveys are aimed at ensuring Archie Graham remains relevant and is meeting the changing expectations of the community. This effort included web and social media posts and a media release. Support was also provided to help promote the Detox Your Home initiative which attracted 186 householders to the March 5 event.

Objective 3: CUSTOMER-FOCUSED SERVICES: Council will continue and develop a program of Council services that are delivered to the community's satisfaction.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.3.1	Review and update Council's complaint handling policy and processes in line the Local Government Act changes and Ombudsman's guidelines.	Governance, Property, Projects & Legal	80%		Improvement to processes to support the Complaints Handling Policy are currently on hold.
5.3.2	Improve outcomes in the delivery of Council's customer services.	Customer Service Team Leader	30%		Access to Live Chat has been improved by positioning it prominently on the new website. Over the coming months we will look at adding automation to the live chat system.



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.3.3	Deliver library customer programs in partnership with community organisations, non-government organisations and business.	Manager Recreation & Culture	25%		Duplicated in 1.5.6
5.3.4	Develop and influence strategic integrated planning process and decisions to ensure Council strategy is appropriately prioritised and executed.	General Counsel, Strategy & Procurement	90%		Council Plan and budgeting process for 22/23 is underway with clear understanding of expectations to ensure that every employee is working towards the achievement of the Council Plan. Draft Council Plan will be presented to the May Council meeting for approval prior to being released for further public consultation and is on track to be adopted in June 2022. Business Plans for each service unit currently being reviewed by EMT prior to adoption in line with the Council Plan.

Objective 4: HIGH-PERFORMANCE CULTURE: Council will foster an organisational culture to support engaged, committed and high-performing staff for the effective delivery of Council's services and programs.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.4.1	Prepare and develop appropriate service and organisational review processes to maximise operational efficiency.	Director Corporate Strategies	80%		A high level executive review of the structure has been concluded as part of the development of Councils workforce plan requirement and the core structural elements remain unchanged as the core service functions remain unchanged. The key focus for service review remains in the Corporate Strategies directorate with the shared Information technology project underway with Moyne and Corangamite shires. Concurrently process re-engineering continues around billing, payroll, rosters development and contracts management to improve efficiency and add automated processes. Shared technology strategy has been completed across the Moyne Corangamite and Warrnambool. A centralized Training and development system has been scoped and is being introduced to ensure greater efficiency compliance and targeted staff development across the organisation.
5.4.2	Support an organisational approach to strategic procurement to ensure effective operational decision making that improves organisational performance.	General Counsel, Strategy & Procurement	65%		Organisational approach supported by a structural change to align the Procurement and Contracts Officer with the Procurement Manager. This moves allows for a more centralised approach to procurement and contract processing and will support further performance improvements.
5.4.3	Review and improve human resource operational	Manager Organisation Development	85%		A review of the internal HR structure has been undertaken in view of the addition of the provision of training responsibility for the entire organisation. The development of on-line training request and



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	processes to ensure best practice.				approval processes is advanced, enhancing processes.
5.4.4	Enhance organisational awareness of Victoria's Child Safe Standards.	Manager Organisation Development	65%		From July 2022 the Child Safe Standards are changing to provide more consistency with Standards in the rest of Australia and to strengthen protection from child abuse. There will now be 11 Standards required to be met. Work continues to progress with the identification of training in line with these upcoming changes.
5.4.5	Continue to evolve the staff training and development programs in order to drive enhanced employee engagement and culture.	Manager Organisation Development	90%		Evolution of the training and development function continues. The additional requirement to facilitate training across the entirety of Council from July 2022 forward has seen further development of on-line training request and approval processes.
5.4.6	Implement workplace actions to meet the requirements of the Gender Equality Act 2020 resulting in improved gender equity outcomes.	Manager Organisation Development	95%		Council's Gender equity Action Plan has been completed and lodged with the Gender Equity Commission as per the requirement of the Gender Equality Act 2020.
5.4.7	Support the resourcing of Development Engineering assessments and approvals.	Director City Infrastructure	90%		Due to a team member being on long term leave, some parts approvals have been outsourced, with final sign off undertaken by Council engineers.
5.4.8	Develop a Workforce Management Plan which will include an approach to attracting and enhancing workforce to the area/region and ensure effective resource planning.	Manager Organisation Development	100%		The Workforce Plan has been developed and adopted.
5.4.9	Improve systems and structures that facilitate the recruitment and retention of volunteers.	Manager, Capacity, Access & Inclusion	90%		The Draft volunteer strategy has been presented to EMT and Council and accepted in principle. The Strategy is currently open for public comment. If not further changes are required we hope to launch the Volunteer Strategy in May.

Objective 5: ORGANISATIONAL & FINANCIAL SUSTAINABILITY: Council will ensure organisational and financial sustainability through the effective and efficient use of Council's resources and assets.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.5.1	Review and embed the legal and procurement processes to ensure compliance and risk mitigation and that	General Counsel, Strategy & Procurement	95%		Training being drafted for all Council staff including basic induction training at entry into Council.



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	Council is operationally effective.				
5.5.2	Review Council's property management processes, including for Crown land that Council is the Committee of Management for, with consideration of rental agreements, property and current market valuations and disposal of surplus land.	Governance, Property, Projects & Legal	30%		Small improvements in property management processes continue to be implemented.
5.5.3	Allocate financial resources in accordance with strategic plans.	Manager Financial Services	80%		A draft Budget has been prepared and it is anticipated that it will be put out for community consultation at the May Council meeting.
5.5.4	Review and update the Long Term Financial Plan to ensure Council remains financially sustainable into the future.	Manager Financial Services	80%		The draft long term financial plan is being updated as part of the budget process.
5.5.5	Enhance business processes including IT systems integration.	Manager Financial Services	80%		A number of initiatives are in various stages of progress including the rostering system which is in the final stages of testing prior to a full implementation across the relevant Council services. The Accounts Payable automation project is completed and is operational. A post implementation review has begun on this project to assess benefits and identify areas for further improvement. Business process automation is being designed to compliment the new centralised learning and development model.
5.5.6	Improve digital capacity for Council staff.	Manager Information Services	60%		<p>The Shared Service with Moyne and Corangamite is progressing. Procurement will be in two phases: EOI, then selective tender with preferred partners. Timeframes have been established: EOI (Expression Of Interest) out 19/4/2022 closing 16/5/2022, ITO (Invitation To Offer) out 30/6/2022 closing 5/8/2022, ITO Contract awarded 30/9/2022. Communication and Change management plans developing.</p> <p>Shared ICT Strategy with Moyne and Corangamite developed and accepted by all three councils.</p> <p>Council is participating in the development of a Regional Digital Strategy which aims to improve access, uptake, capacity and capability of digital initiatives across the communities, education and business throughout the Warrnambool, Moyne & Corangamite municipalities.</p> <p>TechnologyOne AMS program continues.</p>



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
					Staff training continues.
5.5.7	Monitor asset condition to ensure they meet users' needs and remain fit for purpose.	Director City Infrastructure	45%		Building asset condition being assessed to enable a detailed renewal program to be developed and implemented.
5.5.8	Implement COVID-19 recovery plans for Council business units.	Manager Recreation & Culture	100%		All of Council business units have current COVID plans that align with government public health orders. Plans are updated regularly to adapt to changing restrictions.
5.5.9	Recommence rollout of Shared Services Project with surrounding councils.	Director Corporate Strategies	100%		The Shared Services Program has recommended with Warrnambool City, Moyne Shire and Corangamite Shire.

Objective 6: RISK MITIGATION: Council will mitigate and manage organisational risks through sound management systems and processes.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.6.1	Review the IT Strategy and system resilience in relation to data security, confidentiality and critical incidents.	Manager Information Services	100%		Shared ICT Strategy with Moyne and Corangamite developed and adopted by all three councils.
5.6.2	Assist development of Victorian Protective Data Security Plan and lodging of attestation to Office of the Victorian Information Commissioner.	Manager Information Services	50%		Consultants Votar Partners were appointed and project has commenced. Project will not be complete by 30 June, but will be complete in time to lodge our Protective Data Security Plan with the Office of the Victorian Information Commissioner by the due date 31 August 2022.
5.6.3	Ensure effective Business Continuity Planning (BCP) is in place.	Manager Organisation Development	100%		The overarching BCP has been reviewed and is in place. Work continues on the sub-plans.
5.6.4	Enhance Councils risk management processes to ensure key strategic and operational decision making considers risk factors.	Manager Organisation Development	90%		Subsequent to the Strategic Risk Workshop identified risks have been assessed and transitioned into the new risk database for monitoring.
5.6.5	Continue the development and implementation of Councils Health and Safety Management System with a focus on injury prevention, improved return-to-work processes, OHS training calendar implementation and	Health & Safety Project Officer	80%		Councils Health and Safety Management System continues to be reviewed, refined and implemented. All Health and Safety Management System documents are now in controlled documents and available to all staff via the intranet page.



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
	increased organisation engagement.				
5.6.6	Partner with State Government to activate and maintain Public Health Pandemic and Emergency Management Operations for staff and community wellbeing.	Director City Infrastructure	50%		Continuing to provide services in line with directions from Chief Health Officer and state government directions.

Objective 7: EFFECTIVE ADVOCACY: Council will pursue effective advocacy by providing compelling materials for desired support and funding for community priorities through establishing strong relationships with other levels of government, strategic partners and key stakeholders.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.7.1	Provide materials to support advocacy efforts and report on advocacy outcomes.	Manager Communications	75%		Council finalised its advocacy plan and recently hosted the Minister for Ports Melissa Horne along with Better Boating Victoria representatives on a tour of the Port of Warrnambool. The tour included an inspection of the breakwater and Council staff were able to provide details of some of the structural issues affecting the breakwater. A document was provided to the Minister and Better Boating Victoria staff that explained Council's proposal to strengthen the breakwater and the cost estimates of this work.
5.7.2	Advocate for access to safe and secure housing that is appropriate and affordable for a diversity of needs.	Manager Infrastructure Services	65%		Advocacy for diversity of housing leading to affordability is being undertaken through representation at the regionally based key worker housing strategy project. Advocacy and active engagement is also being undertaken at a regional level through the Big Housing Build agency.

Objective 8: REGIONAL ROLE & RELATIONSHIPS: Council will acknowledge Warrnambool's capability as the regional centre of south-west Victoria through appropriate leadership, advocacy and partnerships that enable greater opportunity for the region.

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.8.1	Participate in shared services project - for a shared Information technology enterprise system and associated processes - with Moyne and Corangamite shires.	Director Corporate Strategies	85%		Expressions of interest are to go to Market for the Joint venture in June 2022 for the Shared enterprise technology solution as the first stage of Market testing.



Warrnambool City Council Activities & Initiatives

**Q3,
2021/2022**

Action Code	Action Name	Responsible Officer	Progress	Traffic Lights	Comments
5.8.2	Pursue funding for animal shelter redevelopment in collaboration with surrounding municipalities to facilitate a regional facility if appropriate.	Coordinator Local Laws Traffic Fire & Animal Contr	85%		Council have provided initial plans to the RSPCA, operator of Council Pound, for input to the redevelopment from an operational aspect.
5.8.3	Participate in advocacy efforts as part of Regional Cities Victoria, Regional Capitals Australia and Great South Coast Group of Councils.	Director Corporate Strategies	80%		Advocacy efforts continue across a range of projects including a raised focus on achieving participation in the Commonwealth games events, training, and cultural opportunities for the 2026 games. Whilst no opportunity was presented to affect the initial State Government bid which clearly targeted the inner ring of large regional cities for the mainstay of events as part of their bid to the Commonwealth games association. Council will participate in a bid to be lodged by 17 June 2022.

Completed

Progressing

On Hold

Not
Progressing

Not
Completed

Withdrawn

35



WARRNAMBOOL
CITY COUNCIL

Council Plan 2021-2025

A thriving city at the heart of coast and country

Draft revision 2022



www.warrnambool.vic.gov.au

Connect to Council    

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The Local Government Act stipulates that Council must prepare a Council Plan which will include the strategic objectives of the council and strategies for achieving those objectives for the next four years as well as indicators for monitoring the achievement of the objectives.

The Council Plan is supported by the Annual Council Budget which describes the financial resources required to implement the actions and initiatives described in the Plan.



Acknowledgement of Traditional Owners

Warrnambool City Council acknowledges the Traditional Owners of this Country and pays respects to their Elders past, present and emerging.





Our Vision

A thriving city at the heart of coast and country.

Warrnambool is the bright beacon at the western edge of the Great Ocean Road.

Within the Warrnambool municipality are beautiful beaches, parks, buildings and pathways. The city of Warrnambool is the South West's professional, commercial, retail, education, sporting and health capital and our attractive townships of Allansford, Bushfield and Woodford enhance our liveability.

Our Councillors

Warrnambool City Council is an unsubdivided municipality represented by seven Councillors.

At the October 2020 Victorian Local Government elections Otha Akoch, Debbie Arnott, Ben Blain, Vicki Jellie, Angie Paspaliaris, Max Taylor and Richard Ziegeler were elected to Council.



From left: Cr Angie Paspaliaris, Cr Otha Akoch, Cr Richard Ziegeler, Cr Vicki Jellie, Cr Ben Blain, Cr Max Taylor, Cr Debbie Arnott.

2021 - 2025 Warrnambool City Council Plan



Mayor's foreword

Cr Vicki Jellie

On behalf of Council I am pleased to present to the community the Draft 2022 revision of the Council Plan 2021-2025.

The Council Plan is a key strategic document for Council and guides the work we perform on behalf of the community.

The Council Plan is strongly influenced by, and aligns with, the wishes expressed in the long-term community vision, Warrnambool 2040.

Council is a key partner in Warrnambool 2040 and it is imperative that the Council Plan follows a trajectory that helps deliver the targets contained in W2040.

The Council Plan was initially developed following facilitated workshops with Councillors, Council staff and the community.

We also engaged the community through listening posts and through the use of an online survey. We received input

from right across the Warrnambool municipality and we acknowledge all those who provided us with feedback and in doing so made a contribution towards the future of their city and its people.

Council has committed to reviewing the Plan annually. These reviews are a fine-tuning of the Plan and will not detract from the input we received from the community during the Plan's development.

In creating the Plan, Councillors discussed the need to take a conservative approach to the use of Council resources.

Recovering from the impact of COVID-19 and the role Council could play in helping our community return to a post-COVID normal was also at the forefront of deliberations.

Encouragingly we have seen a steady recovering from the pandemic that is reflected in a low unemployment rate and healthy retail spending.

On the major project front the Reid Oval redevelopment is very close to completion and looks magnificent and the new Learning and Library Hub is emerging as a landmark building that will not only be a landmark piece of our city's architecture but a major improvement of our public library service.

Work to replace Edwards Bridge is well under way along with the upgrade of the Lake Pertobe Adventure PlaySpace.

Council remains committed to taking stock, "steading the ship" and ensuring our financial sustainability but we also recognise that a growing city inevitably needs infrastructure that responds to population growth and 21st century expectations. With this in mind we are examining the future of our aquatic centre, AquaZone, and the Warrnambool Art Gallery to ensure these community assets remain functional in the decades to come. This measured approach to prospective new infrastructure accords with the community's wishes – we received feedback from the community during Council Plan consultation in 2021 on the need to be responsible and to safeguard the financial sustainability of the city.

We will continue to manage existing assets to ensure that the liveability and amenity that residents and visitors enjoy is not compromised.

Council will invest in our livestock exchange which remains a focal point for the region's agricultural community and we will also investigate the possibilities and opportunities provided by Flagstaff Hill.

Council committed to working meaningfully and effectively with the Aboriginal community and again, this was raised regularly by the community during the Council Plan consultation. We recently appointed an Aboriginal Liaison Officer who will play a vital role in ensuring that the Traditional Owner community is heard in Council.



There are many activities and services that Council will continue to perform. While they could be described as “business as usual” activities they are all reflected in this plan and are essential to our community.

For instance we will always ensure that our city's parks, gardens and public spaces are well kept and visually appealing. They are a part of what makes Warrnambool so liveable and able to attract new residents and maintain steady, manageable population growth.

We will continue to care for our most vulnerable residents through the provision of Home and Community Care services and through the delivery of a Meals on Wheels program.

We remain very excited about the future of our great and growing city.

We have low unemployment, booming residential development and are fortunate to be home to a Deakin University campus and the central campus of the South West Institute of TAFE.

Over the coming years we will also have a completely redeveloped Base Hospital that will deliver care to many people from across the South West.

Our enviable location includes stunning beaches and a climate that lends itself to beach holidays and winter getaways.

With all the advantages our city has we must continue to be proactive about ensuring that Warrnambool in decades to come remains an attractive, liveable city with opportunities to thrive available to all residents.

Ultimately this plan is a plan from the community for the community. While it is a four-year plan it will be reviewed annually and Council is receptive to feedback on the plan.

2021 - 2025 Warrnambool City Council Plan



A message from the Chief Executive Officer

Peter Schneider

Warrnambool City Council staff are committed to delivering on the objectives described in the Council Plan 2021-2025.

The Council Plan is a requirement of the Local Government Act 2020. It was prepared in consultation with the community and adopted by Council on June 28, 2021.

Each year Council reviews the Plan to ensure it is relevant, remains aligned to the long-term community vision described in Warrnambool 2040 and takes into account any other emerging factors, such as a pandemic.

The Local Government Act stipulates that the Council Plan must:

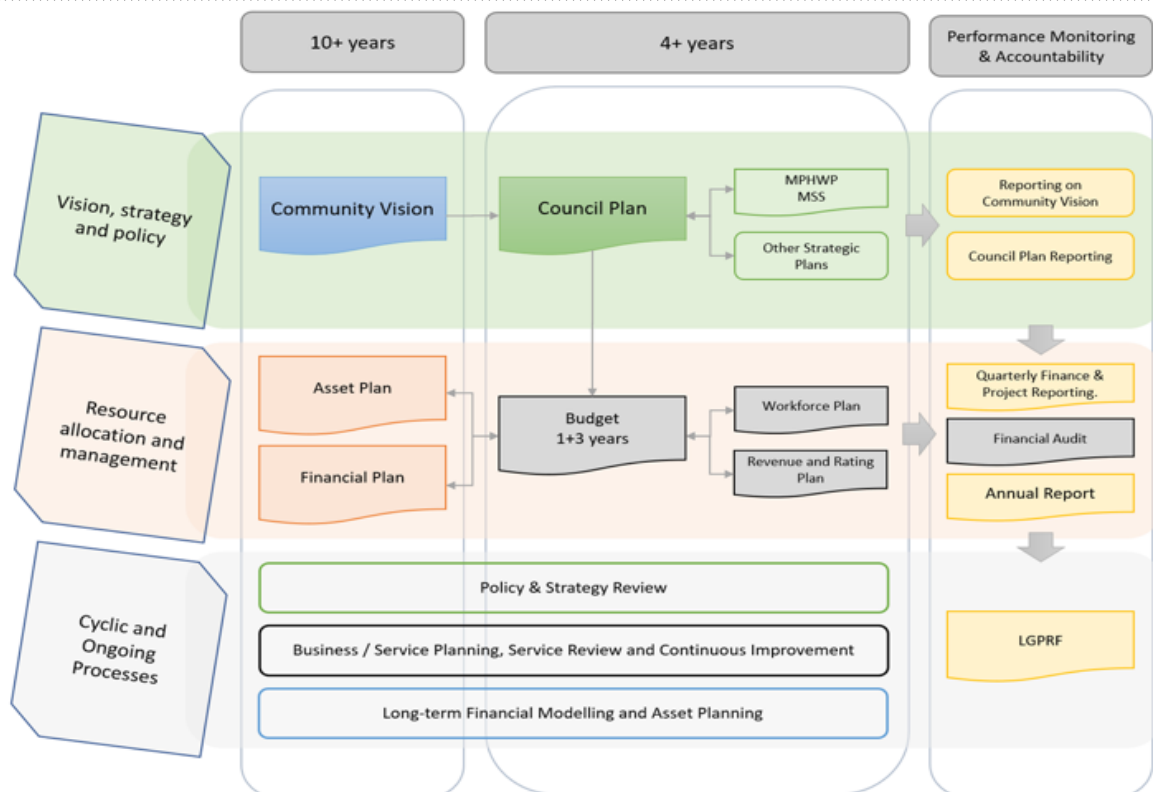
- describe the strategic direction of the Council;
- outline strategic objectives for achieving the strategic direction;
- strategies for achieving the objectives;
- strategic indicators for monitoring the achievement of the objectives; and,
- a description of the Council's initiatives and priorities for services, infrastructure and amenity.

The Council Plan is part of an integrated planning framework with the community vision, Warrnambool 2040, providing an over-arching strategic direction for our city.

The activities and initiatives contained in this Council Plan have been developed by Council staff to help deliver the objectives contained in the plan.

Council will provide quarterly reports to the community on how we have progressed with each of the actions and initiatives.

Strategic indicators or measuring our progress include the Local Government Performance Reporting Framework, the annual Local Government Community Satisfaction Survey, the financial and operational statements contained in our Annual Reports and the targets and goals identified in our broad suite of plans and strategies.



Above: the integration of Local Government planning and reporting to the community.

2021 - 2025 Warrnambool City Council Plan

The Community Vision – Warrnambool 2040 goals

OUR PEOPLE

Warrnambool will be a city where all people thrive

Our Goals:

1. a welcoming and inclusive city
2. a safe and connected community
3. Warrnambool's people are healthy
4. value local Aboriginal identity and culture
5. a learning community

OUR ECONOMY

Warrnambool will be Australia's most resilient and thriving regional economy

Our Goals:

1. embrace digital innovation and technological change
2. grow a resilient and diverse economy
3. foster a creative and collaborative culture
4. think globally

OUR PLACE

Warrnambool will be Australia's most liveable regional city

Our Goals:

1. an affordable and accessible place to live for every one
2. encourages and prioritises sustainable transport
3. Well-connected outside the city
4. has accessible, high-quality public spaces and facilities

OUR ENVIRONMENT

Warrnambool will be Australia's most sustainable city

Our Goals:

1. ZERO WARRNAMBOOL - Innovative solutions for zero net emissions
2. ADAPTABLE WARRNAMBOOL - adapt to the impacts of climate change
3. WISE WARRNAMBOOL - a wise city, that wastes not
4. NATURAL WARRNAMBOOL - enjoy, love, respect and care for the natural environment
5. BLUE WARRNAMBOOL - water for life
6. GREEN WARRNAMBOOL - a city in nature



2021 - 2025 Warrnambool City Council Plan

How we engaged with the community in 2021

February 8 and 9	Workshops with Councillors
February 8	Online survey and registration for deliberative workshops undertaken – 72 respondents.
February 20	Online survey to seek ideas for the Council Plan and to review the community vision, Warrnambool 2040.
February 24	Workshop with Council staff.
March 3	Listening posts at the Lighthouse Studio and Warrnambool Stadium with sessions for residents of all Warrnambool localities including Allansford, Bushfield-Woodford, Dennington, Central Warrnambool, Warrnambool-Botanic, East Warrnambool, North Warrnambool, North-East Warrnambool, South-East Warrnambool, South-Warrnambool-Merrivale and West Warrnambool.
March 17	Two deliberative workshops with the community, 60 participants.
May 3	Draft Council Plan considered at open Council meeting and subsequently released for public comment.



About Warrnambool

Our city

The municipality of Warrnambool covers 120sqkm in Victoria's South West.

It includes the city of Warrnambool and townships of Allansford, Bushfield and Woodford.

It has annual population growth of about one per cent, a population of 35,500 and is the most populous city in the South West.

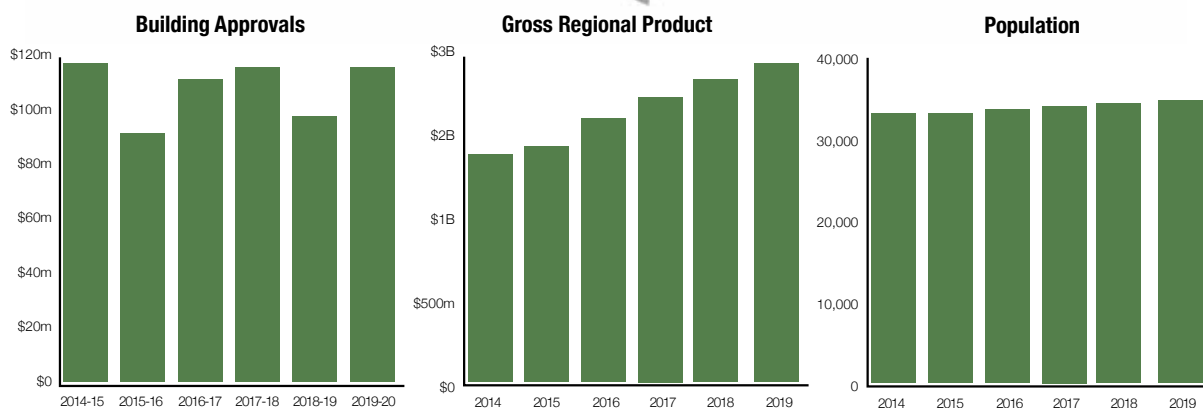
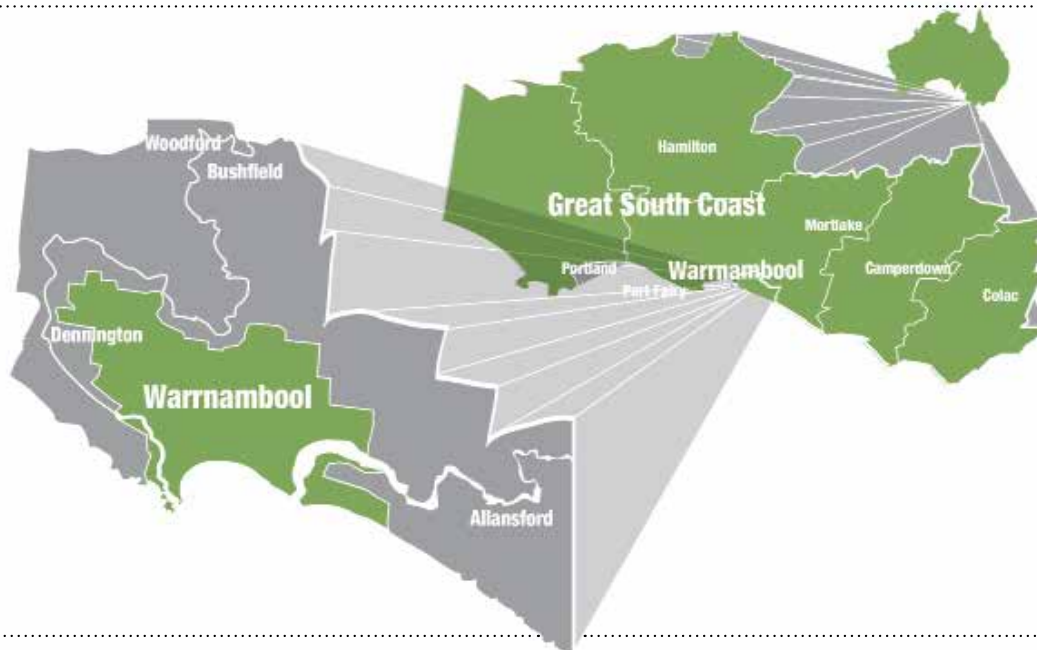
Warrnambool is the major regional centre for health care, education, professional services and sport and culture. Warrnambool's economy generates output of some \$4.5 billion accounting for over 25 per cent of the Great South Coast region's economic output from less than one per cent of the land area.

There are 16,653 jobs in Warrnambool and the following six sectors account for over two-thirds of employees whose place of work is located within Warrnambool:

- Healthcare and Social Assistance;
- Retail trade;
- Education and Training;
- Accommodation and Food Services;
- Construction and Manufacturing.

The construction industry makes the greatest contribution to economic output in the region, which at \$582.5 million accounts for 12.82 per cent of total output.

Warrnambool is a popular and expanding tourism destination. Property and business services, government administration and construction are also key growth sectors.

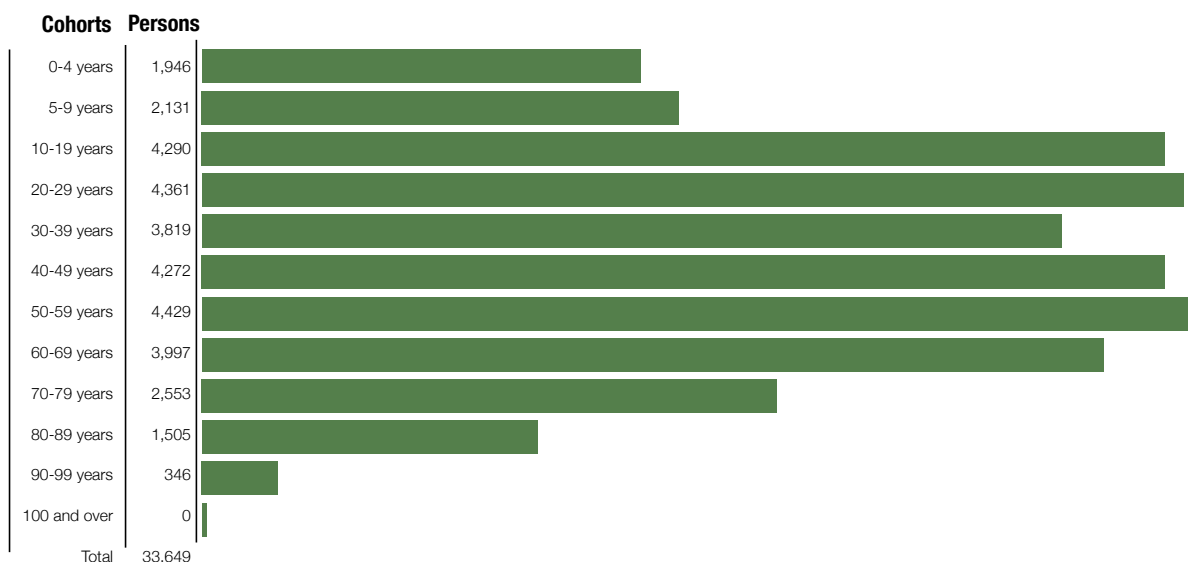


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Our community

The median age group in Warrnambool (C) is 40-49 years compared to 30-39 years in 2011.

The percentage of the community 60 years or older is 24.97%. For Great South Coast this is 28.09%.



Median age

Warrnambool: 40
Regional Victoria: 43
Victoria: 37

Medium and high density housing

Warrnambool: 20 per cent
Regional Victoria: 10 per cent
Victoria: 27 per cent

Population density

2.94 per hectare

Median weekly household income

Warrnambool: \$1,180
Regional Victoria: \$1,124
Victoria: \$1,421

Indigenous population

Warrnambool: 1.7 per cent
Regional Victoria: 1.6 per cent
Victoria: 0.8 per cent

Households with a mortgage

Warrnambool: 29 per cent
Regional Victoria: 31 per cent
Victoria: 33 per cent

Couples with children

Warrnambool: 25 per cent
Regional Victoria: 25 per cent
Victoria: 31 per cent

Overseas born

Warrnambool: 8 per cent
Regional Victoria: 11 per cent
Victoria: 28 per cent

Older couples without children

Warrnambool: 11 per cent
Regional Victoria: 12 per cent
Victoria: 9 per cent

Language at home other than English

Warrnambool: 4 per cent
Regional Victoria: 6 per cent
Victoria: 26 per cent

Lone person households

Warrnambool: 28 per cent
Regional Victoria: 27 per cent
Victoria: 23 per cent

University attendance

Warrnambool: 3 per cent
Regional Victoria: 3 per cent
Victoria: 5 per cent

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University qualification

Warrnambool: 16 per cent
Regional Victoria: 15 per cent
Victoria: 24 per cent

Regional Victoria: 56 per cent
Victoria: 60 per cent

Trade qualification

Warrnambool: 21 per cent
Regional Victoria: 22 per cent
Victoria: 17 per cent

Public transport to work

Warrnambool: 1 per cent
Regional Victoria: 2 per cent
Victoria: 12 per cent

Unemployment rate (March 2021)

Warrnambool: 5.3 per cent
Regional Victoria: 6 per cent
Victoria: 6.6 per cent

SEIFA index of disadvantage

Warrnambool: 986
Regional Victoria: 977
Victoria: 1010

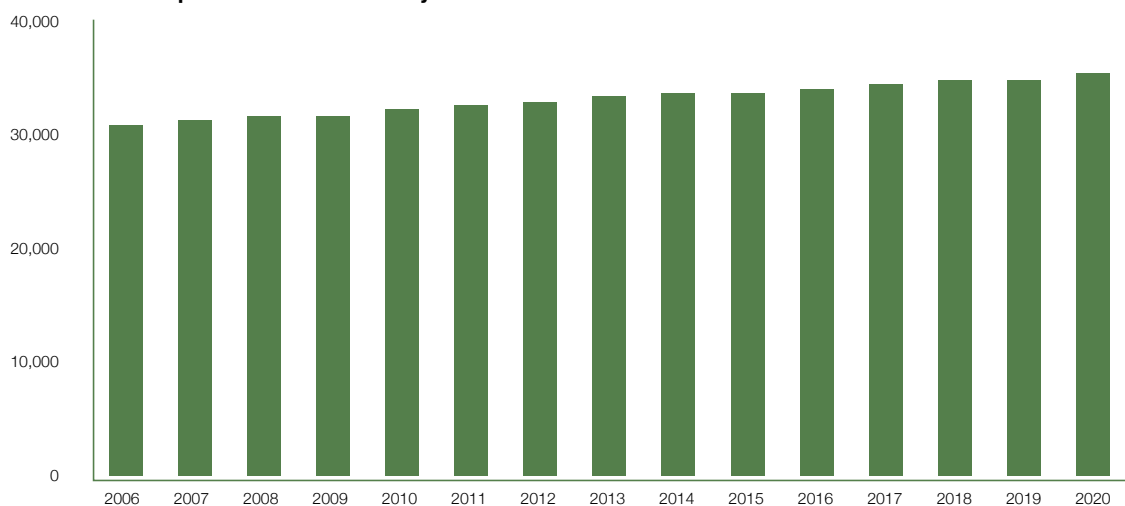
Estimated homeless (2016)

Warrnambool: 149

Workforce participation rate

Warrnambool: 60 per cent

Estimated Resident Population - Warrnambool City Council



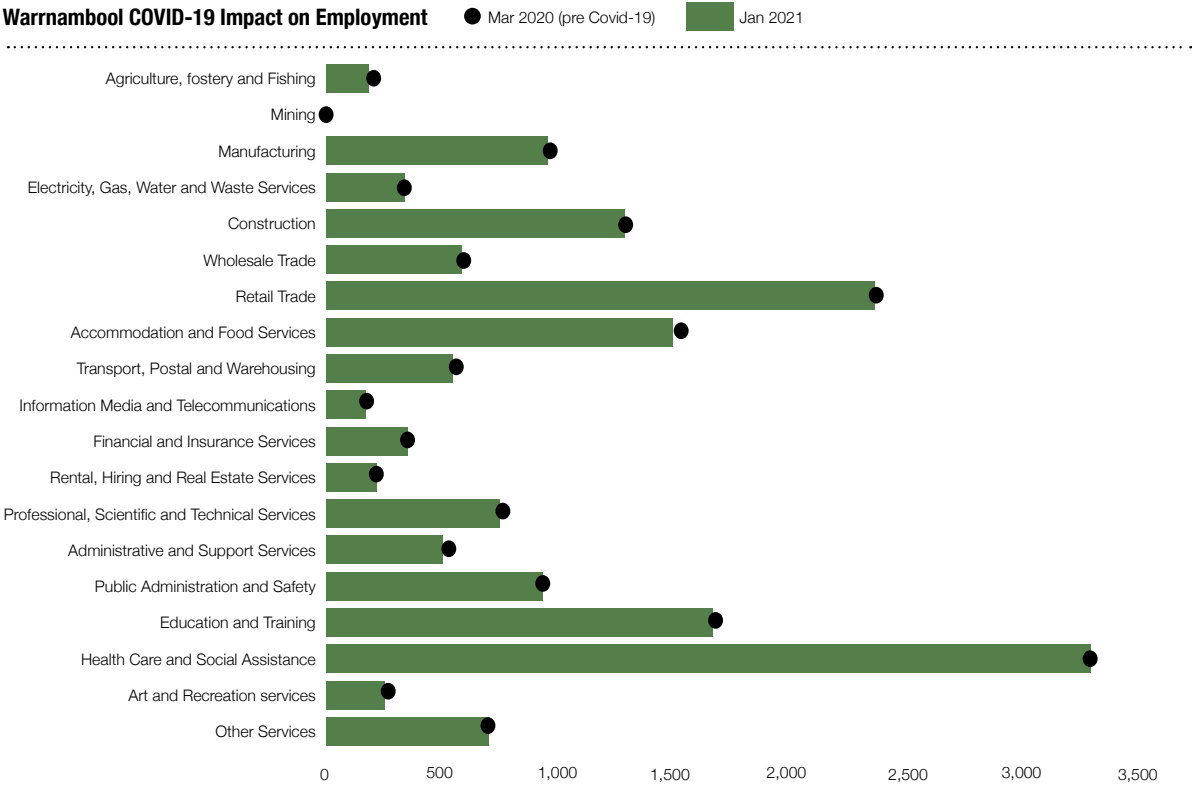
Source: Australia, Bureau of Statistics, Regional Population Growth, Australia (3218.0) Compiled and presented by .id (informed decisions)

COVID-19 impact - JobSeeker recipients

Current month	February 2021		August 2020		
Region - LGA/SA2	JobSeeker and youth allowance recipients	% of 15-64 age population	JobSeeker and Youth allowance recipients	% of 15-64 age population	Change
Warrnambool City	1,955	8.8	2,252	10.2	-297
Warrnambool - North	1,164	8.3	1,327	9.5	-163
Warrnambool - South	819	9.8	957	11.5	-138
Regional VIC	90,151	9.7	104,202	11.2	-14,051
Victoria	338,723	7.7	413,330	9.4	-74,607



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Above: employment data reveals Warrnambool accommodation and food services were hardest hit by COVID-19.



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Our services to the community

– a snapshot

Environmental management – environmental policy and projects.

Waste management and street cleaning – kerbside collections, leaf collection and street litter bins.

Parks and gardens – tree pruning, planting, maintenance of open space, conservation management.

Community services – Volunteer Connect, Social Inclusion, Youth Engagement, Diversity, Access and Inclusion.

Aged services – meals on wheels, personal care, respite, home maintenance, positive ageing and senior citizens programs.

Family services – preschools, maternal and child health, youth services, child care, family day care, immunisation.

Arts and culture – Warrnambool Art Gallery and Lighthouse Theatre.

Library services – Warrnambool library.

Recreation – sport, recreation and cultural facilities and programs.

Leisure services – Warrnambool Stadium and AquaZone.

Health services – public health, immunisation and administration of food premises.

Festivals and events – festivals and events to deliver economic benefits to the city.

Asset maintenance – buildings, roads, footpaths, tracks and drainage

Infrastructure services – capital works and maintenance on Council's main civil infrastructure.

Regulatory services – local laws, traffic control.

Statutory building services – includes processing of building permits.

City strategy and development – Council Planning Scheme, processing of development proposals.

South-West Victorian Livestock Exchange – livestock sales centre.



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Holiday parks – affordable holiday accommodation.

Flagstaff Hill Maritime Village – includes the Visitor Information Centre and maritime museum.

Economic development – includes industry and business support, statistical analysis and project development.

Warrnambool Airport – for emergency, passenger and recreational aircraft.

Port of Warrnambool – managed by Council on behalf of the Victorian Government.

Elected Council – governs our city with and on behalf of the community.

Governance and Risk – supports sound governance and manages Council's insurance matters.

Executive services – manages and facilitates implementation of Council decisions, policies and compliance with legislative requirements.

Revenue – revenue collection, property management.

Information services – enables Council staff to have the information they need to efficiently perform their roles.

Organisation development – promotes and implements human resource strategies and includes recruitment, staff inductions and training.

Corporate and financial services – banking, treasury, auditing and grants commission functions.





Our Strategic Objectives

The Strategic Objectives described – with the exception of the Council theme - below were developed in response to visions and goals in Warrnambool 2040.

The deliberative engagement process including an online survey “tested” those themes to ensure they remained relevant.

Below each of the five strategic objectives are strategies which describe how each of the objectives will be achieved over the four-year life of the Council Plan.

The tables also show the alignment or connection to Warrnambool 2040.



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1. A healthy community

We will be a healthy, inclusive and thriving community with equitable access to services, cultural opportunities and recreational activities.

Our strategies for achieving this objective	Alignment with Warrnambool 2040 goals
1.1 Be a welcoming and inclusive city: Warrnambool will be a city that is more welcoming to all and which fosters diversity.	Warrnambool will be a welcoming and inclusive city.
1.2 Engagement with the Aboriginal community: Council will pursue improved partnerships and meaningful engagement with Aboriginal people to grow opportunities and better outcomes for Aboriginal people.	Warrnambool will be a city that values Aboriginal identity and culture.
1.3 Health and wellbeing: Council will take action to improve health, wellbeing and safety outcomes for Warrnambool's community.	Warrnambool's people are healthy. Warrnambool is a safe and connected community.
1.4 An accessible city: Council will improve physical and social accessibility to community services, facilities, places and precincts.	Warrnambool has accessible, high quality public spaces and facilities.
1.5 Recreation, arts, culture and heritage: Council will support opportunities to participate in a wide range of recreational, arts and cultural programs that promote activity, wellbeing, diversity heritage and which increase community connectedness.	Warrnambool is a safe and connected community.
1.6 Community learning pathways: Council will support and encourage lifelong learning that helps build community resilience and preparedness for change.	Warrnambool is a learning community.

Supporting documents

- Healthy Warrnambool 2021-2025
- Inclusion and Diversity Policy
- Kindergarten Enrolment and Orientation Policy
- Smoking Policy
- Disability Access and Inclusion Policy
- Active Warrnambool

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2. A sustainable environment

We will protect and strengthen local ecosystems, enhance biodiversity and enable sustainable communities.

Our strategies for achieving this objective	Alignment with Warrnambool 2040 goals
2.1 Natural environment: Council will enhance open spaces and infrastructure that support a healthy community, wildlife, flora, fauna and biodiversity.	Warrnambool is a city in nature
2.2 Water and coastal management: Council will protect and enhance the health of Warrnambool's coastline and inland waterways to protect and improve biodiversity.	Warrnambool has water for life.
2.3 Environmental impact and a changing climate: Council will encourage innovation and initiatives that minimise Warrnambool's environmental impact.	Warrnambool seeks innovative solutions for zero net emissions.
2.4 Water resource management: Council will promote and encourage awareness of sustainable practices in our work and in the community, including water resource management.	Warrnambool has water for life.
2.5 Waste minimisation: Council will pursue programs to minimise waste throughout the community, industry and promote the benefits of reduction, re-use and recycling of materials.	Warrnambool is a wise city that wastes not.
2.6 Awareness and celebration: Council will foster community awareness and recognition of the benefits of positive outcomes for Warrnambool's environment.	Warrnambool enjoys, loves, respects and cares for the natural environment.

Supporting documents

- Resource Recovery, Waste Minimisation and Management Strategy
- Green Warrnambool
- Coastal Management Plan



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3. A strong economy

We will support a resilient local and self-sustaining regional economy that encourages economic growth and provides increased employment opportunities that attract ongoing investment.

Our strategies for achieving this objective	Alignment with Warrnambool 2040 goals
<p>3.1 Build on competitive strengths: Council will support initiatives that foster ongoing development and investment in the industries which underpin Warrnambool's economic strengths and comparative advantages</p>	<p>Warrnambool will grow a resilient and diverse economy.</p>
<p>3.2 Emerging industries: Council will encourage emerging industry sectors that contribute to Warrnambool's economic growth and diversity.</p>	<p>Warrnambool will embrace digital innovation and technological change. Warrnambool will think globally.</p>
<p>3.3 Visitor growth: Council will facilitate Warrnambool's visitor growth and year-round visitation through industry development, effective destination management and promotion of attractions, experiences and by leveraging key events.</p>	<p>Warrnambool will grow a resilient and diverse economy.</p>
<p>3.4 Workforce capability: Council will foster the development of a workforce capable of supporting the needs of the local and regional economy.</p>	<p>Warrnambool will grow a resilient and diverse economy. Warrnambool will think globally.</p>
<p>3.5 The digital economy: Council will facilitate greater digital capability</p>	<p>Warrnambool will embrace digital innovation and technological change.</p>

Supporting documents

- Warrnambool Economic Development and Investment Strategy
- Warrnambool City Centre Parking Strategy
- Events Strategy

2021 - 2025 Warrnambool City Council Plan



4. A connected, inclusive place

We will provide high quality places that people value and want to live, work, play and learn in.

Our strategies for achieving this objective	Alignment with Warrnambool 2040 goals
<p>4.1 Effective planning: Council will ensure its planning acknowledges the unique character and attributes of local places and that that supports social connection, equitable access, appropriate housing and sustainable population growth.</p>	<p>Warrnambool is a safe and connected community.</p>
<p>4.2 A connected community: Council will enhance Warrnambool's connectivity through the delivery of, or advocacy for, improvement to roads, public transport, footpaths, trails and digital infrastructure.</p>	<p>Warrnambool is a safe and connected community.</p>
<p>4.3 Stronger neighbourhoods: Council will foster neighbourhood connections and capacity building including the development of inclusive recreational and cultural opportunities.</p>	<p>Warrnambool is a welcome and inclusive city.</p>
<p>4.4 Sustainable practices: Council will promote and encourage the implementation of sustainable design across the municipality including the attractiveness, safety, accessibility and functionality of our built environment.</p>	<p>Warrnambool encourages sustainable transport. Warrnambool adapts to the impacts of climate change. Warrnambool is well-connected outside the city.</p>

Supporting documents

- Lake Pertobe Master Plan
- Public Amenities Strategy
- Road Users Plan
- Asset Management Policy
- Nature Strip Landscaping Policy
- Street Tree Planting and Management Policy
- Warrnambool Botanic Gardens Master Plan



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5. An effective Council

We will be recognised as a collaborative Council and a high-performing organisation that enables positive outcomes for Warrnambool's community, environment and economy and for Victoria's South West.

Our strategies for achieving this objective

5.1 Leadership and governance: Council will be a high-functioning team committed to respectful relationships, collaboration and ongoing engagement. It will provide strong, effective leadership, sound governance and informed decision-making.

5.2 Engaged and informed community: Council will ensure ongoing community engagement to identify changing needs and priorities when developing and delivering services and programs.

5.3 Customer-focused services: Council will continue to develop a program of Council services that are delivered to the community's satisfaction.

5.4 High-performance culture: Council will foster an organisational culture to support engaged, committed and high-performing staff for the effective delivery of Council's services and programs.

5.5 Organisational and financial sustainability: Council will ensure organisational and financial sustainability through the effective and efficient use of Council's resources and assets.

5.6 Risk mitigation: Council will mitigate and manage organisational risks through sound management systems and processes.

5.7 Effective advocacy: Council will pursue effective advocacy by providing compelling materials for desired support and funding for community priorities through establishing strong relationships with other levels of government, strategic partners and key stakeholders.

5.8 Regional role and relationships: Council will acknowledge Warrnambool's capability as the regional centre of south-west Victoria through appropriate leadership, advocacy and partnerships that enable greater opportunity for the region.

Supporting documents

- Investment Policy
- Debt Management Policy
- Procurement Policy
- Project Management Policy
- Risk Management Policy
- Transparency Policy
- Customer Service Charter
- Warrnambool Advocacy Strategy

Activities and Initiatives

The actions and initiatives listed below comprise the operational component of the Council Plan. Each action is linked to one or more of the strategic objectives described in this plan.



2021 - 2025 Warrnambool City Council Plan

GOAL 1: A HEALTHY COMMUNITY

We will be a healthy, inclusive, and thriving community with equitable access to services, cultural opportunities and recreational activities.

Objective 1

WELCOMING & INCLUSIVE CITY: Warrnambool will be a city that is more welcoming to all and fosters diversity.

Action Code	Action Name	Due Date	Start Date
1.1.1	Review the Customer Service Charter to ensure it meets the needs and expectations of Council customers.	30/6/2023	1/7/2022
1.1.2	Develop and implement a range of Council activities and events to encourage participation from diverse groups within our community.	30/6/2023	1/7/2022
1.1.3	Increase access to participation for all abilities and raise awareness of the community regarding the needs of people with a disability.	30/6/2023	1/7/2022
1.1.4	Engage with community to ensure that a diversity of voices are informing Council policies, strategies, programs, and services.	30/6/2023	1/7/2022
1.1.5	Develop and implement programs to improve community connections and reduce social isolation.	30/6/2023	1/7/2022
1.1.6	Provide library programs and collections that facilitate inclusion, understanding and acceptance of diversity.	30/6/2023	1/7/2022
1.1.7	Establish LOTE, ESL and LGBTQI+ collections in the library to foster diversity.	30/6/2023	1/7/2022
1.1.8	Develop and implement programs and activities that improve community engagement and social connection through West Warrnambool Neighbourhood House.	30/6/2023	1/7/2022

Objective 2

ABORIGINAL COMMUNITIES: Council will pursue improved partnerships and meaningful engagement with Aboriginal people to grow opportunities and better outcomes for Aboriginal people.

Action Code	Action Name	Due Date	Start Date
1.2.1	Develop and deliver programs and services in collaboration with Aboriginal people that support inclusiveness, culture and reconciliation	30/6/2023	1/7/2022
1.2.2	Facilitate and encourage collaborative relationships with Aboriginal and Community Controlled Organisations (ACCOs) to address key barriers to access children's and family services and build a stronger cultural connection.	30/6/2023	1/7/2022
1.2.3	Increase participation of Aboriginal families in early years services, with a focus on maternal and child health and kindergarten services.	30/6/2023	1/7/2022

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1.2.4	Increase community awareness of, and promote, Aboriginal heritage, culture and sites of significance.	30/6/2023	1/7/2022
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Objective 3

HEALTH & WELLBEING: Council will take action to improve health, wellbeing and safety outcomes for Warrnambool's community.

Action Code	Action Name	Due Date	Start Date
1.3.1	Develop and implement the Municipal Health and Wellbeing Plan 2021-25	30/6/2023	1/7/2022
1.3.2	Achieve compliance with the Child Information Sharing and Family Violence Information Sharing reforms.	30/6/2023	1/7/2022
1.3.3	Improve children and families' health and wellbeing through attainment of targets set by the Healthy Achievement Program.	30/6/2023	1/7/2022
1.3.4	Develop and implement an Aquatic Strategy, including a new business model for AquaZone, to guide the improvement and strategic use of facilities to increase community participation in physical activity.	30/6/2023	1/7/2022
1.3.5	Develop an AquaZone fitness and program that supports and encourages well-being and water safety.	30/6/2023	1/7/2022
1.3.6	Establish a plan to assist gymnastics to move to a sustainable business model.	30/6/2023	1/7/2022
1.3.7	Increase community participation in active recreation.	30/6/2023	1/7/2022
1.3.8	Develop systems and policies that maximise the use of the Warrnambool Stadium.	30/6/2023	1/7/2022
1.3.9	Increase connection with children up to aged 4 through outreach Maternal and Child Health Key Age Stage visits to early years services.	30/6/2023	1/7/2022
1.3.10	Support vulnerable families with young children through the enhanced Maternal and Child Health service.	30/6/2023	1/7/2022
1.3.11	Provide a broad range of programs for older members of our community.	30/6/2023	1/7/2022
1.3.12	Maximise use of sportsgrounds and associated recreational facilities through ensuring shared use, where appropriate.	30/6/2023	1/7/2022
1.3.13	Maternal Child Health Key Ages and Stages framework delivered via Outreach model within universal services such as early learning and kindergarten services to ensure all eligible children have attended all 10 key age stages.	30/6/2023	1/7/2022
1.3.14	Deliver sleep and settling program to eligible families with babies and toddlers through group education and in home consults with parents and guardians.	30/6/2023	1/7/2022
1.3.15	Advocate for early years workforce initiatives that support recruitment and retention of high quality early years staff and service.	30/6/2023	1/7/2022

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Objective 4

ACCESSIBLE CITY: Council will improve the physical and social accessibility to community services, facilities, places and precincts.

Action Code	Action Name	Due Date	Start Date
1.4.1	Complete the principal pedestrian network to guide the footpath construction and improvement programs.	30/6/2023	1/7/2022
1.4.2	Review the requirements needed to become a Child Friendly City.	30/6/2023	1/7/2022
1.4.3	Meets the current and future needs of our growing population, programs and services through updated Community Services Infrastructure Plan.	30/6/2023	1/7/2022
1.4.4	Continue to implement the objectives set out in the Early Years Compact Agreement.	30/6/2023	1/7/2022
1.4.5	Implement the Multiple Agency Risk Assessment and Management (MARAM) framework within all Early Years programs.	30/6/2023	1/7/2022
1.4.6	Implement plans to improve the accessibility and user-friendliness for aged and those with a disability to Council owned community facilities.	30/6/2023	1/7/2022
1.4.7	Increased access for people with disabilities by up-grading Council infrastructure through recurrent capital funding.	30/6/2023	1/7/2022
1.4.8	Maintain the delivery of high-quality services to enable people to remain as independent as possible in their own homes.	30/6/2023	1/7/2022
1.4.9	Increased engagement of young people aged 12-25 years in youth development programs and activities.	30/6/2023	1/7/2022

Objective 5

RECREATION, ARTS, CULTURE & HERITAGE: Council will support opportunities to participate in a wide range of recreational, arts and cultural activities that promote activity, wellbeing, diversity and heritage, and grow connectedness across the community.

Action Code	Action Name	Due Date	Start Date
1.5.1	Deliver the Lake Pertobe Building Better Regions program of projects along with the carpark renewal and upgrade funded through Local Roads and Community Infrastructure Program.	30/6/2023	1/7/2022
1.5.2	Complete the Playspace Strategy for community playgrounds and spaces.	30/6/2023	1/7/2022
1.5.3	Deliver a Lighthouse Theatre program including the annual Primary Performers program, and implement strategies that encourages our community to experience, create, celebrate and participate in the performing arts with a focus on youth (13-25) and the disadvantaged community.	30/6/2023	1/7/2022
1.5.4	Develop and implement audience engagement and marketing strategies, including a membership program, to increase participation in performing arts presentations and seasons at the Lighthouse Theatre.	30/6/2023	1/7/2022

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1.5.5	Deliver Warrnambool Art Gallery exhibitions and experiences that engage community, attract and increase visitors, support artists and build new audience.	30/6/2023	1/7/2022
1.5.6	Deliver a library program of events and activities that supports lifelong learning and social inclusion.	30/6/2023	1/7/2022
1.5.7	Develop a Cultural Strategy for Warrnambool.	30/6/2023	1/7/2022
1.5.8	Development and implement policies and strategies to maximize use of community assets in areas of art and culture.	30/6/2023	1/7/2022
1.5.9	Support community organisations to improve participation opportunities that support health and wellbeing, social, cultural and recreational outcomes through Council's community funding programs.	30/6/2023	1/7/2022

Objective 6

COMMUNITY LEARNING PATHWAYS: Council will support and encourage lifelong learning that helps built community resilience and preparedness for change.

Action Code	Action Name	Due Date	Start Date
1.6.1	Relaunch the Warrnambool City Library under Council Management through a reinvigorated range of activities and programs	30/6/2023	1/7/2022
1.6.2	Deliver the new Warrnambool Library.	30/6/2023	1/7/2022
1.6.3	Deliver library early years programs that support language and literacy development and parental efficacy.	30/6/2023	1/7/2022
1.6.4	Deliver library programs that develop literacy in all its forms and encourage a love of reading and life-long learning.	30/6/2023	1/7/2022
1.6.5	Advocate for opportunities to ensure staff have access to high quality professional development opportunities that support community's needs.	30/6/2023	1/7/2022
1.6.6	Maintain and further develop Council's partnership with Deakin University to enable research and development opportunities for community and industry.	30/6/2023	1/7/2022
1.6.7	Continue rollout of the Victorian Government's 3-year-old kindergarten reform - deliver Stage 2 of the kindergarten provision project.	30/6/2023	1/7/2022
1.6.8	Provide sufficient infrastructure (including indoor and outdoor structures) to meet current and future models of kindergarten provision and early years integrated models within the municipality.	30/6/2023	1/7/2022

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GOAL 2: A SUSTAINABLE ENVIRONMENT

We will protect and strengthen local ecosystems, enhance biodiversity and enable sustainable communities.

Objective 1

NATURAL ENVIRONMENT: Council will enhance open spaces and infrastructure that support a healthy community, wildlife, flora, fauna and biodiversity.

Action Code	Action Name	Due Date	Start Date
2.1.1	Develop and implement Pest Plant and Animal Management Framework for the control of environmental weeds and pests.	30/6/2023	1/7/2022
2.1.2	Develop and implement strategy and programs that improve biodiversity and protect and enhance flora and fauna.	30/6/2023	1/7/2022

Objective 2

WATER & COASTAL MANAGEMENT: Council will protect and enhance the health of Warrnambool's coastline and inland waterways to protect and improve biodiversity.

Action Code	Action Name	Due Date	Start Date
2.2.1	Implement the Domestic Waste Water Management Plan to improve health and environmental outcomes for our community.	30/6/2023	1/7/2022
2.2.2	Investigate water use opportunities to improve water resource management.	30/6/2023	1/7/2022
2.2.3	Implement the Warrnambool Coastal Management Plan to guide the future use, development and management of Warrnambool's coastline.	30/6/2023	1/7/2022
2.2.4	Develop and implement floodplain management strategies in the South Warrnambool and Russells Creek catchments to minimise environmental impacts and risks associated with flooding impacts.	30/6/2023	1/7/2022

Objective 3

MINIMISE ENVIRONMENTAL IMPACT & THE IMPACT OF A CHANGING CLIMATE: Council will encourage innovation and initiatives that minimise Warrnambool's environmental impact.

Action Code	Action Name	Due Date	Start Date
2.3.1	Investigate new technologies to reduce waste from land-fill towards zero waste to landfill.	30/6/2023	1/7/2022
2.3.2	Deliver the Smart Buildings energy efficiency program to reduce greenhouse gas emissions and utilise renewable energy.	30/6/2023	1/7/2022

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2.3.3	Facilitate and support the delivery of climate change mitigation, adaptation and resilience actions to raise awareness and prepare for a changing climate.	30/06/2022	1/7/2022
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Objective 4

WATER RESOURCE MANAGEMENT: Council will promote and encourage awareness of sustainable practices in our work, and the community including water resource management.

Action Code	Action Name	Due Date	Start Date
2.4.1	Develop a drainage system litter and contaminants improvement/management plan to reduce gross pollutants into the waterways.	30/6/2023	1/7/2022

Objective 5

WASTE MINIMISATION: Council will pursue programs to minimise waste throughout the community, industry and promote the benefits of reduction, reuse and recycling of materials.

Action Code	Action Name	Due Date	Start Date
2.5.1	Reduce contamination of recyclable materials.	30/6/2023	1/7/2022

Objective 6

AWARENESS & CELEBRATION: Council will foster community awareness and recognition of the benefits of positive outcomes for Warrnambool's environment.

Action Code	Action Name	Due Date	Start Date
2.6.1	Promote awareness and celebrate the outcomes of environmental work including actions that align with the Green Warrnambool plan.	30/6/2023	1/7/2022
2.6.2	Monitor and manage organisational greenhouse gas emissions and energy usage.	30/6/2023	1/7/2022

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GOAL 3: A STRONG ECONOMY

We will support a resilient local and self-sustaining regional economy that encourages economic growth and provides increased employment opportunities attracting ongoing investment.

Objective 1

BUILD ON COMPETITIVE STRENGTHS: Council will support initiatives that foster ongoing development and investment in the industries which underpin Warrnambool's economic strengths and comparative advantages.

Action Code	Action Name	Due Date	Start Date
3.1.1	Implement Development Plans and Developer Contributions Plans to provide future resources for improved infrastructure across the municipality.	30/6/2023	1/7/2022
3.1.2	Develop programs and collateral to promote Warrnambool as an appealing investment destination.	30/6/2023	1/7/2022
3.1.3	Grow engagement with local businesses across the municipality.	30/6/2023	1/7/2022

Objective 2

EMERGING INDUSTRIES: Council will encourage emerging industry sectors that contribute to Warrnambool's economic growth and diversity.

Action Code	Action Name	Due Date	Start Date
3.2.1	Facilitate and partner in initiatives to progress the implementation of the Great South Coast Economic Futures Plan, including the development of renewables in Warrnambool and the Great South Coast region.	30/6/2023	1/7/2022
3.2.2	Review and implement the Warrnambool Economic Development and Investment Strategy to facilitate investment and employment growth across the Warrnambool municipality.	30/6/2023	1/7/2022
3.2.3	Facilitate and promote business support initiatives to grow the local economy.	30/6/2023	1/7/2022
3.2.4	Plan for the development and implementation of precinct structure plans to facilitate investment in appropriate development across the municipality.	30/6/2023	1/7/2022

Objective 3

VISITOR GROWTH: Council will facilitate Warrnambool's visitor growth and year-round visitation through industry development, effective destination management and promotion of attractions and experiences leveraging key events.

Action Code	Action Name	Due Date	Start Date
3.3.1	Review and implement the Warrnambool Destination Action Plan in partnership with Great Ocean Road Regional Tourism and industry.	30/6/2023	1/7/2022
3.3.2	Increase visitation with events across the year and enhance the profile of Warrnambool as a destination.	30/6/2023	1/7/2022

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3.3.3	Develop and share economic data and analysis to business and industry to inform the performance of the Warrnambool economy.	30/6/2023	1/7/2022
3.3.4	Increase community participation in the delivery of a diverse range of events through a grants program.	30/6/2023	1/7/2022
3.3.5	Participate in the establishment of the Great Ocean Road Coast and Parks Authority to protect and manage visitation of the Great Ocean Road Coast and Parks.	30/6/2023	1/7/2022

Objective 4

WORKFORCE CAPABILITY: Council will foster the development of a workforce capable of supporting the needs of the local and regional economy.

Action Code	Action Name	Due Date	Start Date
3.4.1	Deliver the Designated Area Migration Agreement (DAMA) representative role for the Great South Coast region and the Regional Certifying Body function on behalf of the Great South Coast.	30/6/2023	1/7/2022
3.4.2	Partner on projects and initiatives with Deakin University Warrnambool and South West TAFE that help provide a skilled workforce that meets local industry needs.	30/6/2023	1/7/2022
3.4.3	Deliver education and advisory services to business and industry to raise awareness of building, planning and heritage requirements.	30/6/2023	1/7/2022

Objective 5

DIGITAL CAPABILITY: Council will facilitate greater digital capability.

Action Code	Action Name	Due Date	Start Date
3.5.1	Participate in the implementation of the Great South Coast Digital Plan to address connectivity issues for industry and households.	30/6/2023	1/7/2022
3.5.2	Identify and promote investment in digital projects across the Warrnambool municipality to address priority digital infrastructure supply shortfalls, including mobile coverage, and access to business-grade broadband.	30/6/2023	1/7/2022

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GOAL 4: A CONNECTED AND INCLUSIVE PLACE

Provide quality places that all people value and want to live, work, play and learn in.

Objective 1

EFFECTIVE PLANNING: Council will ensure its planning acknowledges the unique character and attributes of local places, and that it supports social connection, equitable access, appropriate housing and sustainable population growth.

Action Code	Action Name	Due Date	Start Date
4.1.1	Deliver the building renewal program.	30/6/2023	1/7/2022
4.1.2	Develop and adopt a tree Asset Management Plan including significant and heritage trees.	30/6/2023	1/7/2022
4.1.3	Complete service level reviews for parks, gardens, roads and drainage services.	30/6/2023	1/7/2022
4.1.4	Review the CBD Parking Strategy including the expansion of off-street parking areas.	30/6/2023	1/7/2022

Objective 2

CONNECTED COMMUNITY: Council will enhance Warrnambool's connectivity through the delivery of, or advocacy for, improvement to roads, public transport, footpaths, trails and digital infrastructure.

Action Code	Action Name	Due Date	Start Date
4.2.1	Advocate for essential safety and road improvements on the Princes Highway West.	30/6/2023	1/7/2022
4.2.2	Advocate for improved passenger and freight rail services between the South West region and Melbourne.	30/6/2023	1/7/2022
4.2.3	Plan for growth and changes in traffic movements by identifying current and future traffic volumes and use this to review the Municipal Road Management Plan and Road Hierarchy.	30/6/2023	1/7/2022
4.2.4	Facilitate the implementation of Cycling Reference Group actions adopted by Council.	30/6/2023	1/7/2022
4.2.5	Review City Centre traffic flows with implementation of new pedestrian crossings.	30/6/2023	1/7/2022
4.2.7	Seek funding for and deliver road safety projects.	30/6/2023	1/7/2022

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Objective 3

STRONGER NEIGHBOURHOODS: Council will fostering neighbourhood connection and capacity building including the development of inclusive recreational and cultural opportunities.

Action Code	Action Name	Due Date	Start Date
4.3.1	Implement the key initiatives of the Open Space Strategy, including our review of the strategy.	30/6/2023	1/7/2022

Objective 4

SUSTAINABLE PRACTICES: Council will promote and encourage the implementation of sustainable design across the municipality including the attractiveness, safety, accessibility and functionality of our built environment.

Action Code	Action Name	Due Date	Start Date
4.4.1	Identify and regularly monitor condition of Council's built assets to ensure effective management.	30/6/2023	1/7/2022

2021 - 2025 Warrnambool City Council Plan

GOAL 5: AN EFFECTIVE COUNCIL

To be recognised as a collaborative Council and a high-performing organisation that enables positive outcomes for Warrnambool's community, environment and economy and Victoria's south west.

Objective 1

LEADERSHIP & GOVERNANCE: Council will be a high-functioning team committed to respectful relationships, collaboration, and ongoing engagement. It will provide strong, effective leadership, sound governance and informed decision-making.

Action Code	Action Name	Due Date	Start Date
5.1.1	Ensure key priorities of the community are appropriately reflected in the development and review of the Council Plan with the appropriate prioritisation of resources to key strategic themes.	30/6/2023	1/7/2022
5.1.2	Identify and report on changes to Council operations, policies and procedures in line with the Local Government Act.	30/6/2023	1/7/2022
5.1.3	Improve Council's systems and policies through review of Governance Framework.	30/6/2023	1/7/2022
5.1.4	Improve asset management practices.	30/6/2023	1/7/2022
5.1.5	Improve the Warrnambool Planning Scheme which controls land use and development within the municipality.	30/6/2023	1/7/2022
5.1.6	Work with neighbouring Councils to develop sub-regional and regional plans and advocacy strategies to benefit the region and deliver on the community's aspirations.	30/6/2023	1/7/2022
5.1.7	Align the implementation of the Warrnambool 2040 Plan with the Financial Sustainability Plan	30/6/2023	1/7/2022
5.1.8	Continue to enhance organisational awareness of Victoria's Child Safe Standards via customised training programs and maintaining compliance with the Standards.	30/6/2023	1/7/2022

Objective 2

ENGAGED & INFORMED COMMUNITY: Council will ensure ongoing community engagement to identify changing needs and priorities when developing and delivering services and programs.

Action Code	Action Name	Due Date	Start Date
5.2.1	Improve accessibility, transparency and accountability of Council decision-making.	30/6/2023	1/7/2022
5.2.2	Monitor and report on the reach and effectiveness of Council's communications measures including engagement through the Your Say website.	30/6/2023	1/7/2022
5.2.3	Produce the annual State of the Assets Report that identifies the asset renewal funding performance to inform renewal expenditure.	30/6/2023	1/7/2022
5.2.4	Review adopted Asset Management Plans for major asset classes to inform operational activities.	30/6/2023	1/7/2022

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5.2.5	Review strategies and plans to comply with Council's Asset Management Policy.	30/6/2023	1/7/2022
5.2.6	Provide communications support to promote Council services, facilities, programs and events.	30/6/2023	1/7/2022

Objective 3

CUSTOMER-FOCUSED SERVICES: Council will continue and develop a program of Council services that are delivered to the community's satisfaction.

Action Code	Action Name	Due Date	Start Date
5.3.1	Review and update Council's complaint handling policy and processes in line the Local Government Act changes and Ombudsman's guidelines.	30/6/2023	1/7/2022
5.3.2	Improve outcomes in the delivery of Council's customer services.	30/6/2023	1/7/2022
5.3.3	Deliver library customer programs in partnership with community organisations, non-government organisations and business.	30/6/2023	1/7/2022
5.3.4	Develop and influence strategic integrated planning process and decisions to ensure Council strategy is appropriately prioritised and executed.	30/6/2023	1/7/2022

Objective 4

HIGH-PERFORMANCE CULTURE: Council will foster an organisational culture to support engaged, committed and high-performing staff for the effective delivery of Councils services and programs.

Action Code	Action Name	Due Date	Start Date
5.4.1	Prepare and develop appropriate service and organisational review processes to maximise operational efficiency.	30/6/2023	1/7/2022
5.4.2	Support an organisational approach to strategic procurement to ensure effective operational decision making that improves organisational performance.	30/6/2023	1/7/2022
5.4.3	Review and improve human resource operational processes to ensure best practice.	30/6/2023	1/7/2022
5.4.4	Continue to evolve the staff training and development programs in order to drive enhanced employee engagement and culture.	30/6/2023	1/7/2022
5.4.5	Implement workplace actions identified within Councils Gender equity Action Plan, (GEAP), resulting in improved gender equity outcomes.	30/6/2023	1/7/2022
5.4.6	Support the resourcing of Development Engineering assessments and approvals.	30/6/2023	1/7/2022
5.4.7	Ensure the actions identified within Council's Workforce Management Plan are allocated implemented and measured	30/6/2023	1/7/2022
5.4.8	Improve systems and structures that facilitate the recruitment and retention of volunteers.	30/6/2023	1/7/2022

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Objective 5

ORGANISATIONAL & FINANCIAL SUSTAINABILITY: Council will ensure organisational and financial sustainability through the effective and efficient use of Councils resources and assets.

Action Code	Action Name	Due Date	Start Date
5.5.1	Review and embed the legal and procurement processes to ensure compliance and risk mitigation and that Council is operationally effective.	30/6/2023	1/7/2022
5.5.2	Review Council's property management processes, including for Crown land that Council is the Committee of Management for, with consideration of rental agreements, property and current market valuations and disposal of surplus land.	30/6/2023	1/7/2022
5.5.3	Allocate financial resources in accordance with strategic plans.	30/6/2023	1/7/2022
5.5.4	Review and update the Long Term Financial Plan to ensure Council remains financially sustainable into the future.	30/6/2023	1/7/2022
5.5.5	Enhance business processes including IT systems integration.	30/6/2023	1/7/2022
5.5.6	Improve digital capacity for Council staff.	30/6/2023	1/7/2022
5.5.7	Monitor asset condition to ensure they meet users' needs and remain fit for purpose.	30/6/2023	1/7/2022
5.5.8	Implement COVID-19 recovery plans for Council business units.	30/6/2023	1/7/2022
5.5.9	Recommence rollout of Shared Services Project	30/6/2023	1/7/2022

Objective 6

RISK MITIGATION: Council will mitigate and manage organisational risks through sound management systems and processes.

Action Code	Action Name	Due Date	Start Date
5.6.1	Review the IT Strategy and system resilience in relation to data security, confidentiality and critical incidents.	30/6/2023	1/7/2022
5.6.2	Lodge Council's Victorian Protective Data Security Plan with the Office of the Victorian Information Commissioner by 31st August 2022	30/6/2023	1/7/2022
5.6.3	Ensure effective Business Continuity Planning (BCP) is in place.	30/6/2023	1/7/2022
5.6.4	Enhance Councils risk management processes to ensure key strategic and operational decision making considers risk factors.	30/6/2023	1/7/2022

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5.6.5	Continue the development and implementation of Councils Health and Safety Management System with a focus on injury prevention, improved return-to-work processes, OHS training calendar implementation and increased organisation engagement.	30/6/2023	1/7/2022
5.6.6	Partner with State Government to activate and maintain Public Health Pandemic and Emergency Management Operations for staff and community wellbeing.	30/6/2023	1/7/2022

Objective 7

EFFECTIVE ADVOCACY: Council will pursue effective advocacy by providing compelling materials for desired support and funding for community priorities through establishing strong relationships with other levels of government, strategic partners and key stakeholders.

Action Code	Action Name	Due Date	Start Date
5.7.1	Provide materials to support advocacy efforts and report on advocacy outcomes.	30/6/2023	1/7/2022
5.7.2	Advocate for access to safe and secure housing that is appropriate and affordable for a diversity of needs.	30/6/2023	1/7/2022

Objective 8

REGIONAL ROLE & RELATIONSHIPS: Council will acknowledge Warrnambool's capability as the regional centre of south-west Victoria through appropriate leadership, advocacy and partnerships that enable greater opportunity for the region.

Action Code	Action Name	Due Date	Start Date
5.8.1	Participate in shared services project - for a shared Information technology enterprise system and associated processes - with Moyne and Corangamite shires.	30/6/2023	1/7/2022
5.8.2	Pursue funding for animal shelter redevelopment in collaboration with surrounding municipalities to facilitate a regional facility if appropriate.	30/6/2023	1/7/2022
5.8.3	Participate in advocacy efforts as part of Regional Cities Victoria, Regional Capitals Australia and Great South Coast Group of Councils.	30/6/2023	1/7/2022

2021 - 2025 Warrnambool City Council Plan



WARRNAMBOOL
CITY COUNCIL

Warrnambool City Council
PO Box 198 Warrnambool VIC 3280
Tel: 5559 4800
Email: contact@warrnambool.vic.gov.au
www.warrnambool.vic.gov.au
City Assist customer service
25 Liebig Street Warrnambool 8.30am – 5pm

The annual Council Budget outlines the major initiatives to be funded each year in order to deliver the Council Plan.

For a copy of the current documents go to www.warrnambool.vic.gov.au or call 5559 4800.





WARRNAMBOOL
CITY COUNCIL

Warrnambool City Council Draft Budget 2022-2023

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Introduction by the Mayor and Chief Executive Officer

This Draft Budget 2022-2023 describes the way in which Council proposes to allocate resources to deliver the actions and initiatives outlined in the Council Plan 2021-2025 for our growing city of 36,000 people.

It is a formal document but in reviewing the financial allocations made to the 90-plus services Council provides it provides an insight into what Local Government does.

Every line in the Budget ultimately is about people, effort and output.

Our job is to ensure that the outputs align with our Council Plan and the long-term community vision, Warrnambool 2040.

Attention often focuses on the Local Government budget allocation which is invested in employing people.

But it is people that do the work: people drive graders, operate mowers, design roads, plant trees, clear drains, build footpaths, vaccinate children, inspect restaurant kitchens, care for vulnerable people in their homes, deliver road safety programs, evaluate applications for funding support, contain savage dogs at large, help school kids across busy roads, operate sporting venues, operate community centres, operate visitor attractions, run a library, deliver swimming lessons, provide childcare, assess planning and development proposals, supervise building projects and balance the books.

We anticipate that over the 2022-2023 we will:

- Renew 3km of footpaths;
- Built 2km of new footpaths;
- Respond to more than 150 calls about dogs at large;
- Respond to more than 25 calls for stock on roads;
- Complete 300 fire hazard inspections;
- Carry out 1.7 million kerbside bin lifts;
- Handle more than 40,000 telephone inquiries;
- Collect more than 240 domestic animals of which more than half will be returned directly to their owners by Council officers; and,
- Complete more than 100,000sqm of road reseals.

We carry out about 120 traffic counts annually so that we have accurate insights on traffic volumes across our road network.

Our kindergartens provide education and care to more than 400 children.

We deliver or support dozens of events across the calendar year. Council-run events have included BeachFest, Solstice Searching and we help out with events and activities including summer markets, Australia Day, ANZAC Day, the Melbourne to Warrnambool Cycling Classic, tennis championships and the Nippers Carnival.

The number of new homes being built in our city has jumped dramatically in recent years and this has reset the average number of new homes being built annually from about 230 to well over 350. The value of residential and non-residential building activity leapt from \$116 million in 2019-2020 to \$213 million in 2020-2021.

We are expecting that the construction industry will continue to boom over 2022-2023.

As the city prospers so do businesses. Warrnambool is home to more than 40 businesses with an annual turnover in excess of \$10 million.

Another major part of what we do is advocate for the community. Advocacy takes time, it's a competitive space and it's about building relationships. It's about explaining, not complaining.

Councillors and Council staff chase external funding for major projects like the new library, Lake Pertobe, Edwards Bridge, a new boat ramp and dredging. Many grants from Federal and State governments are secured each year for a range of services and projects. This eases the burden on ratepayers and means that we can do more for our community.

That's just a small sample of the thousands of different actions undertaken by Council staff across more than 90 service categories.

Over the coming year Council will explore the possible addition of outdoor casual basketball and netball facilities at Lake Pertobe and other areas of the municipality. This initiative is about providing opportunities for young people and families to stay active and connected with their communities and will be funded through Council's Small Infrastructure Fund.

Council will also explore an additional public art installation, resourced through the Public Art Fund, at the harbour precinct to enhance the amenity of the area and the visitor offering in what is a very popular and important city precinct.

The Budget describes our commitment to maintaining the levels of service the community has come to expect and to operating in a financially sustainable manner.

It's a balancing act. We must maintain or renew existing infrastructure and consider carefully the addition of new community infrastructure.

We are proposing a substantial capital works program of \$30.4 million that will include the following new work:

- Road rehabilitation and resheeting: \$3.1 million;
- Footpath and bike path renewal: \$1.395 million;
- Public toilet renewal: \$385,000;
- Animal pound upgrade: \$400,000;
- Japan Street catchment diversion: \$400,000;
- Hockey pitch renewal: \$600,000;
- Playground renewal: \$330,000; and,
- Livestock exchange renewal: \$1.8 million to \$3 million.

The \$30.4 million includes carry-over work and new works.

Council crews undertake much of the work involved with capital works projects and for the larger projects we go to the market, providing opportunities for local contractors to make competitive bids for work.

In relation to the livestock exchange Council will consider an additional renewal of \$1.8 million to \$3 million, building on the renewal allocation in last year's budget of \$2.56 million. The economies of scale make the proposition of an upgrade across the entire site viable.

We are very active in either delivering or supporting events across the calendar year. Council-run events have included BeachFest, Solstice Searching and we help out with events and activities including summer markets, Australia Day, ANZAC Day, the Melbourne to Warrnambool Cycling Classic, tennis championships and the Nippers Carnival.

We have planned to increase our investment in library services. This reflects the move into the new shared library at the South West TAFE site, which will offer: a floorspace four times that of the current library, more books, more connectivity, better accessibility, multimedia facilities and amenities including a children's play space and a café. The number of annual visits to the library is projected to increase from under 200,000 at the existing library to more than 500,000 at the landmark new building which is designed to meet the needs of our growing population and help improve education attainment levels.

The budget includes a rate increase of 1.75 per cent which is in line with the State Government Rate Cap. Council is required to balance its ongoing financial sustainability against the capacity of its ratepayers to pay additional amounts.

Council will continue with its hardship provisions that can include payment plans, interest deferrals and, for those who meet the eligibility requirements for hardship, a \$35 rebate to help offset the average residential rate increase. Council remains committed to working with ratepayers in a compassionate and respectful manner to achieve satisfactory outcomes for both parties where possible.

Council is also proposing to introduce a \$400 fee for short-term accommodation providers. This is in line with actions taken by other municipalities to address the inequity between recognised, registered visitor accommodation providers (eg motels, hotels) who pay a commercial rate and those also providing visitor accommodation through newer platforms such as AirBnB which have a residential rate differential applied to their properties.

We recommend that the Budget is read in conjunction with the Council Plan and we encourage you to provide feedback to Council on the draft Budget.

The vision for the four-year life of the Council Plan is for Warrnambool to be a Thriving City in the Heart of Coast and Country.

To support the vision Council developed the following five key objectives:

1. A healthy community
2. A sustainable environment
3. A strong economy
4. A connected, inclusive place
5. An effective Council

These objectives align with the four key long-term visions contained within the community vision, Warrnambool 2040.

The four pillars of the vision are:

1. People: in 2040 Warrnambool will be a city where all people thrive.
2. Environment: in 2040 Warrnambool will be most sustainable regional city in Australia.
3. Place: in 2040 Warrnambool will be Australia's most liveable regional city.
4. Economy: in 2040 Warrnambool will be Australia's most resilient and thriving regional economy.

Budget influences

Council continues to balance the needs of the community versus pressure of financial sustainability. Pressure to maintain infrastructure and maintain service levels constantly challenges the organisation to find more efficient and innovative methods to deliver services.

Councils across Australia raise approximately 3.5% of the total taxation collected by all levels of Government in Australia. In addition Councils are entrusted with the maintenance of more than 30% of the all Australian public assets including roads, bridges, parks, footpaths and public buildings. Consequently, a large proportion of Council's income must be allocated to the maintenance and replacement of these valuable public assets in order to ensure the quality of public infrastructure is maintained at satisfactory levels.

The cost of waste disposal is accelerating at a rate far in excess of CPI. Council undertakes a direct cost recovery for waste management from the community through our rates and charges per assessment. Last year Council was able to maintain that increase below CPI, this year changes to the Victorian Government landfill levy and impacts of the recycling crisis have seen an increase in the cost recovery equal to 47% of the average rates and charges increase and overall is a 6.88% increase on last year's charge.

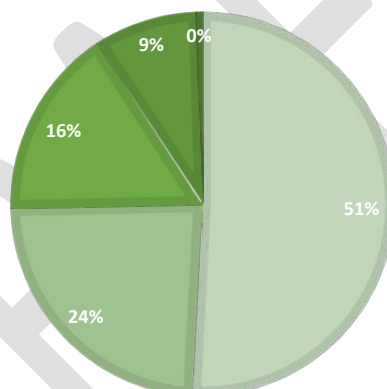
Expected Average Residential Rates	2021/22	Increase/ (Decrease)	2022/23	% Increase/ (Decrease)
Average Residential Rates	\$1,417.23	\$24.80	\$1,442.03	1.75%
Municipal Charge	\$281.29	\$4.93	\$286.22	1.75%
Waste Management Fee	\$386.00	\$26.58	\$412.58	6.88%
Average Residential Rates & Charges	\$2,084.52	\$56.31	\$2,140.83	2.70%

Waste Management Charge	2022/23	2021/22	2020/21
Garbage collection & disposal (including Naroghid)	\$91.35	\$89.99	\$85.34
Recycling collection & processing	\$66.80	\$59.58	\$58.52
FOGO collection & processing	\$58.14	\$57.73	\$52.46
Glass collection & processing	\$25.39	\$14.30	\$26.08
Street cleaning	\$64.48	\$57.82	\$54.44
Drainage cleaning/rubbish removal/foreshore cleaning	\$51.03	\$49.36	\$47.76
Council overhead	\$55.40	\$57.22	\$54.49
Total	\$412.58	\$386.00	\$379.09

How we invest each \$100	
Construction, roads, paths and drains	23.36
Parks, recreation, libraries and culture	18.85
Aged and family services	17.87
Administration	13.56
Economic development and tourism	10.52
Environmental, waste management and street cleaning	6.87
Engineering and planning	4.28
Regulatory control, public health and safety	3.92
Elected Council and governance	0.77
Total	\$100.00

COUNCIL INCOME SOURCES %

- Rates and charges
- User fees and charges
- Grants (operating and capital)
- Contributions (developers, philanthropics)
- Other (interest, entitlements from other councils)



Cr Vicki Jellie
Mayor

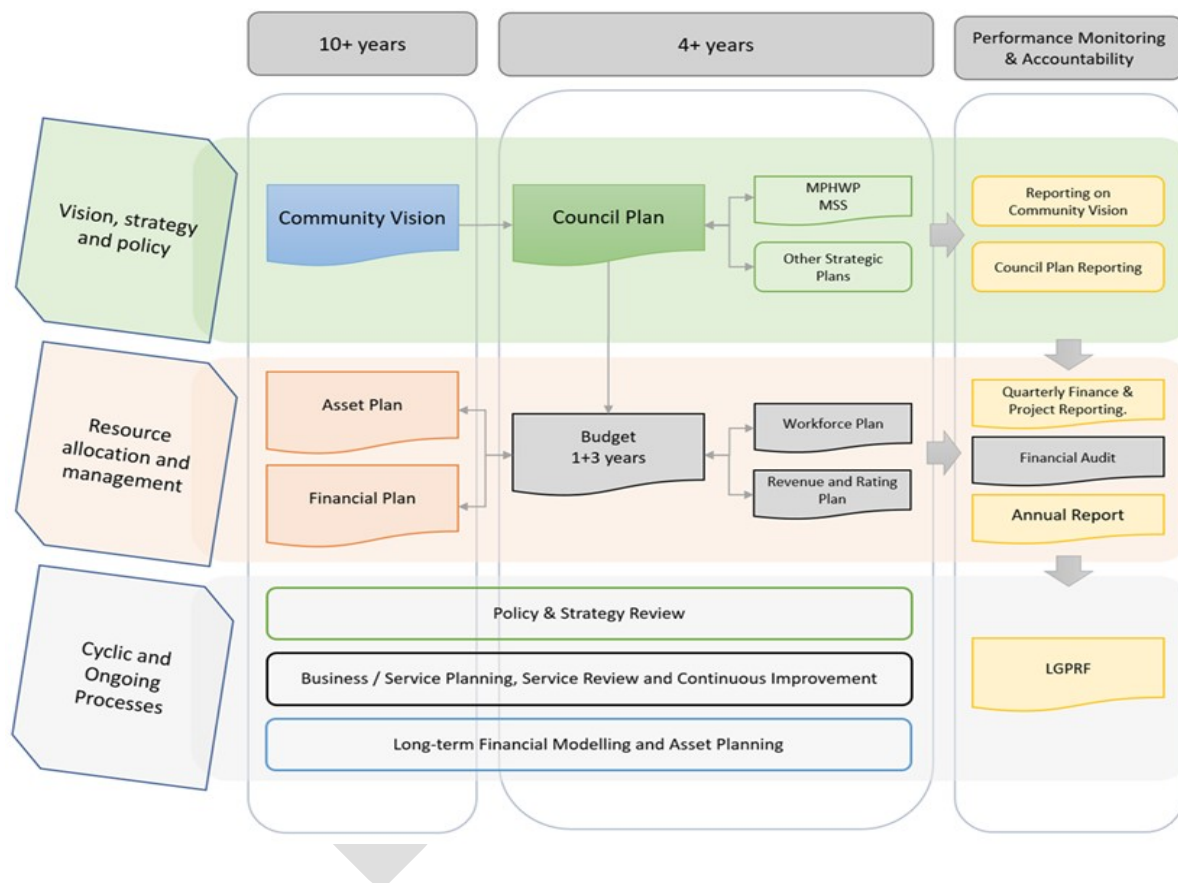
Peter Schneider
Chief Executive Officer

1. Link to the Integrated Strategic Planning and Reporting Framework

This section describes how the Budget links to the achievement of the Community Vision and Council Plan within an overall integrated strategic planning and reporting framework. This framework guides the Council in identifying community needs and aspirations over the long term (Community Vision and Financial Plan), medium term (Council Plan, Workforce Plan, and Revenue and Rating Plan) and short term (Budget) and then holding itself accountable (Annual Report).

1.1 Legislative planning and accountability framework

The Budget is a rolling four-year plan that outlines the financial and non-financial resources that Council requires to achieve the strategic objectives described in the Council Plan. The diagram below depicts the integrated strategic planning and reporting framework that applies to local government in Victoria. At each stage of the integrated strategic planning and reporting framework there are opportunities for community and stakeholder input. This is important to ensure transparency and accountability to both residents and ratepayers.



The timing of each component of the integrated strategic planning and reporting framework is critical to the successful achievement of the planned outcomes.

1.1.2 Key planning considerations

Service level planning

Although councils have a legal obligation to provide some services— such as animal management, local roads, food safety and statutory planning—most council services are not legally mandated, including some services closely associated with councils, such as libraries, building permits and sporting facilities. Further, over time, the needs and expectations of communities can change. Therefore, councils need to have robust processes for service planning and review to ensure all services continue to provide value for money and are in line with community expectations. In doing so, councils should engage with communities to determine how to prioritise resources and balance service provision against other responsibilities such as asset maintenance and capital works. Community consultation needs to be in line with Council's adopted Community Engagement Policy and Public Transparency Policy.

1.2 Our purpose

Our vision

A beautiful city at the heart of coast and country.

Our values

Accountability

We will be responsible and take ownership for our actions and decisions by being ethical, honest and transparent.

Collaborative

We will foster effective relationships through engagement, communication and cooperation; supporting decisions and outcomes for the benefit of all.

Respectful

We will treat everyone with dignity, fairness and empathy; providing them with the opportunity to share views and to be heard.

Progressive

We will evolve and grow by encouraging development, change and continuous improvement in everything that we do.

Wellbeing

We will commit to providing a safe and healthy workplace that promotes staff engagement, performance and achievement allowing all employees to flourish for the benefit of themselves and the organisation.

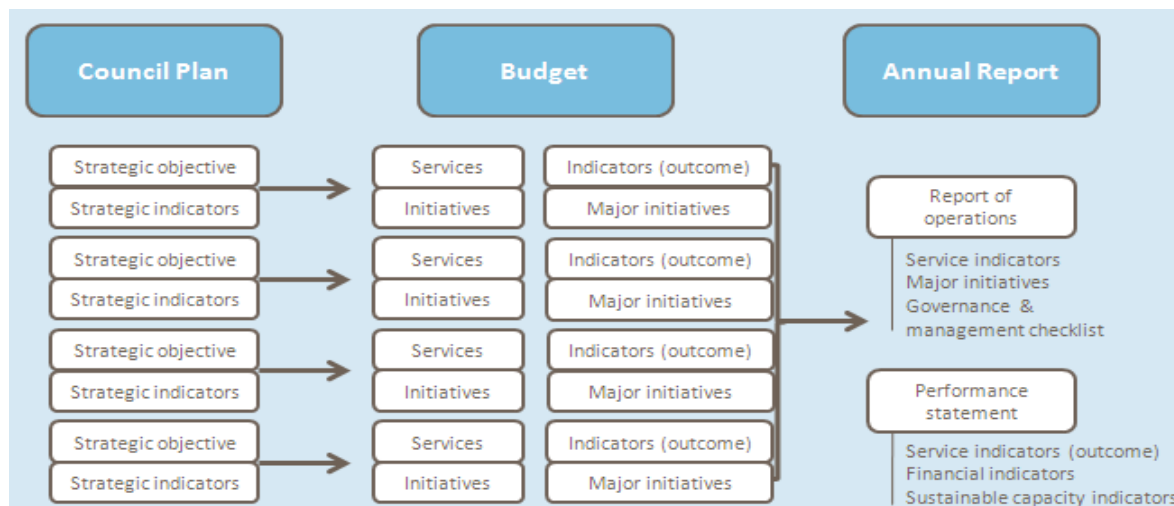
1.3 Strategic objectives

Council's strategic objectives were developed with the community in response to the vision and goals described in the long-term community plan, Warrnambool 2040.

Strategic Objective	Description
1. A healthy community	To be a healthy, inclusive, and thriving community with equitable access to services, cultural opportunities and recreational activities.
2. A sustainable environment	To protect and strengthen local ecosystems, enhance biodiversity and enable sustainable communities.
3. A strong economy	Support a resilient local and self-sustaining regional economy that encourages economic growth and provides increased employment opportunities attracting ongoing investment.
4. A connected, inclusive place	Provide quality places that all people value and want to live, work, play and learn in.
5. An effective Council	To be recognised as a collaborative Council and a high-performing organisation that enables positive outcomes for Warrnambool's community, environment and economy and Victoria's south west.

2. Services and service performance indicators

This section provides a description of the services and initiatives to be funded in the Budget for the 2022/23 year and how these will contribute to achieving the strategic objectives outlined in the Council Plan. It also describes several initiatives and service performance outcome indicators for key areas of Council's operations. Council is required by legislation to identify major initiatives, initiatives and service performance outcome indicators in the Budget and report against them in their Annual Report to support transparency and accountability. The relationship between these accountability requirements in the Council Plan, the Budget and the Annual Report is shown below.



2.1 Strategic Objective 1

To be a healthy, inclusive, and thriving community with equitable access to services, cultural opportunities and recreational activities.

Strategies to achieve Strategic Objective 1 are:

- 1.1 Welcoming and inclusive city
- 1.2 Aboriginal communities
- 1.3 Health and wellbeing
- 1.4 Accessible city
- 1.5 Recreation, arts, culture and heritage
- 1.6 Community learning pathways

The service categories to deliver these key strategic objectives are described below.

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
Aged Services	This area provides a range of services including meals on wheels, personal care, respite, home maintenance, home care, adult day care and senior citizens programs.	Inc	3,571	3,327	4,770
		Exp	4,017	4,016	5,131
		Surplus / (deficit)	(446)	(689)	(361)
Family Services	This service provides family orientated support services including pre-schools, maternal & child health, child care, counselling & support, youth services, immunisation, family day care.	Inc	7,547	7,472	7,908
		Exp	8,013	8,473	8,955
		Surplus / (deficit)	(466)	(1,001)	(1,047)
Art and Culture		Inc	770	1,527	1,786

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
	Provision of high-quality venues where people can see, present and explore the arts, ideas and events provided at the Warrnambool Art Gallery and Light House Theatre.	Exp	1,812	2,772	2,872
		Surplus / (deficit)	(1,042)	(1,245)	(1,086)
Library Services	Provision of quality library and information services to the community.	Inc	-	305	684
		Exp	928	1,046	1,681
		Surplus / (deficit)	(928)	(741)	(997)
Recreation	Provision of sport, recreation and cultural facilities, service and programs in response to identified community need and to provide information and advice to clubs and organisations involved in these areas.	Inc	100	106	159
		Exp	523	700	689
		Surplus / (deficit)	(423)	(594)	(530)
Leisure Centres	The Arc and Aquazone provide premier indoor community leisure facilities in South West Victoria, providing equitable and affordable access to a wide range of aquatic and fitness activities.	Inc	1,501	1,952	2,618
		Exp	2,728	3,345	3,986
		Surplus / (deficit)	(1,227)	(1,393)	(1,368)
Health Services	Administration of legislative requirements pertaining to public health, immunisation and food premises. Preparation of the Health & Wellbeing plan and the Reconciliation Action Plan.	Inc	244	231	245
		Exp	575	832	976
		Surplus / (deficit)	(331)	(601)	(731)

Major initiatives

- 1) Renewal of hockey pitch.
- 2) Completion and of the new Warrnambool Library and Learning Centre and introduction of new operating model.

Other initiatives

- 3) Expansion of the kinder program for three-year-olds.
- 4) Feasibility study for an upgrade of the community aquatic and fitness centre (AquaZone).

Service performance outcome indicators

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Aquatic Facilities				
Health inspections of aquatic facilities	[Number of authorised officer inspections of Council aquatic facilities / Number of Council aquatic facilities]	3	2	2
Utilisation of Aquatic Facilities	(Number of visits to aquatic facilities / Municipal population] facilities	4.37	5.81	5.81

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Cost of Aquatic Facilities	[Direct cost of aquatic facilities less income received / Number of visits to aquatic facilities]	\$3.87	\$4.56	\$4.56
Food Safety				
Food safety Timeliness	Time taken to action food complaints [Number of days between receipt and first response action for all food complaints / Number of food complaints]	1	2.3	2.3
Food Safety - service standard	Food safety assessments [Number of registered class 1 food premises and class 2 food premises that receive an annual food safety assessment in accordance with the Food Act 1984 / Number of registered class 1 food premises and class 2 food premises that require an annual food safety assessment in accordance with the Food Act 1984] x100	94.26%	86.54%	86.54%
Food safety - service cost	Cost of food safety service [Direct cost of the food safety service / Number of food premises registered or notified in accordance with the Food Act 1984]	\$281.93	\$474.56	\$474.56
Food safety - Critical and major non-compliance	[Number of critical noncompliance outcome notifications and major noncompliance notifications about a food premises followed up / Number of critical non-compliance outcome notifications and major non-compliance notifications about a food premises] x100	100%	86.97%	86.97%
Library				
Library - utilisation	Physical library collection usage [Number of physical library collection item loans / Number of physical library collection items]	3.44	3.26	3.26
Library - resource standard	Recently purchased library collection [Number of library collection items purchased in the last 5 years / Number of library collection items] x100	66.40%	61.37%	61.37%

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Library - participation	Active library borrowers in municipality [Number of active library borrowers in the last three years / The sum of the population for the last three years] x100	13.87%	12.22%	12.22%
Library - service cost	Cost of library service per population [Direct cost of the library service / Population]	\$21.62	\$26.96	\$26.96
Maternal and child health - service standard	Infant enrolments in the MCH service [Number of infants enrolled in the MCH service (from birth notifications received) / Number of birth notifications received] x100	100%	100%	100%
Maternal and child health - service cost	Cost of the MCH service [Cost of the MCH service / Hours worked by MCH nurses]	\$78.44	\$70.92	\$70.92
Maternal and child health - participation	Participation in the MCH service [Number of children who attend the MCH service at least once (in the year) / Number of children enrolled in the MCH service] x100	77.68%	76.98%	76.98%
Maternal and child health - participation	Participation in the MCH service by Aboriginal children [Number of Aboriginal children who attend the MCH service at least once (in the year) / Number of Aboriginal children enrolled in the MCH service] x100	80%	79.32%	79.32%
Maternal and child health - satisfaction	Participation in 4-week Key Age and Stage visit [Number of 4-week key age and stage visits / Number of birth notifications received] x100	98.62%	97.47%	97.47%
Recreational facilities	Satisfaction	71	71	71

* Refer to table at end of section 2.2 for information on the calculation of Service Performance Outcome Indicators.

2.2 Strategic Objective 2

To protect and strengthen local ecosystems, enhance biodiversity and enable sustainable communities.

Strategies to achieve Strategic Objective 2 are:

2.1 Natural environment

2.2 Water and coastal management

2.3 Minimise environmental impact and a changing climate

2.4 Water resource management

2.5 Waste minimisation

2.6 Awareness and celebration

The service categories to deliver these key strategic objectives are described below.

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
Environmental Management and Sustainability	This service develops environmental policy, coordinates and implements environmental projects and works with other services to improve Council's environmental performance.	Inc	5	14	13
		Exp	607	676	714
		Surplus/ (deficit)	(602)	(662)	(701)
Waste Management & Street Cleaning	This service provides kerbside collections and processing of garbage, recycling and Food Organics Green Organics (FOGO) from all households and some commercial properties in Council. It also provides street cleaning, leaf collection and street litter bins throughout Council.	Inc	10	200	5
		Exp	4,461	4,774	5,007
		Surplus/ (deficit)	(4,451)	(4,574)	(5,002)
Parks and Gardens	This service covers a range of areas such as tree pruning, planting, removal, planning and street tree strategies, management of conservation and parkland areas, creeks and other areas of environmental significance. Parks Management provides management and implementation of open space strategies and maintenance programs.	Inc	359	386	397
		Exp	4,138	4,619	4,776
		Surplus/ (deficit)	(3,779)	(4,233)	(4,379)

Major initiatives

- 1) Continue installation of major solar panel installations on Council buildings to generate renewable energy.
- 2) Footpath and bike path renewal.

Other initiatives

- 3) Install electric car charging station at Flagstaff Hill.

Service Performance Outcome Indicators

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Appearance of public areas	Satisfaction	71	72	72
Environmental sustainability	Performance	61	61	61
Waste collection	Satisfaction	66	66	66
Waste collection - service standard	[Number of kerbside garbage and recycling bin collection requests / Number of kerbside bin collection households] x1000	215.87	152.3	152.3

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Waste collection -	Service standard - [Number of kerbside garbage and recycling collection bins missed / Number of scheduled kerbside garbage and recycling collection bin lifts] x10,000	7.03	5.77	5.77
Waste collection	Service cost - bin collection service [Direct cost of the kerbside garbage bin collection service / Number of kerbside garbage collection bins]	\$86.17	\$99.90	\$99.90
Waste collection	Waste diversion - [Direct cost of the kerbside recyclables bin collection service / Number of kerbside recyclables collection bins]	\$61.03	\$53.81	\$53.81
Waste collection	Percentage of garbage, recyclables and green organics collected from kerbside bins that is diverted from landfill	64.30%	48.81%	48.81%

* refer to table at end of section 2.2 for information on the calculation of Service Performance Outcome Indicators

2.3 Strategic Objective 3: Economy

Support a resilient local and self-sustaining regional economy that encourages economic growth and provides increased employment opportunities attracting ongoing investment.

Strategies to achieve Strategic Objective 3 are:

- 3.1 Build on competitive strengths
- 3.2 Emerging industries
- 3.3 Visitor growth
- 3.4 Workforce capability
- 3.5 Digital capability

The service categories to deliver these key strategic objectives are described below.

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
Statutory Building Services	This service provides statutory building services to the Council community including processing of building permits.	Inc	175	125	130
		Exp	254	283	317
		Surplus/(deficit)	(79)	(158)	(187)
City Strategy & Development	This service prepares and processes amendments to the Council Planning Scheme. This service processes statutory planning applications, provides advice and makes decisions about development proposals which require a planning permit, as well as representing Council at the Victorian Civil and Administrative Tribunal where necessary. It monitors the Council's Planning Scheme, prepares major policy documents and processes amendments to the Council Planning Scheme.	Inc	477	518	473
		Exp	1,360	1,607	1,766
		Surplus/(deficit)	(883)	(1,089)	(1,293)
Warrnambool Livestock Exchange	Provides a regional livestock marketing centre that meets the needs of the stock agents, buyers and producers.	Inc	1,214	1,196	1,406
		Exp	1,004	978	1,040
		Surplus/(deficit)	210	218	366
Holiday Parks	Provides affordable holiday accommodation that is modern, clean and well maintained in a family orientation atmosphere.	Inc	1,881	2,440	3,061
		Exp	1,762	1,889	2,026
		Surplus/(deficit)	119	551	1,035
Flagstaff Hill Maritime Village and Visitor Information Centre	A City and Regional tourism hub open 364 days of the year that includes a Visitor Information Centre and Flagstaff Hill Maritime Village which tells the maritime history of the region during the day and a 'Shipwrecked' Sound and Light Laser show in the evening.	Inc	845	1,058	1,237
		Exp	1,524	2,005	2,206
		Surplus/(deficit)	(679)	(947)	(969)
Economic Development	Includes the industry and business support, research and statistical analysis and project development	Inc	1	1	-
		Exp	696	721	818
		Surplus/(deficit)	(695)	(720)	(818)

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
	which underpin economic development.				
Warrnambool Airport	This service provides a regional Airport that meets the needs of users and operates as a viable commercial enterprise to the benefit of the region.	Inc	138	206	215
		Exp	286	377	388
		Surplus/ (deficit)	(148)	(171)	(173)
Port of Warrnambool	Council manages the Cities port facility on behalf of the State Government.	Inc	105	238	103
		Exp	122	240	98
		Surplus/ (deficit)	(17)	(2)	5
Festivals and Events Group	Delivers a range of promotions, festivals and events along with attracting events to the city to deliver economic benefits.	Inc	39	3	2
		Exp	1,026	1,117	1,090
		Surplus / (deficit)	(987)	(1,114)	(1,088)

Major initiatives

- 1) Review and implement the Warrnambool Destination Action Plan with industry and Great Ocean Road Regional Tourism.
- 2) Review and implement the Warrnambool Economic Development and Investment Strategy.

Other initiatives

- 3) A renewed approach to more events across the year.
- 4) A 10-year Holiday Parks Investment Plan.

Service Performance Outcome Indicators

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Tourism development	Satisfaction	63	63	63
Population growth	Satisfaction - measure of community perception	57	57	57
Statutory planning	Timeliness - Time taken to decide planning applications [The median number of days between receipt of a planning application and a decision on the application]	35	52.05	52.05
Statutory planning	Service standard - Planning applications decided within required time frames [(Number of regular planning application decisions made within 60 days) + (Number of VicSmart planning application decisions made within 10 days) / Number of planning application decisions made] x100	91.97%	80.16%	80.16%

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Statutory planning	Service cost - Cost of statutory planning service [Direct cost of the statutory planning service / Number of planning applications received]	\$1,806.07	\$2,586.97	\$2,586.97
Statutory planning	Decision making -Council planning decisions upheld at VCAT [Number of VCAT decisions that did not set aside council's decision in relation to a planning application / Number of VCAT decisions in relation to planning applications] x100	0%	51.32%	51.32%

2.4 Strategic Objective 4: Place

Provide quality places that all people value and want to live, work, play and learn in.

Strategies to achieve Strategic Objective 4 are:

- 4.1 Effective planning
- 4.2 Connected community
- 4.3 Stronger neighbourhoods
- 4.4 Sustainable practices

The service categories to deliver these key strategic objectives are described below.

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
Asset Maintenance	This service prepares long term maintenance management programs for Council's property assets in an integrated and prioritised manner in order to optimise their strategic value and service potential. These include buildings, pavilions, roads, footpaths and tracks and drainage.	Inc	604	552	803
		Exp	2,156	2,533	2,690
		Surplus/(deficit)	(1,552)	(1,981)	(1,887)
Infrastructure Services	This service prepares and conducts capital works and maintenance planning for Council's main civil infrastructure assets in an integrated and prioritised manner in order to optimise their strategic value and service potential. These include roads, laneways, car parks, foot/bike paths, drains and bridges.	Inc	3,565	3,420	3,942
		Exp	6,704	7,169	7,476
		Surplus/(deficit)	(3,139)	(3,749)	(3,534)
Regulatory Services	Local laws enforcement including parking fees and fines, public safety, animal management and traffic control.	Inc	2,630	3,052	3,274
		Exp	2,259	2,480	2,481
		Surplus/(deficit)	371	572	793

Major initiatives

- 1) Complete the Principal Pedestrian Network.
- 2) Upgrade the Council animal pound.

Other initiatives

- 3) Targeted annual road resealing program.
- 4) Playground renewal program.

Service Performance Outcome Indicators

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Roads	Satisfaction of use - Sealed local road requests [Number of sealed local road requests / Kilometres of sealed local roads] x100	58.5	37.34	37.34
Roads	Condition - Sealed local roads maintained to condition standards [Number of kilometres of sealed local roads below the renewal intervention level set by Council / Kilometres of sealed local roads] x100	96.80%	96.40%	96.40%
Roads	Service cost - Cost of sealed local road reconstruction [Direct cost of sealed local road reconstruction / Square metres of sealed local roads reconstructed]	\$97.30	\$105.43	\$105.43
Roads	Service cost - Cost of sealed local road resealing [Direct cost of sealed local road resealing / Square metres of sealed local roads resealed]	\$6.65	\$7.60	\$7.60
Roads	Satisfaction - Satisfaction with sealed local roads [Community satisfaction rating out of 100 with how council has performed on the condition of sealed local roads]	48	55.63	55.63
Appearance of public areas	Performance	71	72	72
Animal management	Timeliness - Time taken to action animal management requests [Number of days between receipt and first response action for all animal management requests / Number of animal management requests]	1	1.89	1.89
Animal management	Service standard Animals reclaimed [Number of animals reclaimed / Number of animals collected] x100	19.16%	41.16%	41.16%
Animal management	Service cost [Number of animals rehomed / Number of animals collected] x100	64.57%	45.93%	45.93%

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Animal management	Cost of animal management service per population [Direct cost of the animal management service / Population]	\$16.12	\$14.72	\$14.72
Animal management	Animal management prosecutions [Number of successful animal management prosecutions / Number of animal management prosecutions] x 100	0%	50%	50%

2.5 Strategic Objective 5: Council

To be recognised as a collaborative Council and a high-performing organisation that enables positive outcomes for Warrnambool's community, environment and economy and Victoria's south west.

Strategies to achieve Strategic Objective 5 are:

- 5.1 Leadership and governance
- 5.2 Engaged and informed communities
- 5.3 Customer focused services
- 5.4 High performance culture
- 5.5 Organisational and financial sustainability
- 5.6 Risk mitigation
- 5.7 Effective advocacy
- 5.8 Regional role and relationships

The service categories to deliver these key strategic objectives are described below.

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
Governance & Elected Council	Elected Council governs our City in partnership with and on behalf of our community, and encourages and facilitates participation of all people in civic life. Also includes contributions made to community groups and organisations.	Inc	175	348	-
		Exp	1,090	622	695
		Surplus/(deficit)	(915)	(274)	(695)
Executive Services	Manages and facilitates the Council governance service, implementation of Council decisions and policies and compliance with the legislative requirements.	Inc	-	-	-
		Exp	469	505	521
		Surplus/(deficit)	(469)	(505)	(521)
Communications & Customer Service	Provides a customer interface for various service units and a wide range of transactions. Includes media and marketing.	Inc	-	-	-
		Exp	976	1,056	1,172
		Surplus/(deficit)	(976)	(1,056)	(1,172)
Volunteer Services	Volunteer Connect provides support and guidance to organisations and community groups that involve volunteers in	Inc	89	-	-
		Exp	126	124	128
		Surplus/(deficit)	(37)	(124)	(128)

Service area	Description of services provided		2020/21 Actual \$'000	2021/22 Forecast \$'000	2022/23 Budget \$'000
	their work, and provides a volunteer matching service to bring together volunteer roles, and volunteers to fill them.				
Information Services	Enables Council staff to have access to the information they require to efficiently perform their functions. Includes software support, licensing and lease commitments.	Inc	2	28	-
		Exp	2,280	2,478	2,481
		Surplus/(deficit)	(2,278)	(2,450)	(2,481)
Organisation Development & Risk Management	This service promotes and implements positive HR strategies to assist staff reach their full potential and, at the same time are highly productive in delivering Council's services to the community. Includes recruitment, staff inductions, training, implementation of the Corporate Risk Management Framework and managing Council's insurance portfolio.	Inc	243	126	-
		Exp	1,575	1,720	1,865
		Surplus/(deficit)	(1,332)	(1,594)	(1,865)
Corporate & Financial Services	Provides corporate support to Council and all divisions/branches in meeting organisational goals and objectives and includes banking and treasury functions, loan interest, audit, grants commission, legal, procurement, overhead costs including utilities and unallocated grants commission funding.	Inc	5,198	3,205	5,109
		Exp	4,796	4,131	3,807
		Surplus/(deficit)	402	(926)	1,302
Depreciation	Depreciation is the allocation of expenditure write down on all of Council's assets over their useful lives.	Inc	-	-	-
		Exp	12,099	12,650	13,050
		Surplus/(deficit)	(12,099)	(12,650)	(13,050)

Major initiatives

- 1) Lodge the Council Protective Data Security Plan with the Office of the Victorian Information Commissioner.
- 2) Introduce changes through the Gender Equality Action Plan.

Other initiatives

- 3) Advocacy by Council on issues outlined in the Advocacy Plan.
- 4) Participate in the shared services project with Moyne and Corangamite shires.

Service Performance Outcome Indicators

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
Governance	Transparency - Council decisions made at meetings closed to the public [Number of Council resolutions made at ordinary or special meetings of Council, or at meetings of a special committee consisting	12.68%	12.98%	12.98%

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
	only of Councillors, closed to the public / Number of Council resolutions made at ordinary or special meetings of Council or at meetings of a special committee consisting only of Councillors] x100			
Governance	Consultation and engagement - Satisfaction with community consultation and engagement Community satisfaction rating out of 100 with how Council has performed on community consultation and engagement	42	53	53
Governance	Attendance - Councillor attendance at council meetings [The sum of the number of Councillors who attended each ordinary and special Council meeting / (Number of ordinary and special Council meetings) × (Number of Councillors elected at the last Council general election)] x100	90.48%	93.23%	93.23%
Governance	Service cost - Cost of elected representation [Direct cost of the governance service / Number of Councillors elected at the last Council general election]	\$42,908.86	\$43,971.14	\$43,971.14
Governance	Satisfaction - Satisfaction with council decisions [Community satisfaction rating out of 100 with how council has performed in making decisions in the interest of the community]	38	51.31	51.31
Financial performance	Revenue level - Average rate per property assessment [General rates and Municipal charges / Number of property assessments]	\$1,946.27	\$2,049.21	\$2,049.21
Financial performance	Expenditure level - Expenses per property assessment [Total expenses / Number of property assessments]	\$4,136.33	\$3,800.08	\$3,800.08
Financial performance	Workforce turnover - Percentage of staff turnover [Number of permanent staff resignations and terminations / Average number of permanent staff for the financial year] x100	13.10%	10.46%	10.46%
Financial performance	Working capital - Current assets compared to current liabilities	158.72%	175.15%	175.15%

Service	Indicator	2020/21 Actual	2021/22 Forecast	2022/23 Budget
	[Current assets / Current liabilities] x100			
Financial performance	Unrestricted cash - Unrestricted cash compared to current liabilities [Unrestricted cash / Current liabilities] x100	125.43%	77.58%	77.58%
Financial performance	Asset renewal - Asset renewal and upgrade compared to depreciation [Asset renewal and asset upgrade expense / Asset depreciation] x100	101.76%	99.89%	99.89%
Financial performance	Loans and borrowings - Loans and borrowings compared to rates [Interest bearing loans and borrowings / Rate revenue] x100	20.39%	34.55%	34.55%
Financial performance	Loans and borrowings - repayments compared to rates [Interest and principal repayments on interest bearing loans and borrowings / Rate revenue] x100	4.85%	4.86%	4.86%
Financial performance	Indebtedness - Non-current liabilities compared to own source revenue [Non-current liabilities / Own source revenue] x100	15.09%	34.86%	34.86%
Financial performance	Adjusted underlying result - Adjusted underlying surplus (or deficit) [Adjusted underlying surplus (deficit) / Adjusted underlying revenue] x100	3.21%	0.56%	0.56%
Financial performance	Rates concentration - Rates compared to adjusted underlying revenue	54.58%	64.34%	64.34%
Financial performance	Rates effort - Rates compared to property values [Rate revenue / Capital improved value of rateable properties in the municipality] x100	0.58%	0.62%	0.62%

2.3 Reconciliation with budgeted operating result

	Surplus/ (Deficit) \$'000	Expenditure \$'000	Revenue \$'000
Strategic Objective 1: Community	(6,120)	24,290	18,170
Strategic Objective 2: Environment	(10,082)	10,497	415
Strategic Objective 3: Economy	(3,122)	9,749	6,627
Strategic Objective 4: Place	(4,628)	12,647	8,019
Strategic Objective 5: Council	(5,560)	10,669	5,109
Total	(29,512)	67,852	38,340
Expenses added in:			
Depreciation	13,050		
Amortisation - Right of use assets	265		
Operational projects	372		
Net loss on disposal of property, plant and equipment	624		
Surplus/(Deficit) before funding sources	(43,823)		
<u>Funding sources added in:</u>			
Rates and charges revenue	44,540		
Grants - Capital	1,275		
Contributions - non monetary assets	6,500		
Total funding sources	52,315		
Operating surplus/(deficit) for the year	8,492		

3. Financial Statements

This section presents information in regard to the Financial Statements and Statement of Human Resources. The budget information for the year 2022/23 has been supplemented with projections to 2025/26.

This section includes the following financial statements prepared in accordance with the Local Government Act 2020 and the Local Government (Planning and Reporting) Regulations 2020.

- Comprehensive Income Statement
- Balance Sheet
- Statement of Changes in Equity
- Statement of Cash Flows
- Statement of Capital Works
- Statement of Human Resources

Comprehensive Income Statement

For the four years ending June 30, 2026

	NOTES	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	2023/24 \$'000	Projections 2024/25 \$'000	2025/26 \$'000
Income						
Rates and charges	4.1.1	43,100	44,540	45,875	47,250	48,785
Statutory fees and fines	4.1.2	2,209	2,233	2,328	2,374	2,423
User fees	4.1.3	15,643	18,629	19,626	20,089	20,725
Grants - operating	4.1.4	17,165	12,830	13,088	25,854	13,657
Grants - capital	4.1.4	11,601	1,275	1,025	1,630	5,630
Contributions - monetary	4.1.5	3,590	1,141	939	1,158	978
Contributions - non-monetary	4.1.5	5,200	6,500	5,000	5,000	5,000
Other income	4.1.6	2,005	455	464	473	482
Total income		100,513	87,603	88,345	103,828	97,680
Expenses						
Employee costs	4.1.7	36,614	39,196	40,210	41,533	42,768
Materials and services	4.1.8	33,726	25,181	25,836	38,942	26,885
Depreciation	4.1.9	12,500	12,966	13,508	13,776	14,353
Amortisation - right of use assets	4.1.11	250	265	265	265	265
Bad and doubtful debts		131	149	151	154	158
Borrowing costs		235	235	266	288	358
Finance Costs - leases		45	46	47	48	49
Other expenses	4.1.12	410	449	458	467	478
Net loss on disposal of property, infrastructure, plant and equipment		272	624	646	668	(1,309)
Total expenses		84,183	79,111	81,387	96,141	84,005
Surplus/(deficit) for the year		16,330	8,492	6,958	7,687	13,675
Other comprehensive income						
Items that will not be reclassified to surplus or deficit in future periods						
Net asset revaluation increment /(decrement)		10,121	10,848	10,409	13,557	11,730
Total other comprehensive income		10,121	10,848	10,409	13,557	11,730
Total comprehensive result		26,451	19,340	17,367	21,244	25,405

Balance Sheet

For the four years ending June 30, 2026

	NOTES	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	2023/24 \$'000	Projections 2024/25 \$'000	2025/26 \$'000
Assets						
Current assets						
Cash and cash equivalents		5,342	5,275	4,527	4,951	5,527
Trade and other receivables		4,731	2,388	2,323	2,409	2,247
Other financial assets		24,000	13,000	13,000	13,000	15,000
Inventories		189	167	169	202	171
Other assets		1,595	1,361	1,413	1,849	1,479
Total current assets	4.2.1	35,857	22,191	21,432	22,411	24,424
Non-current assets						
Trade and other receivables		19	19	19	19	19
Other financial assets		2	1	1	1	1
Property, infrastructure, plant & equipment		663,791	697,635	716,023	738,914	761,487
Right-of-use assets	4.2.4	1,177	912	647	382	117
Total non-current assets	4.2.1	664,989	698,567	716,690	739,316	761,624
Total assets		700,846	720,758	738,122	761,727	786,048
Liabilities						
Current liabilities						
Trade and other payables		3,875	3,675	3,773	4,500	3,925
Trust funds and deposits		1,475	1,175	1,195	1,215	1,175
Unearned income/revenue		2,455	1,415	526	1,000	1,005
Provisions		6,920	7,087	7,258	7,432	7,611
Interest-bearing liabilities	4.2.3	1,882	2,224	2,351	2,465	2,090
Lease liabilities	4.2.4	185	191	196	202	209
Total current liabilities	4.2.2	16,792	15,767	15,299	16,814	16,015
Non-current liabilities						
Provisions		1,116	1,129	1,143	1,156	1,170
Interest-bearing liabilities	4.2.3	9,999	11,775	12,423	13,458	13,368
Lease liabilities	4.2.4	798	608	411	209	-
Total non-current liabilities	4.2.2	11,913	13,512	13,977	14,823	14,538
Total liabilities		28,705	29,279	29,276	31,637	30,553
Net assets		672,141	691,479	708,846	730,090	755,495
Equity						
Accumulated surplus		268,963	276,708	283,356	290,997	301,821
Reserves		403,178	414,771	425,490	439,093	453,674
Total equity		672,141	691,479	708,846	730,090	755,495

Statement of changes in equity

For the four years ending June 30, 2026

		Total \$'000	Accumulated Surplus \$'000	Revaluation Reserve \$'000	Other Reserves \$'000
NOTES					
2022 Forecast Actual					
Balance at beginning of the financial year		645,690	248,976	388,264	8,450
Impact of adoption of new accounting standards		-	-	-	-
Adjusted opening balance		645,690	248,976	388,264	8,450
Surplus/(deficit) for the year		16,330	16,330	-	-
Net asset revaluation increment/(decrement)		10,121	-	10,121	-
Transfers to other reserves		-	(167)	-	167
Transfers from other reserves		-	3,824	-	(3,824)
Balance at end of the financial year		672,141	268,963	398,385	4,793
2023 Budget					
Balance at beginning of the financial year		672,141	268,963	398,385	4,793
Surplus/(deficit) for the year		8,492	8,492	-	-
Net asset revaluation increment/(decrement)		10,848	-	10,848	-
Transfers to other reserves	4.3.1	(2)	(995)	-	993
Transfers from other reserves	4.3.1	-	248	-	(248)
Balance at end of the financial year	4.3.2	691,479	276,708	409,233	5,538
2024					
Balance at beginning of the financial year		691,479	276,708	409,233	5,538
Surplus/(deficit) for the year		6,958	6,958	-	-
Net asset revaluation increment/(decrement)		10,409	-	10,409	-
Transfers to other reserves		-	(340)	-	340
Transfers from other reserves		-	30	-	(30)
Balance at end of the financial year		708,846	283,356	419,642	5,848
2025					
Balance at beginning of the financial year		708,846	283,356	419,642	5,848
Surplus/(deficit) for the year		7,687	7,687	-	-
Net asset revaluation increment/(decrement)		13,557	-	13,557	-
Transfers to other reserves		-	(203)	-	203
Transfers from other reserves		-	157	-	(157)
Balance at end of the financial year		730,090	290,997	433,199	5,894
2026					
Balance at beginning of the financial year		730,090	290,997	433,199	5,894
Surplus/(deficit) for the year		13,675	13,675	-	-
Net asset revaluation increment/(decrement)		11,730	-	11,730	-
Transfers to other reserves		-	(2,870)	-	2,870
Transfers from other reserves		-	19	-	(19)
Balance at end of the financial year		755,495	301,821	444,929	8,745

Statement of cash flows

For the four years ending June 30, 2026

Notes	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	2023/24 \$'000	Projections 2024/25 \$'000	2025-26 \$'000
	Inflows (Outflows)	Inflows (Outflows)	Inflows (Outflows)	Inflows (Outflows)	Inflows (Outflows)
Cash flows from operating activities					
Rates and charges	43,233	44,505	45,846	47,222	48,752
Statutory fees and fines	2,300	2,307	2,312	2,355	2,401
User fees	15,633	18,629	19,626	20,089	20,725
Grants - operating	17,020	12,689	13,097	26,267	13,262
Grants - capital	7,483	375	127	1,690	6,030
Contributions - monetary	3,590	1,141	939	1,158	978
Interest received	86	110	112	114	116
Trust funds and deposits taken	1,475	1,175	1,195	1,215	1,175
Other receipts	10	2,458	278	152	405
Net GST refund / payment	-	-	-	-	-
Employee costs	(36,514)	(39,016)	(40,027)	(41,344)	(42,575)
Materials and services	(35,198)	(25,083)	(25,760)	(38,670)	(27,039)
Short-term, low value and variable lease payments	-	-	-	-	-
Trust funds and deposits repaid	(1,694)	(1,475)	(1,175)	(1,195)	(1,215)
Other payments	(410)	(449)	(458)	(467)	(478)
Net cash provided by/(used in) operating activities 4.4.1	17,014	17,366	16,112	18,586	22,537
Cash flows from investing activities					
Payments for property, infrastructure, plant and equipment	(21,747)	(30,351)	(17,404)	(19,054)	(21,169)
Proceeds from sale of property, infrastructure, plant and equipment	791	266	271	276	2,282
Payments for investments	(17,000)	(12,000)	(12,000)	(11,000)	(13,000)
Proceeds from sale of investments	13,000	23,000	12,000	11,000	11,000
Net cash provided by/ (used in) investing activities 4.4.2	(24,956)	(19,085)	(17,133)	(18,778)	(20,887)
Cash flows from financing activities					
Finance costs	(234)	(235)	(266)	(288)	(358)
Proceeds from borrowings	5,500	4,000	3,000	3,500	2,000
Repayment of borrowings	(1,790)	(1,882)	(2,224)	(2,351)	(2,465)
Interest paid - lease liability	(45)	(46)	(47)	(48)	(49)
Repayment of lease liabilities	(461)	(185)	(190)	(197)	(202)
Net cash provided by/(used in) financing activities 4.4.3	2,970	1,652	273	616	(1,074)
Net increase/(decrease) in cash & cash equivalents	(4,972)	(67)	(748)	424	576
Cash and cash equivalents at the beginning of the financial year	10,314	5,342	5,275	4,527	4,951
Cash and cash equivalents at the end of the financial year	5,342	5,275	4,527	4,951	5,527

Statement of capital works

For the four years ending June 30, 2026

		Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Projections		
NOTES				2023/24 \$'000	2024/25 \$'000	2025-26 \$'000
Property						
Land		423	-	-	-	-
Total land		423	-	-	-	-
Buildings		-	480	1,600	3,000	
Building improvements		2,719	3,425	4,684	1,717	1,756
Total buildings		2,719	3,905	6,284	4,717	1,756
Total property		3,142	3,905	6,284	4,717	1,756
Plant and equipment						
Plant, machinery and equipment		691	1,762	1,085	1,106	1,132
Computers and telecommunications		384	370	327	333	341
Library books		159	280	286	291	298
Paintings and exhibits		-	131	36	36	37
Total plant and equipment		1,234	2,543	1,734	1,766	1,808
Infrastructure						
Roads		4,360	4,269	4,140	4,832	4,334
Bridges		1,990	2,500	204	208	213
Footpaths and cycleways		1,782	3,364	2,289	3,325	3,366
Drainage		557	2,331	234	838	244
Recreational, leisure and community facilities		4,880	3,741	1,774	1,970	6,983
Parks, open space and streetscapes		2,368	2,584	656	363	2,371
Aerodromes		484	30	31	31	32
Off street car parks		290	125	-	940	-
Other infrastructure		660	4,960	61	62	64
Total infrastructure		17,371	23,904	9,389	12,569	17,607
Total capital works expenditure	4.5.1	21,747	30,352	17,407	19,052	21,171
Represented by:						
New asset expenditure		3,626	2,839	2,211	6,371	3,054
Asset renewal expenditure		13,359	15,486	11,386	11,361	11,185
Asset expansion expenditure		-	-	-	-	-
Asset upgrade expenditure		4,762	12,027	3,810	1,320	6,932
Total capital works expenditure	4.5.1	21,747	30,352	17,407	19,052	21,171
Funding sources represented by:						
Grants		4,089	4,669	1,025	1,630	5,630
Contributions		345	535	-	200	-
Council cash		14,313	21,148	13,382	13,722	13,541
Borrowings		3,000	4,000	3,000	3,500	2,000
Total capital works expenditure	4.5.1	21,747	30,352	17,407	19,052	21,171

Statement of human resources

For the four years ending June 30, 2026

	Forecast	Budget	Projections		
	Actual				
	2021/22	2022/23	2023/24	2024/25	2025-26
	\$'000	\$'000	\$'000	\$'000	\$'000
Staff expenditure					
Employee costs - operating	36,614	39,196	40,210	41,533	42,768
Employee costs - capital	449	670	689	712	735
Total staff expenditure	37,063	39,866	40,899	42,245	43,503
	FTE	FTE	FTE	FTE	FTE
Staff numbers					
Employees	399.3	416.7	416.7	416.7	416.7
Total staff numbers	399.3	416.7	416.7	416.7	416.7

A summary of human resources expenditure categorised according to the organisational structure of Council is included below.

Department	Budget 2022/23 \$'000	Comprises			
		Permanent		Casual	Temporary
		Full Time \$'000	Part time \$'000	\$'000	\$'000
Corporate Strategies	6,202	4,224	1,874	104	-
City Infrastructure	11,119	9,667	1,341	112	-
Community Development	16,100	6,191	7,888	2,021	-
City Growth	5,775	4,060	1,103	611	-
Total permanent staff expenditure	39,196	24,142	12,206	2,848	-
Capitalised labour costs	670				
Total expenditure	39,866				

A summary of the number of full-time (FTE) Council staff in relation to the above expenditure is included below.

Department	Budget 2022/23	Comprises			
		Permanent		Casual	Temporary
		Full Time	Part time		
Corporate Strategies	55.4	35.0	19.4	1.0	-
City Infrastructure	116.6	100.0	15.7	0.9	-
Community Development	180.0	67.0	92.0	21.0	-
City Growth	57.3	39.0	12.3	6.0	-
Total permanent staff expenditure	409.3	241.0	139.4	28.9	-
Capitalised labour costs	7.4				
Total expenditure	416.7				

Summary of Planned Human Resources Expenditure

For the four years ended 30 June 2026

	2022/23 \$'000	2023/24 \$'000	2024/25 \$'000	2025/26 \$'000
Corporate Strategies				
Permanent - Full time	4,224	4,333	4,475	4,608
Women	1,931	1,981	2,046	2,107
Men	2,293	2,352	2,429	2,501
Persons of self-described gender	0	0	0	0
Permanent - Part time	1,874	1,923	1,986	2,045
Women	1,613	1,655	1,709	1,760
Men	261	268	277	285
Persons of self-described gender	0	0	0	0
Total Corporate Strategies	6,098	6,256	6,461	6,653
City Infrastructure				
Permanent - Full time	9,667	9,916	10,245	10,550
Women	1,440	1,477	1,526	1,571
Men	8,227	8,439	8,719	8,979
Persons of self-described gender	0	0	0	0
Permanent - Part time	1,341	1,375	1,420	1,462
Women	754	773	798	822
Men	587	602	622	640
Persons of self-described gender	0	0	0	0
Total City Infrastructure	11,008	11,291	11,665	12,012
Community Development				
Permanent - Full time	6,191	6,352	6,561	6,756
Women	5,048	5,179	5,349	5,508
Men	1,143	1,173	1,212	1,248
Persons of self-described gender	0	0	0	0
Permanent - Part time	7,888	8,092	8,358	8,607
Women	7,226	7,413	7,657	7,885
Men	662	679	701	722
Persons of self-described gender	0	0	0	0
Total Community Development	14,079	14,444	14,919	15,363
City Growth				
Permanent - Full time	4,060	4,165	4,302	4,429
Women	1,917	1,967	2,032	2,092
Men	2,143	2,198	2,270	2,337
Persons of self-described gender	0	0	0	0
Permanent - Part time	1,103	1,132	1,169	1,204
Women	914	938	969	998
Men	189	194	200	206
Persons of self-described gender	0	0	0	0
Total City Growth	5,163	5,297	5,471	5,633
Casuals, temporary and other expenditure	2,848	2,922	3,017	3,107
Capitalised labour costs	670	689	712	735
Total staff expenditure	39,866	40,899	42,245	43,503

	2022/23 FTE	2023/24 FTE	2024/25 FTE	2025/26 FTE
Corporate Strategies				
Permanent - Full time	35.0	35.0	35.0	35.0
Women	16.0	16.0	16.0	16.0
Men	19.0	19.0	19.0	19.0
Persons of self-described gender	0.0	0.0	0.0	0.0
Permanent - Part time	19.4	19.4	19.4	19.4
Women	16.7	16.7	16.7	16.7
Men	2.7	2.7	2.7	2.7
Persons of self-described gender	0.0	0.0	0.0	0.0
Total Corporate Strategies	54.4	54.4	54.4	54.4
City Infrastructure				
Permanent - Full time	94.0	94.0	94.0	94.0
Women	14.0	14.0	14.0	14.0
Men	80.0	80.0	80.0	80.0
Persons of self-described gender	0.0	0.0	0.0	0.0
Permanent - Part time	21.7	21.7	21.7	21.7
Women	12.2	12.2	12.2	12.2
Men	9.5	9.5	9.5	9.5
Persons of self-described gender	0.0	0.0	0.0	0.0
Total City Infrastructure	115.7	115.7	115.7	115.7
Community Development				
Permanent - Full time	65.0	65.0	65.0	65.0
Women	53.0	53.0	53.0	53.0
Men	12.0	12.0	12.0	12.0
Persons of self-described gender	0.0	0.0	0.0	0.0
Permanent - Part time	94.1	94.1	94.1	94.1
Women	86.2	86.2	86.2	86.2
Men	7.9	7.9	7.9	7.9
Persons of self-described gender	0.0	0.0	0.0	0.0
Total Community Development	159.1	159.1	159.1	159.1
City Growth				
Permanent - Full time	36.0	36.0	36.0	36.0
Women	17.0	17.0	17.0	17.0
Men	19.0	19.0	19.0	19.0
Persons of self-described gender	0.0	0.0	0.0	0.0
Permanent - Part time	15.2	15.2	15.2	15.2
Women	12.6	12.6	12.6	12.6
Men	2.6	2.6	2.6	2.6
Persons of self-described gender	0.0	0.0	0.0	0.0
Total City Growth	51.2	51.2	51.2	51.2
Casuals and temporary staff	28.9	28.9	28.9	28.9
Capitalised labour	7.4	7.4	7.4	7.4
Total staff numbers	416.7	416.7	416.7	416.7

4. Notes to the financial statements

This section presents detailed information on material components of the financial statements. Council needs to assess which components are material, considering the dollar amounts and nature of these components.

4.1 Comprehensive Income Statement

4.1.1 Rates and charges

Rates and charges are required by the Act and the Regulations to be disclosed in Council's budget.

As per the Local Government Act 2020, Council is required to have a Revenue and Rating Plan which is a four year plan for how Council will generate income to deliver the Council Plan, program and services and capital works commitments over a four-year period.

In developing the Budget, rates and charges were identified as an important source of revenue. Planning for future rate increases has therefore been an important component of the financial planning process. The Fair Go Rates System (FGRS) sets out the maximum amount councils may increase rates in a year. For 2022/23 the FGRS cap has been set at 1.75%. The cap applies to both general rates and municipal charges and is calculated on the basis of council's average rates and charges.

The level of required rates and charges has been considered in this context, with reference to Council's other sources of income and the planned expenditure on services and works to be undertaken for the community.

To achieve these objectives while maintaining service levels and a strong capital expenditure program, the average general rate and the municipal charge will increase by 1.75% in line with the rate cap.

This will raise total rates and charges for 2022/23 to \$44.54 million.

4.1.1(a) The reconciliation of the total rates and charges to the Comprehensive Income Statement is as follows:

	2021/22 Forecast Actual \$'000	2022/23 Budget \$'000	Change \$'000	%
General rates*	30,832	31,908	1,076	3.49%
Municipal charge*	5,056	5,160	104	2.06%
Waste management charge	6,674	7,167	493	7.39%
Supplementary rates and rate adjustments	352	139	(226)	(64.31%)
Recreational land	89	75	(1)	(0.72%)
Interest on rates and charges	97	91	(6)	(6.19%)
Total rates and charges	43,100	44,540	1,440	3.34%

*These items are subject to the rate cap established under the FGRS.

4.1.1(b) The rate in the dollar to be levied as general rates under section 158 of the Act for each type or class of land compared with the previous financial year.

The rates in the dollar listed are still subject to final review by the Valuer General Victoria (VGV). Figures may be subject to change until the VGV has provided council with a Generally True and Correct Declaration.

Type or class of land	2021/22 cents/\$CIV*	2022/23 cents/\$CIV*	Change
General rate for rateable other land properties	0.003652	0.002633	(27.90%)
General rate for rateable farm land properties	0.002293	0.001743	(23.99%)
General rate for rateable commercial land properties	0.006699	0.006138	(8.37%)
General rate for rateable industrial land properties	0.006180	0.005429	(12.15%)
General rate for rateable vacant land properties	0.006306	0.004939	(21.68%)
Recreational land category 1 properties	\$24,148.52	\$22,550.00	(6.62%)
Recreational land category 2 properties	0.003583	0.002662	(25.70%)

4.1.1(c) The estimated total amount to be raised by general rates in relation to each type or class of land, and the estimated total amount to be raised by general rates, compared with the previous financial year

Type or class of land	2021/22 \$'000	2022/23 \$'000	Change \$'000	%
Other land	22,035	22,900	865	3.93%
Farm land	432	456	24	5.56%
Commercial land	5,226	5,351	125	2.39%
Industrial land	1,788	1,866	78	4.36%
Vacant land	1,351	1,335	(16)	(1.18%)
Recreational land category 1	24	23	12	51.51%
Recreational land category 2	65	52	(13)	(20.00%)
Total amount to be raised by general rates	30,921	31,983	1,062	3.43%

4.1.1(d) The number of assessments in relation to each type or class of land, and the total number of assessments, compared with the previous financial year.

Type or class of land	2021/22 Number	2022/23 Number	Change Number	%
Other land	15,565	15,820	255	1.64%
Farm land	161	163	2	1.24%
Commercial land	942	937	(5)	(0.53%)
Industrial land	440	446	6	1.36%
Vacant land	793	676	(117)	(14.75%)
Recreational land category 1	1	1	0	0.00%
Recreational land category 2	17	16	(1)	(5.88%)
Total number of assessments	17,919	18,059	140	0.78%

4.1.1(e) The basis of valuation to be used is the Capital Improved Value (CIV)

4.1.1(f) The estimated total value of each type or class of land, and the estimated total value of land, compared with the previous financial year.

The valuations listed are still subject to final review by the Valuer General Victoria (VGV). Figures may be subject to change until the VGV has provided council with a Generally True and Correct Declaration.

Type or class of land	2021/22	2022/23	Change	
	\$'000	\$'000	\$'000	%
Other land	6,033,812	8,696,062	2,662,250	44.12%
Farm land	188,280	261,820	73,540	39.06%
Commercial land	780,086	871,774	91,688	11.75%
Industrial land	289,321	343,797	54,476	18.83%
Vacant land	214,250	270,169	55,919	26.10%
Recreational land category 1	2,670	2,850	180	6.74%
Recreational land category 2	18,031	19,479	1,448	8.03%
Total value of land	7,526,450	10,465,951	2,939,501	39.06%

4.1.1(g) The municipal charge under Section 159 of the Act compared with the previous financial year.

Type of Charge	Per Rateable Property 2021/22	Per Rateable Property 2022/23	Change	
	\$	\$	\$	%
Municipal	281.29	286.21	4.92	1.75%

4.1.1(h) The estimated total amount to be raised by municipal charges compared with the previous financial year.

Type of Charge	2021/22	2022/23	Change	
	\$	\$	\$	%
Municipal	5,056	5,160	104	2.06%

4.1.1(i) The rate or unit amount to be levied for each type of service rate or charge under Section 162 of the Act compared with the previous financial year.

Type of Charge	Per Rateable Property 2021/22	Per Rateable Property 2022/23	Change	
	\$	\$	\$	%
Waste management charge	386.00	412.58	26.58	6.89%
Total	386.00	412.58	26.58	6.89%

4.1.1(j) The estimated total amount to be raised by each type of service rate or charge, and the estimated total amount to be raised by service rates and charges, compared with the previous financial year.

Type of Charge	2021/22	2022/23	Change	
	\$	\$	\$	%
Waste management charge	6,674	7,167	493	7.39%
Total	6,674	7,167	493	7.39%

4.1.1(k) The estimated total amount to be raised by all rates and charges compared with the previous financial year (excluding Recreational and Cultural Land and interest).

	2021/22 \$'000	2022/23 \$'000	Change \$'000 %	
Rates and Charges	42,562	44,235	1,673	3.93%
Supplementary Rates	352	139	(213)	(60.38%)
Total Rates and charges	42,914	44,374	1,460	3.40%

4.1.1(l) Fair Go Rates System Compliance

Victoria City Council is required to comply with the State Government's Fair Go Rates System (FGRS). The table below details the budget assumptions consistent with the requirements of the Fair Go Rates System.

	2021/22	2022/23
Total Rates	\$35,335	\$36,852
Number of rateable properties	17,901	18,042
Base Average Rate	\$1,974	\$2,019
Maximum Rate Increase (set by the State Government)	1.50%	1.75%
Capped Average Rate	\$ 2,004	\$2,055
Maximum General Rates and Municipal Charges Revenue	\$35,865	\$37,068
Budgeted General Rates and Municipal Charges Revenue	\$35,865	\$37,068
Budgeted Supplementary Rates	\$200	\$139
Budgeted Total Rates and Municipal Charges Revenue	\$36,065	\$37,207

4.1.1(m) Any significant changes that may affect the estimated amounts to be raised by rates and charges

There are no known significant changes which may affect the estimated amounts to be raised by rates and charges. However, the total amount to be raised by rates and charges may be affected by:

- The making of supplementary valuations (2022/23: estimated \$0.14m and 2021/22: \$0.35m)
- The variation of returned levels of value (e.g. valuation appeals)
- Changes of use of land such that rateable land becomes non-rateable land and vice versa
- Changes of use of land such that residential land becomes business land and vice versa.

4.1.1(n) Differential rates

The rate and amount of rates payable in relation to land in each category of differential are:

- A general rate of 0.2633% (0.002633 cents in the dollar of CIV) for all rateable other land properties;
- A general rate of 0.1743% (0.001743 cents in the dollar of CIV) for all rateable farm land properties;
- A general rate of 0.6138% (0.006138 cents in the dollar of CIV) for all rateable commercial properties;
- A general rate of 0.5429% (0.005429 cents in the dollar of CIV) for all rateable industrial properties;
- A general rate of 0.4939% (0.004939 cents in the dollar of CIV) for all rateable vacant land properties; and

Each differential rate will be determined by multiplying the Capital Improved Value of each rateable land (categorised by the characteristics described below) by the relevant percentages indicated above.

Council considers that each differential rate will contribute to the equitable and efficient carrying out of council functions. Details of the objectives of each differential rate, the types of classes of land, which are subject to each differential rate and the uses of each differential rate, are set out below.

Commercial land

Commercial land is any land, which is:

- Occupied for the principal purpose of carrying out the manufacture or production of, or trade in, goods or services; or
- Unoccupied but zoned commercial under the Warrnambool City Planning Scheme.

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of Council, including (but not limited to) the:

- Construction and maintenance of infrastructure assets;
- Development and provision of health and community services;
- Economic development and planning services, having direct benefit to the use of Commercial Land; and
- Provision of general support services.

The types and classes of rateable land within this differential rate are those having the relevant characteristics described below.

1. Rateable property used for income generation from business and administrative purposes, including, but not limited to, properties used for:

- The sale or hire of goods by retail or trade sales, e.g. shops, auction rooms, milk bars, newsagents;
- The manufacture of goods where the goods are sold on the property;
- The provision of entertainment, e.g. theatres, cinemas, amusement parlours;
- Media establishments, e.g. radio stations, newspaper offices, television stations;
- The provision of accommodation other than residential, e.g. motels, caravan parks, camping grounds, camps, accommodation houses, hostels, boarding houses;
- The provision of hospitality, e.g. hotels, bottle shops, restaurants, cafes, takeaway food establishments, tearooms;
- Tourist and leisure industry, e.g. flora and fauna parks, gymnasiums, boatsheds, indoor sports stadiums, gaming establishments;
- The provision of education, e.g. schools, museums, art galleries;
- Showrooms, e.g. display of goods;
- Religious purposes; and
- Public offices and halls.

2. Properties used for the provision of health services including, but not limited to, properties used for hospitals, nursing homes, rehabilitation, medical practices and dental practices.

3. Properties used as offices including, but not limited to, properties used for legal practices, real estate agents, veterinary surgeons, accounting firms and advertising agencies.

The money raised by the differential rate will be applied to the items of expenditure described in the Budget by Council. The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

The geographic location of the land within this differential rate is wherever located within the municipal district.

The use of the land within this differential rate, in the case of improved land, is any use of land permitted under the relevant Planning Scheme.

The characteristics of planning scheme zoning is the zoning applicable to each rateable land within this category as determined by consulting maps referred to in the relevant Planning Scheme.

The types of buildings on the land within this differential rate are all buildings which are now constructed on the land or which are constructed prior to the expiry of the 2022/23 financial year.

Farm Land

"Farm land is any land, which is:

- "farm land" as described in of Section 2 (1) of the Valuation of Land Act 1960.

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of Council, including (but not limited to) the:

- Construction and maintenance of infrastructure assets;
- Development and provision of health and community services;
- Encouragement of sustainable and productive use and management of Farm Land; and
- Provision of general support services.

The types and classes of rateable land within this differential rate are those having the relevant characteristics of "farm land" as described in of Section 2 (1) of the Valuation of Land Act 1960.

The money raised by the differential rate will be applied to the items of expenditure described in the Budget by Council. The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

The geographic location of the land within this differential rate is wherever located within the municipal district.

The use of the land within this differential rate, in the case of improved land, is any use of land permitted under the relevant Planning Scheme.

The characteristics of planning scheme zoning is the zoning applicable to each rateable land within this category as determined by consulting maps referred to in the relevant Planning Scheme.

The types of buildings on the land within this differential rate are all buildings which are now constructed on the land or which are constructed prior to the expiry of the 2022/23 financial year.

Industrial land

"Industrial land is any land, which is:

- Occupied for the principal purpose of carrying out the manufacture or production of, or trade in, goods or services; or
- Unoccupied but zoned Industrial under the Warrnambool City Planning Scheme.

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of Council, including (but not limited to) the:

- Construction and maintenance of infrastructure assets;
- Development and provision of health and community services;
- Economic development and planning services, having direct benefit to the use of Industrial Land; and
- Provision of general support services.

The types and classes of rateable land within this differential rate are those having the relevant characteristics described but not limited to those below.

"Rateable properties which are used in the process of income generation, including, but not limited to the following:

- The manufacture of goods, food and beverage which are generally not sold or consumed on site (but does preclude some warehouse sales);
- The storage of goods;
- The provision of services for the repair of goods;
- The storage of plant and machinery;
- The production of raw materials in the extractive and timber industries; and
- The treatment and storage of industrial waste materials.

The money raised by the differential rate will be applied to the items of expenditure described in the Budget by Council. The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

The geographic location of the land within this differential rate is wherever located within the municipal district.

The use of the land within this differential rate, in the case of improved land, is any use of land permitted under the relevant Planning Scheme.

The characteristics of planning scheme zoning is the zoning applicable to each rateable land within this category as determined by consulting maps referred to in the relevant Planning Scheme.

The types of buildings on the land within this differential rate are all buildings which are now constructed on the land or which are constructed prior to the expiry of the 2022/23 financial year.

Vacant land

"Vacant land is any land, which is:

- Vacant unoccupied land within the Warrnambool City Council; or
- Land on which no building designed or adapted for human occupation is erected

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of Council, including (but not limited to) the:

- Construction and maintenance of infrastructure assets;
- Development and provision of health and community services;
- Encouragement for orderly planning through development of serviced urban properties;
- Provision of municipal administrative services; and
- Provision of general support services.

The types and classes of rateable land within this differential rate are those having the relevant characteristics of vacant unoccupied land and on which no building designed or adapted for human occupation is erected within the Warrnambool City Council.

The money raised by the differential rate will be applied to the items of expenditure described in the Budget by Council. The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

The geographic location of the land within this differential rate is wherever located within the municipal district.

The use of the land within this differential rate is any use of land permitted under the relevant Planning Scheme.

The characteristics of planning scheme zoning is the zoning applicable to each rateable land within this category as determined by consulting maps referred to in the relevant Planning Scheme.

The types of buildings on the land within this differential rate are no buildings are constructed.

Other land

"Other land is any land, which is:

- Occupied for the principal purpose of human habitation including dwellings, flats and units;
- "residential use land" as described in of Section 2 (1) of the Valuation of Land Act 1960; and
- "urban farm land" as described in of Section 2 (1) of the Valuation of Land Act 1960.

The objective of this differential rate is to ensure that all rateable land makes an equitable financial contribution to the cost of carrying out the functions of Council, including (but not limited to) the:

- Construction and maintenance of infrastructure assets;
- Development and provision of health and community services; and
- Provision of general support services.

The types and classes of rateable land within this differential rate are those having the relevant characteristics of a property which is used for human habitation including dwellings, flats and units, or is residential use land or urban farm land as described in of Section 2 (1) of the Valuation of Land Act 1960.

The money raised by the differential rate will be applied to the items of expenditure described in the Budget by Council. The level of the rate for land in this category is considered to provide for an appropriate contribution to Council's budgeted expenditure, having regard to the characteristics of the land.

The geographic location of the land within this differential rate is wherever located within the municipal district.

The use of the land within this differential rate is any use of land permitted under the relevant Planning Scheme.

The characteristics of planning scheme zoning is the zoning applicable to each rateable land within this category as determined by consulting maps referred to in the relevant Planning Scheme.

The types of buildings on the land within this differential rate are all buildings which are now constructed on the land or which are constructed prior to the expiry of the 2022/23 financial year.

Cultural and Recreational land

The amounts listed are subject to change until the Valuer General Victoria has provided council with a Generally True and Correct Declaration for the 2021 General Revaluation.

Ratepayer	Assessment Number	Property Address	Amount \$
Showgrounds Reserve Committee Of Management	129359	331 Koroit St Warrnambool	7,426.97
Warrnambool Golf Club Inc.	131150	1-35 Younger St Warrnambool	4,152.72
Warrnambool Swimming Club	131388	10 Queens Rd Warrnambool	1,703.68
Christ Church Tennis Club	132180	66 Henna St Warrnambool	1,637.13
Warrnambool Croquet Club Inc.	134926	60-62 Cramer St Warrnambool	505.78
Warrnambool Yacht Club Inc.	138135	44 Viaduct Rd Warrnambool	718.74
Warrnambool Racing Club Inc.	135344	2-64 Grafton Rd Warrnambool	21,056.40
Warrnambool Ski Club Inc.	138747	26 Simpson St Warrnambool	1,011.56
Warrnambool Lawn Tennis Club	139872	33-45 Pertobe Rd Warrnambool	3,540.46
Warrnambool Bowls Club	140336	81-85 Timor St Warrnambool	4,046.24
Warrnambool Kart Club	140883	162 Buckleys Rd Allansford	572.33
Dennington Bowling Club Inc.	141525	36 Princes Hwy	2,089.67
St Joseph Primary School Supergrass Tennis	141935	40 Bromfield St Warrnambool	998.25
Warrnambool City Memorial Bowling Club	134927	50-56 Cramer St Warrnambool	22,550.00
Warrnambool Offshore Light Game Fishing Club	17654	48 Viaduct Rd Warrnambool	77.20
Warrnambool BMX Club	150399	51 Pertobe Rd Warrnambool	652.19
Warrnambool Bowls Club (Carpark)	140338	91 Timor Street Warrnambool	1,664.15

4.1.2 Statutory fees and fines

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Animal control	517	515	(2)	(0.39%)
Health and local laws	154	159	4	2.66%
Parking fines	581	645	65	11.11%
Permits and certificates	316	312	(4)	(1.27%)
Town planning and building	641	603	(39)	(6.05%)
Total statutory fees and fines	2,209	2,233	24	1.08%

Statutory fees and fines are mainly levied in accordance with legislation and relate to income collected through parking fines, health registrations, animal registrations, planning permits and building permits.

- Parking fines are expected to increase in 2022/23 as Council introduced new parking initiatives (free 1 hour off-street parking) during 2021/22 and took a cautious approach to compliance to help assist with the new parking model.
- Town planning and building fees are currently at record levels and would look to stabilise over the 2022/23 financial year.

4.1.3 User fees

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Property management	816	1,061	245	29.99%
Indoor aquatic centre	1,122	1,663	541	48.21%
Children's services	4,148	4,358	210	5.07%
Multi-purpose sports stadium	792	913	121	15.23%
Cultural centres	1,249	1,507	258	20.68%
Regulatory control	1,752	1,912	160	9.11%
Tourism and promotion	1,010	1,188	179	17.69%
Foreshore holiday parks	2,414	3,035	621	25.72%
Livestock exchange	1,171	1,381	211	18.00%
Aged services fees	715	1,109	394	55.19%
Other fees and charges	455	501	46	10.10%
Total user fees	15,643	18,629	2,985	19.08%

User fees relate to the wide range of services Council provides across its extensive service delivery programs and includes holiday park fees, leisure centre and performing arts centre user charges, fees for the provision of child care, family day care and home help, entrance fees at flagstaff hill, car parking fees and livestock exchange selling fees.

Council sets fees based on market conditions and the cost associated with running a service, while giving consideration to those who may be suffering financial hardship.

- Large increases across Councils operating business are expected which mainly relates to the impact of the COVID19 restrictions in 2021/22. Council is looking to recover from these impacts through 2022/23.

4.1.4 Grants

Grants are required by the Act and the Regulations to be disclosed in Council's budget.

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Summary of grants				
Commonwealth funded grants	10,194	7,614	(2,579)	(25.30%)
State funded grants	18,573	6,490	(12,082)	(65.05%)
Total grants received	28,766	14,105	(14,662)	(50.97%)
(a) Operating Grants				
Recurrent - Commonwealth Government				
Victoria Grants Commission - Financial Assistance Grant	1,888	3,754	1,866	98.80%
Victoria Grants Commission - local roads	338	702	364	107.82%
Aged services	2,031	1,883	(148)	(7.28%)
Recurrent - State Government				
Port operations	233	98	(135)	(58.03%)
Family and children	3,276	3,482	206	6.29%
Aged services	556	689	133	24.03%
Cultural services	599	631	32	5.40%
Infrastructure Services	48	95	47	97.92%
Environmental initiatives	71	72	1	1.16%
School crossing supervision	198	198	0	0.00%
Pension rebate	718	730	12	1.67%
Total recurrent grants	9,955	12,333	2,378	23.89%
Non-recurrent - Commonwealth Government				
Cultural services	7	-	(7)	(100.00%)
Non-recurrent - State Government				
Port operations	4,500	-	(4,500)	(100.00%)
Economic development	646	-	(646)	(100.00%)
Family and children	1,056	466	(591)	(55.92%)
Aged services	17	-	(17)	(100.00%)
Cultural centres	153	2	(151)	(98.89%)
Infrastructure services	249	29	(220)	(88.35%)
Environment initiatives	163	-	(163)	(100.00%)
Other non-recurrent State Government	420	-	(420)	(100.00%)
Total non-recurrent grants	7,210	496	(6,714)	(93.12%)
Total operating grants	17,165	12,830	(4,335)	(25.26%)
(b) Capital Grants				
Recurrent - Commonwealth Government				
Roads to recovery	425	425	0	0.00%
Total recurrent grants	425	425	0	0.00%
Non-recurrent - Commonwealth Government				
Infrastructure Services	5,505	850	(4,655)	(84.56%)
Non-recurrent - State Government				
Recreation	950	-	(950)	(100.00%)
Cultural centres	9	-	(9)	(100.00%)
Infrastructure services	4,713	-	(4,713)	(100.00%)
Total non-recurrent grants	11,176	850	(10,326)	(92.39%)
Total capital grants	11,601	1,275	(10,326)	(89.01%)
Total Grants	28,766	14,105	(14,662)	(50.97%)

Grants include all monies received from State and Federal sources for the purposes of funding the delivery of Council's services to ratepayers and funding the capital works program.

Recurrent operating grants are expected to move with CPI and growth. The 2021/22 Financial Assistance Grant allocations were 50% prepaid in the prior financial year whilst the 2022/23 allocations are budgeted to be fully received in the proposed 2022/23 budget. Non-recurrent operating grants mainly relate to one-off projects that are due for completion in 2021/22 including the Outdoor Dining and Entertainment program.

A number of large capital projects with grant funding have been forecast in 2021/22 and include Stanley Street Bridge upgrade (\$2.0m), Lake Pertobe upgrade (\$1.3m), Local Roads & Community Infrastructure Funding (\$1.4m) and projects at the Port of Warrnambool (\$4.5m).

4.1.5 Contributions

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Monetary	3,590	1,141	(2,449)	(68.22%)
Non-monetary	5,200	6,500	1,300	25.00%
Total contributions	8,790	7,641	(1,149)	(13.07%)

Monetary contributions include monies paid to Council for works, including roads and drainage, required to be completed by developers in accordance with planning permits issued for property development. Also included are philanthropic donations and contributions by other organisations to specific projects.

This income can swing considerably between years as it is largely dependent on development activity driven by the housing market and developers. The 2021/22 forecast assumes contributions for the new Industrial Estate.

Non-monetary contributions occur when upon completion of new developments by external parties the Council takes ownership of the assets and recognises the value of the assets as non-cash contributions in its income statement. Based on the current levels of development and future projects, Council is expecting an increase in 2022/23.

4.1.6 Other income

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Interest	86	110	24	27.70%
Infrastructure Services	59	53	(7)	(11.47%)
Family and Community	17	85	68	407.72%
Reimbursements	607	165	(442)	(72.81%)
Other Income	437	42	(394)	(90.33%)
Total other income	1,205	454	(751)	(62.31%)

Other revenue relates to a range of items such as investment interest, private works, cost recoups and other miscellaneous income items. The 2021/22 forecast includes an insurance claim for loss of income at Florence Collins as a result of the building failure and a rebate for the installation of low energy street lighting.

4.1.7 Employee costs

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Wages and salaries	31,983	34,520	2,537	7.93%
WorkCover	1,270	780	(490)	(38.58%)
Superannuation	3,060	3,610	550	17.98%
Fringe Benefit Tax	301	285	(15)	(5.10%)
Total employee costs	36,614	39,196	2,582	7.05%

Employee benefits include all labour related expenditure such as wages, salaries and on-costs such as allowances, leave entitlements, and employer superannuation.

Employee costs are budgeted to increase by \$2.58m compared to the 2021/22 forecast. This is mainly due to the COVID19 restrictions in 2021/22 that meant a number of facilities were closed or had reduced operating levels, it is estimated that this reduced the 2021/22 employees by \$1.05m. In 2022/23, the new Library & Learning Hub is expected to open with an increased service level in the new building which is significantly larger than the existing library. The impact of the new library service is an increase in employee costs of \$0.45m. The balance of the movement is made up of increases assumed through a new Enterprise Agreement, banding increments and the legislated superannuation guarantee increasing from 10.0% to 10.5%.

4.1.8 Materials and services

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Infrastructure Services	5,739	5,199	(539)	(9.40%)
Waste Management	4,142	4,329	188	4.54%
Recreation and Cultural Services	3,341	3,495	154	4.62%
Children's Services	3,563	1,425	(2,138)	(60.00%)
Corporate Services	5,140	5,183	43	0.84%
Tourism and Promotions	2,811	1,410	(1,401)	(49.84%)
Aged Services	1,361	1,354	(7)	(0.49%)
Foreshore Caravan Parks	666	644	(23)	(3.42%)
Livestock Exchange	475	514	39	8.21%
Planning and building services	1,852	433	(1,419)	(76.62%)
Health and Local Laws	1,354	1,194	(160)	(11.81%)
Other	3,282	-	(3,282)	(100.00%)
Total materials and services	33,726	25,181	(8,545)	(25.34%)

Materials and services include the purchases of consumables, payments to contractors for the provision of services and overhead costs including insurances and utilities.

Council's expenditure on materials and services is budgeted to decrease in 2022/23 due to the following:

- a reduction in the number of funded projects, particularly in relation to the support for COVID19 that was received in 2021/22
- a reduction in the number of projects where Council acts as auspice
- in 2021/22, Council is undertaking a number of projects that would generally would be considered capital in nature, however, as they relate to non-Council assets they are considered an operating expense. Examples of this include the contribution to the new Library & Learning Hub (\$2.75m), dredging at the Lady Bay (\$1.0m), the boat ramp upgrade (\$3.5m) and the other upgrades at the Port of Warrnambool (\$0.64m).

Council is managing to tightly control expenditure in the face of rising costs through the continual revision of service delivery and ongoing pursuit of efficiencies in operations.

4.1.9 Depreciation

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Property	2,180	2,261	81	3.73%
Plant & equipment	1,618	1,678	60	3.73%
Infrastructure	8,702	9,027	325	3.73%
Total depreciation	12,500	12,966	466	3.73%

Depreciation is an accounting measure which attempts to allocate the value of an asset over its useful life for Council's property, plant and equipment including infrastructure assets such as roads and drains. The increase of \$0.47 million for 2022/23 will be due to the capitalisation of new infrastructure completed in 2021/22.

4.1.10 Amortisation

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Right of use assets	250	265	15	6.00%
Total amortisation - right of use assets	250	265	15	6.00%

4.1.11 Other expenses

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change	
			\$'000	%
Councillor allowances	264	281	17	6.27%
Auditors remuneration - internal	57	59	2	3.51%
Auditors remuneration - VAGO	67	72	5	7.46%
Other expenses	23	38	15	66.67%
Total other expenses	410	449	39	9.39%

4.2 Balance Sheet

4.2.1 Assets

Cash assets include cash and investments such as cash held in the bank and in petty cash and the value of investments in deposits or other highly liquid investments with short term maturities of less than 90 days. Investments exceeding 90 days are classified as financial assets. These balances are projected to decrease in 2022/23 as a number of major capital works are completed from the previous budget.

Trade and other receivables are monies owed to Council by ratepayers and others. It is expected that these will remain consistent with a number rental and rate deferrals coming to an end.

Property, infrastructure, plant and equipment is the largest component of Council's worth and represents the value of all the land, buildings, roads, drainage, plant and equipment, which has been built up by the Council over many years. The increase in this balance is attributable to the net result of the capital works program, depreciation of assets, gifted assets and the sale and revaluation of assets.

4.2.2 Liabilities

Trade and other payables are those to whom Council owes money as at 30 June. No significant movement is expected in this category for 2022/23.

Provisions include accrued long service leave, annual leave owing to employees and rehabilitation costs for a cessed landfill site. These employee entitlements are only expected to increase marginally and are influenced by the outcome of the current Enterprise Agreement negotiation and active management of leave entitlements.

4.2.3 Borrowings

The table below shows information on borrowings specifically required by the Regulations.

	Forecast Actual	Budget	Projections		
	2021/22	2022/23	2023/24	2024/25	2025/26
	\$	\$	\$	\$	\$
Amount borrowed as at 30 June of the prior year	8,172	11,882	14,000	14,776	15,925
Amount proposed to be borrowed	5,500	4,000	3,000	3,500	2,000
Amount projected to be redeemed	(1,790)	(1,882)	(2,224)	(2,351)	(2,465)
Amount of borrowings as at 30 June	11,882	14,000	14,776	15,925	15,460

Interest-bearing loans and borrowings are liabilities of Council. The Council is forecasting to borrow \$5.50m in 2021/22 for the Reid Oval upgrade (\$3.0m) and the Learning & Library Hub (\$2.50m). The final drawdown for the Learning & Library Hub may be drawn down in the 2022/23 financial year as it is tied to a State Government scheme that require milestones to be achieved before the funds can be released.

In 2022/23 Council plans to repay loan principal of \$1.88 million and drawdown new loan funds of \$4.00 million relating to the Smart Buildings project and the rectification/upgrade of the Livestock Exchange.

4.2.4 Leases by category

As a result of the introduction of AASB 16 Leases, right-of-use assets and lease liabilities have been recognised as outlined in the table below.

	Forecast Actual 2021/22 \$	Budget 2022/23 \$
Right-of-use assets		
Land and buildings	91	79
Plant & Equipment	1,086	833
Total right-of-use assets	1,177	912
Lease liabilities		
Current lease Liabilities		
Land and buildings	12	12
Plant & Equipment	173	179
Total current lease liabilities	185	191
Non-current lease liabilities		
Land and buildings	70	58
Plant & Equipment	728	550
Total non-current lease liabilities	798	608
Total lease liabilities	983	799

4.3 Statement of changes in Equity

4.3.1 Reserves

"Reserves contain both specific cash backed reserves and asset revaluation amounts. Cash backed reserves include statutory reserves, Councils drainage and Carparking/CBD funds.

The asset revaluation reserve represents the difference between the previously recorded value of assets and their current valuations. Assets valuations are required to be considered annually and formally revalued if there is a material change."

4.3.2 Equity

Accumulated surplus is the value of all net assets less specific reserve allocations and revaluations that have built up over financial years.

4.4 Statement of Cash Flows

Budgeting cash flows for Council is a key factor in setting the level of rates and providing a guide to the level of capital expenditure that can be sustained with or without using existing cash reserves.

4.4.1 Net cash flows provided by/used in operating activities

Net operating cash flows are expected to remain consistent with 2021/22 levels.

The net cash flows from operating activities does not equal the operating result for the year as the expected revenues and expenses of the Council include non-cash items which have been excluded from the Cash Flow Statement."

4.4.2 Net cash flows provided by/used in investing activities

Significant capital projects are expected to be completed in 2022/23, some of which are being carried forward from the 2021/22 budget. This will increase the payments for property, plant and equipment and result in Council drawing down some of its short term investments to fund this.

4.4.3 Net cash flows provided by/used in financing activities

Net borrowings (Loan funds less repayments) for the 2022/23 budget include new borrowings for the rectification/upgrade of the Livestock Exchange and Councils investment in energy saving initiatives (smart buildings project).

4.5 Capital works program

This section presents a listing of the capital works projects that will be undertaken for the 2022/23 year, classified by expenditure type and funding source. Works are also disclosed as current budget or carried forward from prior year.

4.5.1 Summary

	Forecast Actual 2021/22 \$'000	Budget 2022/23 \$'000	Change \$'000	%
Property	3,142	3,905	763	24.28%
Plant and equipment	1,234	2,543	1,309	106.08%
Infrastructure	17,371	23,904	6,533	37.61%
Total	21,747	30,352	8,605	39.57%

	Project Cost \$'000	Asset expenditure types				Summary of Funding Sources			
		New \$'000	Renewal \$'000	Upgrade \$'000	Expansion \$'000	Grants \$'000	Contrib. \$'000	Council cash \$'000	Borrowings \$'000
Property	3,905	-	2,180	1,725	-	-	250	2,655	1,000
Plant and equipment	2,543	411	2,132	-	-	-	-	2,543	-
Infrastructure	23,904	2,428	11,174	10,302	-	4,669	285	15,950	3,000
Total	30,352	2,839	15,486	12,027	-	4,669	535	21,148	4,000

Council has more than 250 major buildings with a replacement cost of over \$128 million and includes buildings and improvements for community facilities, sports facilities and pavilions and municipal buildings. These assets require renewal investment in addition to the new scheduled building projects. The majority of Councils building capital works program is focused on asset renewal rather than building new assets.

Plant and equipment includes plant, machinery and equipment, computers and telecommunications and art works. The majority of the spend in this category for 2022/23 relates to renewing Councils plant, machinery and equipment.

Infrastructure includes roads, bridges, footpaths and cycleways, drainage, recreation, leisure and community facilities, parks, open space and streetscapes, off street car parks and other structures.

In 2022/23 (including 2021/22 expected carried forward projects), \$4.27 million will be spent on renewing the roads, \$3.91 on renewing and upgrading buildings, \$2.33m on improving our drainage network, \$2.30 million on bridge upgrades, \$4.96m on the Livestock Exchange and \$3.36m on footpaths and cycleways and investing \$3.71m in recreational facilities

4.5.2 Current budget

Capital Works Area	Project Cost \$'000	New \$'000	Asset expenditure types Renewal \$'000	Upgrade \$'000	Expansion \$'000	Grants \$'000	Summary of Funding Sources		
							Contrib. \$'000	Council cash \$'000	Borrowings \$'000
PROPERTY									
Buildings									
Minor works	180	-	180	-	-	-	-	180	
Public toilet renewal	386	-	386	-	-	-	-	386	-
Building renewal general funding	885	-	885	-	-	-	-	885	-
Holiday Park facility improvements	150	-	150	-	-	-	-	150	-
Roof access audit and improvements	50	-	50	-	-	-	-	50	-
Civic Centre refurbishment	300	-	-	300	-	-	-	300	-
Infrastructure accessibility fund	50	-	50	-	-	-	-	50	-
Energy saving initiatives	1,000	-	-	1,000	-	-	-	-	1,000
Building Improvements									
Matron Swinton playspace upgrade	80	-	-	80	-	-	-	80	-
Council pound upgrade	400	-	400	-	-	-	-	400	-
TOTAL PROPERTY	3,481	-	2,101	1,380	-	-	-	2,481	1,000
PLANT AND EQUIPMENT									
Plant, Machinery and Equipment									
Plant replacement	1,064	-	1,064	-	-	-	-	1,064	-
Computers and Telecommunications									
IT hardware	320	-	320	-	-	-	-	320	-
Paintings and Exhibits									
Art work acquisitions	15	15	-	-	-	-	-	15	-
Public art initiatives	20	20	-	-	-	-	-	20	-
Library Books									
Library stock renewal	280	280	-	-	-	-	-	280	-
TOTAL PLANT AND EQUIPMENT	1,699	315	1,384	-	-	-	-	1,699	-

Capital Works Area	Project Cost \$'000	Asset expenditure types				Summary of Funding Sources			
		New \$'000	Renewal \$'000	Upgrade \$'000	Expansion \$'000	Grants \$'000	Contrib. \$'000	Council cash \$'000	Borrowings \$'000
INFRASTRUCTURE									
Roads									
Road safety audit implementation	30	-	30	-	-	-	-	30	-
Road safety strategy implementation	115	-	115	-	-	-	-	115	-
Street lighting improvements	30	-	30	-	-	-	-	30	-
Local roads rehabilitation and resheets	3,106	-	3,106	-	-	425	-	2,681	-
Road reseal program	772	-	772	-	-	-	-	772	-
Bridges									
Bridge renewal	200	-	200	-	-	-	-	200	-
Footpaths and Cycleways									
Footpath construction	135	135	-	-	-	-	-	135	-
Linkage paths	170	170	-	-	-	-	-	170	-
Footpath and bicycle path renewal	1,395	-	1,395	-	-	-	-	1,395	-
Small infrastructure fund projects	311	311	-	-	-	-	-	311	-
Beach access	183	-	183	-	-	-	-	183	-
Drainage									
Priority backlog drainage	229	-	229	-	-	-	-	229	-
Japan Street catchment diversion	400	-	-	400	-	-	-	400	-
Local roads and community infrastructure	850	-	-	850	-	850	-	-	-
Recreational, Leisure & Community Facilities									
Recreational facilities upgrade	250	-	-	250	-	-	-	250	-
River upgrades	48	-	48	-	-	-	-	48	-
Synthetic hockey pitch renewal	600	-	600	-	-	-	200	400	-
Parks, Open Space and Streetscapes									
Playground renewal	330	-	330	-	-	-	-	330	-
McGennans change facilities	60	-	60	-	-	-	-	60	-
Aerodromes									
Aerodrome minor improvements	30	-	30	-	-	-	-	30	-
Other Infrastructure									
Livestock exchange rectification & improvements	3,060	-	60	3,000	-	-	-	60	3,000
TOTAL INFRASTRUCTURE	12,304	616	7,188	4,500	-	1,275	200	7,829	3,000
TOTAL NEW CAPITAL WORKS	17,484	931	10,673	5,880	-	1,275	200	12,009	4,000

4.5.3 Works carried forward from the 2021-2022 year

Capital Works Area	Project Cost	Asset expenditure types				Summary of Funding Sources			
		New	Renewal	Upgrade	Expansion	Grants	Contrib.	Council cash	Borrowings
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
PROPERTY									
Building Improvements									
Public toilet renewal	79	-	79	-	-	-	-	79	-
Energy saving initiatives	250	-	-	250	-	-	250	-	-
West Warrnambool neighbourhood house redevelopment	95	-	-	95	-	-	-	95	-
TOTAL PROPERTY	424	-	79	345	-	-	250	174	-
PLANT AND EQUIPMENT									
Plant, Machinery and Equipment									
Plant replacement	698	-	698	-	-	-	-	698	-
Computers and Telecommunications									
IT hardware	50	-	50	-	-	-	-	50	-
Paintings and Exhibits									
Art work acquisitions	38	38	-	-	-	-	-	38	-
Public art initiatives	58	58	-	-	-	-	-	58	-
TOTAL PLANT AND EQUIPMENT	844	96	748	-	-	-	-	844	-

Capital Works Area	Project	Asset expenditure types				Summary of Funding Sources				
	Cost \$'000	New \$'000	Renewal \$'000	Upgrade \$'000	Expansion \$'000	Grants \$'000	Contrib. \$'000	Council cash \$'000	Borrowings \$'000	
INFRASTRUCTURE										
Roads										
Construction Queens Road	113	-	113	-	-	-	-	113	-	
Disabled parking	30	-	30	-	-	-	-	30	-	
TAC - Mortlake Rd connection	73	-	73	-	-	73	-	-	-	
Bridges										
Stanley Street bridge upgrade	2,300	-	-	2,300	-	1,200	-	1,100	-	
Footpaths and Cycleways										
Footpath construction	80	80	-	-	-	-	-	80	-	
Small infrastructure fund projects	800	800	-	-	-	-	-	800	-	
Beach access	290	-	290	-	-	-	-	290	-	
Drainage										
Russells Creek flash flood warning system	182	182	-	-	-	37	-	145	-	
Japan Street catchment diversion	120	-	-	120	-	-	-	120	-	
Buckley's Road drainage	250	-	-	250	-	50	-	200	-	
Tooram Rd drainage	300	-	-	300	-	-	-	300	-	
Recreational, Leisure & Community Facilities										
Recreational facilities upgrade	1,550	-	-	1,550	-	900	-	650	-	
Jubilee Park Allansford accessible toilets	200	-	200	-	-	-	-	200	-	
Jubilee Park Allansford boat ramp extension	85	-	85	-	-	-	-	85	-	
Redecking Hopkins river rowing platform	60	-	60	-	-	-	-	60	-	
Jetty Flat pavilion redevelopment project	948	-	-	948	-	50	85	813	-	
Parks, Open Space and Streetscapes										
Playground renewal	250	-	250	-	-	-	-	250	-	
Developer - raingarden	10	-	10	-	-	-	-	10	-	
Lake Pertobe upgrade works	1,500	750	750	-	-	750	-	750	-	
Developer - street trees	100	-	100	-	-	-	-	100	-	
South of the Merri masterplan implementation	334	-	-	334	-	334	-	-	-	
Off Street Car Parks										
Carpark construction	125	-	125	-	-	-	-	125	-	
Other Infrastructure										
Livestock Exchange rectification & improvements	1,900	-	1,900	-	-	-	-	1,900	-	
TOTAL INFRASTRUCTURE	11,600	1,812	3,986	5,802	-	3,394	85	8,121	-	
TOTAL CARRIED FORWARD CAPITAL WORKS 2021/22	12,868	1,908	4,813	6,147	-	3,394	335	9,139	-	

4.6 Summary of Planned Capital Works Expenditure
For the years ending 30 June 2024, 2025 & 2026

2023/24	Asset Expenditure Types					Funding Sources				
	Total \$'000	New \$'000	Renewal \$'000	Expansion \$'000	Upgrade \$'000	Total \$'000	Grants \$'000	Contributions \$'000	Council Cash \$'000	Borrowings \$'000
Property										
Land	0	0	0	0	0	0	0	0	0	0
Total Land	0	0	0	0	0	0	0	0	0	0
Buildings	1,600	1,200	400	0	0	1,600	600	0	1,000	0
Building improvements	4,684	0	1,684	0	3,000	4,684	0	0	1,684	3,000
Total Buildings	6,284	1,200	2,084	0	3,000	6,284	600	0	2,684	3,000
Total Property	6,284	1,200	2,084	0	3,000	6,284	600	0	2,684	3,000
Plant and Equipment										
Plant, machinery and equipment	1,085	0	1,085	0	0	1,085	0	0	1,085	0
Computers and telecommunications	327	0	327	0	0	327	0	0	327	0
Library books	286	286	0	0	0	286	0	0	286	0
Paintings and exhibits	36	36	0	0	0	36	0	0	36	0
Total Plant and Equipment	1,733	321	1,411	0	0	1,733	0	0	1,733	0
Infrastructure										
Roads	4,143	0	4,143	0	0	4,143	425	0	3,718	0
Bridges	204	0	204	0	0	204	0	0	204	0
Footpaths and cycleways	2,289	690	1,599	0	0	2,289	0	0	2,289	0
Drainage	234	0	234	0	0	234	0	0	234	0
Recreational, leisure and community facilities	1,774	0	1,264	0	510	1,774	0	0	1,774	0
Parks, open space and streetscapes	656	0	356	0	300	656	0	0	656	0
Aerodromes	31	0	31	0	0	31	0	0	31	0
Off street car parks	0	0	0	0	0	0	0	0	0	0
Other infrastructure	61	0	61	0	0	61	0	0	61	0
Total Infrastructure	9,391	690	7,891	0	810	9,391	425	0	8,966	0
Total Capital Works Expenditure	17,407	2,211	11,386	0	3,810	17,407	1,025	0	13,382	3,000

2024/25	Asset Expenditure Types					Funding Sources				
	Total \$'000	New \$'000	Renewal \$'000	Expansion \$'000	Upgrade \$'000	Total \$'000	Grants \$'000	Contributions \$'000	Council Cash \$'000	Borrowings \$'000
Property										
Land	0	0	0	0	0	0	0	0	0	0
Total Land	0	0	0	0	0	0	0	0	0	0
Buildings	3,000	2,800	0	0	200	3,000	400	0	200	2,400
Building improvements	1,717	0	1,717	0	0	1,717	0	0	1,717	0
Total Buildings	4,717	2,800	1,717	0	200	4,717	400	0	1,917	2,400
Total Property	4,717	2,800	1,717	0	200	4,717	400	0	1,917	2,400
Plant and Equipment										
Plant, machinery and equipment	1,106	0	1,106	0	0	1,106	0	0	1,106	0
Computers and telecommunications	333	0	333	0	0	333	0	0	333	0
Library books	291	291	0	0	0	291	0	0	291	0
Paintings and exhibits	36	36	0	0	0	36	0	0	36	0
Total Plant and Equipment	1,766	327	1,439	0	0	1,766	0	0	1,766	0
Infrastructure										
Roads	4,831	0	4,831	0	0	4,831	430	0	4,401	0
Bridges	208	0	208	0	0	208	0	0	208	0
Footpaths and cycleways	3,325	1,704	1,621	0	0	3,325	500	0	2,825	0
Drainage	838	600	238	0	0	838	0	0	838	0
Recreational, leisure and community facilities	1,970	0	850	0	1,120	1,970	300	0	570	1,100
Parks, open space and streetscapes	363	0	363	0	0	363	0	0	363	0
Aerodromes	31	0	31	0	0	31	0	0	31	0
Off street car parks	940	940	0	0	0	940	0	200	740	0
Other infrastructure	62	0	62	0	0	62	0	0	62	0
Total Infrastructure	12,569	3,244	8,205	0	1,120	12,569	1,230	200	10,039	1,100
Total Capital Works Expenditure	19,052	6,371	11,362	0	1,320	19,052	1,630	200	13,722	3,500

2025/26	Asset Expenditure Types					Funding Sources				
	Total \$'000	New \$'000	Renewal \$'000	Expansion \$'000	Upgrade \$'000	Total \$'000	Grants \$'000	Contributions \$'000	Council Cash \$'000	Borrowings \$'000
Property										
Land	0	0	0	0	0	0	0	0	0	0
Total Land	0	0	0	0	0	0	0	0	0	0
Buildings	0	0	0	0	0	0	0	0	0	0
Building improvements	1,756	0	1,756	0	0	1,756	0	0	1,756	0
Total Buildings	1,756	0	1,756	0	0	1,756	0	0	1,756	0
Total Property	1,756	0	1,756	0	0	1,756	0	0	1,756	0
Plant and Equipment										
Plant, machinery and equipment	1,132	0	1,132	0	0	1,132	0	0	1,132	0
Computers and telecommunications	341	0	341	0	0	341	0	0	341	0
Library books	298	298	0	0	0	298	0	0	298	0
Paintings and exhibits	37	37	0	0	0	37	0	0	37	0
Total Plant and Equipment	1,808	335	1,473	0	0	1,808	0	0	1,808	0
Infrastructure										
Roads	4,334	0	4,334	0	0	4,334	430	0	3,904	0
Bridges	213	0	213	0	0	213	0	0	213	0
Footpaths and cycleways	3,366	1,719	1,647	0	0	3,366	500	0	2,866	0
Drainage	244	0	244	0	0	244	0	0	244	0
Recreational, leisure and community facilities	6,983	0	51	0	6,932	6,983	3,200	0	1,783	2,000
Parks, open space and streetscapes	2,371	1,000	1,371	0	0	2,371	1,500	0	871	0
Aerodromes	32	0	32	0	0	32	0	0	32	0
Off street car parks	0	0	0	0	0	0	0	0	0	0
Other infrastructure	64	0	64	0	0	64	0	0	64	0
Total Infrastructure	17,607	2,719	7,956	0	6,932	17,607	5,630	0	9,977	2,000
Total Capital Works Expenditure	21,171	3,054	11,185	0	6,932	21,171	5,630	0	13,541	2,000

4.7 Proposals to Lease Council Land

This section presents a summary of Council's proposals to lease council land to external parties in the 2022-23 financial year where the proposal is to lease land in the 2022-23 financial year where the rent (for any period of the lease) is greater than \$100,000, or the market value of the land is greater than \$100,000, or the lease term is greater than 10 years.

Proposed Land

50-58 Cramer Street Warrnambool

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5. Financial Performance Indicators

The following table highlights Council's current and projected performance across a range of key financial performance indicators. These indicators provide a useful analysis of Council's financial position and performance and should be interpreted in the context of the organisation's objectives.

The financial performance indicators below are the prescribed financial performance indicators contained in Part 3 of Schedule 3 of the Local Government (Planning and Reporting) Regulations 2020. Results against these indicators will be reported in Council's Performance Statement included in the Annual Report.

Indicator	Measure	Notes	Actual	Forecast	Budget	Projections			Trend
			2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	+/-
Operating position									
Adjusted underlying result	Adjusted underlying surplus (deficit) / Adjusted underlying revenue	1	0.8%	4.1%	1.7%	1.9%	2.0%	2.0%	o
Liquidity									
Working Capital	Current assets / current liabilities	2	158.9%	213.5%	140.7%	140.1%	133.3%	152.5%	+
Unrestricted cash	Unrestricted cash / current liabilities	3	78.0%	163.6%	105.9%	104.1%	97.2%	118.3%	o
Obligations									
Loans and borrowings	Interest bearing loans and borrowings / rate revenue	4	19.5%	27.6%	31.4%	32.2%	33.7%	31.7%	o
Loans and borrowings	Interest and principal repayments on interest bearing loans and borrowings / rate revenue		4.3%	4.7%	4.8%	5.4%	5.6%	5.8%	-
Indebtedness	Non-current liabilities / own source revenue		15.4%	17.9%	20.2%	20.2%	20.8%	19.8%	o
Asset renewal	Asset renewal and upgrade expense / Asset depreciation	5	115.1%	145.0%	212.2%	112.5%	92.1%	126.2%	-
Stability									
Rates concentration	Rate revenue / adjusted underlying revenue	6	57.1%	54.6%	55.8%	55.7%	55.8%	56.0%	o
Rates effort	Rate revenue / CIV of rateable properties in the municipality		0.6%	0.6%	0.4%	0.4%	0.4%	0.4%	+
Indicator	Measure	Notes	Actual	Forecast	Budget	Projections			Trend
			2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	+/-
Efficiency									
Expenditure level	Total expenses/ no. of property assessments		\$4,123	\$4,698	\$4,392	\$4,474	\$5,232	\$4,527	+
Revenue level	Total rate revenue / no. of property assessments		\$1,996	\$2,027	\$2,064	\$2,106	\$2,148	\$2,201	+
Workforce turnover	Number of permanent staff resignations and terminations / Average number of permanent staff for the financial year		10.5%	10.0%	10.0%	10.0%	10.0%	10.0%	o

Key to Forecast Trend:

- + Forecasts improvement in Council's financial performance/financial position indicator
- o Forecasts that Council's financial performance/financial position indicator will be steady
- Forecasts deterioration in Council's financial performance/financial position indicator

Notes to indicators

1. Adjusted underlying result

An indicator of the sustainable operating result required to enable Council to continue to provide core services and meet its objectives. The underlying result is expected to be around the breakeven to a small surplus for the budget projection period.

2. Working Capital

The proportion of current liabilities represented by current assets. Working capital is shown to increase steadily over the 4 year budget and be in line with expectations.

3. Unrestricted Cash

The cash not associated to a particular use within Council or a legislative requirement. Council maintains a healthy ratio over the 4 year budget.

4. Debt compared to rates

Council will continue to use debt as a funding strategy to enable generational capital projects such as the Reid Oval upgrade, Learning & Library Hub, Civic Centre upgrade and the Brierly Community Hub. Debt is also being used to fund income generating projects at the Livestock Exchange and cost saving projects through the Smart Buildings program. Council has a borrowing strategy that it adheres to when planning its long-term funding strategy.

5. Asset renewal

This percentage indicates the extent of Council's renewal and upgrade against its depreciation charge (an indication of the decline in value of its existing capital assets). A percentage greater than 100 indicates Council is maintaining its existing assets, while a percentage less than 100 means its assets are deteriorating faster than they are being renewed and future capital expenditure will be required to renew assets. Council continues to invest in asset renewal and where possible it leverages grant funding for significant renewal and upgrade projects. This ensures that Council continues to meet the current demand of its assets.

6. Rates concentration

Reflects extent of reliance on rate revenues to fund all of Council's on-going services. Trend indicates Council's reliance on rate revenue is to remain stable over time.

6. Schedule of Fees and Charges

This appendix presents the fees and charges of a statutory/non-statutory nature which will be charged in respect to various goods and services during the financial year 2022/23.

Fees and charges are based on information available at the time of publishing and may vary during the financial year subject to any changes in Council's policy or legislation. The fees listed are a maximum and Council have the discretion to charge a lesser amount if appropriate.

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase	Basis of Fee
			GST	GST	Decrease	/ Decrease	
			\$	\$	\$	%	
Property Management							
User Fees & Charges							
Applications to use Crown & Council Land	Per Application	Non-Taxable	\$ 27.50	\$ 28.00	\$ 0.50	1.82%	Non-statutory
Licences preparation fee	Per Application	Taxable	\$ 121.40	\$ 123.50	\$ 2.10	1.73%	Non-statutory
Lease preparation fee	Per Application	Taxable	\$ 176.60	\$ 179.50	\$ 2.90	1.64%	Non-statutory
Survey plan fee	Per Application	Non-Taxable	\$ 1,766.00	\$ 1,797.00	\$ 31.00	1.76%	Non-statutory
Title search fee	Per Application	Non-Taxable	\$ 46.40	\$ 47.00	\$ 0.60	1.29%	Non-statutory
Outdoor Café /Laneway Bar Fees							
Licence Fee (per week)	Per Week	Non-Taxable	\$ 215.25	\$ 219.00	\$ 3.75	1.74%	Non-statutory
Table Fee (per table)	Per Table	Non-Taxable	\$ 44.50	\$ 45.00	\$ 0.50	1.12%	Non-statutory
Rate Search Fees							
Rate history search fee	First 3 Hours	Non-Taxable	\$ 420.00	\$ 426.00	\$ 6.00	1.43%	Non-statutory
Rate history search fee	After 3 Hours	Non-Taxable	\$ 133.00	\$ 135.00	\$ 2.00	1.50%	Non-statutory
Rate history search fee (0-10 Years)	Each	Non-Taxable	\$ 25.00	\$ 25.50	\$ 0.50	2.00%	Non-statutory
Copy of previous years Rate Instalments Notices	Each	Non-Taxable	\$ 18.00	\$ 18.00	\$ -	0.00%	Non-statutory
Search, retrieval and photocopying fees							
Search, inspection, retrieval or access fee	Per Search	Non-Taxable	\$ 26.50	\$ 27.00	\$ 0.50	1.89%	Non-statutory
Search, inspection, retrieval or access fee (Offsite)	Per Search	Non-Taxable	\$ 42.00	\$ 42.50	\$ 0.50	1.19%	Non-statutory
Photocopying/printing any document	Per A4/A3 page	Non-Taxable	\$ 0.75	\$ 0.80	\$ 0.05	6.67%	Non-statutory
Photocopying/printing any document	Per A1,2,0 page	Non-Taxable	\$ 5.50	\$ 5.60	\$ 0.10	1.82%	Non-statutory

Interest on Unpaid Monies other than rates and charges

In accordance with Section 227(a) of the Local Government Act 1989 Council sets the rate of interest to apply to unpaid monies, other than rates and charges, presently at 10.00% but subject to change when the rate is set at 30th June 2022.

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Revenue Management							
Monetary Complaints: Notices on a Debt							
Filing Fee							
Less than \$500	Per Application	Non-Taxable	\$ 155.00	\$ 153.30	\$ (1.70)	(1.10%)	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 155.00	\$ 153.30	\$ (1.70)	(1.10%)	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 325.00	\$ 320.10	\$ (4.90)	(1.51%)	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 325.00	\$ 320.10	\$ (4.90)	(1.51%)	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 325.00	\$ 320.10	\$ (4.90)	(1.51%)	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 495.00	\$ 487.00	\$ (8.00)	(1.62%)	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 487.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 730.50	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 730.50	NEW FEE		Non-statutory
Necessary Certificate x2							
Less than \$500	Per Application	Non-Taxable	\$ 103.00	\$ 104.00	\$ 1.00	0.97%	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 185.00	\$ 184.00	\$ (1.00)	(0.54%)	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 185.00	\$ 184.00	\$ (1.00)	(0.54%)	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 217.00	\$ 216.00	\$ (1.00)	(0.46%)	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 260.00	\$ 260.00	\$ -	0.00%	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 260.00	\$ 260.00	\$ -	0.00%	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 324.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 378.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 458.00	NEW FEE		Non-statutory
Professional (Item 1 Complaints)							
Less than \$500	Per Application	Non-Taxable	\$ 232.00	\$ 232.00	\$ -	0.00%	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 485.00	\$ 486.00	\$ 1.00	0.21%	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 485.00	\$ 486.00	\$ 1.00	0.21%	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 595.00	\$ 596.00	\$ 1.00	0.17%	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 715.00	\$ 718.00	\$ 3.00	0.42%	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 715.00	\$ 718.00	\$ 3.00	0.42%	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 891.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 1,073.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 1,282.00	NEW FEE		Non-statutory
Service Fee							
Service Fee	Per Application	Non-Taxable	\$ 77.00	\$ 76.00	\$ (1.00)	(1.30%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee	Basis of Fee	
			GST	GST	Decrease	Increase /		
Revenue Management								
Other Professional Costs								
Warrant								
Less than \$500	Per Application	Non-Taxable	\$ 60.00	\$ 60.00	\$ -	0.00%	Non-statutory	
\$500 - \$999	Per Application	Non-Taxable	\$ 123.00		\$ -	0.00%	Non-statutory	
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 123.00		\$ -	0.00%	Non-statutory	
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 145.00		\$ 146.00	\$ 1.00	0.69%	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 183.00		\$ 183.00	\$ -	0.00%	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 183.00		\$ 183.00	\$ -	0.00%	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A		\$ 229.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A		\$ 275.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A		\$ 323.00	NEW FEE		Non-statutory
Summons for Oral Examination								
Less than \$500	Per Application	Non-Taxable	\$ 63.00	\$ 62.00	\$ (1.00)	(1.59%)	Non-statutory	
\$500 - \$999	Per Application	Non-Taxable	\$ 150.00		\$ (2.00)	(1.33%)	Non-statutory	
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 150.00		\$ (2.00)	(1.33%)	Non-statutory	
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 180.00		\$ 178.00	\$ (2.00)	(1.11%)	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 198.00		\$ 196.00	\$ (2.00)	(1.01%)	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 198.00		\$ 196.00	\$ (2.00)	(1.01%)	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A		\$ 248.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A		\$ 301.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A		\$ 351.00	NEW FEE		Non-statutory
Necessary Affidavit								
Less than \$500	Per Application	Non-Taxable	\$ 105.00	\$ 104.00	\$ (1.00)	(0.95%)	Non-statutory	
\$500 - \$999	Per Application	Non-Taxable	\$ 218.00		\$ (1.00)	(0.46%)	Non-statutory	
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 218.00		\$ (1.00)	(0.46%)	Non-statutory	
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 263.00		\$ 263.00	\$ -	0.00%	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 315.00		\$ 313.00	\$ (2.00)	(0.63%)	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 315.00		\$ 313.00	\$ (2.00)	(0.63%)	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A		\$ 394.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A		\$ 464.00	NEW FEE		Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$		%	
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 541.00	NEW FEE		Non-statutory
Application for Order							
Less than \$500	Per Application	Non-Taxable	\$ 50.00	\$ 49.00	\$ (1.00)	(2.00%)	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 50.00	\$ 49.00	\$ (1.00)	(2.00%)	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 50.00	\$ 49.00	\$ (1.00)	(2.00%)	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 50.00	\$ 49.00	\$ (1.00)	(2.00%)	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 50.00	\$ 49.00	\$ (1.00)	(2.00%)	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 50.00	\$ 49.00	\$ (1.00)	(2.00%)	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 49.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 49.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 49.00	NEW FEE		Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			GST	GST			
\$ \$ \$ %							
Revenue Management							
Instructions to Defend							
Less than \$500	Per Application	Non-Taxable	\$ 108.00	\$ 107.00	\$ (1.00)	(0.93%)	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 230.00	\$ 230.00	\$ -	0.00%	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 230.00	\$ 230.00	\$ -	0.00%	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 285.00	\$ 286.00	\$ 1.00	0.35%	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 340.00	\$ 341.00	\$ 1.00	0.29%	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 340.00	\$ 341.00	\$ 1.00	0.29%	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 425.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 511.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 613.00	NEW FEE		Non-statutory
Order for Substituted Service							
Less than \$500	Per Application	Non-Taxable	\$ 158.00	\$ 157.00	\$ (1.00)	(0.63%)	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 285.00	\$ 284.00	\$ (1.00)	(0.35%)	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 285.00	\$ 284.00	\$ (1.00)	(0.35%)	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 340.00	\$ 337.00	\$ (3.00)	(0.88%)	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 400.00	\$ 396.00	\$ (4.00)	(1.00%)	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 400.00	\$ 396.00	\$ (4.00)	(1.00%)	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 500.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 589.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 685.00	NEW FEE		Non-statutory
Necessary Notice/Certificate							
Less than \$500	Per Application	Non-Taxable	\$ 52.00	\$ 52.00	\$ -	0.00%	Non-statutory
\$500 - \$999	Per Application	Non-Taxable	\$ 93.00	\$ 92.00	\$ (1.00)	(1.08%)	Non-statutory
\$1,000 - \$4,999	Per Application	Non-Taxable	\$ 92.00	\$ 92.00	\$ -	0.00%	Non-statutory
\$5,000 - \$7,499	Per Application	Non-Taxable	\$ 110.00	\$ 108.00	\$ (2.00)	(1.82%)	Non-statutory
\$7,500 - \$9,999	Per Application	Non-Taxable	\$ 132.00	\$ 130.00	\$ (2.00)	(1.52%)	Non-statutory
\$10,000 - \$20,000	Per Application	Non-Taxable	\$ 132.00	\$ 130.00	\$ (2.00)	(1.52%)	Non-statutory
\$20,000.01 - \$40,000.00	Per Application	Non-Taxable	N/A	\$ 162.00	NEW FEE		Non-statutory
\$40,000.01 - \$70,000.00	Per Application	Non-Taxable	N/A	\$ 189.00	NEW FEE		Non-statutory
\$70,000.01 & over	Per Application	Non-Taxable	N/A	\$ 229.00	NEW FEE		Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee	
			GST	GST				
			\$	\$	\$	%		
Issue Fees								
Claim or Counterclaim								
Fee	Per Application	Non-Taxable	\$ 158.00		\$ 153.30	\$ (4.70)	(2.97%)	Non-statutory
Application for Order								
Fee	Per Application	Non-Taxable	\$ 46.00		\$ 45.10	\$ (0.90)	(1.96%)	Non-statutory
With Preparation	Per Application	Non-Taxable	\$ 75.00		\$ 73.60	\$ (1.40)	(1.87%)	Non-statutory
46A Summons/46B Rehearing Application								
Fee	Per Application	Non-Taxable	\$ 163.00		\$ 159.30	\$ (3.70)	(2.27%)	Non-statutory
With Preparation	Per Application	Non-Taxable	\$ 193.00		\$ 187.90	\$ (5.10)	(2.64%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Revenue Management							
Summons for Oral Examination including hearing							
Fee	Per Application	Non-Taxable	\$ 108.00	\$ 105.20	\$ (2.80)	(2.59%)	Non-statutory
Certificate for Supreme Court							
Fee	Per Application	Non-Taxable	\$ 22.00	\$ 21.00	\$ (1.00)	(4.55%)	Non-statutory
With Preparation	Per Application	Non-Taxable	\$ 52.00	\$ 49.60	\$ (2.40)	(4.62%)	Non-statutory
Application for Attachment of Earnings							
Fee	Per Application	Non-Taxable	\$ 155.00	\$ 150.30	\$ (4.70)	(3.03%)	Non-statutory
Attachment of Earnings/Debt Order							
Fee	Per Application	Non-Taxable	\$ 22.00	\$ 21.00	\$ (1.00)	(4.55%)	Non-statutory
With Preparation	Per Application	Non-Taxable	\$ 52.00	\$ 49.60	\$ (2.40)	(4.62%)	Non-statutory
Warrant Fees							
Fee	Per Application	Non-Taxable	\$ 18.50	\$ 18.00	\$ (0.50)	(2.70%)	Non-statutory
Sheriff's Warrant Fee	Per Application	Non-Taxable	\$ 206.00	\$ 206.10	\$ 0.10	0.05%	Non-statutory
Application under the Judgement Debt Recovery Act							
Summons for Examination	Per Application	Non-Taxable	\$ 162.00	\$ 159.30	\$ (2.70)	(1.67%)	Non-statutory
Instalment Application/Agreement (Creditor)	Per Application	Non-Taxable	\$ 85.00	\$ 84.20	\$ (0.80)	(0.94%)	Non-statutory
Application to Vary/Cancel (Creditor)	Per Application	Non-Taxable	\$ 85.00	\$ 84.20	\$ (0.80)	(0.94%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee																												
			\$	\$		\$		%																											
Service Cost																																			
Attempted Service (Item 78)	Per Application	Non-Taxable	\$ 53.00	\$ 43.00	\$ (10.00)	(18.87%)	Non-statutory																												
Service by Post (Item 77)	Per Application	Non-Taxable	\$ 14.00					\$ 13.00	\$ (1.00)	(7.14%)	Non-statutory																								
Allowance per km (Item 79)	Per Application	Non-Taxable	\$ 0.75									\$ 0.72	\$ (0.03)	(4.00%)	Non-statutory																				
Coast & Rivers																																			
Mooring Fees																																			
Boat less than 10m pa	Per boat	Taxable	\$ 275.00	\$ 280.00	\$ 5.00	1.82%	Non-statutory																												
Boat 10.1m to 15m pa	Per boat	Taxable	\$ 345.00					\$ 352.00	\$ 7.00	2.03%	Non-statutory																								
Boat 15.1 – 20m pa	Per boat	Taxable	\$ 395.00									\$ 403.00	\$ 8.00	2.03%	Non-statutory																				
Boat 20.1 – 25m pa	Per boat	Taxable	\$ 490.00													\$ 500.00	\$ 10.00	2.04%	Non-statutory																
Jetty Fees – pa: Permit for breakwater and Hopkins River	Per boat	Taxable	\$ 230.00																	\$ 234.00	\$ 4.00	1.74%	Non-statutory												
Mooring inspection fee	Per boat	Taxable	\$ 200.00																					\$ 204.00	\$ 4.00	2.00%	Non-statutory								
Mooring infrastructure hire	Per boat	Taxable	\$ 95.00																									\$ 97.00	\$ 2.00	2.11%	Non-statutory				
Berth permit or mooring licence - new application fee	Per boat	Taxable	\$ 82.00																													\$ 84.00	\$ 2.00	2.44%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Coast & Rivers							
Annual Parking Permit Fees							
Breakwater (per vehicle)	Per vehicle	Taxable	\$ 70.00	\$ 71.50	\$ 1.50	2.14%	Non-statutory
Warrnambool Airport							
Landing fee - Commercial* (per landing)	\$ per 1,000 kg	Taxable	\$ 11.00	\$ 12.00	\$ 1.00	9.09%	Non-statutory
Landing fee - Recreational Aircraft > 1,800kg (per landing)	\$ per 1,000 kg	Taxable	\$ 11.00	\$ 12.00	\$ 1.00	9.09%	Non-statutory
Flight training - local operator (per aircraft)	Annual	Taxable	\$ 1,100.00	\$ 1,120.00	\$ 20.00	1.82%	Non-statutory
Flight training - non local operator (per landing)	\$ per 1,000 kg	Taxable	\$ 5.50	\$ 6.00	\$ 0.50	9.09%	Non-statutory
Local user fee - Commercial (per aircraft)	Annual	Taxable	\$ 1,100.00	\$ 1,120.00	\$ 20.00	1.82%	Non-statutory
Local user fee - Recreational (per aircraft)	Annual	Taxable	\$ 275.00	\$ 280.00	\$ 5.00	1.82%	Non-statutory
Ambulance Vic/PelAir (per landing)	Per Landing	Taxable	\$ 16.50	\$ 16.50	\$ -	0.00%	Non-statutory
Ambulance Vic HEMS4	No Charge	Taxable	\$ -	\$ -	\$ -	N/A	Non-statutory
RFDS Aircraft	No Charge	Taxable	\$ -	\$ -	\$ -	N/A	Non-statutory
Police/Fire	No Charge	Taxable	\$ -	\$ -	\$ -	N/A	Non-statutory
RPT (per landing)	\$ per 1,000 kg	Taxable	\$ 11.00	\$ 12.00	\$ 1.00	9.09%	Non-statutory
Pavement Concession - aircraft > 5,700kg & tyre pressure >109psi	Per Landing	Taxable	\$ 165.00	\$ 165.00	\$ -	0.00%	Non-statutory
Use terminal/toilets	Per Hour	Taxable	\$ 19.80	\$ 19.80	\$ -	0.00%	Non-statutory
Driver Training	Per Day	Taxable	\$ 423.50	\$ 423.50	\$ -	0.00%	Non-statutory
*Off Shore Ops Babcock Helicopter Hangar 3 - Landing Fee 50% discount							
Maintenance fee - Commercial	Per Hangar	Taxable	\$ 1,100.00	\$ -	\$ (1,100.00)	(100.00%)	Non-statutory
Maintenance fee - Recreational	Per Hangar	Taxable	\$ 220.00	\$ -	\$ (220.00)	(100.00%)	Non-statutory
Maintenance fee - Commercial	Per Office Space	Taxable	\$ 1,100.00	\$ -	\$ (1,100.00)	(100.00%)	Non-statutory
Maintenance fee - Recreational	Per Clubrooms	Taxable	\$ 220.00	\$ -	\$ (220.00)	(100.00%)	Non-statutory

Maintenance fee to be reviewed in conjunction with introduction of landing/user fees and review of lease agreements.

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Infrastructure Services							
Road Reserve Works Permit							
Minor Works less than \$10,000	Per Application	Non-Taxable	\$ 150.00	\$ 155.00	\$ 5.00	3.33%	Non-statutory
Minor Works great than \$10,000	Per Application	Non-Taxable	\$ 665.00	\$ 685.00	\$ 20.00	3.01%	Non-statutory
Minor Works Public Notice Fee	Per Application	Non-Taxable	\$ 55.00	\$ 57.00	\$ 2.00	3.64%	Non-statutory
Large Projects	Per Application	Non-Taxable	By Negotiation	\$ -	\$ -	0.00%	Non-statutory
Asset Protection Permit							
Asset Inspection Checklist	Per Application	Non-Taxable	\$ 150.00	\$ 155.00	\$ 5.00	3.33%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			GST	GST		%	
			\$	\$	\$	%	
Livestock Crossing Permit:							
Stock Crossing Permit	Per Application	Non-Taxable	\$ 150.00	\$ 155.00	\$ 5.00	3.33%	Non-statutory
Stormwater Legal Point of Discharge Application:							
Single dwelling development - Note 1	Per Application	Non-Taxable	\$ 144.70	\$ 144.70	\$ -	0.00%	Statutory
Information only - Note 1	Per Application	Non-Taxable	\$ 65.00	\$ 67.00	\$ 2.00	3.08%	Non-statutory
Short notice fee - Note 1	Per Application	Non-Taxable	\$ 120.00	\$ 122.00	\$ 2.00	1.67%	Non-statutory
Street tree – supply and install including maintenance period of 24 months - Note 1	Per Tree	Non-Taxable	\$ 362.10	\$ 375.00	\$ 12.90	3.56%	Non-statutory
Build Over Stormwater Easement Application - Note 1	Per Application	Non-Taxable	\$ 120.36	\$ 124.00	\$ 3.64	3.02%	Non-statutory
Rain Garden (small up to 4.5m2) – supply and install vegetated landscaping including maintenance period of 24 months	Per Rain Garden	Non-Taxable	\$ 3,264.00	\$ 3,360.00	\$ 96.00	2.94%	Non-statutory
Rain Garden (medium up to 9.0m2) – supply and install vegetated landscaping including maintenance period of 24 months	Per Rain Garden	Non-Taxable	\$ 3,672.00	\$ 3,800.00	\$ 128.00	3.49%	Non-statutory
Stormwater drainage line inspection (high resolution camera) – 4 hours	Per Inspection	Non-Taxable	\$ 683.40	\$ 704.00	\$ 20.60	3.01%	Non-statutory
Stormwater drainage line inspection (high resolution camera) – 8.5 hours	Per Inspection	Non-Taxable	\$ 1,417.80	\$ 1,460.00	\$ 42.20	2.98%	Non-statutory
Plan checking and supervision fee	Per Application	Non-Taxable	0.75% for plan checking and 2.5% for supervision (Based on the value of works)		\$ -	0.00%	Non-statutory

Notes: 1 Fees are in accordance with the Planning and Environment (Fees) Regulation 2016 and the Subdivision (Fees) Regulation 2016, and are subject to change in accordance with changes to the government legislation and regulations.

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Open Space Hires							
Botanic Gardens - Weddings and Events							
Small Event - (No Marquee, Vehicle Access or Use of Rotunda)	Per event	Taxable	\$ 110.00	\$ 115.00	\$ 5.00	4.55%	Non-statutory
Use of Band Rotunda and or Vehicle Access	Per hire	Taxable	\$ 180.00	\$ 185.00	\$ 5.00	2.78%	Non-statutory
Small Marquee (6m x 6m, or up to 36 square metres) weddings and events *	Per marquee	Taxable	\$ 575.00	\$ 600.00	\$ 25.00	4.35%	Non-statutory
Medium Marquee (8m x 8m, or up to 64 square metres) weddings and events *	Per marquee	Taxable	\$ 1,150.00	\$ 1,200.00	\$ 50.00	4.35%	Non-statutory
Large Marquee *	Per marquee	Taxable	Price on event application	Price on event application	\$ -	0.00%	Non-statutory
Note: * = Marquee fees include vehicle access and use of Band Rotunda if required							

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Lake Pertobe - Events							
Community Events (not for profit)	Per event	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Small Events (under 200 attendees)	Per event	Taxable	\$ 290.00	\$ 300.00	\$ 10.00	3.45%	Non-statutory
Medium Events (between 200 to 500 attendees)	Per event	Taxable	\$ 575.00	\$ 600.00	\$ 25.00	4.35%	Non-statutory
Large Events (over 500 attendees)	Per event	Taxable	\$ 1,150.00	\$ 1,200.00	\$ 50.00	4.35%	Non-statutory
Lighthouse Theatre							
Staff - all venues and user types							
Supervising Technician	Per hour	Taxable	\$ 61.00	\$ 63.00	\$ 2.00	3.28%	Non-statutory
Technician	Per hour	Taxable	\$ 55.50	\$ 57.00	\$ 1.50	2.70%	Non-statutory
Front of House Supervisor or Duty Officer	Per hour	Taxable	\$ 61.00	\$ 63.00	\$ 2.00	3.28%	Non-statutory
Front of House Officer (Box Office, Bar, Merchandise Seller)	Per hour	Taxable	\$ 55.50	\$ 57.00	\$ 1.50	2.70%	Non-statutory
Usher Provision Fee	Per performance	Taxable	\$ 250.00	\$ 250.00	\$ -	0.00%	Non-statutory
Ticket Fees (patrons & ticket purchasers)							
Online/Web Booking Fee	Per booking	Taxable	\$ 6.95	\$ 6.95	\$ -	0.00%	Non-statutory
Phone Booking Fee	Per booking	Taxable	\$ 3.00	\$ 3.00	\$ -	0.00%	Non-statutory
Community & Local Non for Profit							
THEATRE ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 580.00	\$ 585.00	\$ 5.00	0.86%	Non-statutory
THEATRE ticketed performance - Second Performance same day	Per performance	Taxable	\$ 365.00	\$ 370.00	\$ 5.00	1.37%	Non-statutory
THEATRE - Rehearsal (No Technical Equipment)	Per hour	Taxable	\$ 55.00	\$ 55.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
THEATRE - Rehearsal (Inc. Technical Equipment)	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
Lighthouse Theatre							
Community & Local Non for Profit							
STUDIO ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 375.00	\$ 380.00	\$ 5.00	1.33%	Non-statutory
STUDIO ticketed performance - Second Performance same day	Per performance	Taxable	\$ 245.00	\$ 250.00	\$ 5.00	2.04%	Non-statutory
STUDIO - Rehearsal (No Technical Equipment)	Per hour	Taxable	\$ 55.00	\$ 55.00	\$ -	0.00%	Non-statutory
STUDIO - Rehearsal (Inc. Technical Equipment)	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
Local Artists and Non-local Non for Profit							
THEATRE ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 835.00	\$ 840.00	\$ 5.00	0.60%	Non-statutory
THEATRE ticketed performance - Second Performance same day	Per performance	Taxable	\$ 375.00	\$ 380.00	\$ 5.00	1.33%	Non-statutory
THEATRE - Rehearsal (No Technical Equipment)	Per hour	Taxable	\$ 55.00	\$ 55.00	\$ -	0.00%	Non-statutory
THEATRE - Rehearsal (Inc. Technical Equipment)	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
STUDIO ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 525.00	\$ 530.00	\$ 5.00	0.95%	Non-statutory
STUDIO ticketed performance - Second Performance same day	Per performance	Taxable	\$ 245.00	\$ 250.00	\$ 5.00	2.04%	Non-statutory
STUDIO - Rehearsal (No Technical Equipment)	Per hour	Taxable	\$ 55.00	\$ 55.00	\$ -	0.00%	Non-statutory
STUDIO - Rehearsal (Inc. Technical Equipment)	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
Other Fees - Community, Non for Profits and Local Artists							
Equipment & Consumable Items							
Steinway Grand piano (plus tuning if required)	Per item	Taxable	\$ 105.00	\$ 105.00	\$ -	0.00%	Non-statutory
Minimum Consumable Charge (gel, tape, batteries)	Per item	Taxable	\$ 32.50	\$ 33.00	\$ 0.50	1.54%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Radio Mics	Per item	Taxable	\$ 47.50	\$ 47.50		\$ - 0.00%	Non-statutory
<i>Ticketing Fees (hirer) - based on gross prices</i>							
Tickets \$10.99 and under	Per ticket	Taxable	\$ 1.55	\$ 1.55		\$ - 0.00%	Non-statutory
Tickets \$11.00 - \$39.99	Per ticket	Taxable	\$ 3.00	\$ 3.00		\$ - 0.00%	Non-statutory
Tickets \$40.00 and over	Per ticket	Taxable	\$ 4.00	\$ 4.00		\$ - 0.00%	Non-statutory
Credit Card/Electronic Payment Fee	Per ticket	Taxable	Up to 3%	Up to 3%		\$ - 0.00%	Non-statutory
Complimentary Tickets	Per ticket	Taxable	\$ 0.60	\$ 0.60		\$ - 0.00%	Non-statutory
Event Creation and Set of Tickets	Per season	Taxable	\$ 55.00	\$ 55.00		\$ - 0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Lighthouse Theatre							
Ticketed Event: Subsidised Professional Companies							
THEATRE ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 1,300.00		\$ 50.00	3.85%	Non-statutory
THEATRE ticketed performance - Second Performance same day	Per performance	Taxable	\$ 610.00		\$ 10.00	1.64%	Non-statutory
THEATRE - Rehearsal	Per hour	Taxable	\$ 65.00		\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
STUDIO ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 640.00	\$ 650.00	\$ 10.00	1.56%	Non-statutory
STUDIO ticketed performance - Second Performance same day	Per performance	Taxable	\$ 370.00	\$ 380.00	\$ 10.00	2.70%	Non-statutory
STUDIO - Rehearsal	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
<i>Ticketed Event: Standard Hirer Rates</i>							
THEATRE ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 1,750.00	\$ 1,800.00	\$ 50.00	2.86%	Non-statutory
THEATRE ticketed performance - Second Performance same day	Per performance	Taxable	\$ 625.00	\$ 635.00	\$ 10.00	1.60%	Non-statutory
THEATRE - Rehearsal	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
STUDIO ticketed performance - Hire rate plus 5% of net ticket sales	Per performance	Taxable	\$ 650.00	\$ 660.00	\$ 10.00	1.54%	Non-statutory
STUDIO ticketed performance - Second Performance same day	Per performance	Taxable	\$ 375.00	\$ 385.00	\$ 10.00	2.67%	Non-statutory
STUDIO - Rehearsal	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
<i>Other Fees - Subsidised theatre and Standard hires Equipment & Consumable Items</i>							
Steinway Grand piano (plus tuning if required)	Per item	Taxable	\$ 240.00	\$ 240.00	\$ -	0.00%	Non-statutory
Minimum Consumable Charge (gel, tape, batteries)	Per item	Taxable	\$ 65.00	\$ 66.00	\$ 1.00	1.54%	Non-statutory
Radio Mics	Per booking	Taxable	\$ 95.00	\$ 95.00	\$ -	0.00%	Non-statutory
<i>Ticketing Fees (hirer) - based on gross prices</i>							
Tickets \$10.99 and under	Per ticket	Taxable	\$ 3.30	\$ 3.30	\$ -	0.00%	Non-statutory
Tickets \$11.00 - \$39.99	Per ticket	Taxable	\$ 4.30	\$ 4.30	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$		%	
Tickets \$40.00 - \$59.99	Per ticket	Taxable	\$ 5.40	\$ 5.40	\$ -	0.00%	Non-statutory
Tickets \$60.00 and over	Per ticket	Taxable	\$ 6.50	\$ 6.50	\$ -	0.00%	Non-statutory
Credit Card/Electronic Payment Fee	Per ticket	Taxable	Up to 3%	Up to 3%	\$ -	0.00%	Non-statutory
Complimentary Tickets	Per ticket	Taxable	\$ 0.60	\$ 0.60	\$ -	0.00%	Non-statutory
Event Creation and Set of Tickets (Per Season)	Per season	Taxable	\$ 115.00	\$ 115.00	\$ -	0.00%	Non-statutory
Urgent (<72hr) Event Creation and Set of Tickets (Per Season)	Per season	Taxable	\$ 230.00	\$ 230.00	\$ -	0.00%	Non-statutory
Merchandise							
Including foyers, Theatre, Studio, Atrium and Meeting Room	Per sale	Taxable	12% on gross sales	12% on gross sales	\$ -	0.00%	Non-statutory
Non-Ticketed Event: Non for Profit Organisations							
THEATRE - Event Hire (up to 9 hrs)	Per session	Taxable	\$ 1,300.00	\$ 1,325.00	\$ 25.00	1.92%	Non-statutory
THEATRE - Additional Hours	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
STUDIO - Event Hire (up to 9 hrs)	Per session	Taxable	\$ 700.00	\$ 710.00	\$ 10.00	1.43%	Non-statutory
STUDIO - Additional Hours	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
STUDIO - Meeting only - basic A/V requirements and fixed layout. (9am to 5pm Monday to Friday only)	Per session	Taxable	N/A	\$ 350.00	NEW FEE	0.00%	Non-statutory
MEETING ROOM - Monday to Friday between 9am & 5pm	Per booking	Taxable	\$ 265.00	\$ 265.00	\$ -	0.00%	Non-statutory
MEETING ROOM Half Day (under 4 hours) - Monday to Friday between 9am & 5pm	Per booking	Taxable	N/A	\$ 200.00	NEW FEE	0.00%	Non-statutory
MEETING ROOM - Weekdays outside of business hours and Weekends	Per booking	Taxable	By negotiation	By negotiation	\$ -	0.00%	Non-statutory
STUDIO: Used in conjunction with Theatre event hire	Per event per day	Taxable	\$ 420.00	\$ 420.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
MEETING ROOM: Used in conjunction with Theatre or Studio event hire	Per event per day	Taxable	\$ 160.00	\$ 160.00	\$ -	0.00%	Non-statutory
MAIN FOYER - Monday to Friday between 9am & 5pm	Per booking	Taxable	\$ 340.00	\$ 340.00	\$ -	0.00%	Non-statutory
MAIN FOYER - Weekdays outside of business hours and Weekends	Per booking	Taxable	By negotiation	By negotiation	\$ -	0.00%	Non-statutory
Non-Ticketed Event: Standard Rates							
THEATRE - Event Hire (up to 9 hrs)	Per session	Taxable	\$ 2,175.00	\$ 2,200.00	NEW FEE	0.00%	Non-statutory
THEATRE - Additional Hours	Per hour	Taxable	\$ 65.00	\$ 65.00	NEW FEE	0.00%	Non-statutory
STUDIO - Event Hire (up to 9 hrs)	Per session	Taxable	\$ 850.00	\$ 860.00	NEW FEE	0.00%	Non-statutory
STUDIO - Additional Hours	Per hour	Taxable	\$ 65.00	\$ 65.00	NEW FEE	0.00%	Non-statutory
STUDIO - Meeting only - basic A/V requirements and fixed layout. (9am to 5pm Monday to Friday only)	Per session	Taxable	N/A	\$ 400.00	NEW FEE	0.00%	Non-statutory
MEETING ROOM - Monday to Friday between 9am & 5pm	Per booking	Taxable	\$ 265.00	\$ -	Fee ceased	0.00%	Non-statutory
MEETING ROOM Full Day (over 4 hours) - Monday to Friday between 9am & 5pm	Per booking	Taxable	N/A	\$ 265.00	NEW FEE	0.00%	Non-statutory
MEETING ROOM Half Day (under 4 hours) - Monday to Friday between 9am & 5pm	Per booking	Taxable	N/A	\$ 200.00	NEW FEE	0.00%	Non-statutory
MEETING ROOM - Weekdays outside of business hours and Weekends	Per booking	Taxable	By negotiation	By negotiation	NEW FEE	0.00%	Non-statutory
STUDIO: Used in conjunction with Theatre event hire	Per event per day	Taxable	\$ 500.00	\$ 500.00	NEW FEE	0.00%	Non-statutory
MAIN FOYER - Monday to Friday between 9am & 5pm	Per booking	Taxable	\$ 340.00	\$ 340.00	NEW FEE	0.00%	Non-statutory
MAIN FOYER - Weekdays outside of business hours and Weekends	Per booking	Taxable	By negotiation	By negotiation	NEW FEE	0.00%	Non-statutory
MAIN FOYER - Used in conjunction with Theatre: Event	Per booking	Taxable	No charge	No charge	NEW FEE	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease %	Basis of Fee
			\$	\$	\$	%	
MAIN FOYER - Used in conjunction with Studio	Per hour	Taxable	\$ 125.00	\$ 125.00	NEW FEE	0.00%	Non-statutory
Room Change Surcharge (Change of Format from Standard)	Per booking	Taxable	\$ 65.00	\$ 65.00	NEW FEE	0.00%	Non-statutory
Functions							
Catered Functions (Dinners, Luncheons, Weddings)							
STUDIO - Function Hire - up to 9 hrs access, includes Meeting Room	Per booking	Taxable	\$ 1,300.00	\$ 1,300.00	\$ -	0.00%	Non-statutory
STUDIO - Additional Hire hours or Setup hours	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
MAIN FOYER - Used in conjunction with Catered Function	Per session	Taxable	\$ 130.00	\$ 130.00	\$ -	0.00%	Non-statutory
Other Fees							
Equipment & Consumables Items							
Steinway Grand Piano (plus tuning if required)	Per item	Taxable	\$ 240.00	\$ 240.00	\$ -	0.00%	Non-statutory
Radio Mics	Per booking	Taxable	\$ 95.00	\$ 95.00	\$ -	0.00%	Non-statutory
Rubbish Removal	Per skip bin	Taxable	\$ 150.00	\$ 150.00	\$ -	0.00%	Non-statutory
AquaZone							
Day Admissions: Aquatics							
Adult swim	Per day	Taxable	\$ 7.20	\$ 7.30	\$ 0.10	1.39%	Non-statutory
Child swim (3-15 years)	Per day	Taxable	\$ 5.30	\$ 5.40	\$ 0.10	1.89%	Non-statutory
Concession swim	Per day	Taxable	\$ 5.50	\$ 5.10	\$ (0.40)	(7.27%)	Non-statutory
Family swim (unlimited family members/same residence)	Per day	Taxable	\$ 21.30	\$ 21.90	\$ 0.60	2.82%	Non-statutory
Day Admissions: Health & Fitness							
Gymnasium	Per day	Taxable	\$ 20.00	\$ 15.80	\$ (4.20)	(21.00%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$		%	
Fitness class	Per class	Taxable	\$ 15.30	\$ 15.80	\$ 0.50	3.27%	Non-statutory
Older adult exercise class	Per class	Taxable	\$ 10.70	\$ 11.00	\$ 0.30	2.80%	Non-statutory
Preventative Health Classes	Per class	Taxable	\$ 6.10	\$ 6.30	\$ 0.20	3.28%	Non-statutory
School aerobics	Per class	Taxable	\$ 8.20	\$ 8.20	\$ -	0.00%	Non-statutory
Personal Training 1 hour	Per session	Taxable	\$ 75.00	\$ 92.00	\$ 17.00	22.67%	Non-statutory
Personal Training 45 minutes	Per session	Taxable	\$ 65.00	\$ 69.00	\$ 4.00	6.15%	Non-statutory
Personal Training ½ hour	Per session	Taxable	\$ 50.00	\$ 46.00	\$ (4.00)	(8.00%)	Non-statutory
Crèche							
Member	Per child per hour	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Non Member	Per child per hour	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Learn to Swim (Pool Entry & Assessment)							
Per class (2nd child and 3rd child discounts apply)	Per class	Non-Taxable	\$ 15.00	\$ 15.30	\$ 0.30	2.00%	Non-statutory
Private lessons ½ hour lesson	Per lesson	Non-Taxable	\$ 55.00	\$ 57.00	\$ 2.00	3.64%	Non-statutory
1 hour lesson	Per lesson	Non-Taxable	\$ 105.00	\$ 107.00	\$ 2.00	1.90%	Non-statutory
School swim - no instruction	Per child	Non-Taxable	\$ 5.10	\$ 5.20	\$ 0.10	1.96%	Non-statutory
School swim - with instruction	Per child	Non-Taxable	\$ 7.20	\$ 7.30	\$ 0.10	1.39%	Non-statutory
School at pool	Per child	Non-Taxable	\$ 11.00	\$ 11.20	\$ 0.20	1.82%	Non-statutory
Learn to Swim Monthly Direct Debit	Per direct debit per month	Non-Taxable	\$ 62.70	\$ 63.95	\$ 1.25	1.99%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Learn to Swim Monthly Direct Debit (Concession)	Per direct debit per month	Non-Taxable	\$ 43.90	\$ 44.77	\$ 0.87	1.98%	Non-statutory
Group Entry							
Adult Swim	Per session	Taxable	\$ 6.50	\$ 6.80	\$ 0.30	4.62%	Non-statutory
Adult Gym	Per session	Taxable	\$ 18.20	\$ 15.00	\$ (3.20)	(17.58%)	Non-statutory
Adult Fitness Class	Per session	Taxable	\$ 14.00	\$ 15.00	\$ 1.00	7.14%	Non-statutory
Multi Pass – Health & Fitness							
Fitness class - 20 pass	Per pass	Taxable	\$ 273.60	\$ 284.40	\$ 10.80	3.95%	Non-statutory
Multi Pass – Aquatics							
Adult - 20 Pass	Per pass	Taxable	\$ 129.60	\$ 131.40	\$ 1.80	1.39%	Non-statutory
Adult -50 Pass	Per pass	Taxable	\$ 324.00	\$ 328.50	\$ 4.50	1.39%	Non-statutory
Child - 20 Pass	Per pass	Taxable	\$ 95.40	\$ 97.20	\$ 1.80	1.89%	Non-statutory
Child - 50 Pass	Per pass	Taxable	\$ 238.50	\$ 243.00	\$ 4.50	1.89%	Non-statutory
Concession - 20 Pass	Per pass	Taxable	\$ 99.00	\$ 91.80	\$ (7.20)	(7.27%)	Non-statutory
Concession - 50 Pass	Per pass	Taxable	\$ 247.50	\$ 229.50	\$ (18.00)	(7.27%)	Non-statutory
Facility Hire							
Up to four hours	Per booking	Taxable	\$ 545.00	\$ 555.00	\$ 10.00	1.83%	Non-statutory
Up to ten hours	Per booking	Taxable	\$ 850.00	\$ 860.00	\$ 10.00	1.18%	Non-statutory
Lane hourly - commercial	Per hour per lane	Taxable	\$ 46.00	\$ 46.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$		%	
Lane hourly - community	Per hour per lane	Taxable	\$ 5.10	\$ 5.10	\$ -	0.00%	Non-statutory
Pool closure advertising fee	Per booking	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
School booking cancellation fee (per lane) (<12 hrs notice)	Per lane	Taxable	\$ 42.00	\$ 50.00	\$ 8.00	19.05%	Non-statutory
Crèche	Per hour	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
Multi-purpose room	Per hour	Taxable	\$ 70.00	\$ 70.00	\$ -	0.00%	Non-statutory
<i>Birthday Party</i>							
Aqua Fun Pack	Per booking	Taxable	\$ 75.00	\$ -	\$ (75.00)	(100.00%)	Non-statutory
<i>Memberships - Gold</i>							
12 months	Per membership	Taxable	\$ 1,078.80	\$ 1,092.00	\$ 13.20	1.22%	Non-statutory
3 months	Per membership	Taxable	\$ 449.50	\$ 273.00	\$ (176.50)	(39.27%)	Non-statutory
Direct debit joining fee	Per membership	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Direct debit monthly rate	Per membership per month	Taxable	\$ 89.90	\$ 91.00	\$ 1.10	1.22%	Non-statutory
<i>Memberships - Gym and Swim</i>							
12 months	Per membership	Taxable	\$ 1,011.60	\$ 966.00	\$ (45.60)	(4.51%)	Non-statutory
3 months	Per membership	Taxable	\$ 421.50	\$ 241.50	\$ (180.00)	(42.70%)	Non-statutory
Direct debit joining fee	Per membership	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Direct debit monthly rate	Per membership per month	Taxable	\$ 84.30	\$ 80.50	\$ (3.80)	(4.51%)	Non-statutory
<i>Memberships - Fitness and Swim</i>							

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$		%	
12 months	Per membership	Taxable	\$ 955.20	\$ 966.00	\$ 10.80	1.13%	Non-statutory
3 months	Per membership	Taxable	\$ 398.00	\$ 241.50	\$(156.50)	(39.32%)	Non-statutory
Direct debit joining fee	Per membership	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Direct debit monthly rate	Per membership per month	Taxable	\$ 79.60	\$ 80.50	\$ 0.90	1.13%	Non-statutory
Memberships - Swim Only							
12 months	Per membership	Taxable	\$ 860.40	\$ 870.00	\$ 9.60	1.12%	Non-statutory
3 months	Per membership	Taxable	\$ 358.50	\$ 217.50	\$(141.00)	(39.33%)	Non-statutory
Direct debit joining fee	Per membership	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Direct debit monthly rate	Per membership per month	Taxable	\$ 71.70	\$ 72.50	\$ 0.80	1.12%	Non-statutory
Memberships - Family Swim							
12 months	Per membership	Taxable	\$ 1,880.40	\$ 1,920.00	\$ 39.60	2.11%	Non-statutory
3 months	Per membership	Taxable	\$ 783.50	\$ 480.00	\$(303.50)	(38.74%)	Non-statutory
Direct debit joining fee	Per membership	Taxable	\$ -	\$ -	\$ -	0.00%	Non-statutory
Direct debit monthly rate	Per membership per month	Taxable	\$ 156.70	\$ 160.00	\$ 3.30	2.11%	Non-statutory
Corporate							
10 – 20 people	Per group	Taxable	12.5% discount	\$ -	Ceased	0.00%	Non-statutory
21 + people	Per group	Taxable	15% discount	\$ -	Ceased	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Warrnambool Art Gallery							
User Fees and Charges							
Admission to special exhibition/event	Per admission	Taxable	Dependent on exhibition/ event		\$ -	0.00%	Non-statutory
Research Inquiry – per hour	Per hour	Taxable	\$ 45.00	\$ 45.00	\$ -	0.00%	Non-statutory
Curatorial Advice – per hour	Per hour	Taxable	\$ 125.00	\$ 125.00	\$ -	0.00%	Non-statutory
Education workshop/activity	Per activity	Taxable	Dependent on activity	Dependent on activity	\$ -	0.00%	Non-statutory
Public program event/activity	Per activity	Taxable	Dependent on activity	Dependent on activity	\$ -	0.00%	Non-statutory

Front-of-house and out-of-hours staff	Per hour	Taxable	\$ 45.00	\$ 45.00	\$ -	0.00%	Non-statutory
Annual Subscription							
Family	Per subscription	Taxable	\$ 70.00	\$ 70.00	\$ -	0.00%	Non-statutory
Family 3 Years	Per subscription	Taxable	\$ 200.00	\$ 200.00	\$ -	0.00%	Non-statutory
Individual	Per subscription	Taxable	\$ 40.00	\$ 40.00	\$ -	0.00%	Non-statutory
Individual 3 years	Per subscription	Taxable	\$ 110.00	\$ 110.00	\$ -	0.00%	Non-statutory
Individual concession	Per subscription	Taxable	\$ 25.00	\$ 25.00	\$ -	0.00%	Non-statutory
Individual concession 3 years	Per subscription	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
Life	Per subscription	Taxable	\$ 1,000.00	\$ 1,000.00	\$ -	0.00%	Non-statutory
Rental							
Exhibition in George Lance Gallery/Temporary Exhibition Gallery	Per Exhibition	Taxable	Negotiation	Negotiation	\$ -	0.00%	Non-statutory
Commission on art sales	Per sale	Taxable	40%	40%	\$ -	0.00%	Non-statutory
Commission on shop sales	Per sale	Taxable	100%	100%	\$ -	0.00%	Non-statutory
Meetings/functions	Per hour	Taxable	\$ 125.00	\$ 125.00	\$ -	0.00%	Non-statutory
Transparency/digital image (for reproduction)	Per item	Taxable	Negotiation	Negotiation	\$ -	0.00%	Non-statutory
Display easels (x2) – per hour each	Per hour / each	Taxable	\$ 10.00	\$ 10.00	\$ -	0.00%	Non-statutory
Back loading frames – per hour each	Per hour / each	Taxable	\$ 10.00	\$ 10.00	\$ -	0.00%	Non-statutory
Lectern hire	Per hour	Taxable	\$ 10.00	\$ 10.00	\$ -	0.00%	Non-statutory
Microphone and overhead PA	Per hour	Taxable	\$ 20.00	\$ 20.00	\$ -	0.00%	Non-statutory
Directional lighting (gallery spaces) – per event	Per event	Taxable	\$ 90.00	\$ 90.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Sports Grounds							
Sports ground casual hire (includes use of pavilion)							
Half day	Per booking	Taxable	\$ 125.00	\$ 125.00	\$ -	0.00%	Non-statutory
Full day	Per booking	Taxable	\$ 250.00	\$ 250.00	\$ -	0.00%	Non-statutory
Football/Netball League Finals (senior competition)	Per day	Taxable	\$ 1,000.00	\$ 1,000.00	\$ -	0.00%	Non-statutory
Football/Netball League Finals (junior and/or female competition only)	Per day	Taxable	\$ 500.00	\$ 500.00	\$ -	0.00%	Non-statutory
School Use (local, interschool, regional, state competition days)	Per day	Taxable	\$ 500.00	\$ 500.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Commercial hire	Per day	Taxable	\$ 2,000.00	\$ 2,000.00	\$ -	0.00%	Non-statutory
Unauthorised Use (base charge plus at cost cleaning and/or damages)	Per event	Taxable	\$ 1,000.00	\$ 1,000.00	\$ -	0.00%	Non-statutory
Unauthorised Works on Council Owned or Managed Land (base charge plus at cost cleaning and/or damages, rectification and/or remedial works)	Per event	Taxable	\$ 2,000.00	\$ 2,000.00	\$ -	0.00%	Non-statutory
Commercial cleaning of facilities (when left in unsuitable condition)	Per event	Taxable	At cost plus 25%	At cost plus 25%	\$ -	0.00%	Non-statutory
Reid Oval social room (no kitchen use)	Per booking	Taxable	\$ 150.00	\$ 150.00	\$ -	0.00%	Non-statutory
Reid Oval social room (includes kitchen use)	Per booking	Taxable	\$ 250.00	\$ 250.00	\$ -	0.00%	Non-statutory
Reid Oval social room (no kitchen use)	Per hour	Taxable	\$ -	\$ 20.00	\$ 20.00	0.00%	Non-statutory
Reid Oval social room (includes kitchen use)	Per hour	Taxable	\$ -	\$ 35.00	\$ 35.00	0.00%	Non-statutory
Reid Oval floodlights (competition/event use)	Per hour	Taxable	\$ -	\$ 40.00	\$ 40.00	0.00%	Non-statutory
Commercial cleaning of facilities (post League finals, casual events & school competition use)	Per booking	Taxable	\$ -	\$ 100.00	\$ 100.00	0.00%	Non-statutory
Sports ground seasonal use fee				Primary Charge			
Category 1 (Oval, netball courts x 2 & change rooms)	Per season	Taxable	N/A	\$ 7,716.00	New Fee Structure	0.00%	Non-statutory
Category 2 (Oval, netball court x 1 & change rooms)	Per season	Taxable	N/A	\$ 6,173.00	New Fee Structure	0.00%	Non-statutory
Category 3 (Oval, practice nets & change rooms)	Per season	Taxable	N/A	\$ 4,630.00	New Fee Structure	0.00%	Non-statutory
Category 4 (Oval & change rooms)	Per season	Taxable	N/A	\$ 3,858.00	New Fee Structure	0.00%	Non-statutory
Category 5 (Oval)	Per season	Taxable	N/A	\$ 772.00	New Fee Structure	0.00%	Non-statutory
Category 6 (Regional Facility)	Per season	Taxable	N/A	At cost plus 25%	New Fee Structure	0.00%	Non-statutory
Pre-season fee (Jan to Mar training, plus 25% of seasonal fee)	Per season	Taxable	N/A	At cost plus 25%	New Fee Structure	0.00%	Non-statutory
Pre-season fee (Oct to Mar training, plus 50% of seasonal fee)	Per season	Taxable	N/A	At cost plus 50%	New Fee Structure	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Use of second ground for competition (plus 50% of seasonal fee)	Per season	Taxable	N/A	At cost plus 50%	New Fee Structure	0.00%	Non-statutory
All year round competition use (incur two seasonal charges)	Per season	Taxable	N/A	At cost x 2	New Fee Structure	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Warrnambool Stadium							
Player Fees							
Adult	Per player	Taxable	\$ 11.00	\$ -	\$ (11.00)	(100.00%)	Non-statutory
Junior	Per player	Taxable	\$ 9.00	\$ -	\$ (9.00)	(100.00%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST \$	2022/23 Fee Inc GST \$	Fee Increase / Decrease \$	Fee Increase / Decrease %	Basis of Fee
School	Per player	Taxable	\$ 5.70	\$ 5.70	\$ -	0.00%	Non-statutory
Casual Shot	Per player	Taxable	\$ 5.00	\$ 5.00	\$ -	0.00%	Non-statutory
Stadium Hire							
Court hire for licenced resident sports associations domestic competitions & training	Per hour	Taxable	N/A	\$ 40.00	New Fee	0.00%	Non-statutory
Hourly rate with lights: commercial	Per hour	Taxable	\$ 350.00	\$ 350.00	\$ -	0.00%	Non-statutory
Hourly rate with lights: community/school	Per hour	Taxable	\$ 250.00	\$ 250.00	\$ -	0.00%	Non-statutory
School use between 9am - 3pm	Per booking	Taxable	\$ 950.00	\$ 950.00	\$ -	0.00%	Non-statutory
Single court hourly: user group squads: with lights	Per hour	Taxable	\$ 32.00	\$ -	\$ (32.00)	(100.00%)	Non-statutory
Highball Court - up to 12 hours	Per booking	Taxable	\$ 500.00	\$ 500.00	\$ -	0.00%	Non-statutory
Highball Court - with lights: commercial	Per hour	Taxable	\$ 80.00	\$ 80.00	\$ -	0.00%	Non-statutory
Highball Court - with lights: community/school	Per hour	Taxable	\$ 60.00	\$ 60.00	\$ -	0.00%	Non-statutory
Highball Court - School use between 9am - 3pm	Per booking	Taxable	\$ 350.00	\$ 350.00	\$ -	0.00%	Non-statutory
Show Court - up to 12 hours	Per booking	Taxable	\$ 650.00	\$ 650.00	\$ -	0.00%	Non-statutory
Show Court - with lights: commercial	Per hour	Taxable	\$ 80.00	\$ 80.00	\$ -	0.00%	Non-statutory
Show Court - with lights: community/school	Per hour	Taxable	\$ 60.00	\$ 60.00	\$ -	0.00%	Non-statutory
Show Court - School use between 9am - 3pm	Per booking	Taxable	\$ 350.00	\$ 350.00	\$ -	0.00%	Non-statutory
Seahawks/Mermaids Home Games & Finals							
Both Teams	Per game	Taxable	\$ 680.00	\$ 680.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Single Team	Per game	Taxable	\$ 420.00	\$ 420.00	\$ -	0.00%	Non-statutory
Multi-Purpose Room							
Up to 12 hours (with other hires)	Per booking	Taxable	\$ 200.00	\$ 200.00	\$ -	0.00%	Non-statutory
Up to 12 hours (room only)	Per booking	Taxable	\$ 400.00	\$ 400.00	\$ -	0.00%	Non-statutory
Multi-purpose room - Per hour	Per hour	Taxable	\$ 60.00	\$ 60.00	\$ -	0.00%	Non-statutory
User groups up to 12 hours	Per booking	Taxable	\$ 150.00	\$ 150.00	\$ -	0.00%	Non-statutory
User groups per hour	Per hour	Taxable	\$ 20.00	\$ 20.00	\$ -	0.00%	Non-statutory
Meeting room up to 12 hours	Per booking	Taxable	\$ 65.00	\$ 65.00	\$ -	0.00%	Non-statutory
Meeting room - Per hour	Per hour	Taxable	\$ 20.00	\$ 20.00	\$ -	0.00%	Non-statutory
Facility Hire							
Kitchen facilities	Per booking	Taxable	\$ 180.00	\$ 180.00	\$ -	0.00%	Non-statutory
User group sports hire up to 12 hours	Per booking	Taxable	\$ 1,250.00	\$ 1,250.00	\$ -	0.00%	Non-statutory
3crt stadium Commercial users up to 12 hours	Per booking	Taxable	\$ 1,800.00	\$ 1,800.00	\$ -	0.00%	Non-statutory
2crt NB stadium up to 12 hours	Per booking	Taxable	\$ 950.00	\$ 950.00	\$ -	0.00%	Non-statutory
Gymnastics							
1 hour recreational class fee (per hour)	Per hour	Taxable	\$ 12.50	\$ 12.50	\$ -	0.00%	Non-statutory
2 hour classes class fee (per hour)	Per hour	Taxable	\$ 12.50	\$ 12.50	\$ -	0.00%	Non-statutory
3 hour class fee (per hour)	Per hour	Taxable	\$ 12.50	\$ 12.50	\$ -	0.00%	Non-statutory
Above 3 hour class fee (per hour)	Per hour	Taxable	\$ 12.50	\$ 12.50	\$ -	0.00%	Non-statutory
School gymnastics with instruction (per student)	Per student	Taxable	\$ 8.00	\$ 8.20	\$ 0.20	2.50%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST \$	2022/23 Fee Inc GST \$	Fee Increase / Decrease \$	Fee Increase / Decrease %	Basis of Fee
Small school group class fee (1hr)	Per booking	Taxable	\$ 100.00	\$ 100.00	\$ -	0.00%	Non-statutory
Adult Group (per person)	Per person	Taxable	\$ 13.00	\$ 13.00	\$ -	0.00%	Non-statutory
Gymnastics facility hire (per hr) for external gymnastics groups	Per hour	Taxable	\$ 100.00	\$ 100.00	\$ -	0.00%	Non-statutory
Ed gym 1 hr class	Per booking	Taxable	\$ 11.00	\$ 11.00	\$ -	0.00%	Non-statutory
School Holiday Program 2 hr class	Per class	Taxable	\$ 25.00	\$ 25.00	\$ -	0.00%	Non-statutory
Birthday Party Program per child	Per child	Taxable	\$ 13.50	\$ 13.50	\$ -	0.00%	Non-statutory
Outside School Hours Care							
Vacation care daily rate	Per day	Non-Taxable	\$ 84.00	\$ -	\$ (84.00)	(100.00%)	Non-statutory
After school care casual rate per session	Per session	Non-Taxable	\$ 30.00	\$ -	\$ (30.00)	(100.00%)	Non-statutory
After school care permanent rate per session	Per session	Non-Taxable	\$ 27.00	\$ -	\$ (27.00)	(100.00%)	Non-statutory
Kindergartens							
Fees Per Term - 4 year old (15 hour per week)							
Term 3 & 4	Per term	Non-Taxable	\$ 345.00	\$ 355.00	\$ 10.00	2.90%	Non-statutory
Term 1 & 2	Per term	Non-Taxable	\$ 355.00	\$ 365.00	\$ 10.00	2.82%	Non-statutory
Fees Per Term- 3 year old (5 hours per week)							
Term 3 & 4	Per term	Non-Taxable	\$ 113.00	\$ 123.00	\$ 10.00	8.85%	Non-statutory
Term 1 & 2	Per term	Non-Taxable	\$ 113.00	\$ 365.00	\$ 252.00	223.01%	Non-statutory
Centre Based Care							
User Fees & Charges							

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Daily fee - Jul to Dec	Per day	Non-Taxable	\$ 111.00	\$ 120.00	\$ 9.00	8.11%	Non-statutory
Daily fee - Jan to June	Per day	Non-Taxable	\$ 111.00	\$ 120.00	\$ 9.00	8.11%	Non-statutory
Family Day Care							
User Fees & Charges							
8am to 6pm – per hour	Fees & charges set by Educators under National guidelines	Non-Taxable	Fees & charges set by Educators under National guidelines	Fees & charges set by Educators under National guidelines	Fees & charges set by Educators under National guidelines	Fees & charges set by Educators under National guidelines	Non-statutory
After hours – per hour							
Public holidays – per hour							
Breakfast							
Lunch							
Dinner							
Snacks							
Trips							
Parent Admin Levy - per child per week, capped at 2 children	Per child per week	Non-Taxable	\$ 10.00	\$ 10.10	\$ 0.10	1.00%	Non-statutory
Educator Levy - per hour	Per hour	Non-Taxable	\$ 1.00	\$ 1.10	\$ 0.10	10.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Home and Community Care							

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee	
			GST	GST				
			\$	\$	\$	%		
Home Maintenance								
Lawn mowing and tip fees: low	Per hour	Non-Taxable	\$ 20.00	\$ 20.40	\$ 0.40	2.00%	Non-statutory	
Lawn mowing and tip fees: medium & couples	Per hour	Non-Taxable	\$ 38.00	\$ 38.76	\$ 0.76	2.00%	Non-statutory	
Lawn mowing and tip fees: Private	Per hour	Taxable	\$ 76.40	\$ 78.00	\$ 1.60	2.09%	Non-statutory	
Home Care Packages and Brokerage Clients	Per hour	Taxable	N/A	\$ 78.00	New Fee	0.00%	Non-statutory	
Tip fee		Taxable	N/A	\$ 5.00	New Fee	0.00%	Non-statutory	
Property modification (plus cost of materials): low	Per hour	Non-Taxable	\$ 20.00	\$ 20.40	\$ 0.40	2.00%	Non-statutory	
Property modification (plus cost of materials): medium	Per hour	Non-Taxable	\$ 38.00	\$ 38.76	\$ 0.76	2.00%	Non-statutory	
Property modification (plus cost of materials): Private	Per hour	Taxable	\$ 76.80	\$ 78.00	\$ 1.20	1.56%	Non-statutory	
Home Care Packages and Brokerage Clients	Per hour	Taxable	N/A	\$ 78.00	New Fee	0.00%	Non-statutory	
<i>Note: Minimum 1 hour applies to home maintenance</i>								
Home Care								
HACC Community Care Low care	Per hour	Non-Taxable	\$ 9.00	\$ 9.15	\$ 0.15	1.67%	Non-statutory	
HACC Community Care Medium Care	Per hour	Non-Taxable	\$ 16.00	\$ 16.35	\$ 0.35	2.19%	Non-statutory	
HACC Community Care High care	Per hour	Non-Taxable	\$ 49.32	\$ 50.30	\$ 0.98	1.99%	Non-statutory	
Home Care Packages and Brokerage Clients	Per hour	Non-Taxable	N/A	\$ 65.54	New Fee	0.00%	Non-statutory	
CHSP Personal care – low	Per hour	Non-Taxable	\$ 7.80	\$ 9.15	\$ 1.35	17.31%	Non-statutory	
CHSP Personal care – medium	Per hour	Non-Taxable	\$ 10.00	\$ 16.35	\$ 6.35	63.50%	Non-statutory	
CHSP Personal care - High	Per hour	Non-Taxable	\$ 49.32	\$ 50.30	\$ 0.98	1.99%	Non-statutory	
Home Care Packages and Brokerage Clients	Per hour	Non-Taxable	N/A	\$ 65.54	New Fee	0.00%	Non-statutory	
CHSP Domestic Assistance Low care	Per hour	Non-Taxable	\$ 9.00	Now Community Care	\$ -	0.00%	Non-statutory	
CHSP Domestic Assistance Medium care	Per hour	Non-Taxable	\$ 16.00	Now Community Care	\$ -	0.00%	Non-statutory	
CHSP Domestic Assistance High care	Per hour	Non-Taxable	\$ 49.32	Now Community Care	\$ -	0.00%	Non-statutory	

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST		2022/23 Fee Inc GST		Fee Increase / Decrease		Basis of Fee
			\$		\$		\$	%	
CHSP Community Care Low	Per hour	Non-Taxable	Previously Domestic Assistance		\$ 9.15		New Fee	0.00%	Non-statutory
CHSP Community Care Medium	Per hour	Non-Taxable	Previously Domestic Assistance		\$ 16.35		New Fee	0.00%	Non-statutory
CHSP Community Care High	Per hour	Non-Taxable	Previously Domestic Assistance		\$ 50.30		New Fee	0.00%	Non-statutory
Home Care Packages and Brokerage Clients	Per hour	Non-Taxable	N/A		\$ 65.54		New Fee	0.00%	Non-statutory
<i>Note: Minimum 1/2 hour applies to home care</i>									
Flexible Respite care	Per session	Non-Taxable	\$ 5.00		\$ 5.10		\$ 0.10	2.00%	Non-statutory
Respite Care Programs	Per session	Non-Taxable	N/A		\$ 8.00		New Fee	0.00%	Non-statutory
Accommodation Respite care	One night	Non-Taxable	N/A		\$ 15.00		New Fee	0.00%	Non-statutory
Accommodation Respite care	Two night	Non-Taxable	N/A		\$ 25.00		New Fee	0.00%	Non-statutory
CACPS	Per hour	Taxable	\$ 64.25		\$ 65.35		\$ 1.10	1.71%	Non-statutory
Post Acute Care	Per hour	Taxable	\$ 64.25		\$ 65.35		\$ 1.10	1.71%	Non-statutory
CHSP/HACC Financial Hardship Fee	Per Application	Taxable	N/A		\$ 3.00		New Fee	0.00%	Non-statutory
Plus travel costs per km - Private Clients / Fees for Service	Per km	Taxable	\$ 1.45		\$ 1.48		\$ 0.03	2.07%	Non-statutory
Note: - Minimum 1 hour applies to Home Care and Respite Care services - Minimum ½ hour applies to Personal Care services - Minimum 1 hour will apply to all services provided outside of regular hours, Monday to Friday 6 am to 6pm - Time and ½ is charged to CACPS and PAC after 6pm for the first 2 hours and then double time after that, Saturday incurs time and ½ for the first 2 hours and then double time before midday - After midday until Monday morning 6am charges are double time - All CHSP & HACC PYP Programs are GST free									
Planned Activity Group									
Daily session fee – low & medium	Per session	Non-Taxable	\$ 8.00		\$ -		\$ (8.00)	(100.00%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST		2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%		
Daily session fee – high & full cost participants (GST free)	Per session	Non-Taxable	\$ 40.00	\$ -	\$ -	\$ (40.00)	(100.00 %)	Non-statutory
Meal	Per meal	Non-Taxable	\$ 9.10	\$ -		\$ (9.10)	(100.00 %)	Non-statutory
Soup	Per soup	Non-Taxable	\$ 1.75	\$ -		\$ (1.75)	(100.00 %)	Non-statutory
Sweet	Per sweet	Non-Taxable	\$ 2.00	\$ -		\$ (2.00)	(100.00 %)	Non-statutory
Social Support Group								
CHSP Daily session fee – low	Per session	Non-Taxable	N/A	\$ 8.10	\$ 40.70	New Fee	0.00 %	Non-statutory
CHSP Daily session fee – medium	Per session	Non-Taxable	N/A	\$ 10.00		New Fee	0.00 %	Non-statutory
CHSP Daily session fee – high	Per session	Non-Taxable	N/A	\$ 9.25		New Fee	0.00 %	Non-statutory
CHSP In Venue Meal	Per meal	Non-Taxable	N/A	\$ 8.10		New Fee	0.00 %	Non-statutory
CHSP Café program	Per session	Non-Taxable	N/A	\$ 8.10	\$ 40.70	New Fee	0.00 %	Non-statutory
CHSP Financial Hardship Fee			N/A	\$ 3.00		New Fee	0.00 %	Non-statutory
HACC Daily session fee – low & medium	Per session	Non-Taxable	N/A	\$ 8.10		New Fee	0.00 %	Non-statutory
HACC Daily session fee – high & full cost participants (GST free)	Per session	Non-Taxable	N/A	\$ 9.25		New Fee	0.00 %	Non-statutory
HACC In Venue Meal	Per meal	Non-Taxable	N/A	\$ 8.10	\$ 3.00	New Fee	0.00 %	Non-statutory
HACC Café program	Per session	Non-Taxable	N/A	\$ 3.00		New Fee	0.00 %	Non-statutory
HACC Financial Hardship Fee	Per Application	Taxable	N/A					
Meals On Wheels								

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST		2022/23 Fee Inc GST		Fee Increase / Decrease		Basis of Fee
			\$		\$		\$	%	
CHSP Meal 3 course	Per meal	Non-Taxable	N/A		\$ 12.30		New Fee	0.00 %	Non-statutory
HACC Meal 3 course	Per meal	Non-Taxable	N/A		\$ 12.30		New Fee	0.00 %	Non-statutory
CHSP Meal 2 course	Per meal	Non-Taxable	N/A		\$ 9.40		New Fee	0.00 %	Non-statutory
HACC Meal 2 course	Per meal	Non-Taxable	N/A		\$ 9.40		New Fee	0.00 %	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee	
			GST	GST	Decrease	Decrease		
			\$	\$	\$	%		
Archie Graham Community Centre								
User Fees & Charges								
Hydro pools casual admission	Per admission	Non-Taxable	\$ 10.00			\$ 0.10	1.00%	Non-statutory
Commercial pool use	Per use	Non-Taxable	\$ 100.00			\$ 1.75	1.75%	Non-statutory
Community pool use	Per use	Non-Taxable	\$ 70.00			\$ 1.20	1.71%	Non-statutory
Commercial rate per hour per room	Per hour per room	Non-Taxable	\$ 70.00			\$ 1.20	1.71%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Regular Commercial Room Hire (with more than 10 bookings per year) per hour per room	Per hour per room	Non-Taxable	\$ 60.00	\$ 61.05	\$ 1.05	1.75%	Non-statutory
Casual community rate per hour per room	Per hour per room	Non-Taxable	\$ 38.00	\$ 38.65	\$ 0.65	1.71%	Non-statutory
Monthly and weekly regular community booking (with more than 10 bookings per year) under 20 people per hour per room	Per person	Non-Taxable	\$ 22.00	\$ 22.40	\$ 0.40	1.82%	Non-statutory
Community Computer Centre per 1 hour session	Per session	Non-Taxable	\$ 7.00	\$ 7.10	\$ 0.10	1.43%	Non-statutory
Group Fitness	Per session	Non-Taxable	N/A	\$ 7.10	New Fee	0.00%	Non-statutory
Health promotion programs: strength training	Per class	Non-Taxable	\$ 7.00	\$ -	\$ (7.00)	(100.00%)	Non-statutory
Lite Moves	Per class	Non-Taxable	\$ 7.00	\$ -	\$ (7.00)	(100.00%)	Non-statutory
Lite Pulse	Per class	Non-Taxable	\$ 7.00	\$ -	\$ (7.00)	(100.00%)	Non-statutory
Moove & Groove	Per class	Non-Taxable	\$ 7.00	\$ -	\$ (7.00)	(100.00%)	Non-statutory
Bike Hire Group Program	Per class	Non-Taxable	\$ 5.00	\$ 5.10	\$ 0.10	2.00%	Non-statutory
Health							
Food							
Class 1	Per application	Non-Taxable	\$ 490.00	\$ 498.50	\$ 8.50	1.73%	Non-statutory
Class 2 General - where not more than 5 full-time persons are employed	Per application	Non-Taxable	\$ 443.00	\$ 450.50	\$ 7.50	1.69%	Non-statutory
Class 2 - where more than five such full-time persons are employed, additional fee for each person in excess of five (total fee not to exceed \$1,500) (eg: supermarkets)	Per application	Non-Taxable	\$ 33.00	\$ 33.50	\$ 0.50	1.52%	Non-statutory
Class 2 - Community Group (eg not-for-profit groups)	Per application	Non-Taxable	N/A	\$ -	New Fee	0.00%	Non-statutory
Class 2 - Canteens/sporting club kitchens	Per application	Non-Taxable	\$ 152.00	\$ 154.50	\$ 2.50	1.64%	Non-statutory
Class 3 General	Per application	Non-Taxable	\$ 170.00	\$ 172.50	\$ 2.50	1.47%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Class 3 - Community Group (eg not-for-profit groups)	Per application	Non-Taxable	N/A	\$ -	New Fee	0.00%	Non-statutory
Class 4	Per application	Non-Taxable	N/A	\$ -	New Fee	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Health							
Hairdressers, beauty salons (one off fee)	Per application	Non-Taxable	\$ 220.00	\$ 223.50	\$ 3.50	1.59%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Beauty premises & skin penetration establishments	Per application	Non-Taxable	\$ 156.00	\$ 158.50	\$ 2.50	1.60%	Non-statutory
Onsite Wastewater Management Systems (OWMS)							
Note: The EPA's Environment Protection Regulations now sets the fees for OWMS							
Application to construct, install or alter OWMS [1]	Per application	Non-Taxable	Set by EPA	\$ 734.67	\$ -	0.00%	Statutory
Application for minor alteration to OWMS [2]	Per application	Non-Taxable	Set by EPA	\$ 559.87	\$ -	0.00%	Statutory
Transfer a permit [3]	Per application	Non-Taxable	Set by EPA	\$ 149.25	\$ -	0.00%	Statutory
Amend a permit [4]	Per application	Non-Taxable	Set by EPA	\$ 156.01	\$ -	0.00%	Statutory
Renew a permit [5]	Per application	Non-Taxable	Set by EPA	\$ 124.90	\$ -	0.00%	Statutory
Notes:							
[1] In addition to the initial fee, \$91 payable per hour of assessment (after exceeding initial 8.2 hours) up to a maximum of \$2,006							
[2] Consists only of the installation, replacement or relocation of the internal plumbing, fixtures or fittings of an OWMS							
[3] An OWMS application has been submitted but not yet installed, and the land is transferred							
[4] E.g. changing wastewater system type or plumber in the Application to Install							
[5] When the Permit to Install has expired - 2 years after it was issued							
Aquatic Facilities							
Annual registration fee - first pool	Per registration	Non-Taxable	\$ 300.00	\$ 300.00	\$ -	0.00%	Non-statutory
Annual registration fee - subsequent pools	Per registration	Non-Taxable	\$ 50.00	\$ 50.00	\$ -	0.00%	Non-statutory
Transfer fee	Per registration	Non-Taxable	50% of annual fee	50% of annual fee	\$ -	0.00%	Non-statutory
Pool sampling fee - first pool	Per sample	Non-Taxable	\$ 180.00	\$ 180.00	\$ -	0.00%	Non-statutory
Pool sampling fee - subsequent pools	Per sample	Non-Taxable	\$ 100.00	\$ 100.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
New Registration Fees							
New premises pre-application fee and/or pre-registration inspection fee	Per registration	Non-Taxable	\$ 210.00	\$ 213.50	\$ 3.50	1.67%	Non-statutory
Notes:							
- Pro-rata fees apply for new registrations (quarterly)							
Health							
Transfer fees							
Inspection request fee prior to transfer – 5 business days	Per application	Non-Taxable	\$ 220.00	\$ 223.50	\$ 3.50	1.59%	Non-statutory
Inspection request fee prior to transfer – 10 business days	Per application	Non-Taxable	\$ 158.00	\$ 160.50	\$ 2.50	1.58%	Non-statutory
Transfer fee	Per application	Non-Taxable	50% of annual fee		\$ -	0.00%	Non-statutory
Accommodation							
Accommodation premises	Per application		\$ 245.00	\$ 249.00	\$ 4.00	1.63%	Non-statutory
Other fees							
Re-inspection fee and request for inspection fee	Per application		\$ 86.00	\$ 87.50	\$ 1.50	1.74%	Non-statutory
Late payment fee	Per application		50% of annual fee		\$ -	0.00%	Non-statutory
Septic tanks							
Septic tank applications	Per application		\$ 580.00	Set by EPA	\$ -	0.00%	Non-statutory
Septic tank alterations (changes to disposal field only)	Per application		\$ 290.00	Set by EPA	\$ -	0.00%	Non-statutory
Caravan Parks							
Caravan Parks (per site)	Per application		Set by State Government	Set by State Government	\$ -	0.00%	Statutory
Pool sampling							

Description of Fees and Charges		Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
				\$	\$	\$	%	
Optional fee for microbiological testing of potable water, swimming pools and spas	Per application			\$ 130.00	\$ 180.00	\$ 50.00	38.46 %	Non-statutory
Subsequent pools	Per application			\$ 51.00	\$ 100.00			
Notes:								
- Pro-rata fees apply for new registrations (quarterly)								
Immunisation								
User Fees & Charges								
Application for immunisation records (search fee)	Per application	Non-Taxable		\$ 20.00	\$ 25.00	\$ 5.00	25.00 %	Non-statutory
Influenza vaccine & administration (flu injection)	Per injection	Taxable		\$ 25.00	\$ 27.00	\$ 2.00	8.00%	Non-statutory
Local Laws								
User Fees & Charges								
Derelict vehicle release	Per vehicle	Non-Taxable		\$ 410.00	\$ 415.00	\$ 5.00	1.22%	Non-statutory
Tables and chairs	Per table	Non-Taxable		\$ 185.00	\$ 185.00	\$ -	0.00%	Non-statutory
Goods on footpath	Per item	Non-Taxable		\$ 215.00	\$ 220.00	\$ 5.00	2.33%	Non-statutory
A/Frames permit	Per frame	Non-Taxable		\$ 150.00	\$ 153.00	\$ 3.00	2.00%	Non-statutory
Itinerant trading annual permit	Per application	Non-Taxable		\$ 600.00	\$ 600.00	\$ -	0.00%	Non-statutory
Itinerant trading 6 monthly permit	Per application	Non-Taxable		\$ 350.00	\$ 350.00	\$ -	0.00%	Non-statutory
Itinerant trading weekend permit	Per application	Non-Taxable		\$ 125.00	\$ 125.00	\$ -	0.00%	Non-statutory
Itinerant trading organiser permit (markets and festivals)	Per application	Non-Taxable		\$ 1,500.00	\$ 1,500.00	\$ -	0.00%	Non-statutory
Impounded trolley release fee	Per trolley	Non-Taxable		\$ 115.00	\$ 120.00	\$ 5.00	4.35%	Non-statutory
Permit to burn	Per permit	Non-Taxable		\$ 115.00	\$ 120.00	\$ 5.00	4.35%	Non-statutory
Horses on beach trainer permit	Per permit	Non-Taxable		\$ 255.00	\$ 255.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges		Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
				\$	\$	\$	%	
Horses on beach daily access fee	Per horse	Non-Taxable		\$ 3.50	\$ 3.50	\$ -	0.00%	Non-statutory
Horses on beach swim access fee	Per horse	Non-Taxable		\$ 2.00	\$ 2.00	\$ -	0.00%	Non-statutory
Hire of cat cage	Per cage	Non-Taxable		\$ 30.00	\$ 30.00	\$ -	0.00%	Non-statutory
Hire Citronella Collar per week	Per item	Non-Taxable		\$ 25.00	\$ 25.00	\$ -	0.00%	Non-statutory
Hire Bark inhibitor per week	Per item	Non-Taxable		\$ 25.00	\$ 25.00	\$ -	0.00%	Non-statutory
Hire Bark counter per week	Per item	Non-Taxable		\$ 25.00	\$ 25.00	\$ -	0.00%	Non-statutory
Block slashing prior to declared fire season	Per job	Non-Taxable		\$ 155.00	\$ 160.00	\$ 5.00	3.23%	Non-statutory
Skip bin permit	Per permit	Non-Taxable		\$ 20.00	\$ 20.00	\$ -	0.00%	Non-statutory
Parking Fees and Fines								
On-Street and Off Street								
1st hour off street parking (excluding Coles & Target carparks) in zones 1P & 2P	Per hour	Taxable		\$ -	\$ -	\$ -	0.00%	Non-statutory
All parking zones 1P 2P 4P	Per hour	Taxable		\$ 2.00	\$ 2.00	\$ -	0.00%	Non-statutory
All Day	Per day	Taxable		\$ 4.00	\$ 4.00	\$ -	0.00%	Non-statutory
Disabled Parking		Taxable		\$ -	\$ -	\$ -	0.00%	Non-statutory
Reserved bay permit in CBD per day	Per day	Taxable		\$ 15.00	\$ 15.00	\$ -	0.00%	Non-statutory
Credit Surcharge on Smart Meters								
Credit Surcharge on Smart Meters	Per transaction	Taxable		\$ 0.24	\$ 0.24	\$ -	0.00%	Non-statutory
Parking Permits - Disabled and Returned Service								

Description of Fees and Charges		Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
				\$	\$	\$	%	
Replacement	Per permit	Non-Taxable	\$ -	\$ -	\$ -	\$ -	0.00%	Non-statutory
New	Per permit	Non-Taxable	\$ -	\$ -	\$ -	\$ -	0.00%	Non-statutory
Resident Parking permit	Per permit per annum	Non-Taxable	\$ 15.00	\$ 15.00	\$ -	\$ -	0.00%	Non-statutory
<i>Car parking Fines</i>								
Car parking fines set by Council	Per fine	Non-Taxable	\$ 80.00	\$ 80.00	\$ -	\$ -	0.00%	Non-statutory

Description of Fees and Charges		Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
				\$	\$	\$	%	

Animal Registrations

User Fees & Charges

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			\$	\$	Decrease	Decrease	
Unsterilised dog	Per dog	Non-Taxable	\$ 216.00	\$ 220.00	\$ 4.00	1.85%	Non-statutory
Sterilised dog	Per dog	Non-Taxable	\$ 72.00	\$ 72.00	\$ -	0.00%	Non-statutory
Unsterilised dog (pensioner)	Per dog	Non-Taxable	\$ 108.00	\$ 110.00	\$ 2.00	1.85%	Non-statutory
Sterilised dog (pensioner)	Per dog	Non-Taxable	\$ 36.00	\$ 36.00	\$ -	0.00%	Non-statutory
Dog over 10 years old	Per dog	Non-Taxable	\$ 72.00	\$ 72.00	\$ -	0.00%	Non-statutory
Dog over 10 years old (pensioner)	Per dog	Non-Taxable	\$ 36.00	\$ 36.00	\$ -	0.00%	Non-statutory
Dog kept for working with Livestock (rural)	Per dog	Non-Taxable	\$ 72.00	\$ 72.00	\$ -	0.00%	Non-statutory
Dog kept for working with Livestock (rural) (pensioner)	Per dog	Non-Taxable	\$ 36.00	\$ 36.00	\$ -	0.00%	Non-statutory
Dog registration at pound release	Per dog	Non-Taxable	\$ 36.00	\$ 36.00	\$ -	0.00%	Non-statutory
Declared Dangerous or Restricted Breed	Per dog	Non-Taxable	\$ 320.00	\$ 330.00	\$ 10.00	3.13%	Non-statutory
Unsterilised cat	Per cat	Non-Taxable	\$ 216.00	\$ 220.00	\$ 4.00	1.85%	Non-statutory
Sterilised cat	Per cat	Non-Taxable	\$ 72.00	\$ 72.00	\$ -	0.00%	Non-statutory
Cat registration at pound release	Per cat	Non-Taxable	\$ 36.00	\$ 36.00	\$ -	0.00%	Non-statutory
Unsterilised cat (pensioner)	Per cat	Non-Taxable	\$ 108.00	\$ 110.00	\$ 2.00	1.85%	Non-statutory
Sterilised cat (pensioner)	Per cat	Non-Taxable	\$ 36.00	\$ 36.00	\$ -	0.00%	Non-statutory
Permit to house a third dog / cat	Per cat	Non-Taxable	\$ 100.00	\$ 100.00	\$ -	0.00%	Non-statutory
Replacement registration tag	Per tag	Non-Taxable	\$ 20.00	\$ 20.00	\$ -	0.00%	Non-statutory
Registered Foster Carer	Per registration	Non-Taxable	\$ 20.00	\$ 20.00	\$ -	0.00%	Non-statutory
Foster Care Dog / Cat Fee	Per animal	Non-Taxable	\$ 8.00	\$ 8.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Grazing permit	Per permit	Non-Taxable	\$ 195.00	\$ 200.00	\$ 5.00	2.56%	Non-statutory
Registered animal businesses	Per businesses	Non-Taxable	\$ 205.00	\$ 205.00	\$ -	0.00%	Non-statutory
Impounded animal release fee: Cat	Per Cat	Non-Taxable	\$ 158.00	\$ 160.00	\$ 2.00	1.27%	Non-statutory
Impounded animal release fee: Dog	Per Dog	Non-Taxable	\$ 158.00	\$ 160.00	\$ 2.00	1.27%	Non-statutory
Notes:							
- Animal registration fees apply from 1 April 2022							
- Pro-rata fees – 50% of pet registration fees apply after 1 November							
- Deceased animals – 50% refund of fees available/claimed up to 1 November of current registration period							

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
Warrnambool Livestock Exchange							
User Fees & Charges							
Bobby Calves	Per animal	Taxable	\$ 4.30	\$ 4.40	\$ 0.10	2.33%	Non-statutory
Calves	Per animal	Taxable	\$ 9.20	\$ 9.40	\$ 0.20	2.17%	Non-statutory
Bulls	Per animal	Taxable	\$ 20.40	\$ 20.80	\$ 0.40	1.96%	Non-statutory
Cattle	Per animal	Taxable	\$ 14.10	\$ 14.40	\$ 0.30	2.13%	Non-statutory
Sheep	Per animal	Taxable	\$ 1.00	\$ 1.00	\$ -	0.00%	Non-statutory
Store - cattle	Per animal	Taxable	\$ 14.80	\$ 15.10	\$ 0.30	2.03%	Non-statutory
Dairy - cattle	Per animal	Taxable	\$ 15.30	\$ 15.60	\$ 0.30	1.96%	Non-statutory
Transit cattle	Per animal	Taxable	\$ 4.40	\$ 4.50	\$ 0.10	2.27%	Non-statutory
Hire of dairy ring per head:							
<100 head	Per head	Taxable	\$ 15.70	\$ 15.60	\$ (0.10)	(0.64%)	Non-statutory
>100 head	Per group	Taxable	\$ 1,435.00	\$ 1,430.00	\$ (5.00)	(0.35%)	Non-statutory
>200 head	Per group	Taxable	\$ 1,845.00	\$ 1,830.00	\$ (15.00)	(0.81%)	Non-statutory
>300 head	Per group	Taxable	\$ 2,255.00	\$ 2,245.00	\$ (10.00)	(0.44%)	Non-statutory
>400 head	Per group	Taxable	\$ 2,665.00	\$ 2,650.00	\$ (15.00)	(0.56%)	Non-statutory
>500 head	Per group	Taxable	\$ 3,180.00	\$ 3,160.00	\$ (20.00)	(0.63%)	Non-statutory
Agents fees (per month)	Per month	Taxable	\$ 9,166.67	\$ 9,350.00	\$ 183.33	2.00%	Non-statutory
Agents commission on gross sale value	% Gross Sale Value	Taxable	0.25%	0.25%	\$ -	0.00%	Non-statutory
Office rental (per office)	Per office	Taxable	\$ 2,780.00	\$ 2,780.00	\$ -	0.00%	Non-statutory
Truck Wash							

Truck wash fees (per minute) between 2pm Tuesday and 2pm Wednesday	Per minute	Taxable	\$ 1.16	\$ 1.18	\$ 0.02	1.72%	Non-statutory
Truck wash fees (per minute) all other times	Per minute	Taxable	\$ 1.64	\$ 1.67	\$ 0.03	1.83%	Non-statutory
Weigh Fees:							
- 1 Head	Per head	Taxable	\$ 2.95	\$ 3.00	\$ 0.05	1.69%	Non-statutory
- 2 Head	Per head	Taxable	\$ 2.45	\$ 2.50	\$ 0.05	2.04%	Non-statutory
- 3 Head	Per head	Taxable	\$ 2.15	\$ 2.20	\$ 0.05	2.33%	Non-statutory
- 4 Head	Per head	Taxable	\$ 1.85	\$ 1.90	\$ 0.05	2.70%	Non-statutory
- 5 Head	Per head	Taxable	\$ 1.45	\$ 1.50	\$ 0.05	3.45%	Non-statutory
- 6 Head or more	Per head	Taxable	\$ 1.15	\$ 1.20	\$ 0.05	4.35%	Non-statutory
Scanner fee hire per day	Per head	Taxable	\$ 130.00	\$ 133.00	\$ 3.00	2.31%	Non-statutory
Scanner transfer fee per head	Per head	Taxable	\$ 2.65	\$ 3.00	\$ 0.35	13.21%	Non-statutory
Cattle not sold at store sale: scanning fee per head	Per head	Taxable	\$ 3.20	\$ 3.30	\$ 0.10	3.12%	Non-statutory
Private weighs	Per head	Taxable	\$ 7.30	\$ 7.40	\$ 0.10	1.37%	Non-statutory

Description of Fees and Charges		GST Status	\$	2022/23 Fee Inc GST	\$	Fee Increase / Decrease	\$	Fee Increase / Decrease	%	Basis of Fee
Flagstaff Hill Maritime Village										
Admission Fees										
Adults	Per admission	Taxable	\$ 19.00		\$ 19.00		\$ -	0.00%		Non-statutory
Concession	Per admission	Taxable	\$ 15.00		\$ 15.00		\$ -	0.00%		Non-statutory
Child	Per admission	Taxable	\$ 9.00		\$ 9.00		\$ -	0.00%		Non-statutory
Family	Per admission	Taxable	\$ 49.50		\$ 49.50		\$ -	0.00%		Non-statutory
Member School Education visits	Per admission	Taxable	\$ 4.50		\$ 4.50		\$ -	0.00%		Non-statutory
Additional Education Sessions	Per admission	Taxable	\$ 4.00		\$ 4.00		\$ -	0.00%		Non-statutory
Sound & Light Show Admissions										
Adults	Per admission	Taxable	\$ 31.00		\$ 31.00		\$ -	0.00%		Non-statutory
Concession	Per admission	Taxable	\$ 28.00		\$ 28.00		\$ -	0.00%		Non-statutory
Child	Per admission	Taxable	\$ 16.95		\$ 17.00		\$ 0.05	0.29%		Non-statutory
Family (2A + 2C)	Per admission	Taxable	\$ 79.00		\$ 79.00		\$ -	0.00%		Non-statutory
Additional Child	Per admission	Taxable	\$ 12.00		\$ 12.00		\$ -	0.00%		Non-statutory
Flagstaff Hill Memberships										
Individual	Per membership	Taxable	\$ 42.00		\$ 42.00		\$ -	0.00%		Non-statutory
Grandparents (2A + Children)	Per membership	Taxable	\$ 65.00		\$ 75.00		\$ 10.00	15.38%		Non-statutory
Family (2A + Children)	Per membership	Taxable	\$ 85.00		\$ 95.00		\$ 10.00	11.76%		Non-statutory
Full Family (2G + 2A + Children)	Per membership	Taxable	\$ 110.00		\$ 120.00		\$ 10.00	9.09%		Non-statutory
Family Holiday Membership (2 Weeks)	Per membership	Taxable	\$ 50.00		NA		\$ -	0.00%		Non-statutory

School Memberships												
Enrolment of 0-50 students	Per membership	Taxable	\$ 60.00						\$ 60.00	\$ -	0.00%	Non-statutory
Enrolment of 51-100 students	Per membership	Taxable	\$ 75.00						\$ 75.00	\$ -	0.00%	Non-statutory
Enrolment of 101-250 students	Per membership	Taxable	\$ 95.00						\$ 95.00	\$ -	0.00%	Non-statutory
Enrolment of 251-500 students	Per membership	Taxable	\$ 130.00						\$ 130.00	\$ -	0.00%	Non-statutory
Enrolment of 500 students or more	Per membership	Taxable	\$ 155.00						\$ 155.00	\$ -	0.00%	Non-statutory
Lighthouse Lodge												
Exclusive Use Rate (1-4 guests) – Normal	Per night	Taxable	\$ 275.00						\$ 285.00	\$ 10.00	3.64%	Non-statutory
Exclusive Use Rate (1-4 guests) - Peak	Per night	Taxable	\$ 350.00						\$ 350.00	\$ -	0.00%	Non-statutory
Exclusive Use Rate (5-6 guests) – Normal	Per night	Taxable	\$ 375.00						\$ 375.00	\$ -	0.00%	Non-statutory
Exclusive Use Rate (5-6 guests) - Peak	Per night	Taxable	\$ 450.00						\$ 425.00	\$ (25.00)	(5.56%)	Non-statutory
Weddings and Functions												
Flagstaff – Ceremony Only	Per ceremony	Taxable	\$ 750.00						\$ 900.00	\$ 150.00	20.00%	Non-statutory
Flagstaff – Marquee	Per marquee	Taxable	\$ 2,500.00						\$ 2,500.00	\$ -	0.00%	Non-statutory
Mission to Seaman's Church	Per event	Taxable	\$ 500.00						\$ 650.00	\$ 150.00	30.00%	Non-statutory
The Wharf in front of the Steam Packet Inn	Per event	Taxable	\$ 550.00						\$ 650.00	\$ 100.00	18.18%	Non-statutory
The Village Green	Per event	Taxable	\$ 550.00						\$ 650.00	\$ 100.00	18.18%	Non-statutory
The Sailmaker's Loft	Per event	Taxable	\$ 800.00						\$ 950.00	\$ 150.00	18.75%	Non-statutory
Wharf Theatre	Per event	Taxable	\$ 950.00						\$ 1,100.00	\$ 150.00	15.79%	Non-statutory
Hire of the Steam Packet Inn Venue Only	Per event	Taxable	N/A						\$ 500.00	New Fee		Non-statutory
Hire of the Steam Packet Inn (Hourly Rate)	Per hour	Taxable	\$ 150.00						\$ 150.00	\$ -	0.00%	Non-statutory
Wedding Photo's in the Village (Hourly Rate)	Per hour	Taxable	\$ 150.00						\$ 150.00	\$ -	0.00%	Non-statutory

Visitor Services							
User Fees & Charges							
Displays in Visitor Centre	Per week	Taxable	\$ 100.00	\$ -	\$(100.00)	(100.00%)	Non-statutory
Display of brochures and access to visitor	Fee for service	Taxable	Fee for service relates to Great Ocean Road Tourism Marketing Prospectus	Fee for service relates to Great Ocean Road Tourism Marketing Prospectus	\$ -	0.00%	Non-statutory
City Highlights 1 Hour Tour	Per tour	Taxable	\$ 95.00	\$ 95.00	\$ -	0.00%	Non-statutory

Note: Flagstaff Hill Maritime Village and Visitor Services fees will apply from 1 April 2023 in accordance with Tourism Industry Standards

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Holiday Parks							
Surfside & Shipwreck Holiday Parks							
Sites Powered : Peak Season - Daily powered	Per site	Taxable	\$ 63.00	\$ 66.00	\$ 3.00	4.76%	Non-statutory
Sites Powered : Peak Season - Night two person	Per site	Taxable	\$ 63.00	\$ 66.00	\$ 3.00	4.76%	Non-statutory
Sites Powered : Peak Season - Night single	Per site	Taxable	\$ 54.00	\$ 56.00	\$ 2.00	3.70%	Non-statutory
Sites Powered: High Season - Daily powered	Per site	Taxable	\$ 53.00	\$ 56.00	\$ 3.00	5.66%	Non-statutory
Sites Powered: High Season - Night two person	Per site	Taxable	\$ 43.00	\$ 45.00	\$ 2.00	4.65%	Non-statutory
Sites Powered: High Season - Night single	Per site	Taxable	\$ 35.00	\$ 36.00	\$ 1.00	2.86%	Non-statutory
Sites Powered: Low Season - Daily powered	Per site	Taxable	\$ 48.00	\$ 50.00	\$ 2.00	4.17%	Non-statutory
Sites Powered: Low Season - Night two person	Per site	Taxable	\$ 38.00	\$ 40.00	\$ 2.00	5.26%	Non-statutory
Sites Powered: Low Season - Night single	Per site	Taxable	\$ 33.00	\$ 34.00	\$ 1.00	3.03%	Non-statutory
Surfside & Shipwreck Holiday Parks							
Sites Unpowered : Peak Season - Daily family unpowered	Per site	Taxable	\$ 53.00	\$ 56.00	\$ 3.00	5.66%	Non-statutory
Sites Unpowered : Peak Season - Night two person	Per site	Taxable	\$ 53.00	\$ 56.00	\$ 3.00	5.66%	Non-statutory
Sites Unpowered : Peak Season - Night single	Per site	Taxable	\$ 44.00	\$ 46.00	\$ 2.00	4.55%	Non-statutory
Sites Unpowered: High Season - Daily family	Per site	Taxable	\$ 43.00	\$ 45.00	\$ 2.00	4.65%	Non-statutory
Sites Unpowered: High Season - Night two person	Per site	Taxable	\$ 37.00	\$ 39.00	\$ 2.00	5.41%	Non-statutory
Sites Unpowered: High Season - Night single	Per site	Taxable	\$ 29.00	\$ 30.00	\$ 1.00	3.45%	Non-statutory
Sites Unpowered: Low Season - Night family	Per site	Taxable	\$ 38.00	\$ 40.00	\$ 2.00	5.26%	Non-statutory
Sites Unpowered: Low Season - Night two person	Per site	Taxable	\$ 34.00	\$ 35.00	\$ 1.00	2.94%	Non-statutory
Sites Unpowered: Low Season - Night single	Per site	Taxable	\$ 28.00	\$ 29.00	\$ 1.00	3.57%	Non-statutory
Surfside Cabins							
Beach Chalet: Peak Season - Daily	Per chalet	Taxable	\$ 265.00	\$ 275.00	\$ 10.00	3.77%	Non-statutory
Beach Chalet: Peak Season - Weekly	Per chalet	Taxable	\$ 1,855.00	\$ 1,925.00	\$ 70.00	3.77%	Non-statutory
Beach Chalet: High Season - Daily	Per chalet	Taxable	\$ 215.00	\$ 225.00	\$ 10.00	4.65%	Non-statutory
Beach Chalet: High Season - Weekly	Per chalet	Taxable	\$ 1,505.00	\$ 1,575.00	\$ 70.00	4.65%	Non-statutory
Beach Chalet: Low Season - Daily	Per chalet	Taxable	\$ 190.00	\$ 200.00	\$ 10.00	5.26%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc	2022/23 Fee Inc	Fee Increase /	Fee Increase /	Basis of Fee
			GST	GST	Decrease	Decrease	
			\$	\$	\$	%	
Beach Chalet: Low Season - Weekly	Per chalet	Taxable	\$ 1,330.00	\$ 1,400.00	\$ 70.00	5.26%	Non-statutory
Cedar Cabins: Peak Season - Daily	Per cabin	Taxable	\$ 195.00	\$ 205.00	\$ 10.00	5.13%	Non-statutory
Cedar Cabins: Peak Season - Weekly	Per cabin	Taxable	\$ 1,365.00	\$ 1,435.00	\$ 70.00	5.13%	Non-statutory
Cedar Cabins: High Season - Daily	Per cabin	Taxable	\$ 160.00	\$ 170.00	\$ 10.00	6.25%	Non-statutory
Cedar Cabins: High Season - Weekly	Per cabin	Taxable	\$ 1,120.00	\$ 1,190.00	\$ 70.00	6.25%	Non-statutory
Cedar Cabins: Low Season - Daily	Per cabin	Taxable	\$ 140.00	\$ 150.00	\$ 10.00	7.14%	Non-statutory
Cedar Cabins: Low Season - Weekly	Per cabin	Taxable	\$ 980.00	\$ 1,050.00	\$ 70.00	7.14%	Non-statutory
Mariner cottages: Peak Season - Daily	Per cottage	Taxable	\$ 180.00	\$ 190.00	\$ 10.00	5.56%	Non-statutory
Mariner cottages: Peak Season - Weekly	Per cottage	Taxable	\$ 1,260.00	\$ 1,330.00	\$ 70.00	5.56%	Non-statutory
Mariner cottages: High Season - Daily	Per cottage	Taxable	\$ 145.00	\$ 155.00	\$ 10.00	6.90%	Non-statutory
Mariner cottages: High Season - Weekly	Per cottage	Taxable	\$ 1,015.00	\$ 1,085.00	\$ 70.00	6.90%	Non-statutory
Mariner cottages: Low Season - Daily	Per cottage	Taxable	\$ 125.00	\$ 135.00	\$ 10.00	8.00%	Non-statutory
Mariner cottages: Low Season - Weekly	Per cottage	Taxable	\$ 875.00	\$ 945.00	\$ 70.00	8.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Waste Management							
Waste Charges							
FOGO Compostable Liners (roll of 150)	Per roll	Taxable	\$ 10.00	\$ 12.00	\$ 2.00	20.00%	Non-statutory
Bin springs	Per springs	Taxable	\$ 10.00	\$ 10.00	\$ -	0.00%	Non-statutory
Bin latches	Per latch	Taxable	\$ 5.00	\$ 5.00	\$ -	0.00%	Non-statutory
240L landfill bin	Per bin	Taxable	\$ 99.00	\$ 99.00	\$ -	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
Statutory Planning Fees							
All fees are set by the State Government of Victoria in accordance with the Planning and Environment (Fees) Regulation 2016 and the Subdivision (Fees) Regulation 2016, and are subject to change. Statutory planning fees are GST Free unless specified.							
Non-statutory Planning Fees							
Planning							
Request to amend permit or endorsed plans under the provisions of Secondary Consent within condition of permit	Per permit	Taxable	\$ 212.50	\$ 216.20	\$ 3.70	1.74%	Non-statutory
Extension of time for Planning Permits:							
- First extension	Per application	Taxable	\$ 109.80	\$ 111.70	\$ 1.90	1.73%	Non-statutory
- Second extension	Per application	Taxable	\$ 304.70	\$ 310.00	\$ 5.30	1.74%	Non-statutory
- Additional extensions	Per application	Taxable	\$ 413.20	\$ 420.40	\$ 7.20	1.74%	Non-statutory
Approval of Development Plans to the satisfaction of the Responsible Authority	Per application	Taxable	\$ 717.70	\$ 730.30	\$ 12.60	1.76%	Non-statutory
Approval of amendments to Development Plans to the satisfaction of the Responsible Authority	Per application	Taxable	\$ 717.70	\$ 730.30	\$ 12.60	1.76%	Non-statutory
Approval of 173 Agreements - plus cost of legal advice if required	Per application	Taxable	\$ 177.00	\$ 180.10	\$ 3.10	1.75%	Non-statutory
Review of compliance of Section 173 Agreements - (plus cost of legal advice if required)	Per application	Taxable	\$ 177.00	\$ 180.10	\$ 3.10	1.75%	Non-statutory
Liquor License requests	Per License	Taxable	\$ 165.20	\$ 168.10	\$ 2.90	1.76%	Non-statutory
Notification of Planning Applications or Planning Scheme Amendments:							
- Up to 10 letters/notices	Per letter/notice up to 10	Taxable	\$ 118.00	\$ 120.10	\$ 2.10	1.78%	Non-statutory
- Additional letters/notices	Per letter/notice	Taxable	\$ 5.70	\$ 5.80	\$ 0.10	1.75%	Non-statutory
Property Inquiry relating to planning history	Per inquiry	Taxable	\$ 82.70	\$ 84.10	\$ 1.40	1.69%	Non-statutory
Mapping Products (Commercial Use)							
Option of a) aerial photography or b) customised colour map using standard map layers (no photography). Scale to be determined by customer. Can be provided as hardcopy or PDF. When provided as a PDF, the size represents the size the map will be in the PDF and still be printed at a reasonable resolution.							
Size							
A0	Per print	Taxable	\$ 151.40	\$ 154.00	\$ 2.60	1.72%	Non-statutory
A1	Per print	Taxable	\$ 120.10	\$ 122.20	\$ 2.10	1.75%	Non-statutory
A2	Per print	Taxable	\$ 89.70	\$ 91.30	\$ 1.60	1.78%	Non-statutory
A3	Per print	Taxable	\$ 61.70	\$ 62.80	\$ 1.10	1.78%	Non-statutory
A4	Per print	Taxable	\$ 59.40	\$ 60.40	\$ 1.00	1.68%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	

Mapping Products (Commercial Use)

Aerial photography with additional data overlay (contours, land parcels, house numbers etc.). Scale to be determined by customer and can be provided as hardcopy or PDF. Prices are for basic maps using existing data. If additional analysis or new datasets are required, these will incur additional fees.

Size

A0	Per print	Non-Taxable	\$ 236.10	\$ 240.20	\$ 4.10	1.74%	Non-statutory
A1	Per print	Non-Taxable	\$ 182.90	\$ 186.10	\$ 3.20	1.75%	Non-statutory
A2	Per print	Non-Taxable	\$ 138.00	\$ 140.40	\$ 2.40	1.74%	Non-statutory
A3	Per print	Non-Taxable	\$ 89.70	\$ 91.30	\$ 1.60	1.78%	Non-statutory
A4	Per print	Non-Taxable	\$ 44.80	\$ 45.60	\$ 0.80	1.79%	Non-statutory

Statutory Building Fees

All fees are set by the State Government of Victoria in accordance with the Building Regulations 2018 and are subject to change.
Statutory building fees are GST Free unless specified.

Non Statutory Building Fees

Note: Additional statutory State Government charges and conditions are relevant to all Building Applications.

Class: 1B & 2-9 Residential and commercial works other than Class 1A	Value >\$23,500	Taxable	4 (Value ÷1300 +√Value)	4 (Value ÷1300 +√Value)	\$ -	0.00%	Non-statutory
Class: 1A	Minimum Fee:	Taxable	\$955.10	\$ 955.10	\$ -	0.00%	Non-statutory
Class: 1A	Up to \$150,000	Taxable	\$1,918.00	\$ -	\$ (1,918.00)	(100.00%)	Non-statutory
All dwellings – single detached houses or attached multi-units development.	\$150,001-\$200,000	Taxable	\$2,678.00	\$ -	\$ (2,678.00)	(100.00%)	Non-statutory
	\$200,001-\$250,000	Taxable	\$3,436.00	\$ -	\$ (3,436.00)	(100.00%)	Non-statutory
	\$250,001-\$300,000	Taxable	\$4,196.00	\$ -	\$ (4,196.00)	(100.00%)	Non-statutory
	>\$300,000	Taxable	Value÷71	\$ -			Non-statutory
	Large projects	Taxable	Negotiable	\$ -			Non-statutory
Class: 1A	Up to \$10,000	Taxable	\$703.00	\$ -	\$ (703.00)	(100.00%)	Non-statutory
Dwellings – extensions/alterations (including demolitions)	\$10,001-\$20,000	Taxable	\$898.00	\$ -	\$ (898.00)	(100.00%)	Non-statutory
	\$20,001-\$50,000	Taxable	\$1,194.00	\$ -	\$ (1,194.00)	(100.00%)	Non-statutory
	\$50,001-\$100,000	Taxable	\$1,711.00	\$ -	\$ (1,711.00)	(100.00%)	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
Class: 1A Dwellings – internal alterations/minor works	\$100,001-\$150,000	Taxable	\$2,229.00	\$ -	\$ (2,229.00)	(100.00%)	Non-statutory
	>\$150,000	Taxable	Value÷66	\$ -			Non-statutory
	Up to \$10,000	Taxable	\$524.00	\$ -	\$(524.00)	(100.00%)	Non-statutory
	\$10,001-\$20,000	Taxable	\$703.00	\$ -	\$(703.00)	(100.00%)	Non-statutory
	\$20,001-\$50,000	Taxable	\$931.00	\$ -	\$(931.00)	(100.00%)	Non-statutory
	\$50,001-\$100,000	Taxable	\$1,310.00	\$ -	\$ (1,310.00)	(100.00%)	Non-statutory
	>\$100,000	Taxable	Value÷75				Non-statutory
	Up to \$10,000	Taxable	\$524.00	\$ -	\$(524.00)	(100.00%)	Non-statutory
	\$10,001-\$20,000	Taxable	\$703.00	\$ -	\$(703.00)	(100.00%)	Non-statutory
	\$20,001-\$50,000	Taxable	\$931.00	\$ -	\$(931.00)	(100.00%)	Non-statutory
Class: 10A/10B Minor works – garages, carports, pools, fences etc.	\$50,001-\$100,000	Taxable	\$1,310.00	\$ -	\$ (1,310.00)	(100.00%)	Non-statutory
	>\$100,000	Taxable	Value÷75				Non-statutory
Non Statutory Building Fees							
Note: Additional statutory State Government charges and conditions are relevant to all Building Applications.							
Commercial works (Class 2-9)	Any Value	Taxable	N/A	Price on Application (POA)	New Fee	0.00%	Non-statutory
New dwellings including single detached houses or attached multi unit developments	Up to \$300,000	Taxable	N/A	\$ 2,530.00	New Fee	0.00%	Non-statutory
	\$300,001-\$500,000	Taxable	N/A	\$ 4,235.00	New Fee	0.00%	Non-statutory
	\$500,001+	Taxable	N/A	POA	New Fee	0.00%	Non-statutory
Extensions and/or alterations (including demolitions) to dwellings	Up to \$10,000	Taxable	N/A	\$ 715.30	New Fee	0.00%	Non-statutory
	\$10,001-\$50,000	Taxable	N/A	\$ 1,214.90	New Fee	0.00%	Non-statutory
	\$50,001-\$150,000	Taxable	N/A	\$ 2,268.00	New Fee	0.00%	Non-statutory
	\$150,001+	Taxable	N/A	POA	New Fee	0.00%	Non-statutory
	Up to \$10,000	Taxable	N/A	\$ 533.20	New Fee	0.00%	Non-statutory
Minor works - Garages/sheds, carports, swimming pools, fences, retaining walls etc.	\$10,001-\$20,000	Taxable	N/A	\$ 715.30	New Fee	0.00%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee Inc GST	2022/23 Fee Inc GST	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			\$	\$	\$	%	
	\$20,001-\$50,000	Taxable	N/A	\$ 947.30	New Fee	0.00%	Non-statutory
	\$50,001-\$100,000	Taxable	N/A	\$ 1,332.90	New Fee	0.00%	Non-statutory
	>\$100,001+	Taxable	N/A	POA	New Fee	0.00%	Non-statutory
Any additional inspection	Domestic	Taxable	\$201.10	\$ 204.60	\$ 3.50	1.74%	Non-statutory
	Commercial	Taxable	\$272.00	\$ 276.80	\$ 4.80	1.76%	Non-statutory
Amendment and/or extension of building permits;	Domestic	Taxable	\$201.10	\$ 204.60	\$ 3.50	1.74%	Non-statutory
	Commercial	Taxable	\$272.00	\$ 276.80	\$ 4.80	1.76%	Non-statutory
Amendment of approved plans	Domestic	Taxable	\$201.10	\$ 204.60	\$ 3.50	1.74%	Non-statutory
	Commercial	Taxable	\$272.00	\$ 276.80	\$ 4.80	1.76%	Non-statutory
Additional Building Fees							
Administration of Building Notice	Per notice	Taxable	\$ 708.40	\$ 720.80	\$ 12.40	1.75%	Non-statutory
Administration of Building Order	Per order	Taxable	\$ 472.20	\$ 480.50	\$ 8.30	1.76%	Non-statutory
Temporary Structure Siting Approval	Per siting	Taxable	\$ 472.20	\$ 480.50	\$ 8.30	1.76%	Non-statutory
Occupancy Permit for Places of Public Entertainment (POPE)	Per permit	Taxable	\$ 590.30	\$ 600.60	\$ 10.30	1.74%	Non-statutory
Provide copy of Building Permit or Occupancy Permit (with owners consent)	Per permit	Taxable	\$ 83.20	\$ 84.70	\$ 1.50	1.80%	Non-statutory
Provide copy of Building Permit including plans – Domestic (with owners consent)	Per permit	Taxable	\$ 145.10	\$ 147.60	\$ 2.50	1.72%	Non-statutory
Provide copy of Building Permit including plans – Commercial (with owners consent)	Per permit	Taxable	\$ 331.90	\$ 337.70	\$ 5.80	1.75%	Non-statutory
Essential Safety Measure Assessment - minimum fee	Per assessment	Taxable	\$ 649.30	\$ 660.70	\$ 11.40	1.76%	Non-statutory

Description of Fees and Charges	Unit of Measure	GST Status	2021/22 Fee	2022/23 Fee	Fee Increase / Decrease	Fee Increase / Decrease	Basis of Fee
			Inc GST	Inc GST		%	
			\$	\$	\$	%	
LIBRARY SERVICES							
Photocopying and printing							
B&W A4	per page	Taxable	N/A	\$ 0.20	New Fee	0.00%	Non-statutory
B&W A3	per page	Taxable	N/A	\$ 0.40	New Fee	0.00%	Non-statutory
Colour A4	per page	Taxable	N/A	\$ 0.60	New Fee	0.00%	Non-statutory
Colour A3	per page	Taxable	N/A	\$ 1.20	New Fee	0.00%	Non-statutory
Inter library loan - plus cost to Council from provider	per item	Taxable	N/A	\$ 3.00	New Fee	0.00%	Non-statutory
Debt recovery - plus cost of item	per account	Taxable	N/A	\$ 15.00	New Fee	0.00%	Non-statutory
Merchandise	per item	Taxable	N/A	P.O.A	New Fee	0.00%	Non-statutory
Withdrawn item	per item	Taxable	N/A	P.O.A	New Fee	0.00%	Non-statutory
Replacement library card	per card	Taxable	N/A	\$ 2.00	New Fee	0.00%	Non-statutory
COMMUNITY HALLS							
Community not-for-profit	per hour (min 2 hrs)	Taxable	N/A	\$ 10.00	New Fee	0.00%	Non-statutory
Community not-for-profit - full day	8 hours	Taxable	N/A	\$ 60.00	New Fee	0.00%	Non-statutory
Community not for profit if facility is used for fund raising or where admission is charged	8 hours	Taxable	N/A	\$ 100.00	New Fee	0.00%	Non-statutory
Commercial	per hour (min 2 hrs)	Taxable	N/A	\$ 40.00	New Fee	0.00%	Non-statutory
Commercial - full day	8 hours	Taxable	N/A	\$ 200.00	New Fee	0.00%	Non-statutory
Bond - high risk	Per Booking	Non-Taxable	N/A	\$ 1,000.00	New Fee	0.00%	Non-statutory
Bond - medium risk	Per Booking	Non-Taxable	N/A	\$ 500.00	New Fee	0.00%	Non-statutory
Bond - low risk	Per Booking	Non-Taxable	N/A	\$ 250.00	New Fee	0.00%	Non-statutory
Bond - key	Per Booking	Non-Taxable	N/A	\$ 20.00	New Fee	0.00%	Non-statutory



Financial Report March 2022

Monthly Financial Report

March 2022

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Monthly Financial Report

March 2022

I. Executive Summary

The monthly report is designed to illustrate the financial performance and position of Warrnambool City Council compared to its adopted and seasonalised forecast for the period ending 31 March 2022.

The 9 months actual results indicate a favourable financial position of \$0.811m to the forecast.

Key Financial Results	Adopted Budget \$'000	Forecast \$'000	YTD Forecast \$'000	YTD Committed \$'000	YTD Variance to Forecast \$'000	
Rates	42,826	43,003	43,003	43,062	59	▲
Recurrent Income	42,360	39,057	29,481	29,440	(42)	▼
Recurrent Expenditure	(71,080)	(70,311)	(52,809)	(52,263)	545	▲
Net Recurrent Surplus/(Deficit)	(28,720)	(31,254)	(23,328)	(22,824)	504	▲
Project Income	1,153	3,126	2,439	2,442	3	▲
Project Expenditure	(1,653)	(7,356)	(2,386)	(2,271)	116	▲
Net Project Surplus/(Deficit)	(500)	(4,230)	53	172	118	▲
Capital Income	5,641	17,366	1,781	1,901	120	▲
Capital Expenditure	(19,489)	(41,991)	(24,315)	(24,408)	(93)	▼
Net Capital Surplus/(Deficit)	(13,848)	(24,625)	(22,534)	(22,507)	27	▲
Loan Drawdowns	2,250	6,500	1,125	1,125	0	■
Loan Repayments	(1,932)	(1,791)	(1,287)	(1,184)	103	▲
Net Financing Position	319	4,709	(162)	(59)	103	▲
Surplus / (Deficit) Brought Forward	0	12,899	12,899	12,899	0	▲
Total	76	501	9,931	10,742	811	▲

Recurrent: is \$0.811m favourable to forecast due to the following main reasons:

- A better than expected recovery from the impacts of COVID19 for Aquazone with strong swim school numbers and the return of school swimming.
- Centre based child care has received additional government support through a one-off per capita grant.
- A number of vacant positions within the organisation that are yet to be filled.

Projects: No material financial variances however, there are expected to be some delays to the delivery of projects.

Capital Works: Currently in line with forecast expectations however, it is anticipated that there will be a significant rollover of funds where projects will not be finalised by 30th June 2022.

Loans: A delay in the timing of borrowings has resulted in a short-term saving of \$0.10m in principal repayments. The loans have now been locked in with favourable rates through the Treasury Corporation of Victoria.

Forecast: An updated forecast was completed in February and has taken into account the continuation of the impact of Covid19. The net impact was a favourable increase to the full year forecast of \$353k which mainly relates to savings in salaries and an improvement in the Aquazone operations.

Monthly Financial Report

March 2022

2. Statement of Comprehensive Income

	Adopted Budget \$'000	Forecast \$'000	YTD Forecast \$'000	YTD Committed \$'000	YTD Variance to Forecast		
					\$'000	%	
Revenue							
Rates and Charges	42,906	43,100	43,083	43,154	71	0.2%	▲
Statutory Fees and Fines	2,107	2,209	1,668	1,778	110	6.6%	▲
User Fees	17,646	15,643	12,035	11,611	(424)	(3.5%)	▼
Recurrent Grants	12,626	12,420	9,796	9,801	4	0.0%	▲
Non-Recurrent Grants	5,313	13,508	939	1,067	128	13.6%	▲
Contributions - Cash	563	3,590	627	771	144	23.0%	▲
Contributions - Non Cash	4,000	4,000	0	0	0	0.0%	▼
Other Income	299	1,119	740	865	125	16.9%	▲
Interest Income	119	86	45	42	(3)	(6.0%)	▼
Revenue Total	85,579	95,675	68,934	69,090	156	0.2%	▲
Expenses							
Employee Benefits	37,991	36,920	26,909	26,541	368	1.4%	▲
Materials and Services	23,828	29,887	20,405	20,078	327	1.6%	▲
Bad and Doubtful Debts	131	131	15	2	14	89.6%	▲
Finance Costs	302	235	174	172	2	1.4%	▲
Other Expenses	411	410	332	340	(9)	(2.6%)	▼
Depreciation	12,871	12,500	0	0	0	0.0%	■
Net loss / (gain) on asset disposal	1,345	882	(375)	(320)	(54)	(14.5%)	▼
Expenses Total	76,878	80,966	47,460	46,813	647	1.4%	▲
Net Surplus / (Deficit)	8,700	14,709	21,474	22,277	804	3.7%	▲
Other Comprehensive Income							
Net asset revaluation	10,000	10,000	0	0	0	0.0%	■
Total Comprehensive Income	18,700	24,709	21,474	22,277	804	3.7%	▲
Net Underlying Surplus / (Deficit)	4,700	10,709	21,474	22,277	804	3.7%	▲

Net Surplus: The net surplus is \$22.277m which is \$0.804m favourable to our forecast budget.

Revenue: is \$0.156m unfavourable to budget due to:

- Covid19 has caused commercial hires to be lower than forecast at the Lighthouse Theatre which is offset by a reduction in related expenditure.
- User fees are lower than forecast at Flagstaff Hill due to the impact of Covid19.

Expenses: are \$0.647m favourable to forecast due to:

- Employee benefits being lower than anticipated due to the continuation of vacancies across a number of areas.
- Materials and services lower than forecast due to less activity with Lighthouse Theatre commercial hires of \$124k offset by reduced fee income of \$110k.

Monthly Financial Report

March 2022

3. Balance Sheet

	2021/22 Opening Balance \$'000	Movement \$'000	YTD Closing Balance \$'000
Current Assets			
Cash & Cash Equivalents	10,317	4,882	15,195
Investments	20,000	(3,000)	17,000
Trade and Other Receivables	2,764	8,029	10,794
Other Assets	1,523	(579)	943
Current Assets Total	34,604	9,332	43,932
Non-Current Assets			
Trade and Other Receivables	5	0	5
Investments in associates	0	0	0
Property Plant & Equipments	641,715	11,553	653,268
Non-Current Assets Total	641,720	11,553	653,273
Total Assets	676,324	20,884	697,205
Current Liabilities			
Trade and Other Payables	11,385	(3,390)	7,995
Trust Funds and Deposits	1,694	377	2,071
Provisions	6,844	0	6,844
Interest-bearing Loans and Borrowings	1,586	(59)	1,526
Lease Liabilities	261	0	261
Current Liabilities Total	21,769	(3,072)	18,697
Non-Current Liabilities			
Provisions	1,092	0	1,092
Interest-bearing Loans and Borrowings	6,587	0	6,587
Lease Liabilities	1,183	0	1,183
Non-Current Liabilities Total	8,862	0	8,862
Total Liabilities	30,631	(3,072)	27,559
Net Assets	645,693	23,956	669,646
Equity			
Accumulated Surplus	248,979	23,953	272,932
Reserves	396,714	0	396,714
Total Equity	645,693	23,953	669,646

Cash & Investments: The third quarter rates instalment (due February) increased the amount of cash reserves.

Trade and Other Receivables: have increased significantly from the start of the financial year due to raising the full year's rates revenue in July while customers receive quarterly instalments. This will reduce throughout the year to acceptable levels by year end.

Monthly Financial Report

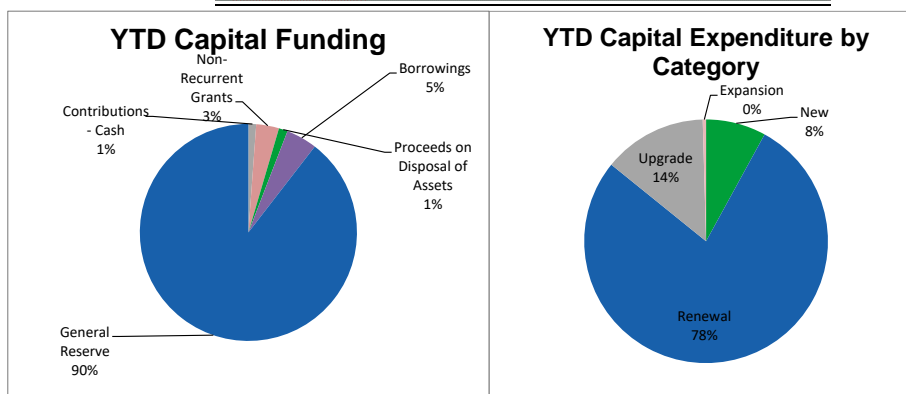
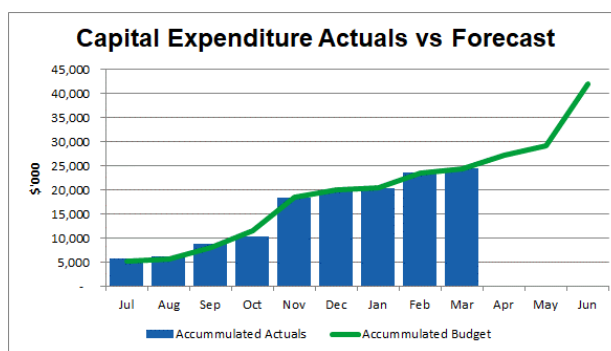
March 2022

4. Capital Expenditure and Funding

Capital Expenditure: Council has a number of major capital works underway or recently completed (Reid Oval, Lake Pertobe, the Library/Learning Hub and Edwards Bride). Currently Council's committed amount is \$0.093m lower than the year to date forecast. The actual spend to date (excluding orders) is \$13.420m which indicates that there may be some significant rollover of funds for projects that are completed this financial year.

Capital Funding: The majority of the works to date have been funded through Council funds (90%). There are significant grants that are anticipated to be received during the year.

	Adopted Budget \$'000	Forecast \$'000	YTD Forecast \$'000	YTD Committed \$'000	YTD Variance to Forecast \$'000	
Expenditure						
New	1,252	3,485	1,961	1,947	14	▲
Renewal	16,074	31,902	18,925	18,999	(74)	▼
Upgrade	2,096	6,399	3,322	3,354	(32)	▼
Expansion	67	205	107	108	(1)	▼
Capital Expenditure	19,489	41,991	24,315	24,408	(93)	▼
Funding						
Contributions - Cash	0	2,962	212	281	69	▲
Non-Recurrent Grants	5,313	13,263	843	830	(13)	▼
Proceeds on Disposal of Assets	328	791	375	320	(54)	▼
Borrowings	5,950	6,650	1,125	1,125	0	■
General Reserve	7,898	18,325	21,760	21,851	92	▲
Capital Funding	19,489	41,991	24,315	24,408	93	▲



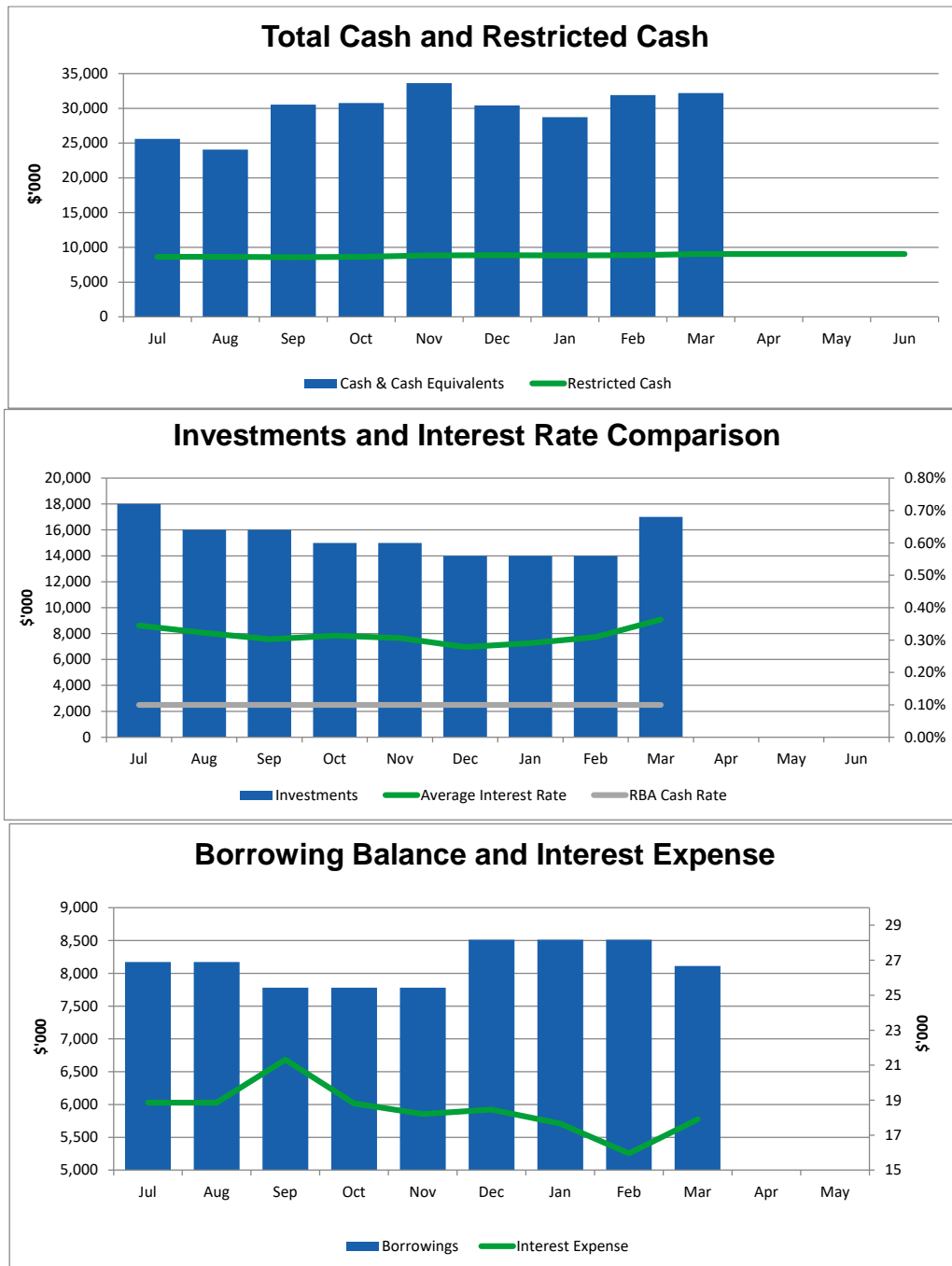
Monthly Financial Report

March 2022

5. Treasury Report

Cash: Total cash held (including investments) at the end of March is \$32.20m, of which \$9.05m is restricted.

Investments: The average interest rate held on investments at the end of February is 0.36% but is starting to trend upwards with speculation over an interest rate rise.



Monthly Financial Report

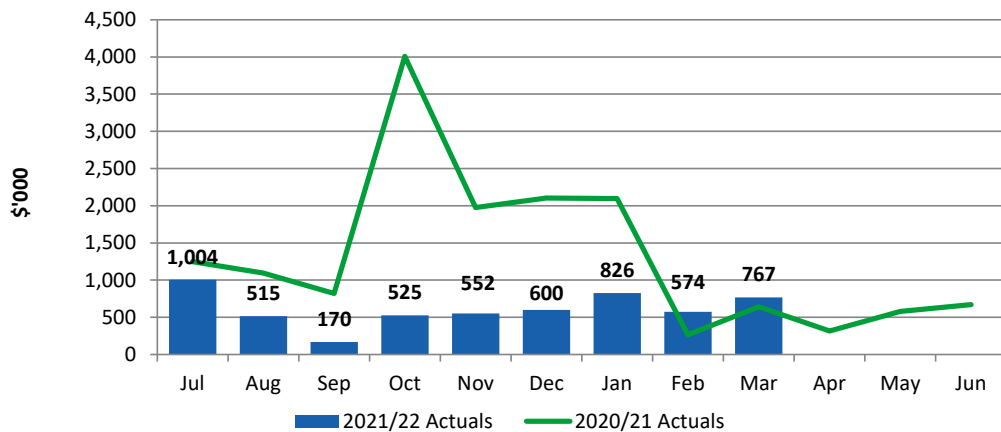
March 2022

6. Debtors Report

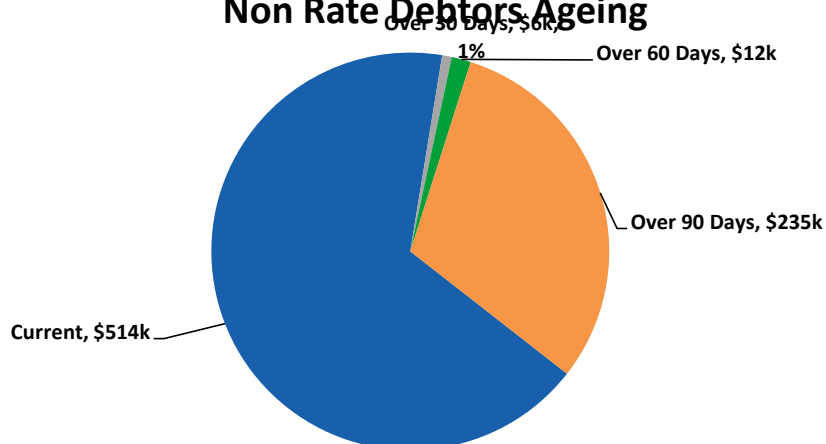
Non Rate Debtors: were \$0.767m in March, with 67% of the debt classified as current.

- 30 Days \$6k – No material amounts.
- 60 Days \$12k – No material amounts.
- 90 Days \$235k – A large amount is outstanding with our leasing company following the sale & leaseback of IT equipment (\$211k). This is expected to settle in April/May. Council is working with the other overdue debtors and setting up payment plans where appropriate.

Non Rate Debtors Balance



Non Rate Debtors Ageing



Monthly Financial Report

March 2022

7. Budget/Forecast Variations

Item	Ledger No.	Variation Status	Budget Variation \$	Cumulative Total \$
Adopted Budget Surplus				76,000
Rollovers - Net			(12,899,000)	(12,823,000)
Cash Surplus Bought Forward			12,899,000	76,000
Sep Quarter Variations - net nil impact		Council	0	76,000
Forecast Adjustments			69,000	145,000
Dec Quarter Variations - net nil impact		Council	0	145,000
February forecast adjustments			356,000	501,000
DAMA Application Fees	540000-3183		12,400	513,400
DAMA Application Expenditure	540000-3183		(12,400)	501,000
Wild Coast Landscape Masterplan Access Improvement Grant	543000-3285		150,000	651,000
Wild Coast Landscape Masterplan Access Improvement Expenditure	543000-3285		(150,000)	501,000
Port of Warrnambool Boat Ramp Upgrade Grant	621400-2311		3,500,000	4,001,000
Port of Warrnambool Boat Ramp Upgrade Expenditure	621400-2311		(3,500,000)	501,000
Building Blocks Planning Grant - Various Kindergartens	533605-1650		148,515	649,515
Building Blocks Planning Expenditure - Various Kindergartens	533605-1650		(148,515)	501,000
Covid19 Immunisation Promotion Grant	513000-1898		20,000	521,000
Covid19 Immunisation Promotion Expenditure	513000-1898		(20,000)	501,000
Port of Warrnambool capital grant income	621400-2311		3,500,000	4,001,000
Port of Warrnambool capital grant expenditure	621400-2311		(3,500,000)	501,000
2022 School Readiness Funding income - various kindergartens	533550-1645		181,598	682,598
2022 School Readiness Funding expenditure - various kindergartens	533550-1645		(181,598)	501,000
Port of Warrnambool capital grant income	621400-2312		1,000,000	1,501,000
Port of Warrnambool capital grant expenditure	621400-2312		(1,000,000)	501,000
DELWP Beach Cleaning Subsidy Program 20/21	210000-1180		8,183	509,183
DELWP Beach Cleaning Subsidy Program 20/21	210000-1180		(8,183)	501,000
Public Open Space contributions received	614000-2012		71,000	572,000
Public Open Space contribution transfer to reserves	614000-2010		(71,000)	501,000
Youth Services Projects grant funding	537500-3287		8,000	509,000
Youth Services Projects grant expenses	537500-3287		(8,000)	501,000
Additional funding for Respite Care Services	305500-1361		7,704	508,704
Expenses related to additional funding for Respite Care Services	305500-1361		(7,704)	501,000
South West Carer Respite additional funding	306000-1387		30,000	531,000
Expenses related to South West Carer Respite additional funding	306000-1811		(15,000)	516,000
Expenses related to South West Carer Respite additional funding	306000-1810		(15,000)	501,000
Electric Vehicle Charge Station Grant	543000-3286		40,000	541,000
Electric Vehicle Charge Station Expenditure	543000-3286		(40,000)	501,000
Regional Sports Event Funding - Grant	537000-3296		10,000	511,000
Regional Sports Event Funding - Warrnambool Lawn Tennis Open	537000-3296		(10,000)	501,000
South Warrnambool Flood Investigation Grant	542000-3290		100,000	601,000
South Warrnambool Flood Investigation Expenditure	542000-3290		(100,000)	501,000
Allansford Strategic Framework Plan Grant	542000-3288		100,000	601,000
Allansford Strategic Framework Plan Expenditure	542000-3288		(100,000)	501,000
Bushfield/Woodford Strategic Framework Plan Grant	542000-3289		100,000	601,000
Bushfield/Woodford Strategic Framework Plan Expenditure	542000-3289		(100,000)	501,000
Business Concierge Program Grant	540000-3257		60,000	561,000
Business Concierge Program Expenditure	540000-3257		(60,000)	501,000
Forecast Budget Surplus				501,000

Monthly Financial Report

March 2022

8. Procurement Report

	YTD 2021/22	Actuals 2020/21	Actuals 2019/20	Actuals 2018/19
Total Payments	\$42.982m	\$56.320m	\$51.881m	\$59.648m
Total Number of Invoices	13,046	17,059	18,618	18,277
Total Number of Purchase Card Transactions	3,037	4,381	5,418	6,757
% Usage of Purchase Card Transactions	19%	20%	23%	27%
No. of Active Suppliers	3,231	2,829	2,591	2,677
No. of Suppliers Paid This Financial Year	1,467	1,538	1,692	1,741
No. of Suppliers who have been used only once	689	650	702	697
No. of Automated Invoices	3,717	1,912	894	1,494
No. of Invoices below \$100	3,678	4,654	4,231	4,196
No. of Suppliers for Top 20% of Expenditure	4	5	8	4

- Finance has implemented Accounts Payable Automation. This is reducing the manual input, likelihood of keying areas and also provides checks on ABN's and bank account to ensure valid invoices are being submitted. A post implementation review is beginning to quantify the benefits, ensure the objectives are being met and recommend areas for future improvement.



Warrnambool Beach Access Strategy



MARCH 2022 - DRAFT

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DOCUMENT CONTROL

Document Name	Warrnambool Beach Access Strategy Background Report
Department	City Growth
Version	1.0
Version Date	29 March 2022

ACKNOWLEDGEMENTS

Council acknowledges the Eastern Maar Nation as the original custodians of the lands of this general area. Council also acknowledges the descendants of the ancestors of Aboriginal nations within the lands forming the Great South Coast and particularly the elders of the Indigenous communities within both Warrnambool and this region.

Warrnambool City Council is honoured to have an important custodian role in partnership with Eastern Maar Citizens in looking after Country. Warrnambool City Council is proud of our Maar heritage and story. We acknowledge the Maar people and celebrate their rich, diverse and ongoing contribution to us all.

PREPARED BY:



DISCLAIMER

This publication may be of assistance to you, but Warrnambool City Council and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

ACRONYMS

BMO	Bushfire Management Overlay
CoM	Committee of Management
CHMP	Cultural Heritage Management Plan
DDA	Disability and Discrimination Act
DDO	Design and Development Overlay
DELWP	Department of Environment Land Water and Planning
EMAC	Eastern Maar Aboriginal Corporation
ESO	Environmental Significance Overlay
EVC	Ecological Vegetation Class
ESTA	Emergency Services Telecommunications Authority (ESTA)
FRP	Fibre Reinforced Polymers
HO	Heritage Overlay
PCRZ	Public Conservation and Resource Zone
RAP	Registered Aboriginal Party
SES	State Emergency Service
SLO	Significant Landscape Overlay
VCMP	Victorian Coastal Monitoring Program
WCC	Warrnambool City Council
WSLSC	Warrnambool Surf Lifesaving Club

EXECUTIVE SUMMARY

Warrnambool’s beaches are amazing natural assets attracting residents, visitors and tourists. These beaches play an important role for the community, providing spaces for a range of activities, recreation, tourism and events, as well as opportunities for people to connect with the natural environment and cultural coastal landscapes.

Beach access is highly valued and will be subject to increasing demand as Warrnambool’s population continues to grow. Warrnambool’s coastal environment is dynamic, often with diverse climatic conditions which can contribute to shifting sands and unstable dune systems. It is important that beach access points along the coast are planned, designed and built carefully to ensure they can withstand the demands of increasing use and climate change. These access points must also provide safe and functional access, whilst protecting the natural and cultural landscapes that make Warrnambool’s coastline special.

The preparation of a Beach Access Strategy allows Council to gain a better understanding of the needs of stakeholders, community and visitors in accessing Warrnambool’s beaches. Through consultation with stakeholders and the community and the development of the Strategy, Council will have a clearer picture of the strengths, challenges and opportunities for beach access along Warrnambool’s coastline and a strategy for what can be done to improve it.

The Strategy helps inform Council’s capital works and renewal programs and will be used to support future grant and funding applications associated with improving beach access.

The recommendations of the Strategy are intended to provide guidance for Warrnambool’s 33 beach access points between Shelly Beach and Logans Beach, over a 15-year timeframe.

The Strategy includes 22 recommendations as described on pages 5-6 and Section 5.

In summary the following changes are recommended:

- Replacement of the existing accessible ramp near the Warrnambool Surf Lifesaving Club, three new accessible ramps in Lady Bay and Hopkins River (to replace existing structures) and consolidation of two access structures into one new accessible ramp at ‘The Flume’
- Replacement of 13 staircases, including accessibility and safety improvements
- Retention of five (5) recently constructed/upgraded access structures, with no changes proposed
- Retention and improvements to seven (7) existing structures
- Closure of two existing access points; and
- One new access point at the Harbour



SHELLY BEACH. PICKERING POINT LOOKOUT, MERRI RIVER ESTUARY, STINGRAY BAY AND WORM BAY

- 1.** Conduct a safety audit of the walking trail between the Viaduct Road and Shelly Beach, including beach access points WCC101 and WCC107. There are cliffs in relatively close proximity to the access path leading to Shelly Beach and Point Pickering. A safety audit of the cliff face and fencing should be undertaken to provide sufficient evidence that the tracks and beach access points can safely remain open to the public.
- 2.** Investigate opportunities to make safety improvements to Shelly Beach WCC101. Changes may include fencing and surface improvements.
- 3.** Carry out fencing repairs and additional fencing between the Merri Bridge and Shelly Beach to ensure walkers stay on the main track and avoid threats to significant cultural heritage places and deter people from going near cliff edges.
- 4.** Install signage to direct visitors along the main tracks to Shelly Beach.
- 5.** Replace existing staircase at beach access WCC107 near Pickering Point. The suitability of this location as a beach access point should be investigated as part of the safety audit.
- 6.** Develop Viaduct Road Pedestrian Access Plan. Incorporate review of car parking, pedestrian access paths and crossings, pedestrian safety and design of WCC111, WCC112 and WCC113. The Plan should provide recommendations to address beach accessibility for people with wheelchairs and special access requirements and ensure emergency vehicle access is provided to the beach at this location. The design and replacement of the existing staircase structure at WCC112 is a current project in the planned capital works program. Investigate if it is possible to delay the replacement of this structure until the Pedestrian Access Plan has been completed.
- 7.** Design and construct a new accessible ramp proposed near boat launching facilities. Design and construction of the proposed concrete terraced seating is to have integrated accessible ramp. This access point was adopted as part of the Harbour Master Plan.
- 8.** Investigate opportunities to make safety improvements to the Worm Bay horse training beach access ramp at WCC117. This is a current project in the planned capital works program.
- 9.** Retain access points at the Yacht Club WCCYC and Worm Bay WCC118 as they are. These are relatively new structures with long remaining useful lifespans..

LADY BAY WEST (INCLUDING THE FLUME) AND LADY BAY EAST

- 10.** There are a number of existing timber structures which have short remaining useful life. These should be replaced with staircases incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible. Access points proposed for replacement with staircases include WCC119, WCC120, WCC121, WCC123, WCC129 and WCC130. The replacement of WCC123 and WCC129 are current project in the planned capital works program.
- 11.** The existing accessible ramp near the Warrnambool Surf Lifesaving Club WCC126 is subject to regular access maintenance issues due to its design, construction materials and proneness to sand build up. It is recommended that this access ramp be replaced with a new accessible ramp. The design and siting of the accessible ramp near the Warrnambool Surf Lifesaving Club WCC126 should be undertaken at the same time as the plans for the proposed surf lifesaving club upgrade/extension to ensure good planning and access to and from main building entrance/s and car parking areas. It is also recommended that a second accessible ramp be provided in Lady Bay West near the eastern end of the holiday park due to it being a high usage area with good path

access from the McGennans car park. WCC122 may be an appropriate location for an accessible ramp subject to further investigation of the dune morphology and detailed design.

- 12.** Retain access points at the Lady Bay WCC124 and Lady Bay WCC131 as they are. These are relatively new structures with long remaining useful lifespans.
- 13.** Upgrade matting material of the vehicle access ramp at the Warrnambool Lifesaving Club WCC127. This may need to be a short-term solution depending on the future long-term plans for the Warrnambool Surf Lifesaving Club and associated vehicle access to the beach. At this time it is not known whether the vehicle access point is proposed to remain in its current location.
- 14.** It is recommended that Lady Bay WCC128 and WCC132 be decommissioned and removed and these areas fenced and revegetated. There are multiple access points provided along this section in front of the holiday park which will ensure convenient beach access is retained. These two access points present regular maintenance issues due to their siting and position in the dynamic sand dune and regular sand coverage. Access to WCC128 has been closed to the holiday park due to maintenance and safety concerns.
- 15.** The access points WCC133 and WCC134 are in very close proximity to each other, approximately 65 metres apart. WCC133 is reaching the end of its remaining useful lifespan and WCC134 has an estimated remaining useful lifespan of 7 years. It is recommended to consolidate WCC133 and WCC135 into one upgraded beach access structure with an accessible ramp to accommodate wheelchairs and people with special access requirements. It is important that the access paths from the holiday park and The Flume car park be maintained in the redesign and sufficient facilities including waste disposal bins are provided in this location. The siting and location of the structure in the sand dune will require careful design and consideration in this dynamic sand dune to help avoid sand build up. The design of the new consolidated access point should include emergency vehicle access to the beach in this location (minimum 3m wide for all-terrain vehicle) as well as maintenance vehicles to clear sand away.
- 16.** Retain and improve WCC135, WCC136 and WCC138. These are relatively low usage access points. Investigate ways in which minor improvements can be carried out to enhance safety and extend their remaining useful lifespan.

POINT RITCHIE / MOYJIL, HOPKINS RIVER ESTUARY AND LOGANS BEACH

- 17.** Retain access points at Point Ritchie / Moyjil WCC140. This is a relatively new structure with a long remaining useful lifespan.
- 18.** Replace staircases at Point Ritchie/Moyjil WCC1141 and Hopkins River WCC142 and WCC145.
- 19.** Construct accessible ramp at Hopkins River WCC144 to accommodate wheelchairs and people with special access requirements. Provide all-terrain vehicle access to beach in this location for improved emergency access (although vehicle access is dependent on tidal levels)
- 20.** Investigate opportunities to make safety improvements to Logans Beach access WCCBH. Changes may include fencing and surface improvements. New ESTA marker required at this location.
- 21.** Replace staircase at Logans Beach WCC146. Replace timber stairs between the existing viewing platform/deck and beach. This is a current project in the planned capital works program.

GENERAL

- 22.** Conduct a Vegetation Management Plan review to investigate the management of weeds and species with invasive tendencies such as Coast Tea-tree. Use findings of review to guide the maintenance program and amend planning overlays, where required.

Recommendations Plan

WARRNAMBOOL BEACH ACCESS - RECOMMENDATIONS PLAN (WEST)



WARRNAMBOOL BEACH ACCESS - RECOMMENDATIONS PLAN (EAST)



- LEGEND
- Beach Access Point (33 in total within study area)
 - Retain**
Recently constructed staircase structure:
Worm Bay WCC118
McGennans WCC124
Lady Bay WCC131
Moyjil/Point Ritchie WCC140
Recently upgraded boat ramp:
Worm Bay WCCYC
 - Retain and improve**
 - Replace with accessible ramp**
Incorporate handrails, landings, tactile ground surface indicators
 - Replace with staircase**
Incorporate handrails, landings, tactile ground surface indicators and contrasting strips on stairs
 - New accessible ramp**
Incorporate handrails, landings, tactile ground surface indicators
Currently no constructed beach access at this location
 - Consolidate**
Consolidate WCC133 and WCC134 providing a single location for beach access. Replace with ramp (incorporating handrails, landings, tactile ground surface indicators). Provide all-terrain vehicle (ATV) access.
 - Decommission and Remove
WCC128 and WCC132
Fence off and revegetate area
 - Provide emergency vehicle access to beach
 - Existing Path/Trail
 - Existing Public Amenities/Toilets
 - Develop Viaduct Road Pedestrian Access Plan
Incorporate review of car parking, pedestrian access paths and crossings, pedestrian safety and design of WCC111, WCC112 and WCC113. Ensure access ramp for pedestrians and access ramp for emergency vehicles is provided.
 - Prepare a risk audit of the track and beach access points between Viaduct Road and Shelly Beach. The audit should assess the risk to visitors taking into consideration the stability of the cliffs and proximity of the trail/path/boardwalks to the cliff.

Beach Access Strategy

Part 1: Introduction & Background

1. INTRODUCTION

1.1 STUDY AREA

Council maintains 35 beach access points. The beach access points range from fully constructed access ramps to informal paths. Two of these access points, one at Levys Beach and another at Spookys Beach, were included in the recently completed Wild Coast Landscape Master Plan.

The remaining 33 beach access points span across approximately eight (8) kilometres of Warrnambool’s coastline. These 33 beach access points provide access to Shelly Beach, Pickering Point, the Merri River Estuary, Stingray Bay, Worm Bay, Lady Bay, Point Ritchie / Moyjil, Hopkins River Estuary and Logans Beach.

Warrnambool City Council is the Committee of Management (CoM), established under the *Crown Land (Reserves) Act 1978*, who are responsible for managing much of the Warrnambool coastline, including the 33 beach access points included within this study.

These 33 beach access points are included in this Beach Access Strategy for Warrnambool. The study area and 33 existing beach access points are shown at Figures 1 and 2.

Figure 1: Study Area Boundary



Figure 2: Beach Access Point Location Plan (with reference ID)

WARRNAMBOOL BEACH ACCESS - LOCATION PLAN (WEST)



REFER TO LOCATION PLAN (EAST) (BELOW)

WARRNAMBOOL BEACH ACCESS - LOCATION PLAN (EAST)



REFER TO LOCATION PLAN (WEST) (ABOVE)

1.2 WHY IS A STRATEGY NEEDED?

In 2019, Council completed an audit of the beach access points it maintains. The audit identified that some beach access structures are not fit for purpose and some have a limited useful remaining lifespan.

In future, significant changes are likely to place additional pressure on Warrnambool’s coastline. The population of Warrnambool was approximately 35,500 in 2020 and is forecast to reach close to 40,000 by 2036. (RDV, 2022). Warrnambool is also a popular and expanding tourism destination (WWC, 2021) and this will result in growing demand for beach access in the coming years.

The impacts of climate change are expected to bring a warmer year-round climate, more frequent storm surges with increased wave height as well as sea level rises. These forecast changes may cause significant impact on the coastline, including its fragile dune system and built infrastructure.

Council initiated this Beach Access Strategy to:

- a) Gain a better understanding of the needs of stakeholders, community and visitors in accessing Warrnambool’s beaches,
- b) Find out more about the challenges and opportunities for each beach access point; and
- c) Develop recommendations for what can be done to better manage Warrnambool’s beach access

The recommendations of the Strategy are intended to provide guidance for Warrnambool’s 33 beach access points over a 15-year timeframe. The Strategy will help inform Council’s capital works and renewal programs and will also be used to support any future grant and funding applications.

1.3 PROJECT APPROACH

The Beach Access Strategy is informed by consultation with community and key stakeholders. It is also informed by the various strategies, plans and policies that are relevant to coastal planning and specifically beach access, including the *Warrnambool Coastal Management Plan 2013*, *Disability Access and Inclusion Policy 2020*, *Active Warrnambool Strategy 2019-30*, *Warrnambool 2040*, *Community Plan 2019* and the *Warrnambool Coastal Vegetation Management Plan 2012*.

A summary of these documents and key findings are provided in the Warrnambool Beach Access Strategy Background Report, 2022. This Background Report details how the relevant plans and policies relate to future planning for beach access. Section 2 also provides a summary of the planning framework which informs this Strategy.

Council sought community input into this Beach Access Strategy during consultation in February/March 2022. The survey asked the community how they currently utilise beach access points between Shelly Beach and Logans Beach, what issues they face when using these access points, what concerns they and how they would like to see beach access improved. A summary of the feedback from Round 1 consultation is provided at Section 2.

The project team conducted site visits in March 2022. An overview of the site analysis from these visits, and findings from previous audits, is provided at Section 4.

Figure 3 shows the stages in the development of the Warrnambool Beach Access Strategy.



1.4 PLANNING FRAMEWORK

The Warrnambool coastline is recognised as having significant landscape, cultural heritage and environmental values. These values are acknowledged by Aboriginal Victoria, the State Government of Victoria and Warrnambool City Council.

The section of coastline between Shelly Beach and Logans Beach also has a significant role in providing for public recreation and tourism, providing public beach access in multiple locations, including the patrolled swimming beach and connecting with the broader linear trail network.

The need to protect the significant landscape, cultural heritage and environmental values whilst maintaining access for tourism and recreation are reinforced through regulations and planning policy.

The Beach Access Strategy is informed by the existing planning framework and the various approved policies, strategies and plans relevant to coastal planning, including:

STATE PLANNING FRAMEWORK

- *Warrnambool Planning Scheme*
- *Marine and Coastal Policy, Victorian State Government 2020*
- *Victorian Coastal Strategy 2014*
- *Victoria’s Coast and Marine Environments Under Projected Climate Change: Impacts, research and priorities (Victoria State Government 2018)*
- *Siting and Design Guidelines for Structures on the Victorian Coast, 2020*
- *Protecting Victoria’s Environment-Biodiversity 2037*

LOCAL PLANNING FRAMEWORK

There are numerous local strategies, plans and policies that provide recommendations and directions for the Warrnambool Coast and beach access. They include:

- *Warrnambool City Council Plan 2021-2025*
- *Wild Coast Landscape Master Plan 2021*
- *Disability Access and Inclusion Policy 2020*
- *Active Warrnambool Strategy 2019-30*
- *Warrnambool 2040, Community Plan 2019*
- *Lake Pertobe Master Plan 2018*
- *Green Warrnambool 2018*
- *Warrnambool Harbour Master Plan 2018*
- *Warrnambool Coastal Management Plan 2013*
- *Moyjil Conservation Management Plan 2013*
- *Warrnambool Open Space Strategy 2013*
- *Warrnambool Coastal Vegetation Management Plan 2012*
- *Warrnambool Public Amenities Strategy 2013*

A summary of the listed State and local planning documents is provided in the Warrnambool Beach Access Background Report 2022, which helps inform this Strategy.

One of the most pertinent planning documents relevant to Beach Access is the Siting and Design Guidelines for Structures on the Victorian Coast (DELWP, 2020). In the planning phase of replacing or proposing new structures on the Coast, the Guidelines list a number of questions that should be considered by the proponent, which in most instances will be Warrnambool City Council. When considering the replacement, upgrade or relocation of Warrnambool’s beach access structures, the Siting and Design Guidelines for Structures on the Victorian Coast (DELWP, 2020) must be carefully considered and addressed.

There are 15 fundamental considerations detailed in the Guidelines, including:

1. *Aboriginal cultural heritage*
2. *Coastal processes*
3. *Geology*
4. *Morphology*
5. *Hydrology*
6. *Vegetation and ecology*
7. *Climatic conditions*
8. *Views*
9. *Public Open Space*
10. *Local character and sense of place*
11. *Heritage*
12. *Public access*
13. *Increased function and adaptability*
14. *Sustainability*
15. *Materials and finished*

The *Siting and Design Guidelines for Structures on the Victorian Coast 2020*, are referred to regularly throughout this document.

PLANNING ZONES

Warrnambool's 33 beach access points are located on land zoned Public Conservation and Resource Zone (PCRZ) and Public Park and Recreation Zone (PPRZ). The PCRZ applies to coastline to the less urbanized areas of the coast, including Shelly Beach, Pickering Point, Lady Bay (East) and Logans Beach, whilst the PPRZ applies to the coastline adjoining the urban area and foreshore precinct, including Worm Bay and Lady Bay (West).

Figure 5 shows zoning of land within the study area. The following zones apply:

36.02 PUBLIC PARK AND RECREATION ZONE

This zone seeks to:

- recognise areas for public recreation and open space.
- protect and conserve areas of significance where appropriate.
- provide for commercial uses where appropriate

36.03 PUBLIC CONSERVATION AND RESOURCE ZONE

This zone seeks to:

- protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
- provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- provide appropriate resource-based uses.

Figure 4: Zoning



PLANNING OVERLAYS

There are five overlays applying to the study area between Shelly Beach and Logans Beach. Figures 6 to 10 show overlays applying to land within the study area. These overlays include the following:

42.01 ENVIRONMENTAL SIGNIFICANCE OVERLAY SCHEDULE 1 – COASTAL ENVIRONS

This overlay applies to coastal environs in Warrnambool with environmental significance. It contains a number of environmental objectives to be achieved for these areas, including protection of natural and cultural values, preventing and minimising coastal erosion, maintaining remnant vegetation, minimising the spread of weeds and encouraging planting of locally indigenous species.

Figure 5: Environmental Significance Overlay – Schedule 1 Coastal Environs



42.03 SIGNIFICANT LANDSCAPE OVERLAY – SCHEDULE 1 – COASTAL HINTERLAND LANDSCAPE AREA

This overlay applies to coastal hinterland areas recognised for their significant landscapes. It contains a number of landscape objectives to be achieved, including protecting the scenic qualities of the coast hinterland, recognizing important views and maintaining and enhancing these views.

Figure 6: Significant Landscape Overlay – Schedule 1 Coastal Hinterland Landscape Area



43.01 HERITAGE OVERLAY – HO19 WARRNAMBOOL BREAKWATER, VIADUCT AND HARBOUR AND HO51 HOPKINS RIVER MOUTH

This overlay seeks to conserve and enhance heritage places of natural or cultural significance, conserve and enhance those elements which contribute to the significance of heritage places, ensure that development does not adversely affect the significance of heritage places and conserve specified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.

Figure 7: Heritage Overlay HO19 Warrnambool Breakwater, Viaduct and Harbour, HO51 Hopkins River Mouth



44.06 BUSHFIRE MANAGEMENT OVERLAY

The purpose of this overlay to ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire. Other purposes of this overlay relate to development and in particular buildings that people inhabit.

Figure 8: Bushfire Management Overlay



43.02 DESIGN AND DEVELOPMENT OVERLAY – SCHEDULE 2 – LOGANS BEACH

This overlay applies to set the design, subdivision and development parameters, including:

- To ensure the proper protection and management of the whale viewing area and its environs.
- To protect the local environment and significant views.
- To provide generous separation between dwellings to enable revegetation of the landscape.
- To limit intrusion on the skyline and ridgeline.
- To encourage the designation of Appropriate Building and Access Areas at the time of subdivision.
- To provide for a thorough permit application assessment process for buildings, particularly on the southern side of Hopkins Point Road in relation to landscape and environmental issues, by using as appropriate the Logans Beach Urban Design Guidelines (including the associated computer model).

Figure 9: Design and Development Overlay – Schedule 2 Logans Beach

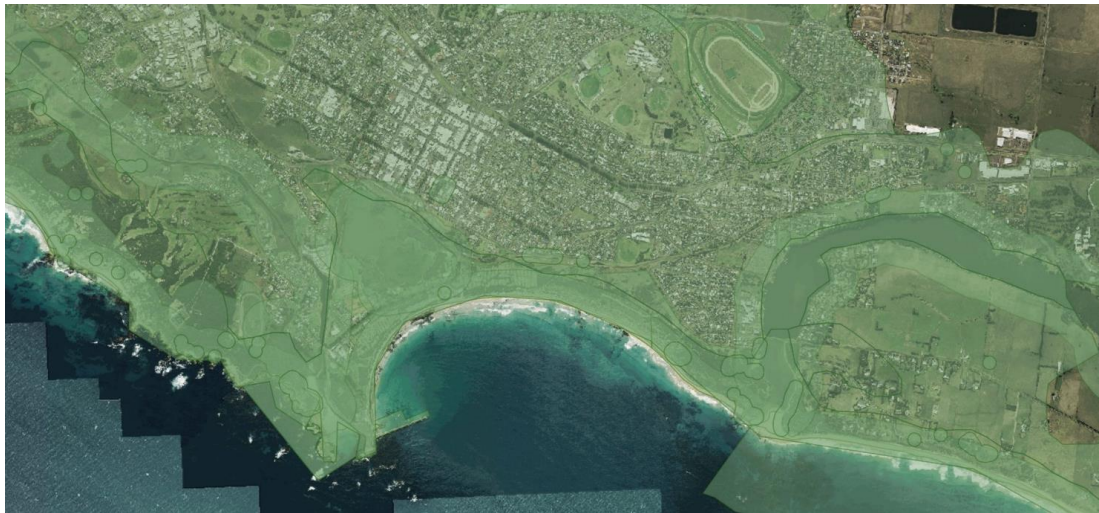


CULTURAL HERITAGE SENSITIVITY

Areas of cultural heritage sensitivity are defined in the *Aboriginal Heritage Regulations 2018* and relate to landforms and soil types where Aboriginal places are more likely to be located. The cultural sensitivity areas are identified on maps available from the Aboriginal Victoria’s Aboriginal Cultural Heritage Register and Information System (ACHRIS). Figure 11 shows the entire study area as an area of cultural heritage sensitivity. There are also particular sites of cultural heritage which have been mapped and recorded within the study area. (AV, 2020)

In a planning context, any land use and development activities likely to cause harm to Aboriginal cultural heritage must have a cultural management plan prepared and approved before the development or activity can be carried out (AV, 2020) and the recommendations of the management plan must be complied with.

Figure 10: Cultural Heritage Sensitivity Areas (covers 33 beach access points in the study area) (DELWP 2022)



Heritage
Aboriginal Cultural Heritage Sensitivity

Beach Access Strategy

Part 2: Consultation Findings

2. CONSULTATION FINDINGS (ROUND 1)

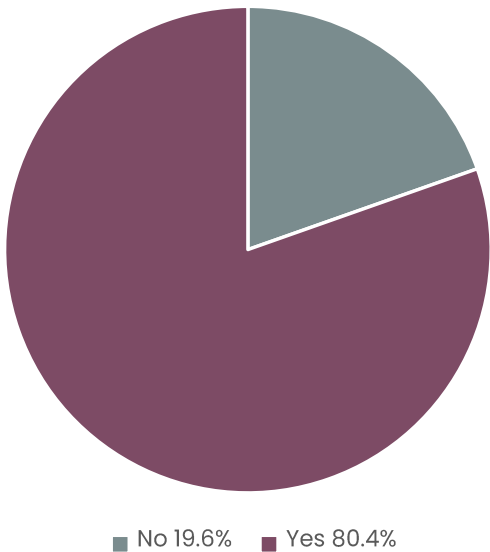
Round 1 consultation was undertaken in February/March 2022 to gain a better understanding of which access points residents and visitors currently use, what issues/challenges exist for beach access and how beach access can be improved. An online survey was carried out to reach the broader community. 51 people completed the online survey and there were two written submissions.

A number of stakeholders, primarily organisations and groups were directly contacted inviting them to participate and provide comment on beach access in Warrnambool. Feedback was received from Leadership Great South Coast, Eastern Maar Aboriginal Corporation, the State Emergency Service and Warrnambool Lifesaving Club.

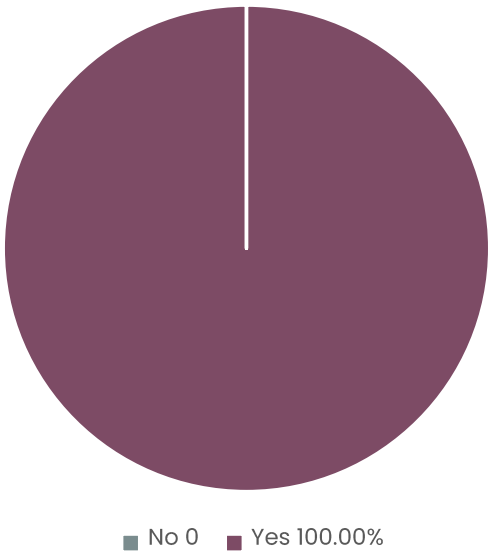
It should be noted that beach access point usage will vary depending on the time of year and presence of holidaymakers, particularly in the adjacent caravan parks. The figures below provide a snapshot of usage during late February and early March, which is not peak holiday season. Management of neighbouring holiday parks were consulted with to get a better understanding of which beach access points are used by tourists at the holiday parks.

2.1 COMMUNITY CONSULTATION OUTCOMES (FROM ONLINE SURVEY)

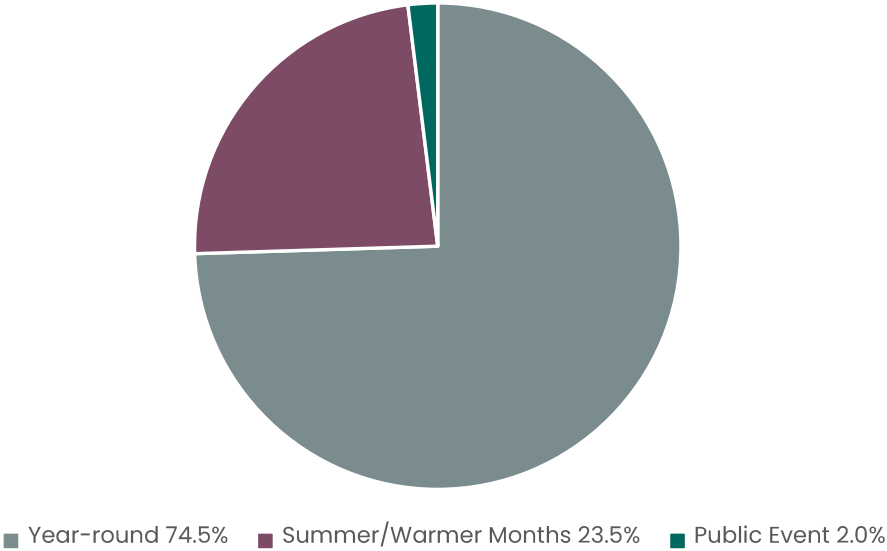
QUESTION 1: Do you live in Warrnambool?



QUESTION 2: Do you use any of the beach access points identified on the attached plan?



QUESTION 3: At what time of year to you utilise the beach access point/s?



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QUESTION 4: Which access points do you visit and how often?*

A full breakdown of responses relating to usage of each of the 33 access points are provided at Appendix 1 .
The following is a summary of results:

The beach access used by the highest number of survey respondents:

- 1 – Lady Bay West WWC 118 (access point closest to Worm Bay car park)
- 2 – Lady Bay West WCC119 (access point 80 metres (aprx.) north of Worm Bay car park)
- 3 – Lady Bay WestWCC127 (ramp at Warrnambool Surf Lifesaving Club, next to observation tower)
- 4 – Lady Bay West WCC120 (in front of Shipwreck Bay Holiday Park 150m (aprx.) north of Worm Bay car park)
- 5 – Hopkins River WCC144 (access point adjacent car park and opposite public toilets at Bluehole Road)

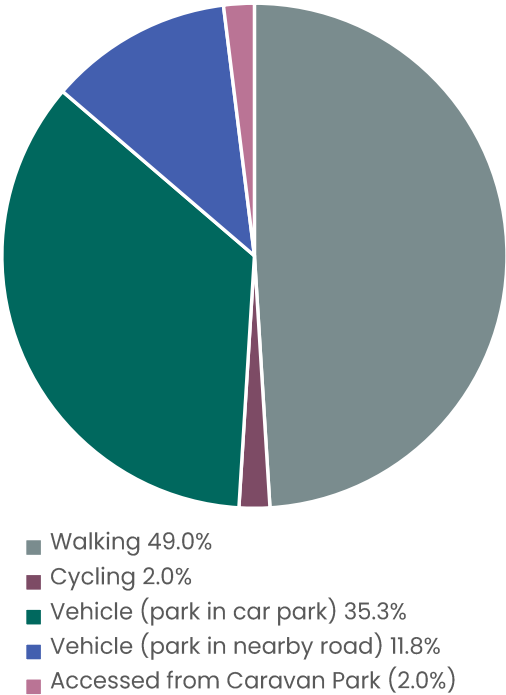
The beach access points used by the least number of survey respondents:

- 1 – Lady Bay West WCC131 (towards eastern end of Surfside Holiday Park)
- 2 – Lady Bay West WCC133 (eastern end of Surfside Holiday Park)
- 3 – Lady Bay EastWCC135 (access point to the east of The Flume)
- 4 – Hopkins River WCC145 (40m (aprx.) south of Bluehole Road car park)

The most frequently used access points (visited on a daily/weekly basis):

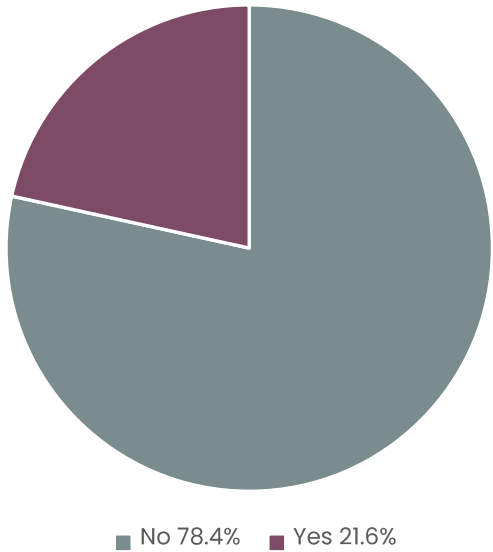
- 1 – Lady Bay West WCC119 (access point 80 metres (aprx.) north of Worm Bay car park)
- 2 – Lady Bay West WCC118 (access point closest to Worm Bay car park)
- 3 – Lady Bay West WCC126 (access ramp west side of Warrnambool Surf Lifesaving Club)
- 4 – Lady Bay West WCC127 (ramp at Warrnambool Surf Lifesaving Club, next to observation tower)

QUESTION 5: When getting to the beach what is your mode of transport?



Of the respondents, 9.8% answered that in addition to their main mode of transport, they use other modes on some occasions, including walking, vehicles and running.

QUESTION 6: Do you have special access requirements?



Of the 11 (21.6%) respondents who have special access requirements, these special access requirements include wheelchair access (3), vision impairment (1), children in a pram (6), arthritis, using a wheeled walker due to impaired balance and special accessibility requirements associated with injuries, ageing and multiple sclerosis.

QUESTION 7: Does existing access to the beach meet your special access requirements?

Of the 11 (21.6%) respondents who have special access requirements 4 answered ‘yes’ the existing access to the beach meets their requirements and 7 answered ‘no’.

There were additional comments from people who do not have special access requirements, but in some cases have family members or friends who do have special access requirements.

In cases where respondents answered ‘no’, the reasons described as to why the current beach access is inadequate include:

- Large piles of sand make it slippery and difficult to navigate (3) including prams
- Steel stairs
- Ramp much better access than stairs for families and older people specially when carrying beach gear and children.
- Lack of resting platforms on stairs.
- Unstable (2)
- Unsafe
- Not enough space.
- It’s often hard to get up stairs with all gear required. Aged residents have difficulty getting up the stairs.

- Steepness (2)
- Need firm ground down to beach
- Difficult access at Bluehole. Throughout winter the track has lots of mud puddles. The access has been washed away leaving wood sitting in difficult positions to cross.
- Not maintained, broken slats,
- No handrails/inadequate handrails (3) on inclines
- Large drop off (50cms) onto beach (2)
- Difficult to walk down/up big drop unstable entry
- Many bottom steps are too steep
- Weeds built up on path

QUESTION 8: Do you have any concerns about the access points shown on the map?

- Access behind beach kiosk (WCC125) needs reopening as it is a main access point (2 responses) and looks terrible
- Overgrown vegetation around the paths allows sand to build up around the paths. If there was less vegetation the sand would blow back into the ocean and not accumulate on paths behind vegetation.
- The Surf Lifesaving Club access point next to the observation tower (WCC127) needs to be regularly graded to clear sand
- Complete lack of accessibility to main beach. The current ramp on west side of Surf Lifesaving Club (WCC126) is never maintained and is covered in sand.
- Ramps are safest way to access the beach for families and the elderly.
- Some of the access points are covered over in sand, could be maintained by clearing once per week by one person working in the beach area
- Can't see the beach/tide until you are already at the access, then if tide is too high a different access point has to be used.
- Erosion of the dunes washes away the stairs
- Some are dangerous, beach eroded and not navigable by some people
- No concerns.
- Logan’s Beach Access staircase needs replacing
- So steep and not well maintained.
- Steep slope on WCC134 (‘The Flume’)
- All entries from surfside (WCC129 to WCC133). Many people have fallen there.
- Safety of walking the track and accessing the beach.
- Not enough access points between McGennans car park and surf club
- Some require more attention due to breakages and wear over the years. Especially Logans and Hopkins east side of the river, over grown and washed away for ocean surge
- Long term viability. Increasing dune movement and raising sea level

QUESTION 9: Are there any issues you would like to see addressed through the beach access strategy?

41 (80.4%) of respondents said they would like the strategy to address a specific issue. A summary of the responses include:

- Sand accumulation (2) on the paths and making it unsafe on bikes and difficult with prams. A specialist needs to look at why the sand is trapped.
- Make Lady Bay beautiful again, it's in very poor condition
- Please maintain and update the access path from end of Younger Street into the beach being used by walkers, hikers, surfers and photographers and should be used as a permanent path for the public to use.
- Vegetation maintenance/less vegetation (3). Too much vegetation around the paths is not allowing sand to blow back into the ocean. Maintain lower height on bushes/trees along promenade. Worm Bay access, WCC118 requires vegetation cutting back along the breakwater side of the track. Risk of collision between bicycle riders and pedestrians.
- Better steps
- More facilities
- More seating
- Walking path could be widened or another track for bicycle users
- Additional access ramps (2). Ramps, at least on west end of McGennans carpark beside the caravan park. This would allow access from both carpark and caravan park. Port Fairy example cited.
- Wider paths to allow for the amount of people using the paths and the traffic with bikes etc. More public toilets. rubbish bins on the path ways. more sweeping of sand and water from paths.
- WCC125 should be re-opened. It is regularly used despite council boarding it up.
- Improved stairs to the beach
- Some of the tracks leading to or past the access points do not have adequate fencing adjacent to nearby cliff edges. These pose a threat especially to small children. Eg. Pickering Point to WCC107 to WCC111
- Maintenance of existing access points, removal of build up sand sporadically
- Accessible access for older people , prams and wheelchairs.
- Maintain as many access points as possible.
- Seaweed accumulation
- Disabled Access Ramp is a waste could be maintained & safer if wider & direct to utilise council's heavier fleet (Backhoe, Front End Loaders)
- People walking on the dune system- accessing it from the beach side
- Better access for those with disabilities
- Better lighting on pathways
- Dune health and wildlife habitat
- Ease of access not so steep

- Bring back the excess to the beach from Surf Side 1 C127 and C128
- Steep sand dune paths are hard to access as well as narrow steep stair cases
- Safe beach access. From surfside. That's why people camp there.
- Improved access at Bluehole (WCCBH)
- The access ramp from the surf lifesaving club to the beach is heavily used by young families often juggling young children and beach paraphernalia. Not to mention the many other campers wishing to access the beach safely.
- Horses shouldn't be allowed on the beach.
- Please change laws so dogs are allowed on beach all year before 8 or 9am.
- Maintained safe access.
- At entrance WCC129. I would like wood handrails to go all the way and for the sudden drop to be fixed as it is difficult for someone with poor balance
- More taps
- Access steps to small bay between boat ramp and breakwater
- It should be easier for older people with stiff joints to access, sometimes too steep
- Access via the new stairways is difficult for older adults and young children
- Higher levels of maintenance and replacement programs, the new housing areas at Logans Beach coastal village and Hopkins Heights once finished will have over 1000 households increasing previous use of beach access east of the Hopkins River. A higher level of maintenance, signage and replacement will need to be developed. Developers of logans beach coastal village need to be pressured to complete works on the dune walking track to logans whale platform before damage is done to the natural dune area. The damage will only increase as residential areas are completed
- Disability access to popular locations.
- Find a way for disabled people and those with mobility issues to enjoy a swim
- Coastal infrastructure being adaptive to climate change and sea level rises.
- Sand washing out from the base of any new stair cases installed

QUESTION 10: How could beach access be improved?

- Younger street beach access improved and updated
- Vegetation maintenance (less vegetation (2). Remove all the dead tree so there is a better line of site & foreshore your tidy and over grown items from the path way
- More stair cases with holes in them so the sand can blow through and not accumulate on the paths.
- More facilities More seating
- Sand could be removed (2), including from the ramp near the lifesavers.
- Additional access ramps (2) and rails
- maintenance of steps and railings
- Maintenance on timber checked more regularly
- Remove much of the plantings along promenade
- The seaweed piled up against the dunes has created seaweed cliffs rather than sand dunes.
- WCC125 should be re-opened. It is regularly used despite council boarding it up.
- Better paths near shelley beach.
- If you have an access point then please make it usable some in front of the Holiday Park (from WCC127 -WCC133) are washed away and difficult/dangerous to use
- Places to wipe sand off, brushes or mats
- A ramp every few sets of steps
- The access point we use could have a couple of boards replaced.
- More hand rails or rope on steep inclines. more stairs and access points like the new worm bay stairs. Better pedestrian access at the breakwater separate to horse or boat access.
- Warning signs to alert for cyclists & remove some of the undergrowth for safer viewing on crossing point!
- seaweed cleared more regulary in lady bay
- the stairs at Worm bay are fantastic and seem to be more resilient to the forces of nature.
- Better maintained ramps and a toilet block with shower facilities at the lady bay access points or the breakwater area
- More visible markings to prevent rogue walkers.
- Open up the excess to the beach from the caravan park between WCC127 & WCC128
- Be safe. Sides steady no sheer drops or broken steps
- Fix the current infrastructure
- Why not replicating the improvements that have been completed on other beach accesses along Lady Bay that have recently been updated
- Maintained and easy access for all despite age or disability
- A wheelchair path
- Bins at every access for people to dispose of their rubbish
- Less access points but existing ones improved similar to worm bay 118
- Not as steep and also twice as wide.
- Ramps could improve access for older adults and young children. people who have difficulties with balance find the metal stairs difficult.
- New construction, Repair, Replacement, maintainence and signage
- Having better car access closer to beach
- Get mats for surf club and the other access ramp.
- Materials they are made out of. Need to be longer lasting materials. Better materials used for structures, reducing impacts of erosion and storm events
- ensuring that the sand odesnt fill the walk ways or be washed out from the base of any new stair cases installed

QUESTION 11: Do you have any general comments that would help inform the beach access strategy?

- Talk to the main user groups,(Surf Club) and listen to their concerns
- When walking along the beach paths there is almost next to no view of the ocean from grannies grave to the river mouth. The scrub has grown so high I feel unsafe walking through certain parts of the track. It's nice to access the beach and it would be even nicer to see the beach from most parts of the walking path. It's very over grown and very unkept from grannies grave to the river mouth- especially near the timber decking area.
- Check what other beachside towns do! Better than Warrnambool
- Beach access is not a problem ; the problem is access to toilet facilities when at the beach.
- The seaweed needs to be removed from the beach. It becomes a health and safety issue particularly in summer. People have to endure the smell and been attacked by bugs. Not encouraging for tourist to sit on the beach.
- Wider paths to allow for the amount of people using the paths and the traffic with bikes etc. More public toilets. rubbish bins on the path ways. more sweeping of sand and water from paths.
- Just keep most of the area clean this would be easy if done once per week with a sweeper and hand blower, it would improve the look of the areas also
- Want to see the beach from the promenade, not tea tree and other bushes.
- Access points are identified using emergency markers. Closing access points that are emergency markers is dangerous and should not be done. WCC125 is one such access (at the top of the carnival site). WCC125 should be re-opened. It is regularly used despite council boarding it up.
- Please be guided by the Surf Club
- The beach access point (No WCC119) serves a large number of sites from within Shipwreck Bay and is a direct link to the caravan park on the opposite side of Pertobe Road.
It provides crucial access to the beach for a large volume of young children, families and older people. Many carry items such as chairs, shade tents, food, toys etc so they are able to spend the day there.I have been using it for over 50 years and from experience would say it is one of the busiest and most essential points of access.
- Metal is very uninviting. Timber is a much better material. Looks nicer.
- Do more to make access easy for our community
- Walker safety and access over bike paths is also a risk for ambulant and young/aged users
- Actually consult the disability community and an occupational therapist
- The new stairways put in at Lady Bay West are fantastic protection for the environment as well as storms
- It is just as important to provide safe easy beach access to tourists as well as residents. Warrnambool relies on tourism and has a beautiful beach which is a major attraction and needs to be maintained for everyone's safety and enjoyment.
- Format of online survey not good and cross-references to map, with no link to survey mean people won't respond
- There is not one rubbish bin between the surf club and Grannys Grave, I always pick up my dog poop but there is no where to bin it, probably why a lot if pet owners don't

- Clear away the tea tree from the primary dunes. It is not natural and causes problems . Remember the dunes are artificial from a few decades ago
- New stairways and McGennan's and Worm Bay are great but they are very high. Older adults can find it difficult, especially when carrying chairs/bags/boards etc.
- New construction, Repair, Replacement, maintainence and signage
- It would be good to be able to have better lookouts
- Targeted consultation with the disability community - where should we be providing better access?

2.2 STRENGTHS, CHALLENGES AND OPPORTUNITIES

As revealed in the preparation of the Background Report, there are a number of strengths, challenges and opportunities relating to Warrnambool's Beach Access. The following Figures (15-17), originally recognised in the Background Report, have been updated to reflect the feedback received from the community and stakeholders during Round 1 Consultation.

STRENGTHS

- Significant as a cultural landscape, with important connections to Country for the Traditional Owners and sites of significance, including Moyjil Aboriginal Place.
- Highly scenic and significant coastal landscape
- Appealing beaches and swimming areas
- Home to the Warrnambool Surf Life Saving club
- Logans Beach Southern Right Whale Nursery
- Home to a wide variety of flora with a wide variety of ecological vegetation classes, including the locally endangered Coastal Dune Grassland
- Mouth of the Hopkins River and Merri River Estuaries
- Adjacent the Merri Marine Sanctuary and Middle Island
- Home to a wide variety of fauna, including rare and threatened species, including nesting Hooded Plover (*Thinornis cucullatus*).
- Popular for a variety of recreational activities, including: walking and running, cycling, horse riding, fishing, photography, bird-watching, surfing, swimming and other water sports, yachting.
- Close to the city centre and tourist attractions with convenient access to tourist resorts/parks
- Close to holiday parks, restaurant/s and café/s
- Post settlement sites of significance, such as Granny's Grave and Victorian Registered sites such as the breakwater
- Foreshore and foreshore promenade are high use areas next to the popular Lake Pertobe
- Highly valued by the community for the variety of recreational opportunities available
- Facilities and amenities, including car parking, toilets, seats, showers and waste disposal bins in close proximity to a number of access points.
- ESTA markers on most access points.

CHALLENGES

- Increase in visitor numbers may create additional pressure on the coastline, its landscape and cultural values and existing infrastructure, including access structures
- Ageing infrastructure reaching the end of its useful life
- Natural and marine processes, such as storms and storm surges, can impact on the integrity of heritage sites and also contribute to dune erosion and damage to infrastructure.
- Climate change impacts such as rising sea levels and increased frequency and severity of storms are a threat.
- Limited knowledge of the effects climate change will have on the coast.
- Conservation management of native flora and fauna
- Threats to environmental values from urban areas
- Pest plant and animal management
- Unauthorised pedestrian and bicycle access
- Dune instability and impacts of sand shifting onto access structures and paths. Sand build-up creates accessibility barriers and maintenance concerns.
- Non-compliance with the off-leash areas
- Areas of soil and cliff instability
- Impacts to places of cultural significance due to their fragile and accessible nature
- Access and inclusion to beach access for those with a disability and/or special access requirements
- Provision of new infrastructure, including amenities
- Silting of Lady Bay
- Disposal of dredging spoil
- Seaweed accumulation on the foreshore
- Public safety and risks to users of beach access structures
- Fire management
- Coastal Acid Sulfate Soil hazard
- Dumping of rubbish and littering
- Financial costs associated with providing new infrastructure and maintaining existing infrastructure
- Emergency access to the beach can be difficult in some locations.
- Steep inclines and steep staircases
- Lack of infrastructure for people with special access requirements
- Steep drop offs
- Vegetation overgrowth and management (namely Tea-tree)

OPPORTUNITIES

- Improving access and inclusion to those with a disability and/or special access requirements through upgrades to beach access infrastructure.
- Reducing safety risks to visitors through improved beach access infrastructure.
- Enhancing Warrnambool’s tourism and event offerings through improved beach access.
- Protecting cultural heritage landscapes and sites along the coastline through changes and/or improvements to beach access infrastructure. The means by which this can be achieved will be discussed with the Traditional Owners.
- Improving coastal dune stability through revegetation and installation of physical barriers, preventing pedestrian and cyclist access off designated beach access paths.
- Adopting a consistent approach to design and construction materials used for beach access points. This may result in long-term cost savings for renewal and capital works budgets.
- Implementing climate change mitigation measures to help protect the coastline’s values and ensure beach access structures are design and constructed to tolerate climate changes and extreme weather events.
- Developing a hierarchy of most to least used beach access points to help better determine access requirements for each point and appropriately direct funding.
- Developing an assessment criteria/matrix to help determine a works priority list for renewal and capital works on the 33 existing beach access points.
- Applying adaptive management to inform approaches and changes to management of the coastline over time.
- Maintenance regime changes to target specific challenges and issues detailed by the community and maintenance staff, including sand build up and vegetation overgrowth.
- Improve emergency access.
- Beach access changes to be considered, include:
 - replacement (like for like or minor modifications)
 - replacement with upgrade (to improve accessibility with new design, siting and materials)
 - retention (of new structures or those with a long useful lifespan remaining)
 - consolidation (2 structures decommissioned and rebuilt with 1 upgraded structure)
 - decommissioning and removal



Warrnambool Beach Access Strategy

Part 3: Analysis, Planning Principles & Recommendations

3. ANALYSIS AND PLANNING PRINCIPLES

This section provides an analysis of Warrnambool’s Beach Access and key planning principles that should be applied in future planning of beach access.

The beach access planning principles are derived from the findings from site visits and site analysis, the Warrnambool Planning Scheme, previously adopted studies and plans and insights and suggestions from the community and stakeholders. These principles inform the recommendations of the strategy.

3.1 SERVICE PROVISION AND ACCESSIBILITY

Warrnambool’s beaches are amazing natural assets attracting residents, visitors and tourists. The 33 beach access points, spanning across eight (8) kilometres from Shelly Beach to Logan Beach, are in walking distance from the Warrnambool City centre, holiday parks and popular tourist destinations including Lake Pertobe. The beach access points also provide access to the patrolled swimming beach in front of the Warrnambool Lifesaving Club.

AMENITIES AND CAR PARKING FACILITIES

Many of the beach accesses are connected to the Warrnambool beach foreshore loop, Port Fairy to Warrnambool Rail Trail and foreshore promenade and Lake Pertobe Road.

In addition to the paths and trails, there are eleven (11) car parks which allow people to park their vehicle and walk to the beach access points. These car parks include:

1. Thunder Point lookout (Thunder Point Road)
2. Pickering Point lookout (Pickering Point Road)
3. Merri River Estuary (Viaduct Road)
4. Harbour Precinct car parks (end of Viaduct Road)
5. Worm Bay (Worm Bay Road)
6. McGennans Beach (entrance off Pertobe Road)
7. Warrnambool Surf Lifesaving Club (entrance off Pertobe Road)
8. The Flume (entrance off Merri Street)
9. Point Ritchie/Moyjil (Point Ritchie Road)
10. Hopkins River (Blue Hole Road)
11. Logans Beach (Logans Beach Road)

There are currently public amenities including toilet facilities located at:

1. Merri River (Viaduct Road)
2. Harbour Precinct car parks (end of Viaduct Road)
3. McGennans Beach (entrance off Pertobe Road) (proposed for replacement)
4. Warrnambool Surf Lifesaving Club (entrance off Pertobe Road)
5. Point Ritchie/Moyjil (Point Ritchie Road); and
6. Hopkins River (Blue Hole Road)

The Public Amenities Strategy 2013 identified toilet upgrades at Hopkins River (Blue Hole Road), Merri River (Viaduct Road) and Point Ritchie / Moyjil as well as a toilet replacement near McGennans Beach car park. The Public Amenities Strategy did not recommend and new toilet facilities at beach access locations.

USAGE, SERVICE PROVISION AND ACCESSIBILITY

There are a variety of different service levels, which generally align with the usage level. Refer to the Usage Plan at Figure 11. Usage and service levels have been divided into three categories:

Category A

- Located near key tourist attraction or Life Saving Club. High use during peak periods.
- Located with good connection to shared trail.
- Public amenities and car parking facilities located within 300m walking distance in all locations, except Logans Beach Whale Nursery which does not have public toilets.

Category B

- Public amenities, car parking facilities and/or tourist park located within 300m walking distance.
- Located with good connection to shared trail.
- Medium to high use during peak periods.

Category C

- Public amenities and car parking facilities located greater than 300m walking distance.
- Low to Medium use during peak periods.

There are a number of different construction types and materials used for the 33 beach access points. They range from

1. Sand access track
2. Sand access track with boards and chains
3. Stairs constructed of timber or concrete, many excluding appropriate landings and ground surface indicators.
4. Steel and fibre reinforced polymer mesh with handrails, landings and ground surface indicators.
5. Timber ramp with handrails and landings.

The existing level of service of some structures do not meet the current user’s needs and unlikely to meet future anticipated demand. This was evidenced through the 2019 Council audit and recent site visits and was reinforced through the Round 1 community consultation feedback, where a number of comments related to the beach access points not meeting the needs of users with special access requirements and concerns raised about various beach access points. Concerns around access and service provision related to:

- Sand build up
- Absent/inadequate handrails
- Trip hazards, particularly on timber structures
- Staircase incline being too steep

- Inappropriate materials
- Lack of landings/resting platforms on staircases
- Unstable structures
- Lack of space on structures
- Uneven ground/surfaces
- Path erosion and water pooling
- Broken slats
- Large drop-offs to beach at end of structures
- Weeds/vegetation overgrowth

There is only one access structure designed to accommodate wheelchairs, prams and walking frames. This ramp (WCC126) is accessed via a path from the McGennans Car Park or via a path from the Surf Lifesaving Club car parking areas, including a disabled parking bay on the west side of the club building. The ramp presents numerous issues in terms of accessibility and maintenance due to regular sand build up. The design and construction material of the ramp also make it difficult for service crews to remove the sand on the ramp.

SERVICE PROVISION AND ACCESSIBILITY PLANNING PRINCIPLES

- Address accessibility concerns and provide safe and equitable public access to the beach and river estuaries.
- Ensure renewal and replacement of beach access structures facilitates greater accessibility and inclusiveness for those living with a disability and those with special access requirements.
- Actively engage and involve disability support groups and users with special access requirements early in the planning phase for new and upgraded beach access infrastructure.
- Enhance connections between beach access points and surrounding paths and trails and public transport stops to improve accessibility and provide opportunities for beach access and active beach recreation for all residents and visitors.
- Provide adequate waste and public amenities infrastructure to ensure beaches remain clean.



Figure 11: Beach Access Peak Usage Plan

WARRNAMBOOL BEACH ACCESS - PEAK USAGE PLAN (WEST)



WARRNAMBOOL BEACH ACCESS - PEAK USAGE PLAN (EAST)



3.2 SAFETY & EMERGENCY ACCESS

SAFETY

Warrnambool’s coastal environment is dynamic, often with diverse climatic conditions which can contribute to shifting sands and unstable dune systems. It is important that beach access points along the coast are planned, designed and built carefully to ensure they can withstand the demands of increasing use and climate change. These access points must also provide safe and functional access.

Beach access safety concerns raised by the community or noted through the site visits and discussions with stakeholders, included:

- Grades/steepness of some staircases and timber boards and chains.
- Sand coverage and build up over structures (Figure 12)
- Erosion of sand and steep drop-offs at base of some stairs/access structures
- Surveillance and sightlines. Particularly along the beach foreshore trail where taller vegetation exists blocking views and creating safety concerns for users, particularly at intersections between the shared trail and path access points. (Figure 13)
- Horses
- Isolated nature of places, such as Shelly Beach (WCC101) and Pickering Point (WCC107)
- Cliffs, steep embankments, steep dune embankments.
- Inadequacy of fencing in some locations
- Materials and maintenance (splinters, warped stair treads)
- Anti-social behaviour, including lighting of fires

Perceptions of safety have a strong influence on people’s walking preferences and vegetation overgrowth was cited by a number of survey respondents in relation to safety. If people feel as though they are putting themselves at risk in certain locations they are more likely to avoid those environments.

Figures 12: Sand build up on ramp (WCC126)

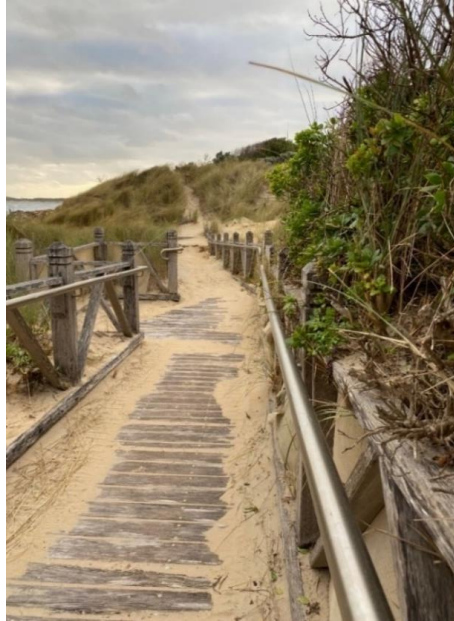


Figure 13: Vegetation close to trail



EMERGENCY ACCESS

Discussions and feedback from the State Emergency Service (SES) and Warrnambool Surf Lifesaving Club (WSLSC) revealed existing emergency access issues.

The State Emergency Service are called to emergencies for the retrieval of casualties if the ambulance cannot gain access. The SES use an all-terrain vehicle to gain access to the beach it requires a three (3) metre minimum access width.

The Warrnambool Surf Lifesaving Club have a patrol tower located adjacent to access point WCC127. The usual flagged area for the patrolled swimming area is located between access points WCC126 and WCC127. However, it can deviate up to 200m either side of these access points. The WSLSC also respond to beach emergencies extending up to 4kms along Lady Bay between the Yacht Club (WCCYC) and Point Ritchie/Moyjil (WCC141).

The concerns raised by the SES and WSLSC included access for emergency vehicles onto and along the beach and the need for additional emergency vehicle access points, particularly to provide better emergency access to the eastern end of Lady Bay, such as The Flume. The WSLSC also provided a number of suggestions for improvements to specific beach access points being WCC111, WCC113, WCC126, WCC127 and WCC133. These suggestions are incorporated into the recommendations at Section 5.

Concerns raised by the SES and/or WSLSC included:

- Missing Emergency Services Telecommunications Authority (ESTA) markers. (The state emergency marker codes commence with the WCC followed by a number. These markers provide critical information in the event of emergency calls requiring assistance from the police, fire, ambulance or state emergency services. Special notes can be added to the ESTA system providing advice to emergency services on best access locations and form of access to each location.
- The importance of having up to date information linked to the ESTA markers, in relation to available access points and access point closures.
- Limited emergency vehicle access to beach in some locations, including all-terrain-vehicles (ATVs), particularly at the eastern end of Lady Bay.
- The provision of sturdy, safe access points, particularly for those with a disability and/or special access requirements.

SAFETY AND EMERGENCY ACCESS PLANNING PRINCIPLES

- Address safety concerns through upgrades, renewal and replacement of structures and review maintenance regime to include additional safety checks where required.
- Investigate opportunities to provide additional beach access points for emergency vehicle access and/or all terrain vehicles to the beach at the eastern end of Lady Bay and east of the Hopkins River.
- Ensure signage at each beach access point (land side and beach side) contains up to date information and emergency contacts, in accordance with the ESTA. Ensure all access points have an ESTA marker and ESTA markers are regularly inspected and replaced, where required.
- Actively engage and involve emergency service groups, including Warrnambool Lifesaving Club, SES, Fire Rescue Victoria, Victoria Police and Ambulance Victoria, early in the planning phase for new and upgraded beach access infrastructure.
- Determine a pruning/removal regime for the tea-tree to ensure sightlines are maintained, particularly at path junctions with beach access points.
- Apply Crime Prevention Through Environmental Design (CPTED) principles when planning upgrades/renewal or new/replacement structures.



3.3 CULTURAL HERITAGE

Warrnambool’s coastline has been home to the Traditional Owners for thousands of years and their connection to Country remains unbroken. One particular place of great cultural significance is the Point Ritchie/Moyjil area near the Hopkins River estuary, which is rich in both cultural and natural history. This site records unique evidence of early human occupation by the Traditional Owners, for tens of thousands of years, possibly dating beyond 60,000 years. (WCC, 2013)

Significant risks to cultural heritage exist along Warrnambool’s coast. Natural weather events and processes, including fires, are a threat to cultural heritage and can result in erosion of cultural heritage sites. Of particular concern is the creation and use of unauthorised tracks, such as near Shelly Beach, which may disturb or destroy cultural heritage.

This Moyjil Aboriginal Place – Point Ritchie Conservation Management Plan 2013 includes four management areas, being Point Ritchie / Moyjil (Management Area 1), Western Dunes (Management Area 2), Hopkins River - West Bank (Management Area 3) and Hopkins River - East Bank (Management Area 4). The Point Ritchie / Moyjil Management Area, which includes the Point Ritchie / Moyjil car park, the mainland headland and the West and East rock stacks, was given the highest priority.

In accordance with the Conservation Management Plan, protection and control of access within the management area, including the Point Ritchie/Moyjil area, needs to be carefully considered.

The design, construction and use of beach access points must be carefully planned for, monitored and managed to avoid harm to the highly significant deposits and cultural significance of the area.

Figure 14: Moyjil / Point Ritchie



CULTURAL HERITAGE PLANNING PRINCIPLES:

- Acknowledge and respect cultural heritage and connection to Country for the Eastern Maar Peoples. Conserve and protect these values through careful siting and design of beach access structures.
- Support the continued public amenity use of the Moyjil area in a way which does not compromise the identified cultural significance of the place.
- Protect the places of cultural significance along Warrnambool’s coast, including Moyjil from inappropriate development*.
- Decisions relating to beach access will need to be consistent with the recommendations of the Moyjil Conservation Management Plan 2013 and the Coastal Management Plan 2013.
- Obtain Cultural Heritage Management Plans (CHMP) approved under the Aboriginal Heritage Act 2006 and ensure that permit approvals for beach access structures align with the recommendations of the relevant Cultural Heritage Management Plan.
- Ensure land management practices and siting and design of beach access structures occurs in consultation with the Traditional Owners to ensure cultural heritage is retained and protected.
- Actively engage and involve Eastern Maar Aboriginal Corporation (EMAC) early in the planning phase for new and upgraded beach access infrastructure.
- Implement measures to discourage visitors from deviating from authorised pathways and impacting significant sites (e.g. the headland and West Stack Deposits).

**Note - ‘Development’ in this instance means any activity which will involve the disturbance or removal of physical fabric, or that will impinge on the setting of the precinct. Examples could include the construction of buildings or roads, which will require disturbance through preliminary groundworks, or coastal engineering works which require the disturbance or removal of material. Limited development should occur within the precinct. As visitor numbers increase, renewal and upgrade of existing facilities and public amenities may be required. (WCC, 2013)*

3.4 POST-EUROPEAN SETTLEMENT HERITAGE

There are a number of sites of post-European heritage along the coast. Many of these are located near the harbour, including the Warrnambool Breakwater and the former Warrnambool Lifeboat Jetty.

One of the 33 beach access points (WCC138) is located near ‘Granny’s Grave’. The trail leading from near the intersection of Hickford Parade and Patricia Street runs past the grave of Agnes Ruttleton, who was buried in 1848. Her grave is referred to as ‘Granny’s Grave’.

There are also references to maritime history along the coast, such as the plaque describing the Edinburgh Castle vessel, which ran aground in Lady Bay in 1888. This plaque is also located near beach access WCC138.

Figure 15: Granny’s Grave, Photograph by John T Collins, c. 1970 (Source: State Library Victoria)



Figure 16: Granny’s Grave, 2022



Figure 17: Edinburgh Castle Plaque



POST-EUROPEAN SETTLEMENT HERITAGE PLANNING PRINCIPLES

- Protect the heritage values, the aesthetic quality of locations, cultural links with maritime activities, sea country and sense of place.
- Ensure an appropriate setting and context for heritage places is maintained or enhanced.
- Encourage the conservation and restoration of contributory elements of a heritage place.

3.5 BIODIVERSITY AND VEGETATION MANAGEMENT

NATIVE FAUNA

Warrnambool’s beaches provide important habitat for a wide range of local flora and fauna. The Warrnambool coastline between Shelly Beach and Logans Beach provides habitat for a diverse range of birds including the vulnerable Hooded Plover (*Thinornis cucullatus*) and endangered Ruddy Turnstone (*Arenaria interpres*). Other fauna inhabiting this section of coastline include reptiles such as the endangered Swamp Skink (*Lissolepis coventryi*) and mammals such as the vulnerable Long-nosed Fur Seal (*Arctophoca australis forsteri*) and endangered Australian Sea-lion (*Neophoca cinerea*). (DELWP⁴, 2022)

NATIVE FLORA, LANDSCAPE VALUES AND VEGETATION MANAGEMENT

A range of flora exists through the sand dunes and cliffs. Biosis Research prepared a Warrnambool Coast Vegetation Management Plan in 2012. Biosis recorded fifteen (15) ecological vegetation classes during site visits in 2012. In the foreshore area between Shelly Beach and Logans Beach, the following ecological vegetation classes (EVCs) were found:

Shelly Beach to the Merri River Estuary

- Spray-zone Coastal Shrubland,
- Coastal Tussock Grassland, and
- Coastal Dune Scrub/Coastal Headland Scrub Mosaic

Merri River Estuary, Worm Bay and Lady Bay East and West

- Coastal Dune Scrub Modified
- Coastal Dune Scrub
- Coastal Dune Schrub/Coastal Headland Scrub
- Coastal Dune Grassland (small patch between Point Ritchie / Moyjil and Granny’s Grave)
- Spray-sone Coastal Shrubland (small patch at Point Ritchie / Moyjil)

East of Hopkins River and Logans Beach

- Coastal Dune Scrub
- Coastal Dune Grassland
- Berm Grassy Shrubland (small patches adjacent the Hopkins River)

(Biosis, 2012)

Amongst species present in the area, there are endangered species including, Coast Twin-leaf (*Zygophyllum billardierei*), Coast Bitter-bush (*Adriana quadripartita*) occurring in the Granny’s Grave area and Coast Fescue (*Poa billardierei*). (Biosis, 2012, p. 5)

Coast Wattle (*Acacia longifolia* ssp. *sophorae*) is an indigenous species found in Coastal Dune Scrub EVC 160, but it demonstrates invasive properties and has a tendency to take over and reduce available habitat for a range of other indigenous vegetation species, threatening biodiversity values. Therefore, in areas where revegetation occurs, it is not recommended for new plantings. Coast Wattle is of particular threat to the regeneration of Common Correa, Thyme Rice-flower and Coast Beard-heath. (Biosis, 2012, p. 16)

Coast Tea-tree (*Leptospermum laevigatum*) is indigenous to Victroia but is an introduced species to this part of south-western Victoria. (Biosis, 2012, p. 6) ‘It was recommended by Ferdinand von Mueller as part of dune revegetation in the 1880s. It has since been used in amenity planting and is extensively naturalised’ (Biosis, 2012, p. 6). Although Coast Tea-tree is not indigenous to this area, it is indigenous to Victoria and therefore requires a planning permit for its removal.

Marram Grass (*Ammophila arenaria*), was introduced from Europe and planted extensively to help prevent sand drifts created by stock grazing. It builds taller sand dunes than native species due to its ‘unlimited vertical as well as horizontal rhizome growth...’ (Biosis 2012, p. 6). ‘While their dominance does reduce plant diversity in some areas, both species [Marram Grass and Coast Tea-tree] are important for erosion control and dune stabilisation. They can also provide habitat for native fauna.’ (Biosis 2012, p. 6)

Many of the management recommendations of the Warrnambool Coast Management Plan 2012 are relevant and applicable today. However, there has been substantial changes to the dune morphology and vegetation coverage in the past nine (9) years since the Management Plan was prepared. Changes have included further spread of Coast Tea-tree, which is causing safety concerns for users and ongoing maintenance concerns for Warrnambool’s maintenance staff. The aerial photos below from 2015 and 2020 show that the Tea-tree coverage has become denser along the foreshore. Figure 20 shows the close proximity of the Coast Tea-tree to the shared trail, where it requires regular trimming.

Figures 18 and 19 – Show vegetation and dune changes to the west of the Surf Lifesaving Club between 2015 (top) and 2020 (below). Erosion has increased along the dune face which has changed the dune morphology and there is an increase in density and coverage of Coast Tea-tree (Aerial image sources, Geovic, 2015 and WCC, 2020)



Figure 20: Thick Tea-tree adjacent existing paths and access points (Aerial image source, WCC, 2020)



The Coast Management Plan 2012 recommended that management of the Coast Tea-tree should involve *'careful lopping and trimming of up to one third of the height or volume of native trees ensuring the health of the tree is not compromised'* (Biosis, 2012, p. 16) The Management Plan did not recommend removal of Coast Tea-tree. However, this recommendation from 2012 requires a review, as it may be appropriate for some areas of Coast Tea-tree to be removed and replaced with indigenous species that are lower growing and do not significantly inhibit sightlines, particularly near path intersections and key beach access points.

Whilst the Coast Tea-tree provides erosion control by stabilisation of the sand by the root systems, it was noted on site visits that underneath the Coast Tea-tree the sand movement tends to occur in channels and this may be due to the lack of tufted graminoids and groundcovers present. In areas where the Coast Tea-tree has died and the area has been revegetated, the maintenance staff have found that leaving the root system of the dead tree in place helps erosion control while the newly planted vegetation establishes.

A strategic approach is required to ensure that in places where Coast Tea-tree and any weed species are removed that revegetation is densely planted with sufficient erosion control measures in place to avoid creating any new erosion problems. Appropriate native vegetation offsets must also be provided for the vegetation removed.

BIODIVERSITY AND VEGETATION MANAGEMENT PLANNING PRINCIPLES

- Protect and enhance the ecological values of the ecosystems in Warrnambool’s marine and coastal environment, including coastal reserves, dune systems, Merri River estuary and Hopkins River estuary and coastal reserves.
- Protect and enhance the overall extent and condition of native habitats and species diversity distributions across public and private land.
- Minimise direct, cumulative and synergistic effects on ecosystems and habitats.
- *Minimise the impacts of pest plants and animals and decrease damaging land uses and practices.*
- Promote revegetation retention, planting and rehabilitation in dune areas prone to erosion.
- Investigate removal of sections of Coast Tea-tree and invasive species.
- Protect and enhance natural features, landscapes, seascapes and public visual corridors.
- Minimise the visual impact of development including accessways, on the scenic landscapes along the coast, river valleys and inland ridgelines.
- Balance the requirements of vegetation retention with the need to protect vantage points, view and sight lines to and from the public realm, to ensure adequate passive surveillance and promote good perceptions of safety in accordance with Crime Prevention Through Environmental Design (CPTED) principles.
- Ensure development is of an appropriate scale, use and intensity relative to its location and minimises impacts on the surrounding natural, visual, environmental and coastal character.

3.6 RECREATION AND TOURISM

Warrnambool's beaches play an important role for the community, providing spaces for a range of activities, recreation, tourism and events, as well as opportunities for people to connect with the natural environment and cultural coastal landscapes. As described in Section 3.2, the 33 beach access points span across eight (8) kilometres, are in walking distance from the Warrnambool City centre, holiday parks and popular tourist destinations including Lake Pertobe and provide access to the patrolled swimming beach in front of the Warrnambool Lifesaving Club.

In terms of recreation and tourism, there are numerous locations of note, which the beach access points provide entry to, including:

- Places of Aboriginal cultural significance, including Moyjil Aboriginal Place
- Logans Beach Southern Right Whale Nursery
- Popular recreational fishing at the mouth of the Hopkins River Estuary
- Patrolled beach swimming area
- Home to the Warrnambool Surf Life Saving club and surf lifesaving activities; and
- Popular for a variety of recreational activities, including: walking and running, cycling, horse riding, fishing, photography, bird-watching, surfing, swimming and other water sports, yachting.

In the Warrnambool Open Space Strategy, the subject site falls into three precincts being Warrnambool (South/Merrivale), Warrnambool Central and Warrnambool (South East/Hopkins). In the Open Space Strategy, the 33 access points are located on land classified as 'existing open space' that is accessible to the public. The Active Warrnambool Strategy 2019-2030 seeks to increase regular participation in sport, active recreation and physical activity by the community, with benefits being physical fitness, reduced risk of chronic illnesses and improved mental wellbeing. Together, these strategies seek to provide:

- *A diversity of parks that everyone can access close to home*
- *A well-connected network of open spaces across the Municipality*
- *A network that protects a range of natural and cultural environments and contributes positively to biodiversity and water quality*
- *A more environmentally sustainable open space network*
- *A management system that makes efficient use of available resources whilst maintaining quality of provision*
- *An open space network that meets the needs of current and future residents and visitors*
- *Increased participation and use of open space*
- *Increased participation opportunities for everyone*
- *Maximised and best use of facilities, places and spaces*
- *Improved connectivity between facilities, places and spaces*
- *Renewed and redeveloped existing facilities, places and spaces to maximise physical activity opportunities*

Providing accessible, well-maintained beach access helps to achieve these goals and promotes recreation and visitation to tourist attractions.

RECREATION AND TOURISM PLANNING PRINCIPLES

- Encourage active recreation through promotion of trails, beach access points, significant cultural heritage, significant environmental features and assets.
- Improve signage to help promote greater usage of paths, trails and beach access.
- Provide for the sustainable management of regionally significant tourism attractions, including cultural heritage sites.
- Support tourism and community access to the coast, without compromising the natural environment.
- Encourage use and development of coastal and river areas that optimise their tourism potential while respecting the sensitive nature of these areas.
- Provide accessible and inclusive beach access points to encourage beach visitation and involvement in recreation and physical activity.

3.7 COASTAL LANDSCAPE CHANGES AND CLIMATE CHANGE

The physical impacts of climate change, including sea-level rise, wave and wind changes, more frequent and extreme storms, are likely to have an impact Warrnambool’s shoreline and beach access structures.

VICTORIAN COASTAL MONITORING PROGRAM

There are gaps in current knowledge about climate change and the potential impacts it is likely to have on coastal environments. (DELWP, 2018) The Victorian Government, through the Department of Land, Water & Planning (DELWP), has partnered with Deakin University, The University of Melbourne, and Monash Univeristy to better understand patterns of beach erosion along the Victorian coast through the Victorian Coastal Monitoring Program (VCMP). The Program, which commenced in 2018, uses scientific tools to understand patterns of beach erosion along the Victorian coast’ (Deakin University, 2022).

‘Our coast is already very high energy and dynamic with climate change expected to modify the weather systems impacting the shore and therefore have major impacts to beaches and dunes. Understanding the impacts of sea level rise, changes in wave direction, and storminess can help Victoria prepare for the future. The aim of this program is to fully understand the dynamics of the coast from the dunes to offshore where waves are able to mobilise sand during storms’ (Deakin University, 2022).

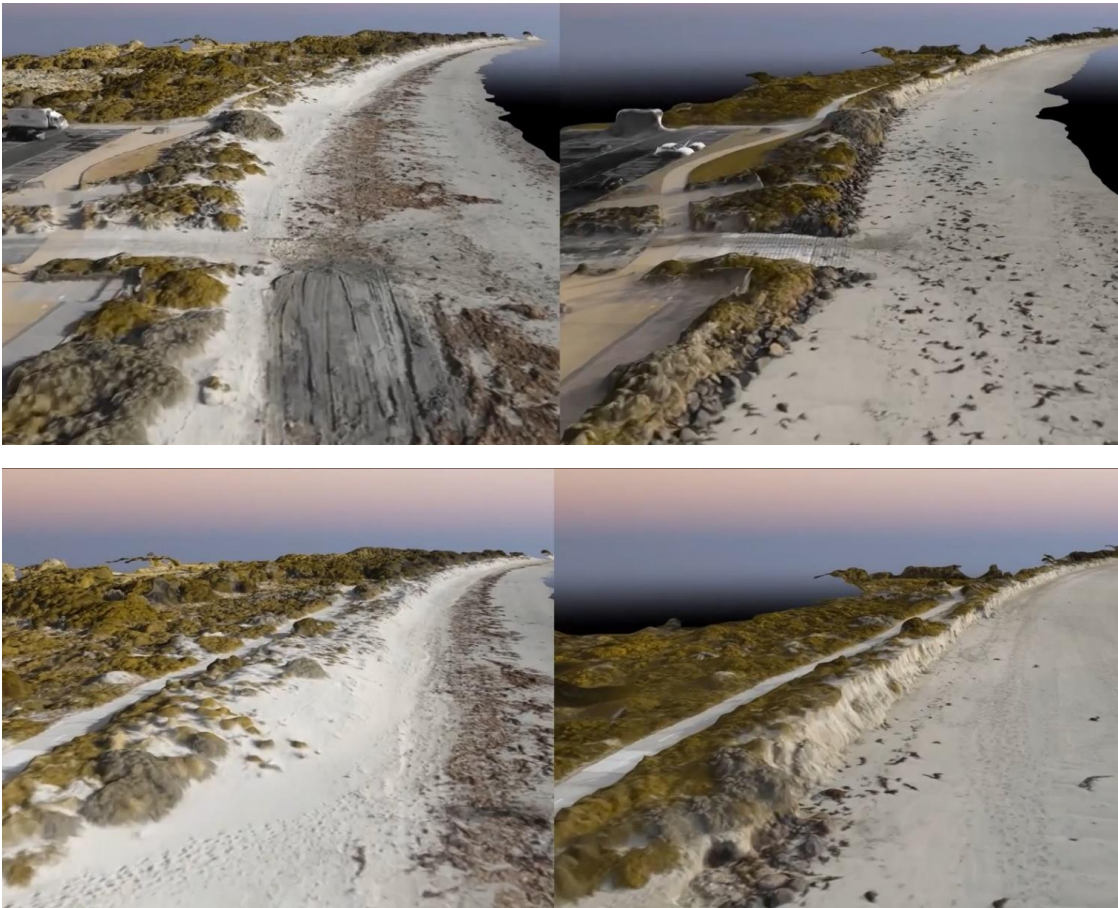
The Program, has involved regular monitoring, including drone surveys approximately every six weeks, to monitor the changes *‘occurring in the position of the toe of the dunes and in the beach level within the survey area’* (Deakin, 2022). The survey area in Warrnambool includes Worm Bay and Lady Bay West. This monitoring is providing scientists in the VCMP with survey quality data to look at the dynamics of the shoreline and understand the impact of disturbance events, such as large swells and storm surges. This data and research coming from the Program provides land managers with information to help *‘determine where action is required to protect the coast from these events, which are predicted to increase with climate change’* (Deakin University, 2022).

VISUALISING BEACH CHANGE

One component of the Program is visualizing beach change. *‘During storms, significant erosion occurs along Warrnambool beach, putting coastal assets at risk.* (Deakin University, 2022)’

The image ‘on the right shows how the beach changed after a storm with side-by-side flights over the drone imagery. The frame on the left is from March 6, 2014 and the frame on the right is from July 2, 2014’ (Deakin 2022).

Figures 21 and 22: Pre- (top) and Post- (below) 2014 storm event drone imagery (Deakin, 2022)



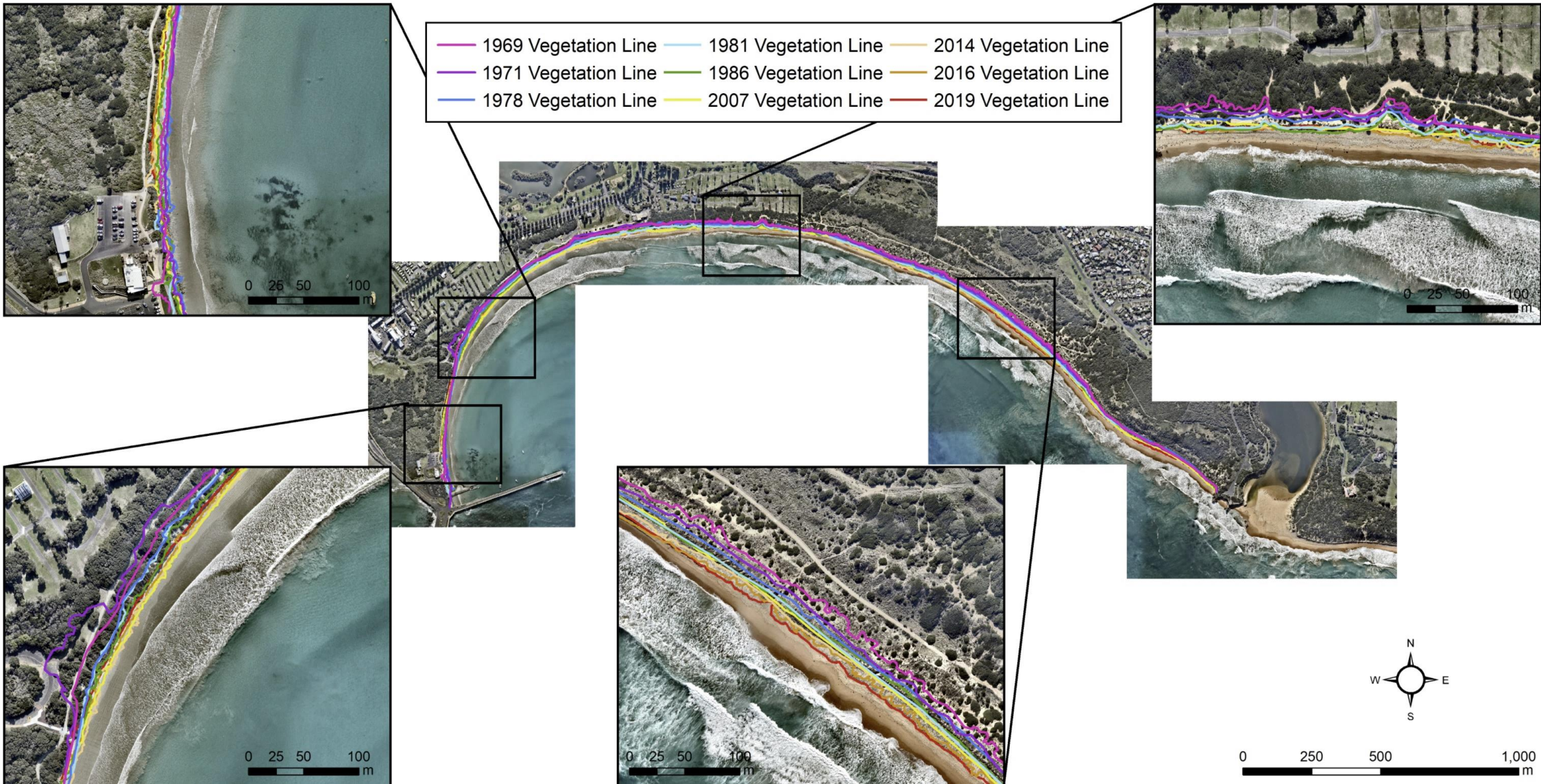
Images Sourced from the Victorian Coastal Monitoring Program (Deakin, 2022)

HISTORICAL SHORELINES

One component of the Program is the study of historical shorelines, which has involved analysis of historical and recent aerial photographs to look at changes to the shoreline. The vegetation line on the seaward side has been analysed and mapped to show the changes over 50 years, dating back to 1969. (Deakin, 2022)

‘Victoria has more than 2500 km of coastline that provides critical social, cultural, and economic benefits to communities, in addition to its important and varied intrinsic natural values. Coastal erosion already affects these values in many parts of Victoria with climate change likely to increase the rate of change of coastlines. Understanding trends and changes in erosion rates over the past 60 years is critically important as it allows managers and researchers to separate short term storm erosion from long term retreat. Erosion during a storm on a beach that is generally stable or building out is less important than erosion on a beach which is rapidly retreating. Attempting to stop erosion on a stable or accreting beach may in fact force this beach out of balance with nature and lead it to become erosional. Using aerial photos, both historical and contemporary, the VCMP collaborated with the National Environmental Science Programs, Earth Systems and Climate Change Hub to investigate changes in the frequency and intensity of erosion. The team has mapped 15 locations along the state’s coastline, including Warrnambool’ (Deakin, 2022). Figure 17 shows historical change in the shoreline for each timestep.

Figure 23: Historical shorelines 1969 to 2019 (vegetation line mapping) (Deakin, 2022)

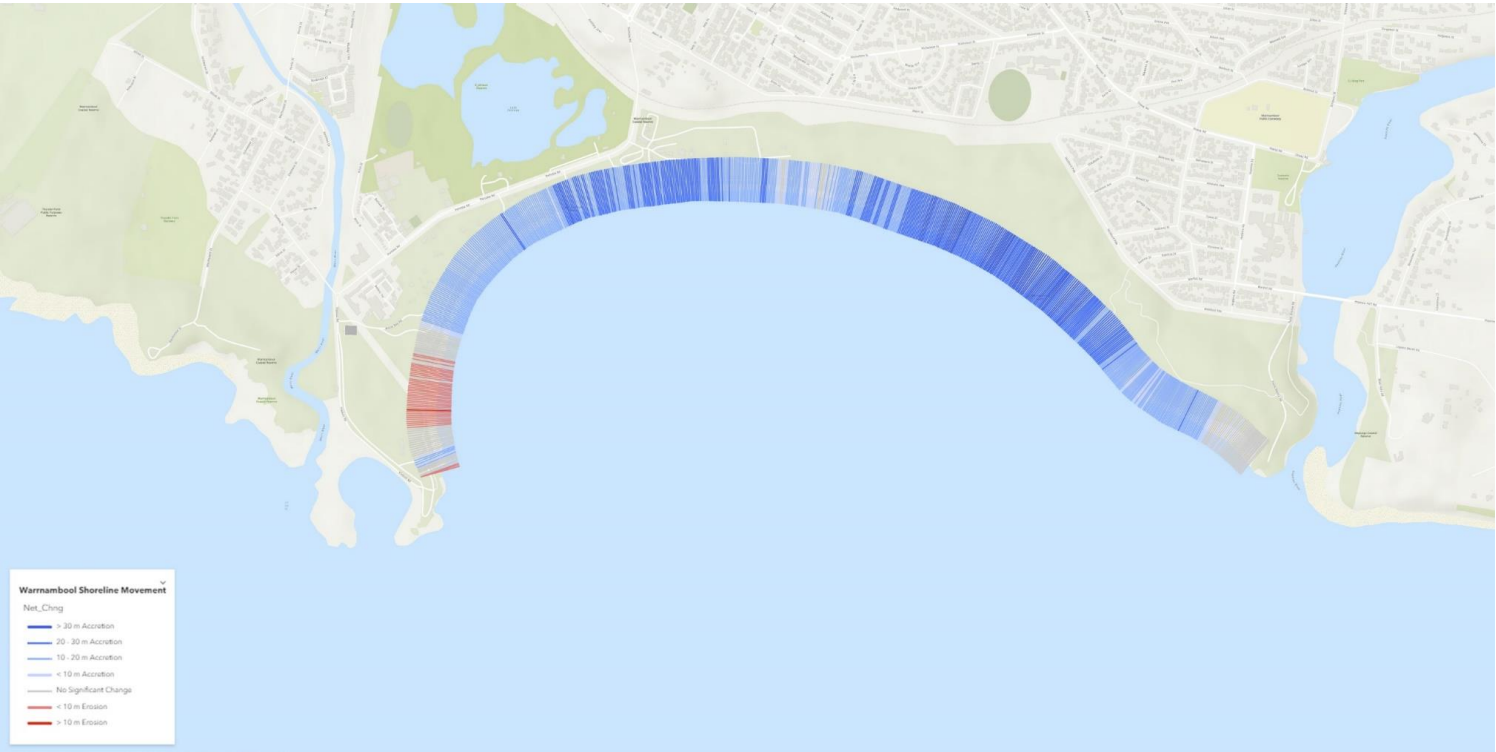


NET SHORELINE MOVEMENT

‘The majority of the Warrnambool beach (83.3%) has experienced some amount of accretion over the past 50 years from 1969 to 2019, while erosion accounts for 6.0% of the change in shoreline position. No significant change was found at the remaining 10.7% of transect locations. Most of the erosion is occurring in the western end of the beach area next to the breakwater. Accretion is occurring across the rest of the beach with a few areas of no significant change interspersed. You can explore specific areas of interest by navigating around the map’ (Deakin, 2022)*

*Note – Accretion is the gradual accumulation of sand.

Figure 24: Net Shoreline Movement 1969 to 2019 (vegetation line mapping) (Deakin, 2022)



COASTAL LANDSCAPE AND CLIMATE CHANGE PLANNING PRINCIPLES:

- Consider the risks associated with climate change in planning and management decision making processes and site and design development to minimise risk to life, property, the natural environment and community infrastructure from natural hazards.
- Plan for sea level rise of at least 0.8 metres by 2100 and allow for the combined effects of tides, storm surges, coastal processes and local conditions such as topography and geology when assessing risks and coastal impacts associated with climate change.
- Reduce the urban heat island effect by greening urban areas, buildings, transport corridors and open spaces with vegetation.
- Promote and support low energy forms of transport such as walking and cycling.

3.8 MAINTENANCE, RENEWAL AND CAPITAL WORKS PROGRAM

The cost of maintaining, upgrading and replacing beach access structures is significant. It is important to provide sufficient access points to provide convenient beach access for residents and visitors. However, it is also important to consider the appropriateness of existing access points and whether they should be retained, upgraded, replaced or removed. Particularly given the substantial costs associated with replacement of existing structures and provision of new structures. Recent costings for access points and cost estimations for future access points range between \$215,000 for a relatively small staircase to \$937,000 for the planned concrete terraced seating with integrated accessible ramp near the boat launch facility (WCC, 2018).

When Council undertook an audit of the beach access structures in 2019, only 4 were identified as having a useful lifespan extending past the year 2037. This means that over the next 15 years, it is anticipated that 29 of the existing beach access structures would require renewal or replacement. In most cases, the materials that these existing structures have been constructed of will need to be upgraded or replaced.

MAINTENANCE AND CONSTRUCTION MATERIALS

A key issue facing Council in managing beach access structures is their life span. The design of upgrades or rebuilds to beach access structures must ensure *‘that the structure can adapt to the anticipated increase in coastal hazards including sea level rise over the structures intended life span’* (DELWP, 2020, p.12). The question is what are the best design materials and construction techniques to ensure beach access structures have a long life, are adaptable to changing climates and avoid long-term maintenance issues for Council?

Many of the existing 33 structures are constructed of timber. However, a number of these timber structures are presenting a significant maintenance burden to Council in carrying out repairs. Whilst timber is a natural material that when sourced locally has relatively low-embodied energy compared with some other materials and it weathers to provide a soft, sympathetic appearance on the coast, it is also prone to deterioration when exposed to saltwater and UV exposure. Saltwater and UV exposure can accelerate the deterioration of timber and when it cracks, moisture can seep in causing rot. Many of the timber boardwalks and access structures to the beach present safety issues such as handrail splinters, lifting and bowing of boards and rot causing uneven tread. Another issue that has been noted with the use of timber is that the decking boards prevent sand from seeping through underneath resulting in increased sand building up on top of the stair treads, landings and ramps.

This has resulted in the most recently replaced beach access structures being constructed of materials, such as a combination of concrete, steel and fibre reinforced polymer mesh, not timber. One of the benefits of using a meshed material for stair landings and treads is that the sand falls through the structure and doesn’t result in as much sand build up leading to accessibility issues for users. The materials and design of the new structures is helping reduce costly maintenance and ensure beach access structures have a longer useful lifespan, estimated to be at least 20 years longer, than the traditional timber construction.

The Siting and Design Guidelines for Structures on the Victorian Coast provide the following guidance for materials selection:

- Use materials sympathetic the coastal environment.
- Use the local colours and textures for any new structure.
- Use durable materials, fittings and finishes developed specifically for a coastal environment.
- Use low-embodied energy, recycled and locally-sourced materials where possible

Figure 25 shows the standard materials palette contained in the Siting and Design Guidelines.

Council’s preferred materials for new/replacement beach access structures include:

Foundations

- Use of hot dipped galvanised screw piles for climate change adaptability within a dynamic and extreme coastal environment. Joints between the piles to be welded to prevent internal corrosion.
- Use of stainless steel reinforcement within concrete head stock/ beam.

Structures

- Use of Fibre Reinforced Polymers (FRP) or proven equivalent in response to dynamic range of sand dunes and interaction with sea water.
- Posts, bearers, stringers and joists to be in FRP for extended asset life.

Decking (New)

- Minimum 2500mm width landings and viewing platforms at DDA approved grades.*
- Stairs must be DDA approved design and ramps with compliant kerbs, where used at minimum 1800mm.
- Within the swash zone use of Fibre Reinforced Polymers (FRP) non slip grating treads for durability and optional extension onto platforms and landings.** Concrete may be appropriate in some locations.

Decking (Upgrade)

- Use of only Class 1 Durability Hardwood (non-dressed) and minimum 50mm thickness for decking timbers.
- Decking timbers are to be dressed on three (3) sides, rough sawn and pencil round on the other, which becomes the top face when laid. All timber is to be treated to H5 Alkaline Copper Quaternary (ACQ) treated (arsenic free) except for Cypress Pine

Handrails and Balustrades

- Handrail to be DDA approved in 316 electroplated stainless steel.
- Post to be either Class 1 Durability Hardwood (upgrade) or FRP (new).
- Balustrade to be provided for falls >2m onto sand in expandable grade 316 stainless steel mesh.

Fencing

- Timber Class 1 Durability Hardwood posts and PVC coated wire

Paths

- Crushed limestone (locally sourced) or sand.
- Concrete***
- Avoid the use of pinned down fabrics/materials between paths/trails and beach access structures as machinery tends to get caught on edges/corners causing damage.

Notes:

*Consider 3000mm wide paths, ramps and sufficient landing size where sand coverage is an issue, to provide adequate access for maintenance vehicles to clear sand.

**The ‘swash zone’ is the upper part of the beach where intense erosion occurs during storms.

***Concrete has been used at the top of new staircase structures and is working well in terms of maintenance and sand clearance. Small maintenance machinery is able to push sand from the adjacent path and concrete access through the structure to the beach below, where it can be cleared.

RENEWAL AND CAPITAL WORKS - PLANNED BEACH ACCESS PROJECTS

There are a number of planned upgrades/replacements to beach access structures identified in the planned short-term capital works program. They include:

- 1. Merri River Estuary (WCC112)
Design and replacement of existing structure accessed from Viaduct Road. Rebuild with compliant staircase and handrails.
- 2. Worm Bay (WCC117)
Design and replacement of access ramp that provides access for horse training. Proposed rebuild to address safety concerns for horses exiting beach into the car park. Likely that ramp design will be different to ensure horses exit beach more slowly.
- 3. Lady Bay (WCC129)
Design and replacement of existing structure accessed from shared trail and holiday park. To be rebuilt with compliant staircase and handrails.
- 4. Lady Bay / McGennans (WCC123)
Design and replacement of access staircase with access from McGennans car park. This access point was closed due to safety issues and is currently closed.
- 5. Logans Beach WCC146
Design and construction of replacement staircase to replace timber stairs between the existing viewing platform/deck and beach.
- 6. Warrnambool Harbour (New)
New accessible ramp proposed near boat launching facilities. Design and construction of the proposed concrete terraced seating is to have integrated accessible ramp. Identified as short-term action in the Harbour Master Plan, but not included in 22/23 budget.

The recommendations and implementation plan at Sections 5 and 6 include these planned projects.

MAINTENANCE, RENEWAL AND CAPITAL WORKS PLANNING PRINCIPLES

- Use durable construction materials that can adapt to the anticipated increase in coastal hazards including sea level rise.
- Ensure that the design and siting of publicly accessible infrastructure, including car parking areas and beach access structures are of a high standard and respond appropriately to the *Design and Siting Guidelines for Structures on the Victorian Coast 2021*.
- Use local materials where possible, for example local crushed limestone is an appropriate material for paths.
- Consider maintenance access in the design of beach access points, including the practicality of providing access for machines to clear sand.
- Actively engage and involve maintenance staff early in the planning phase for new and upgraded beach access infrastructure to ensure materials and design will be suited to maintenance regimes and machinery.
- Monitor and adapt maintenance approaches on a regular basis to address maintenance shortfalls and safety concerns and provide adequate level of service to users.

Figure 25: -Siting and Design Guidelines for the Victorian Coast - Standard Materials Palette (DELWP, 2020 p.79)

STANDARD MATERIALS PALETTE



Hardwood timber - plantation - grown and recycled timber treated for protection from insects and decay - Red Gum, Jarrah and Tallowood are most durable and suitable for structure is the water. Photo: John Gollings

Reinforced polymer mesh - lightweight - chosen for its excellent anti-corrosive and low maintenance properties. Photo: Roger Ellingsen



Steel - structural grade and hot dip galvanised as per AS/NZ 4680 for superior performance and powder coated for corrosive protection. Photo: Jarle Waehler

Concrete - durable providing there is adequate cover to all reinforcement to prevent corrosion. Photo: Jarle Waehler



Glass - needs special consideration to avoid glare and reflection. Photo: Peter Aaron

Natural stonework - very durable and requires no special treatment. Photo: EMF Architects

4. SITE-SPECIFIC ANALYSIS

4.1 SHELLY BEACH

There is a single beach access point to Shelly Beach referred to as WCC 101. This beach access point can be reached by walking from the Thunder Point car park or from Shelly Beach to the west. On low tide beachgoers can walk between Shelly Beach and Levys Beach.

The track to Shelly Beach from the Thunder Point Lookout car park is approximately 900m long and constructed mostly of gravel. The path passes south of the water treatment facility.

Figure 26: Beach Access Point Location Map



STRENGTHS

- Remote and quiet
- Spectacular scenery
- Ideal location for bird watching/fauna spotting
- Culturally significant area for Traditional Owners

CHALLENGES

- Erosion-prone area with access track along cliff-top
- Rocky access to beach
- Access to Shelly Beach and further linkage to Levys Beach dependent on tide
- Unauthorised tracks in this area have potential to cause loss of native vegetation, increased erosion and threat to cultural heritage
- Lack of directional and information signage
- Access in the event of an emergency is limited

OPPORTUNITIES

- Improve safety
- Protect cultural heritage
- Improve directional signage

Figure 27 – WCC101 track to Shelly Beach



Figure 28 – WCC101 track to beach



Figure 29 – Post and wire fence



Figure 30 – End of informal beach access path



4.2 PICKERING POINT LOOKOUT, MERRI RIVER ESTUARY, STINGRAY BAY AND WORM BAY

The Pickering Point lookout (WCC107) beach access is utilised by tourists visiting Pickering Point and walking along the coastal trail and is also used by scuba divers and there are shipwreck dives in the area, including the La Bella shipwreck.

The three access points next to Viaduct Road (WCC111, WCC112 and WCC113) are accessed by many tourists stopping to take in the sites of Stingray Bay and Middle Island. There is convenient car parking and toilet amenities as well as the bridge across the Merri River providing access to the Pickering Point lookout.

In Worm Bay, the Warrnambool Yacht Club have access to the launching ramp which does not have a WCC number. This is referred to as WCCYC for the purposes of this Strategy. The horse racing industry utilizes WCC117, which is an access ramp constructed for horse training access to the beach. Whilst these two access points have not been constructed for the purposes of pedestrian access, pedestrians still utilise them to gain beach access. The next nearest pedestrian access point is located at WCC118, which is also close to the Worm Bay car park. This access structure has recently been upgraded with a new staircase constructed to replace the previous timber one.

Figure 31 – Beach Access Point Location Map



STRENGTHS

- Spectacular scenery
- Interesting and varied landscape
- Extensive path and boardwalk near Pickering Point lookout
- Tourism attractions
- Café/restaurant nearby
- Car parking in close proximity
- Close to public amenities including toilets.

CHALLENGES

- Erosion-prone area with access track to Pickering Point near cliff-top
- Rocky access to beach
- Maintenance of extensive length of timber structures
- Unauthorised tracks in this area have potential to cause loss of native vegetation, increased erosion and threat to cultural heritage.
- There are no patrolled swimming beaches in this area and waters can be treacherous in high seas, particularly between Lady Bay to Stingray Bay and navigating around the La Bella shipwreck
- Access in the event of an emergency is limited in some locations, particularly to Pickering Point.
- Access point at WCC111 needs to be regularly maintained to allow for vehicular access
- Sand drift and build-up is a maintenance concern for WCC111, WCC112 and WCC113
- Pedestrian safety near access points and Viaduct Road, particularly in peak summer holiday season when vehicle traffic to the harbour is heavy
- The only constructed ramps providing beach access in this area are WCC117 and WCCYC, and whilst they are used by some residents and visitors they are not designed for pedestrians or wheelchair accessibility

OPPORTUNITIES

- Improve safety
- Protect cultural heritage
- Improve beach accessibility for people with disabilities and those with special access requirements

Figure 32 – Track from leading along coast to WCC107



Figure 33 – WCC107 Top landing



Figure 34 – WCC107 staircase to beach



Figure 35 – WCC111



Figure 36 – WCC111



Figure 37 – WCC112



Figure 38 – WCC112



Figure 39 – WCC113



Figure 40 – WCC113



Figure 41 – WCCYC (Boat launching ramp)



Figure 42 - WCC117 (Horse training access)



Figure 43 – WCC118 (recently replaced)



Figure 44 – WCC118



Figure 45 – WCC118



4.3 LADY BAY WEST (INCLUDES THE FLUME)

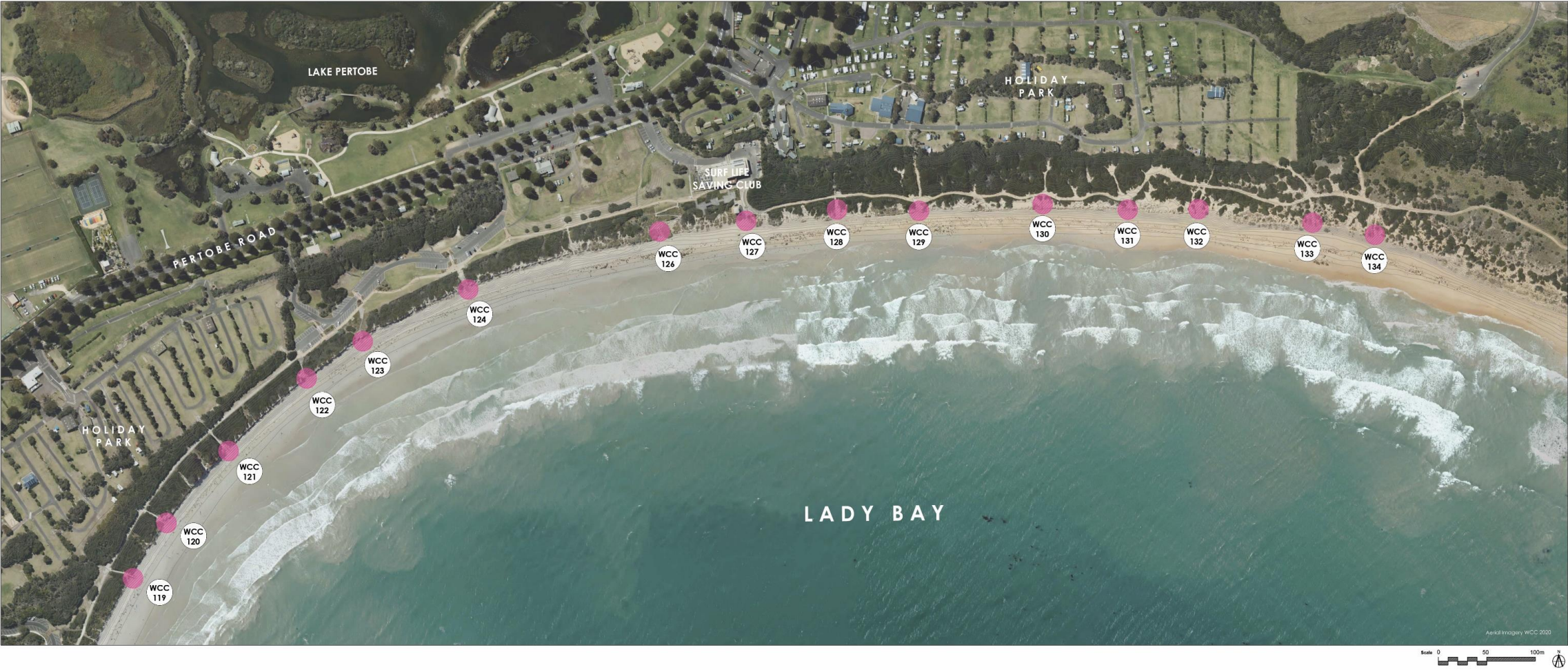
There are fifteen (15) beach access points spanning across this section of Lady Bay, which stretches approximately 1.5 kilometres.

This area of Lady Bay is a popular place for locals to gain beach access and walks along the coastal trail and path network. This area is also heavily trafficked by tourists during the peak summer holiday season, with nine (9) of these access points connected directly to the two holiday parks.

This section of coast includes the Warrnambool Surf Lifesaving Club (WSLSC), patrolled swimming area in front of the WSLSC, is close to café/restaurants, McGennans Beach, holiday parks, Lake Pertobe and The Flume (WCC134) which is a popular beach for surfers.

There is convenient car parking located at McGennans and toilet amenities provided near McGennans car park and the surf lifesaving club. There is also a car park located near The Flume.

Figure 46 - Beach Access Point Location Map



STRENGTHS

- A variety of recreational activities on offer
- Tourism attractions
- Patrolled swimming beach
- Spectacular scenery
- Great connections to the existing coast trails and path network
- Café/restaurant/s nearby
- Car parking in close proximity to beach
- Close to public amenities including toilet facilities at McGennans and Warrnambool Surf Lifesaving Club
- Good access to and from holiday parks

CHALLENGES

- Maintenance of extensive number of structures, including many older timber structures requiring regular upkeep
- Erosion-prone dunes
- Limited accessibility, with only one accessible ramp (WCC126), which often has restricted access due to sand build up and requires very regular maintenance to clear sand
- Overgrowth of vegetation next to beach access points and at intersections with adjacent paths, creating safety risks for path and beach access users
- Maintaining viewlines
- Changing dune morphology
- Dune erosion and erosion at base of beach access structures
- Seaweed build up on beach and at base of structures
- Sand drift and cover over beach access structures and adjacent paths
- Unauthorised tracks from the holiday parks and to the east of The Flume have potential to cause loss of native vegetation, increased erosion and threat to cultural heritage
- People choosing to swim at unpatrolled sections of the beach.
- Access in the event of an emergency is limited in some locations, particularly vehicular access to the eastern end near The Flume

OPPORTUNITIES

- Improve safety
- Protect cultural heritage
- Improve maintenance regime
- Improve beach accessibility for people with disabilities and those with special access requirements
- Provide improved emergency vehicle access

Figure 47 – WCC 119



Figure 48 – WCC 119



Figure 49 - WCC120



Figure 50 - WCC122



Figure 51 - WCC123 (currently closed)



Figure 52 - WCC124



Figure 53 – WCC124



Figure 54 – WCC126



Warrnambool Beach Access Strategy – Background Report – March 2022

Figure 55 – WCC127



Figure 56 – WCC127



Figure 57 – WCC128



Figure 58 – WCC 129



Figure 59 – WCC 130

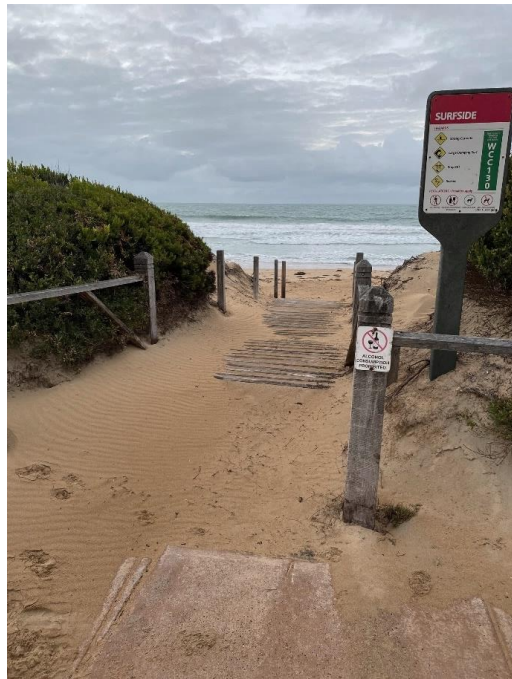


Figure 60 – WCC 131

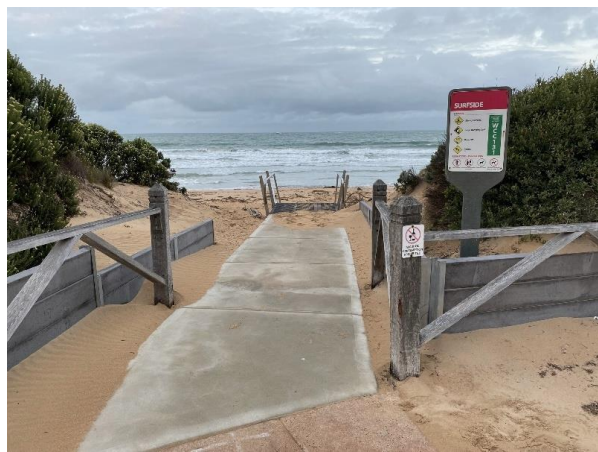


Figure 61 – WCC 132



Figure 62 – WCC 134 'The Flume'



LADY BAY EAST

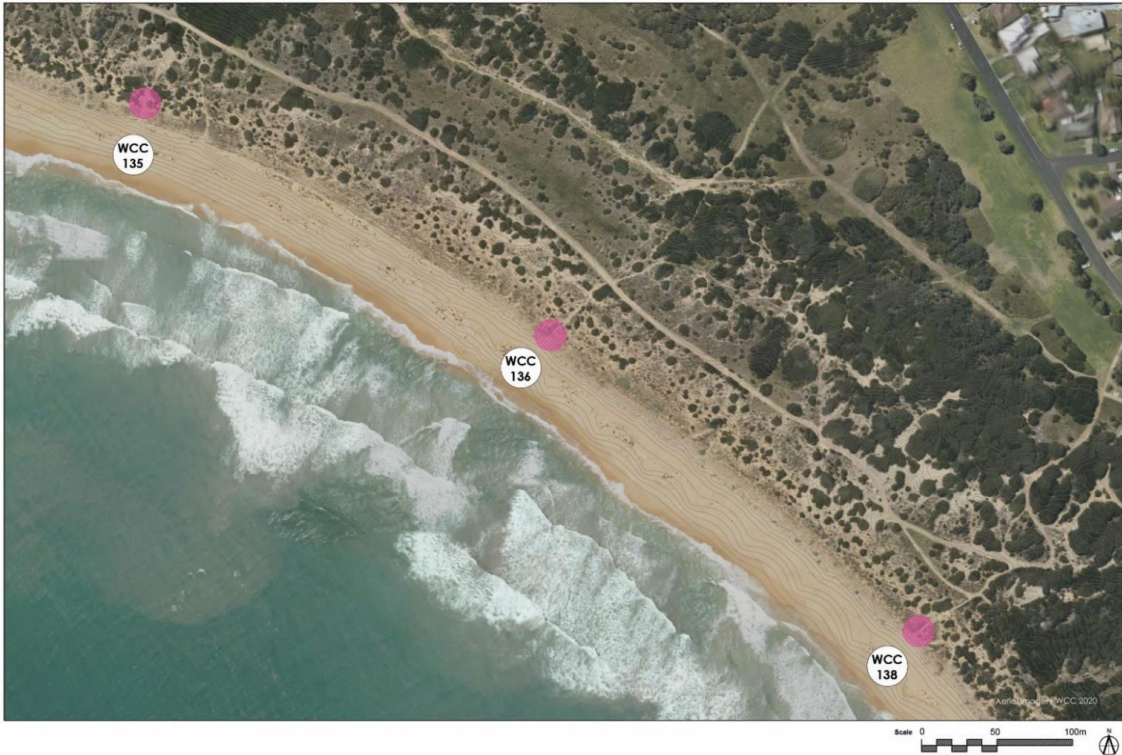
There are three (3) beach access points in this section of Lady Bay East stretches approximately 600 metres.

This area of Lady Bay is a popular place for locals to gain beach access and walks along the coastal trail and path network and is popular with surfers. This area is less trafficked by tourists during the peak summer holiday season than the western end of Lady Bay.

This section of coast includes The Flume – east (WCC135) which can be access by path from The Flume car park and Granny’s Grave beach access (WCC138), which can be accessed by path from Hickford Parade.

These three access points are not in close proximity to public amenities, including toilets and are more informal access points.

Figure 63 - Beach Access Point Location Map



STRENGTHS

- Remote and quiet
- Spectacular scenery
- Popular location for surfing
- Extensive coast trail
- Culturally significant area for Traditional Owners

CHALLENGES

- Unauthorised tracks and anti-social behaviour in this area have potential to cause loss of native vegetation, increased erosion and threat to cultural heritage
- Dynamic sand dunes and sand drift and build-up on access paths is a maintenance concern
- Limited beach access for people with special access requirements
- There are no patrolled swimming beaches in this area
- Access in the event of an emergency is limited with no vehicle access points to the beach nearby. The nearest vehicle access point is at the WSLSC

OPPORTUNITIES

- Improve safety
- Protect cultural heritage
- Improve beach accessibility for people with disabilities and those with special access requirements

Figure 64 – WCC135 ‘The Flume - East’



Figure 65 – WCC136



Figure 66 – WCC136



Figure 67 – WCC138



POINT RITCHIE / MOYJIL

The two (2) beach access points (WCC140 and WCC141) are utilised by locals walking local trails and visitors touring the Point Ritchie / Moyjil precinct. This is a culturally significant area and as described in Section 3.3, this site records unique evidence of early human occupation by the Traditional Owners, for tens of thousands of years, possibly dating beyond 60,000 years. (WCC, 2013)

There is convenient car parking and toilet amenities as well as lookouts and informational signage.

Access structure WCC140 has recently been upgraded with a new staircase constructed to replace the previous timber one. Access WCC141, which provides access to the Hopkins River estuary is nearing the end of its useful life.

Significant risks to cultural heritage in this area, both from nature weather events and processes causing erosion. In accordance with the Conservation Management Plan, protection and control of access within the management area, including the Point Ritchie/Moyjil area, needs to be carefully considered.

Figure 68 - Beach Access Point Location Map



STRENGTHS

- Culturally significant area for Traditional Owners, with highly significant deposits
- Cultural tourist attraction
- Spectacular scenery
- Links to extensive coast trail
- Car parking in close proximity to beach
- Close to public amenities including toilet facilities

CHALLENGES

- Access to beach dependent on tide
- Unauthorised tracks and erosion in this area have potential to cause loss of native vegetation, increased erosion and threat to cultural heritage
- Construction of structures has the potential to threaten cultural heritage
- Very limited beach access for people with special access requirements
- There are no patrolled swimming beaches in this area
- Access in the event of an emergency is limited with no vehicle access points to the beach nearby. The nearest vehicle access point is at the WSLSC
- Steep cliffs make access to beach difficult

OPPORTUNITIES

- Protect cultural heritage
- Improve safety

Figure 69 – WCC140



Figure 70 – WCC140



Figure 71 – WCC140



Figure 72 – WCC141



Figure 73 – WCC141



HOPKINS RIVER ESTUARY

Access point WCC142 is a steep staircase that provides access to the west side of the Hopkins River estuary. Anecdotally it is utilised for recreational fishing.

The two (2) access points next to Blue Hole Road (WCC144 and WCC145) are accessed by many locals and tourists stopping to take in the sites of the Hopkins River. It is also a popular dog walking area. There is convenient car parking and toilet amenities.

Figure 74 - Beach Access Point Location Map



STRENGTHS

- Spectacular scenery
- Popular place for recreational fishing and river activities
- Extensive path network
- Car parking in close proximity
- Close to public amenities including toilets on east side of Hopkins River.
- Relatively flat topography on east side of Hopkins River

CHALLENGES

- Steep cliffs on west side of river.
- Unauthorised tracks in this area have potential to cause loss of native vegetation, increased erosion and threat to cultural heritage.
- There are no patrolled swimming beaches in this area
- Access in the event of an emergency is limited in some locations.
- Access point at WCC142 is nearing the end of its useful life.
- The access points at WCC144 and WCC145 are not designed for people with special access requirements

OPPORTUNITIES

- Improve safety
- Protect cultural heritage
- Improve beach accessibility for people with disabilities and those with special access requirements

Figure 75 – WCC142



Figure 76 – WCC142

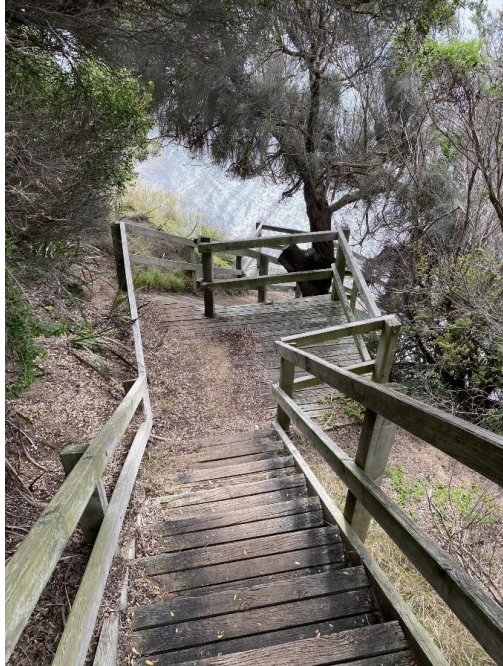


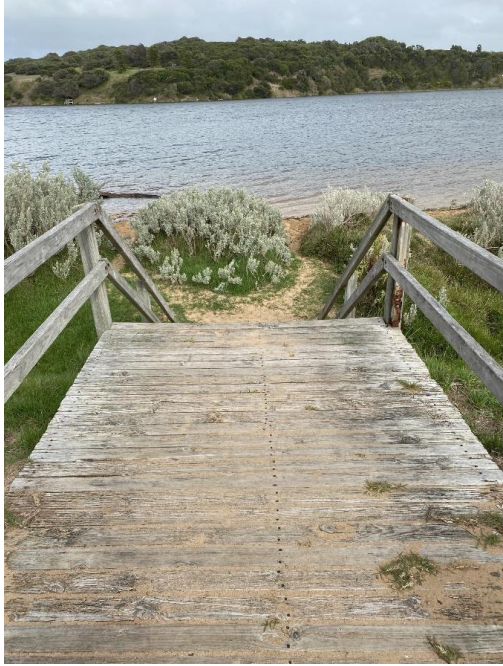
Figure 77 – WCC144



Figure 78 – WCC145



Figure 79 – WCC145



LOGANS BEACH

There are two (2) beach access points providing public access to Logans Beach. One is at the end of the Blue Hole (WCCBH) trail from Blue Hole Road and the other is from the Logans Beach from the Southern Right Whale Nursery viewing platform.

The Logans Beach access point WCC146 is utilised by locals and tourists who visit the site, to get a glimpse of female Southern Right Whales, who regularly return to Logans Beach to calve between June and September. The whales can often be seen within a few hundred metres of the shore. There is a substantial car park located for visitors to the whale nursery viewing platform. But there are no public amenities in this location. The nearest toilet amenities are provided at Blue Hole Road. Logans Beach is also a popular place for people to walk their dogs.

Figure 80 - Beach Access Point Location Map



STRENGTHS

- Remote and quiet
- Spectacular scenery
- Popular location for whale watching and dog walking
- Culturally significant area for Traditional Owners

CHALLENGES

- Liimited beach access for people with special access requirements
- High dunes near WCC146 make access difficult
- There are no patrolled swimming beaches in this area
- Access in the event of an emergency is limited with no vehicle access points to the beach nearby

OPPORTUNITIES

- Improve safety
- Protect cultural heritage
- Improve beach accessibility for people with disabilities and those with special access requirements

Figure 81 – WCCBH



Figure 82 – WCCBH

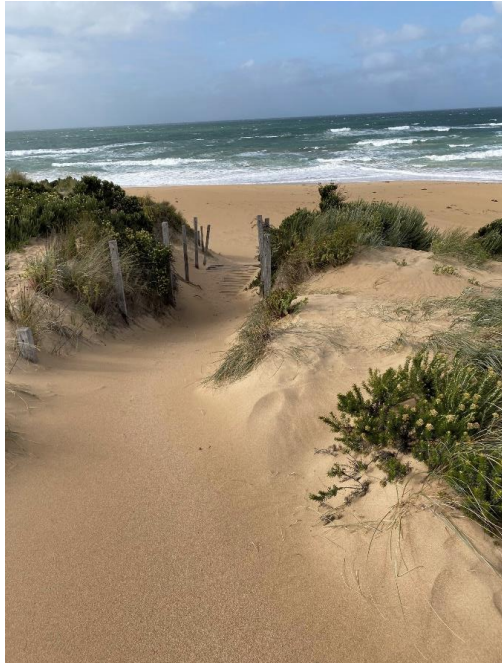
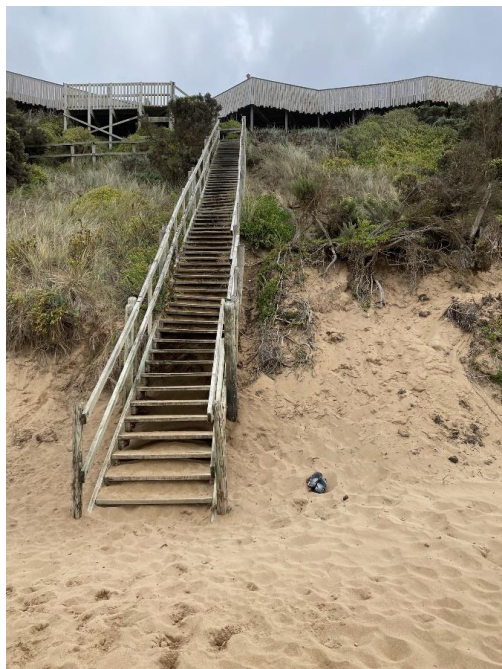


Figure 83 – WCC146



Figure 84 – WCC146



5. RECOMMENDATIONS

SHELLY BEACH. PICKERING POINT LOOKOUT, MERRI RIVER ESTUARY, STINGRAY BAY AND WORM BAY

- 23.** Conduct a safety audit of the walking trail between the Viaduct Road and Shelly Beach, including beach access points WCC101 and WCC107. There are cliffs in relatively close proximity to the access path leading to Shelly Beach and Point Pickering. A safety audit of the cliff face and fencing should be undertaken to provide sufficient evidence that the tracks and beach access points can safely remain open to the public.
- 24.** Investigate opportunities to make safety improvements to Shelly Beach WCC101. Changes may include fencing and surface improvements.
- 25.** Carry out fencing repairs and additional fencing between the Merri Bridge and Shelly Beach to ensure walkers stay on the main track and avoid threats to significant cultural heritage places and deter people from going near cliff edges.
- 26.** Install signage to direct visitors along the main tracks to Shelly Beach.
- 27.** Replace existing staircase at beach access WCC107 near Pickering Point. The suitability of this location as a beach access point should be investigated as part of the safety audit.
- 28.** Develop Viaduct Road Pedestrian Access Plan. Incorporate review of car parking, pedestrian access paths and crossings, pedestrian safety and design of WCC111, WCC112 and WCC113. The Plan should provide recommendations to address beach accessibility for people with wheelchairs and special access requirements and ensure emergency vehicle access is provided to the beach at this location. The design and replacement of the existing staircase structure at WCC112 is a current project in the planned capital works program. Investigate if it is possible to delay the replacement of this structure until the Pedestrian Access Plan has been completed.
- 29.** Design and construct a new accessible ramp proposed near boat launching facilities. Design and construction of the proposed concrete terraced seating is to have integrated accessible ramp. This access point was adopted as part of the Harbour Master Plan.
- 30.** Investigate opportunities to make safety improvements to the Worm Bay horse training beach access ramp at WCC117. This is a current project in the planned capital works program.
- 31.** Retain access points at the Yacht Club WCCYC and Worm Bay WCC118 as they are. These are relatively new structures with long remaining useful lifespans..

LADY BAY WEST (INCLUDING THE FLUME) AND LADY BAY EAST

- 32.** There are a number of existing timber structures which have short remaining useful life. These should be replaced with staircases incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible. Access points proposed for replacement with staircases include WCC119, WCC120, WCC121, WCC123, WCC129 and WCC130. The replacement of WCC123 and WCC129 are current project in the planned capital works program.
- 33.** The existing accessible ramp near the Warrnambool Surf Lifesaving Club WCC126 is subject to regular access maintenance issues due to its design, construction materials and proneness to sand build up. It is recommended that this access ramp be replaced with a new accessible ramp. The design and siting of the accessible ramp near the Warrnambool Surf Lifesaving Club WCC126 should be undertaken at the same time as the plans for the proposed surf lifesaving club upgrade/extension to ensure good planning and access to and from main building entrance/s and

car parking areas. It is also recommended that a second accessible ramp be provided in Lady Bay West near the eastern end of the holiday park due to it being a high usage area with good path access from the McGennans car park. WCC122 may be an appropriate location for an accessible ramp subject to further investigation of the dune morphology and detailed design.

- 34.** Retain access points at the Lady Bay WCC124 and Lady Bay WCC131 as they are. These are relatively new structures with long remaining useful lifespans.
- 35.** Upgrade matting material of the vehicle access ramp at the Warrnambool Lifesaving Club WCC127. This may need to be a short-term solution depending on the future long-term plans for the Warrnambool Surf Lifesaving Club and associated vehicle access to the beach. At this time it is not known whether the vehicle access point is proposed to remain in its current location.
- 36.** It is recommended that Lady Bay WCC128 and WCC132 be decommissioned and removed and these areas fenced and revegetated. There are multiple access points provided along this section in front of the holiday park which will ensure convenient beach access is retained. These two access points present regular maintenance issues due to their siting and position in the dynamic sand dune and regular sand coverage. Access to WCC128 has been closed to the holiday park due to maintenance and safety concerns.
- 37.** The access points WCC133 and WCC134 are in very close proximity to each other, approximately 65 metres apart. WCC133 is reaching the end of its remaining useful lifespan and WCC134 has an estimated remaining useful lifespan of 7 years. It is recommended to consolidate WCC133 and WCC135 into one upgraded beach access structure with an accessible ramp to accommodate wheelchairs and people with special access requirements. It is important that the access paths from the holiday park and The Flume car park be maintained in the redesign and sufficient facilities including waste disposal bins are provided in this location. The siting and location of the structure in the sand dune will require careful design and consideration in this dynamic sand dune to help avoid sand build up. The design of the new consolidated access point should include emergency vehicle access to the beach in this location (minimum 3m wide for all-terrain vehicle) as well as maintenance vehicles to clear sand away.
- 38.** Retain and improve WCC135, WCC136 and WCC138. These are relatively low usage access points. Investigate ways in which minor improvements can be carried out to enhance safety and extend their remaining useful lifespan.

POINT RITCHIE / MOYJIL, HOPKINS RIVER ESTUARY AND LOGANS BEACH

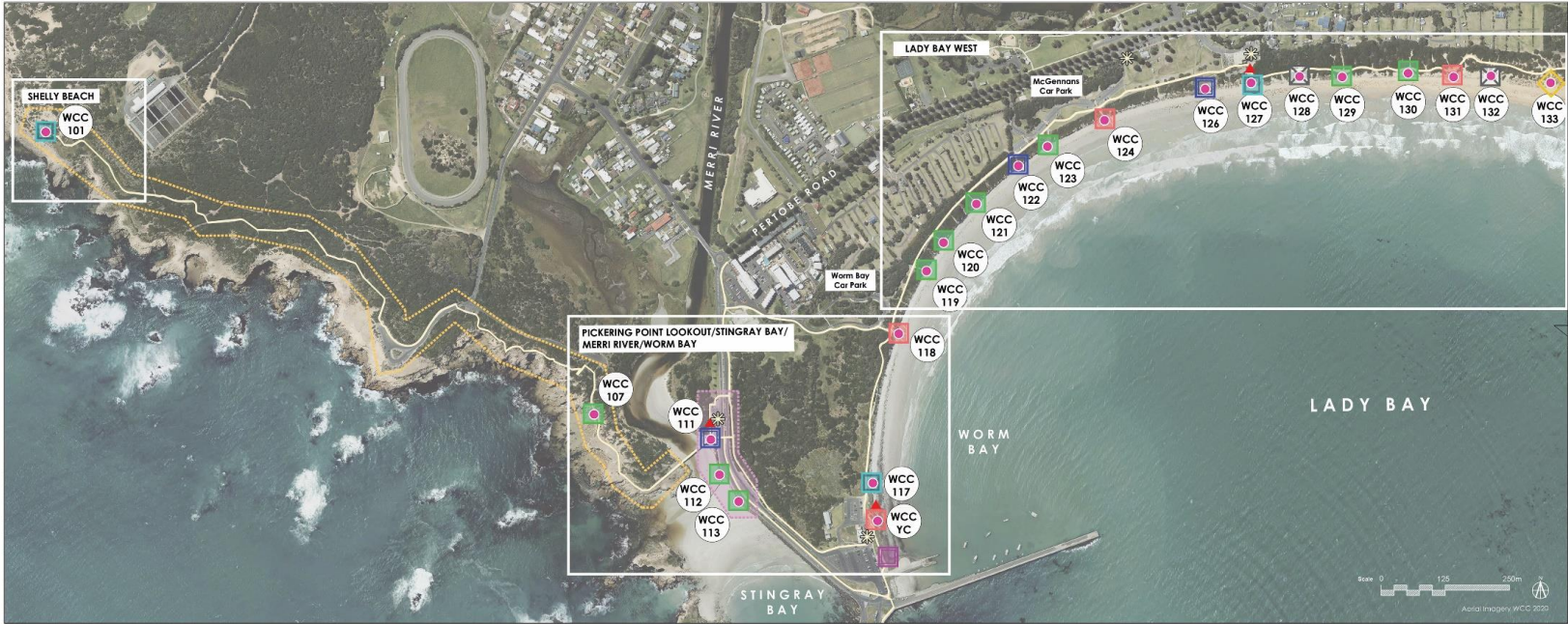
- 39.** Retain access points at Point Ritchie / Moyjil WCC140. This is a relatively new structure with a long remaining useful lifespan.
- 40.** Replace staircases at Point Ritchie/Moyjil WCC1141 and Hopkins River WCC142 and WCC145.
- 41.** Construct accessible ramp at Hopkins River WCC144 to accommodate wheelchairs and people with special access requirements. Provide all-terrain vehicle access to beach in this location for improved emergency access (although vehicle access is dependent on tidal levels)
- 42.** Investigate opportunities to make safety improvements to Logans Beach access WCCBH. Changes may include fencing and surface improvements. New ESTA marker required at this location.
- 43.** Replace staircase at Logans Beach WCC146. Replace timber stairs between the existing viewing platform/deck and beach. This is a current project in the planned capital works program.

GENERAL

- 44.** Conduct a Vegetation Management Plan review to investigate the management of weeds and species with invasive tendencies such as Coast Tea-tree. Use findings of review to guide the maintenance program and amend planning overlays, where required.

Figure 85 – Beach Access Recommendations Plan

WARRNAMBOOL BEACH ACCESS - RECOMMENDATIONS PLAN (WEST)



WARRNAMBOOL BEACH ACCESS - RECOMMENDATIONS PLAN (EAST)



- LEGEND
- Beach Access Point (33 in total within study area)
 - **Retain**
Recently constructed staircase structure:
Worm Bay WCC118
McGennans WCC124
Lady Bay WCC131
Moyil/Point Ritchie WCC140
Recently upgraded boat ramp:
Worm Bay WCCYC
 - **Retain and improve**
 - **Replace with accessible ramp**
Incorporate handrails, landings, tactile ground surface indicators
 - **Replace with staircase**
Incorporate handrails, landings, tactile ground surface indicators and contrasting strips on stairs
 - **New accessible ramp**
Incorporate handrails, landings, tactile ground surface indicators
Currently no constructed beach access at this location
 - **Consolidate**
Consolidate WCC133 and WCC134 providing a single location for beach access. Replace with ramp (incorporating handrails, landings, tactile ground surface indicators). Provide all-terrain vehicle (ATV) access.
 - ✕ Decommission and Remove
WCC128 and WCC132
Fence off and revegetate area
 - ▲ Provide emergency vehicle access to beach
 - Existing Path/Trail
 - ⚙ Existing Public Amenities/Toilets
 - Develop Viaduct Road Pedestrian Access Plan
Incorporate review of car parking, pedestrian access paths and crossings, pedestrian safety and design of WCC111, WCC112 and WCC113. Ensure access ramp for pedestrians and access ramp for emergency vehicles is provided.
 - Prepare a risk audit of the track and beach access points between Viaduct Road and Shelly Beach. The audit should assess the risk to visitors taking into consideration the stability of the cliffs and proximity of the trail/path/boardwalks to the cliff.

Warrnambool Beach Access Strategy Part 5: Implementation 2022-2037

6.IMPLEMENTATION

The Beach Access Strategy is intended to be implemented over the next 15 years.

Some of the Beach Access Strategy recommendations for renewal and upgraded infrastructure will fall into Council’s annual maintenance program. However, others particularly new and replacement infrastructure to a higher service level will require new budget allocations or funding from elsewhere, such as State or Federal grants in order to be completed.

The following Implementation Plan includes recommendations for improvements to Warrnambool’s beach access points, over a period of 15 years. The timing for delivery of these recommendations will be dependent on Council priorities and budget allocations and availability of funding programs and grant opportunities.



TABLE 1 - BEACH ACCESS IMPLEMENTATION PLAN 2022-2037

Priority Key: Immediate – Years 1-3, Short-term - 4-6 years, Medium-term, 7-9 years, Long-term – 10-12 years, Very Long-term – 13-15 years, As required

ACCESS POINT IDENTIFICATION		ASSESSMENT							RECOMMENDATIONS AND IMPLEMENTATION TIMEFRAMES			
Access Structure I.D Code	Asset Description (Asset ID)	Handrail Materials	Walkway Materials	Top Landing Materials	Bottom Landing Materials	Construction Profile	Ancillary Items/ Infrastructure and Facilities	Estimated Remaining Useful Life (Based on 2019 audit and updated in 2022)	Recommendations	(Retain, Replace, Consolidate, Remove, New)	Priority	Estimated Cost
WCC101	Shelly Beach (171399)	None	Informal gravel path	None	None	Ramp	N/A	N/A (Not a constructed structure)	Conduct risk audit of track leading from Viaduct Road to Shelly Beach WCC101. Recommendations are dependent on risk audit findings.	Retain and improve	Immediate: Fencing improvements, risk audit and install signage Priority of future works dependent on risk audit.	
WCC107	Pickering Point (171373)	Post and Rail	Timber	Timber	Timber	Stairs	N/A	7 years	Conduct risk audit of track leading from Viaduct Road to Shelly Beach, including WCC107. Recommendations are dependent on risk audit findings.	Replace staircase	Medium-term	
WCC111	Stingray Bay North (162429)	None	Concrete	Concrete	Sand	Ramp	N/A	7 years	Develop Viaduct Road Pedestrian Access Plan. Incorporate review of car parking, pedestrian access paths and crossings, pedestrian safety and design of WCC111, WCC112 and WCC113. The Plan should provide recommendations to address beach accessibility for people with wheelchairs and special access requirements and ensure emergency vehicle access is provided to the beach at this location.	Replace with accessible ramp Provide emergency vehicle access	Immediate: Develop Viaduct Road Pedestrian Access Plan Short-term: Replace with accessible ramp and provide emergency vehicle access	
WCC112	Stingray Bay – Viaduct Rd (North) (162219)	Post and Rail	Timber and Concrete	Concrete	Sand	Stairs	N/A	4 years	Develop Viaduct Road Pedestrian Access Plan, as per WCC111 recommendation. Replace timber staircase. The design and replacement of the existing staircase structure at WCC112 is a current project in the planned capital works program. Investigate if it is possible to delay	Replace staircase	Immediate: Develop Viaduct Road Pedestrian Access Plan Short-term: Replace staircase	

Warrnambool Beach Access Strategy – Background Report – March 2022

									the replacement of this structure until the Pedestrian Access Plan has been completed.			
WCC113	Stingray Bay – Viaduct Rd (South) (162222)	Post and Rail	Concrete	Concrete	Sand	Stairs	N/A	7 years	Develop Viaduct Road Pedestrian Access Plan, as per WCC111 recommendation. Replace concrete staircase.	Replace staircase	Immediate: Develop Viaduct Road Pedestrian Access Plan Medium-term: Replace staircase	
WCCYC	26B Promenade Beach Access – Yacht Club Car Park (163413)	None	Fibreglass Reinforced Concrete	None	Sand	Ramp	Adjacent pavilion restaurant	37 years	No changes proposed.	Retain	As required: Maintenance to structure	
WCC117	26A Promenade Beach Access (162414)	None	Concrete	Concrete	Sand	Ramp	N/A	17 years	Investigate opportunities to make safety improvements to the Worm Bay horse training beach access ramp at WCC117. This is a current project in the planned capital works program.	Retain and improve	Short-term	
WCC118	Worm Bay Car Park (170357)	Stainless Steel	Fibreglass Reinforced Plastic	Fibreglass Reinforced Plastic	Sand	Stairs	Timber Seat	40+ years	No changes proposed.	Retain	As required: Maintenance to structure	
WCC119	Beach Access Holiday Park (162224)	Post and Rail	Timber	Timber	Timber	Stairs	Shower	2 Years	Existing timber structure has short remaining useful life. Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible.	Replace staircase	Short-term	
WCC120	Beach Access Holiday Park (149328)	Post and Rail	Timber	Timber	Sand	Stairs	Shower	2 Years	Existing timber structure has short remaining useful life. Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible.	Replace staircase	Short-term	
WCC121	Beach Access	Post and Wire	Timber	Timber	Timber	Stairs	Shower	2 Years	Existing timber structure has short remaining useful life. Replace with staircase	Replace staircase	Short-term	

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	Holiday Park (162223)								incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible.			
WCC122	24D Promenade Beach Access – Boardwalk McGennans Car Park (162249)	Timber	Timber	Timber	Sand	Stairs	N/A	0 Years	Investigate the provision of an accessible ramp at WCC122. High usage area with good access to holiday park and McGennans car park. Provision of a ramp at this location is subject to further investigation of the dune morphology and detailed design.	Replace with accessible ramp	Immediate: Replace top steps and fix trip hazards, rough finishes, etc. Short-term: Design and construct accessible ramp	
WCC123	24B Promenade Boardwalk – McGennans Car Park (162248)	Post and Rail	Timber	Timber	Timber	Stairs	Top timber deck with 2 timber bench seats	0 Years	Existing timber structure has short remaining useful life. Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible. This is a current project in the planned capital works program.	Replace staircase	Immediate	
WCC124	24A Promenade Beach Access (262415)	Stainless Steel	Fibreglass Reinforced Plastic	Fibreglass Reinforced Plastic	Sand	Stairs	Timber Seat	40+ years	No changes proposed.	Retain	As required: Maintenance to structure	
WCC126	Boardwalk – McGennans Car Park (129954)	Timber Post and Rail and Stainless Steel Top Rail on Ramps	Concrete and Hardwood Timber	Concrete	Timber	Ramp	Seats at intermediate landings	12	The existing ramp is subject to regular access maintenance issues due to its design, construction materials and proneness to sand build up. It is recommended that this access ramp be replaced with a new accessible ramp. The design and siting of the ramp should be undertaken at the same time as the plans for the proposed surf lifesaving club upgrade/extension to ensure good planning and access to and	Replace with accessible ramp.	Medium-term	

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									from main building entrance/s and car parking areas. Whilst remaining useful life is estimated at 12 years, the maintenance costs are significant and replacement should be considered earlier than 12 years.			
WCC127	23A Promenade Beach Access (162417)	None	Concrete	Concrete	Sand	Ramp	Next to timber viewing platforms and life saving club and tower	17	Upgrade matting material of the vehicle access ramp at the Warrnambool Lifesaving Club WCC127. This may need to be a short-term solution depending on the future long-term plans for the Warrnambool Surf Lifesaving Club and associated vehicle access to the beach. At this time it is not known whether the vehicle access point is proposed to remain in its current location.	Retain and improve	Short-term: Replacement matting Long-term: reassess appropriateness of location and design if WSLSC building is upgraded/modified /extended	
WCC128	22A Promenade Beach Access (162418)	Post and Wire	Flexible Timber and Chain Buried in Sand and Partially Removed	Concrete Promenade	Sand	Ramp	N/A	0	Decommission and remove. Fence off and revegetate.	Remove	Immediate	
WCC129	22A Promenade Beach Access (162419)	Post and Wire	Flexible Timber and Chain Walkway	Promenade Concrete Path	Sand	Ramp	Seat	2	Existing timber structure has short remaining useful life. Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible. This is a current project in the planned capital works program.	Replace with staircase	Immediate	
WCC130	22A Promenade Beach Access (162420)	Post and Wire	Timber Slat and Chain Ramp	Concrete	Sand	Ramp	N/A	2	Existing timber structure has short remaining useful life. Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips	Replace with staircase	Immediate	

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									on stairs to make them more accessible.			
WCC131	22A Promenade Beach Access (162421)	Stainless Steel	Fibreglass Reinforced Plastic	Fibreglass Reinforced Plastic	Sand	Stairs	Timber Seat	40+ years	No changes proposed.	Retain	As required: Maintenance to structure	
WCC132	22A Promenade Beach Access (162422)	Post and Wire	Flexible Timber and Chain and Sand	Concrete Promenade Path	Sand	Ramp	N/A	0 years	Decommission and remove. Fence off and revegetate.	Remove	Immediate	
WCC133	22A Promenade Beach Access (162423)	Post and Wire	Flexible Hardwood and Chain and Sand	Concrete promenade path	Sand	Ramp	N/A	2	<p>WCC133 is reaching the end of its remaining useful lifespan and WCC135 has an estimated remaining useful lifespan of 7 years. Consolidate WCC133 and WCC134 into one upgraded beach access structure with an accessible ramp to accommodate wheelchairs and people with special access requirements.</p> <p>Retain access paths from the holiday park and The Flume car park.</p> <p>The siting and location of the structure in the sand dune will require careful design and consideration in this dynamic sand dune to help avoid sand build up.</p> <p>Include emergency vehicle access to the beach in this location (minimum 3m wide for all-terrain vehicle) as well as maintenance vehicles to clear sand away.</p> <p>Maintain bicycle rack, drinking fountain and seating</p>	<p>Consolidate</p> <p>Provide emergency vehicle access</p> <p>Provide accessible ramp</p>	<p>Immediate: Design and safety improvements to existing structure</p> <p>Short-term: Provide emergency vehicle access</p> <p>Medium-term: Consolidate and replace with accessible ramp</p>	
WCC134	22A Promenade Beach Access (162424) The Flume	Post and rail and post and wire	Timber deck on landing. Part plastic slat and chain ramp, part sand	Timber	Sand	Ramp	Bicycle rack, drinking fountain and seating	7	Recommendation as per WCC133	<p>Consolidate</p> <p>Provide emergency vehicle access</p> <p>Provide accessible ramp</p>	Same as above (Refer to WCC133)	

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WCC135	19C Promenade Beach Access: Granny's Grave (171400)	None	Informal Sandy Path	None	None	Ramp	NA	N/A	Retain and carry out improvements to enhance safety and extend their remaining useful lifespan. Define track with fencing upgrades.	Retain and improve	Short-term: Fencing to define track Medium-term: Improvements to beach access	
WCC136	19B Promenade Beach Access: Granny's Grave (171398)	None	Informal Sand Track	Concrete	Sand	Ramp	N/A	0 years	Retain and carry out improvements to enhance safety and extend their remaining useful lifespan. Define track with fencing upgrades.	Retain and improve	Short-term	
WCC138	19A Promenade Beach Access: Grannys Grave (162425)	Post and Wire	Timber Slat and Chain	Concrete	Sand	Ramp	N/A	0 years	Retain and carry out improvements to enhance safety and extend their remaining useful lifespan. Define track with fencing upgrades.	Retain and improve	Short-term	
WCC140	Beach Access Point: Point Ritchie / Moyjil (162217)	Stainless Steel and recycled plastic	Fibreglass Reinforced Plastic	Fibreglass Reinforced Plastic	Sand	Stairs	Gabion walls	40+ years	No changes proposed.	Retain	As required: Maintenance to structure	
WCC141	Beach Access: Bluehole	Stainless Steel Post and Rail	Concrete Steps and Concrete Path	Concrete	Sand	Stairs	N/A	12 years	Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible. Whilst remaining useful life is estimated at 12 years, the maintenance costs are significant due to sand build up on concrete steps and risk to users. Replacement or temporary upgrade should be considered earlier than 12 years.	Replace staircase	Immediate: Investigate replacement or short-term upgrade	

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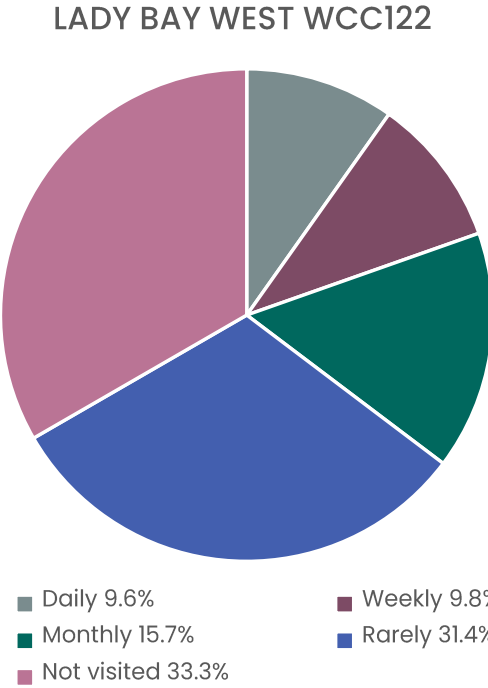
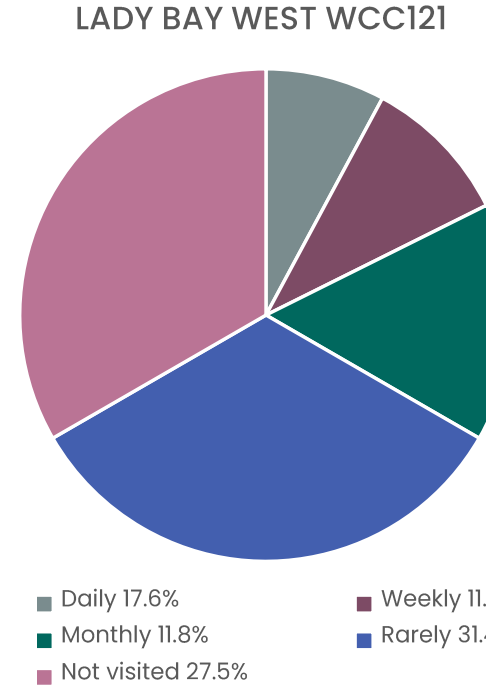
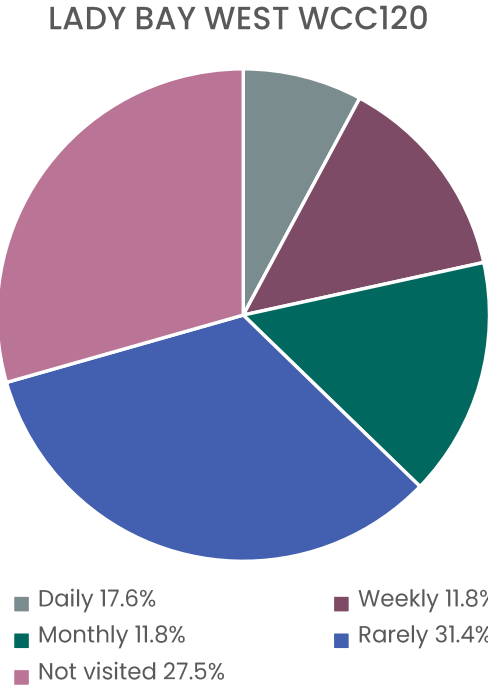
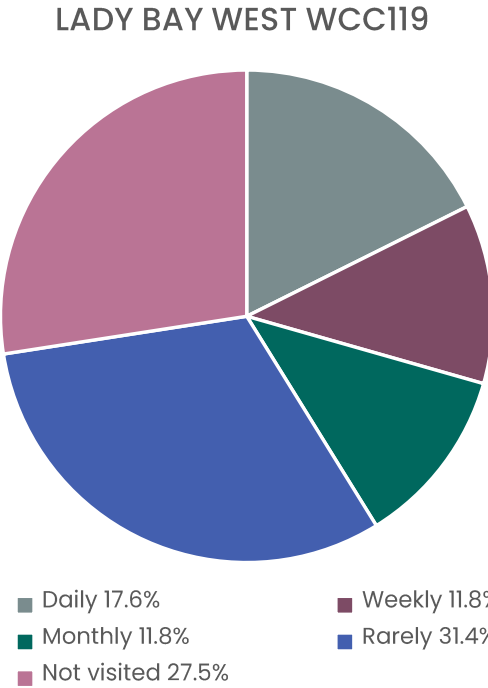
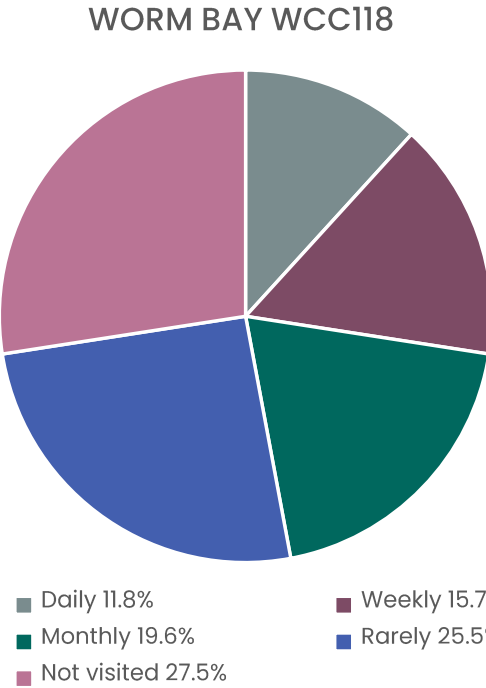
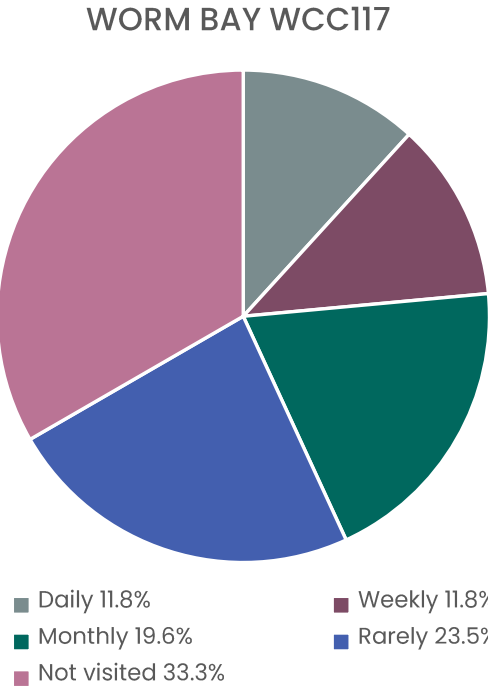
WCC142	5A Promenade Beach Access: Bluehole (162427)	Post and Rail	Timber Steps and Timber Landings	Concrete	Rocks and Sand	Stairs	N/A	7 years	Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible.	Replace staircase	Medium-term	
WCC144	Beach Access (North): Bluehole Car Park (171397)	None	Informal Gravel Path	Gravel	Sand	Ramp	N/A	2 years	Construct accessible ramp to accommodate wheelchairs and people with special access requirements. Provide all-terrain vehicle access to beach in this location for improved emergency access (although vehicle access is dependent on tidal levels)	Replace with accessible ramp. Provide emergency vehicle access	Immediate	
WCC145	Beach Access (South): Bluehole Car Park (162428)	Post and Rail	Timber	Timber	Sand	Stairs	N/A	0 years	Replace with staircase incorporating handrails, landings, tactile ground surface indicators and contrasting strips on stairs to make them more accessible.	Replace staircase	Immediate	
WCCBH	Beach Access: Bluehole Trail South (171356)	Post and Wire	Timber Slate and Chain and Sand	Gravel	Sand	Ramp	N/A	2 years	Investigate opportunities to make safety improvements to Logans Beach access WCCBH. Changes may include fencing and surface improvements. New ESTA marker required at this location.	Retain and improve	Immediate	
WCC146	Stairs: Logans Beach Access (162220)	Post and Rail	Timber Steps and Timber Intermediate Landings	Timber	Timber	Stairs	Adjoins whale viewing platform. Shower on mid-platform	2 years	Replace timber stairs between the existing viewing platform/deck and beach. This is a current project in the planned capital works program.	Replace staircase	Immediate	
WCC-NEW	Harbour Access	N/A	N/A	N/A	N/A	N/A	N/A	N/A	New accessible ramp proposed near boat launching facilities. Design and construction of the proposed concrete terraced seating is to include integrated accessible ramp.	Construct new accessible ramp.	Medium-term	

Beach Access Strategy Appendices

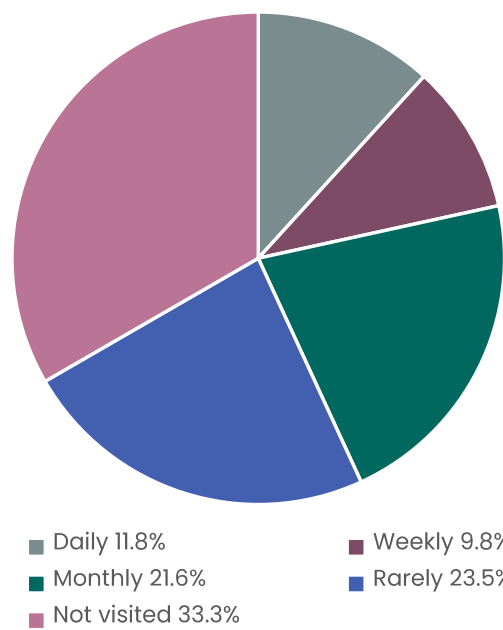
APPENDIX 1: BEACH ACCESS POINT USAGE CONSULTATION RESPONSE

QUESTION: Which access points do you visit and how often?

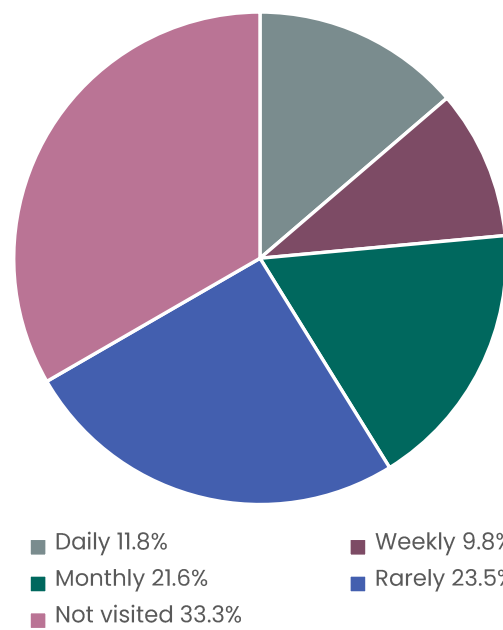




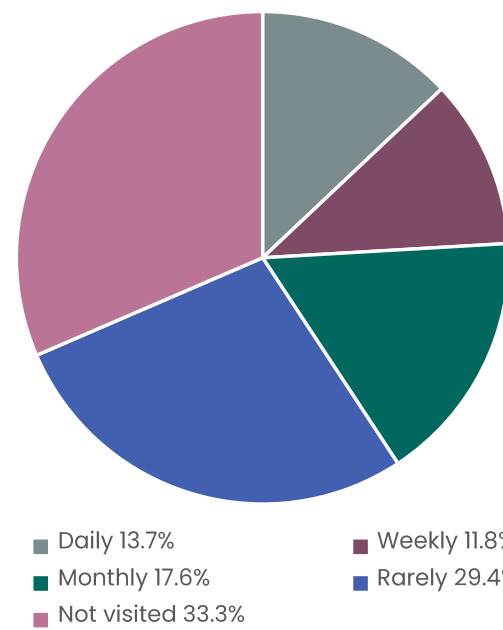
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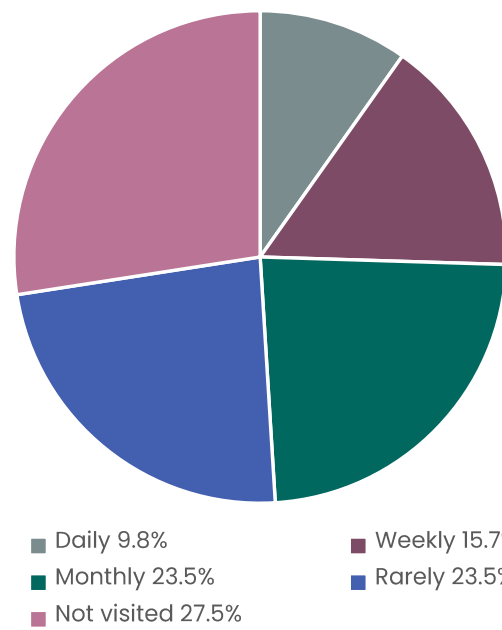
LADY BAY WEST WCC124



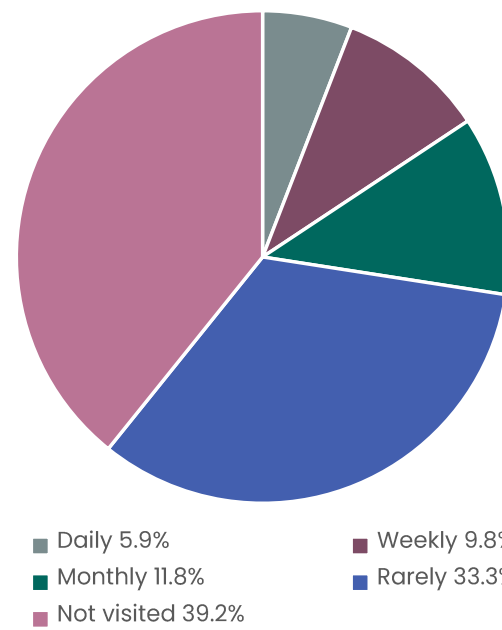
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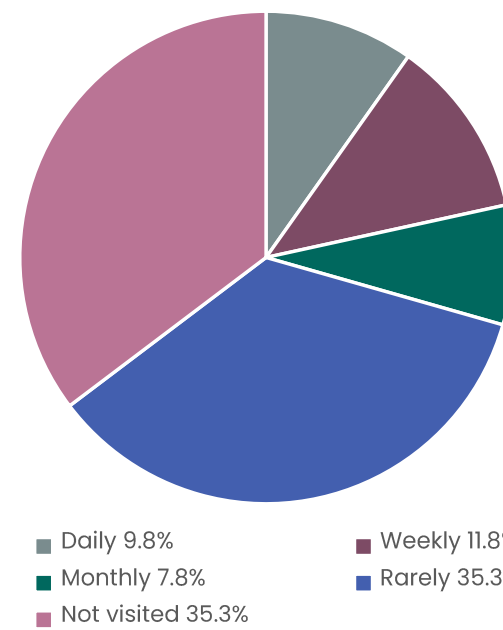
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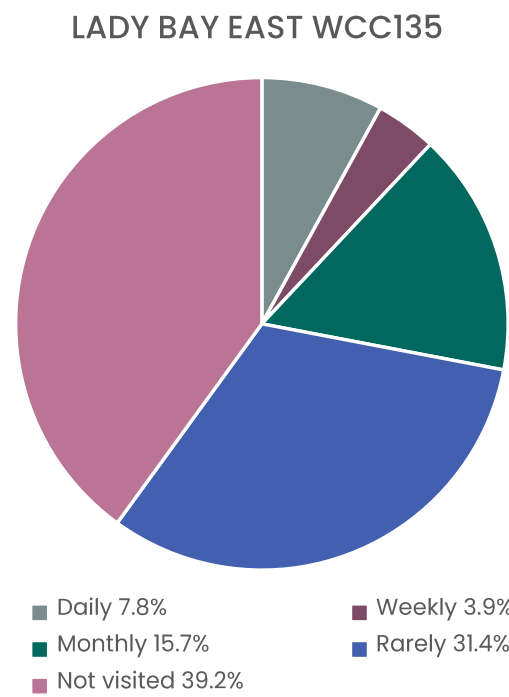
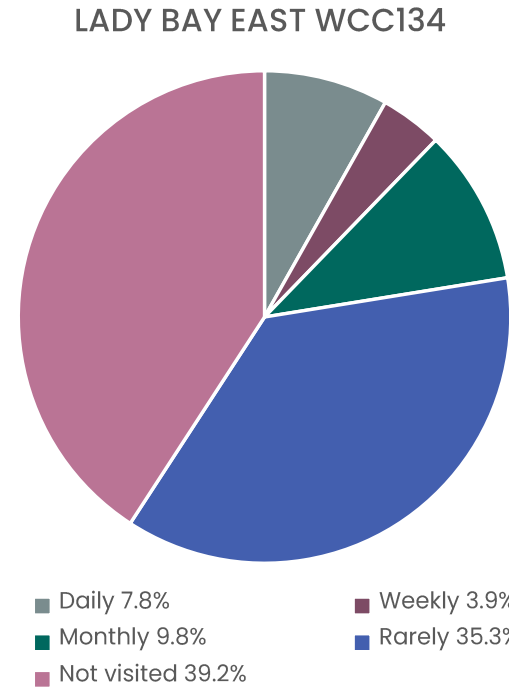
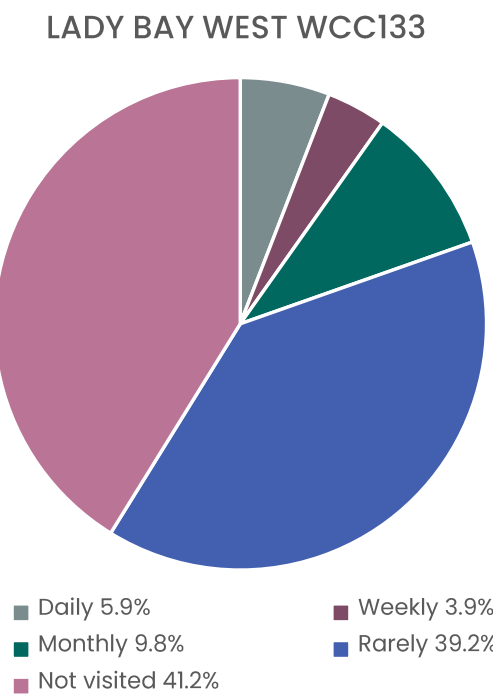
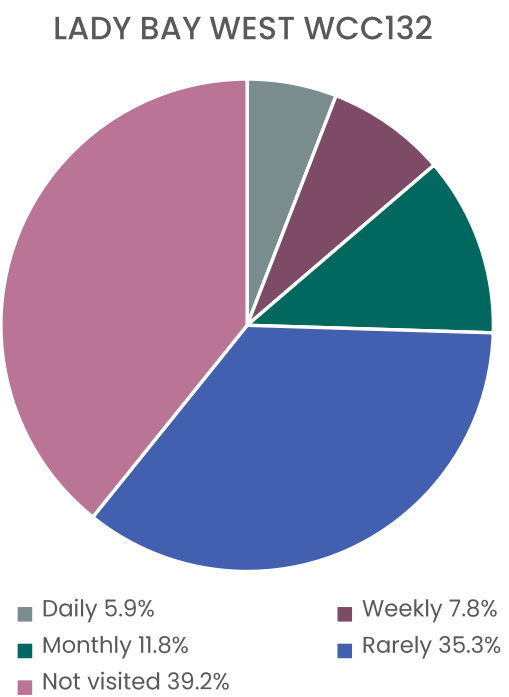
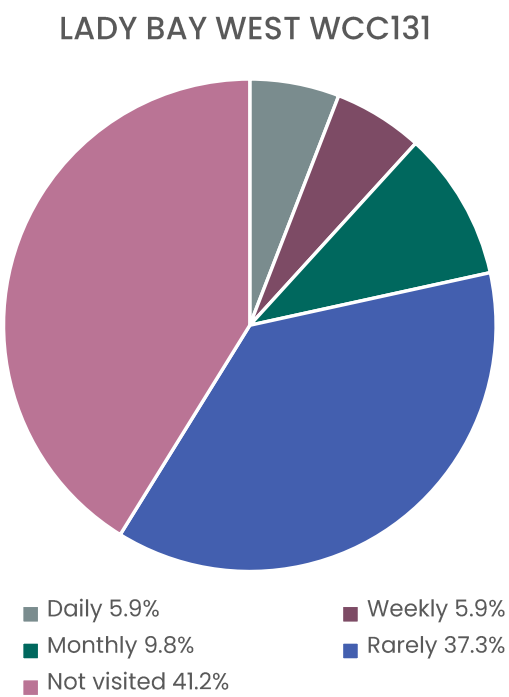
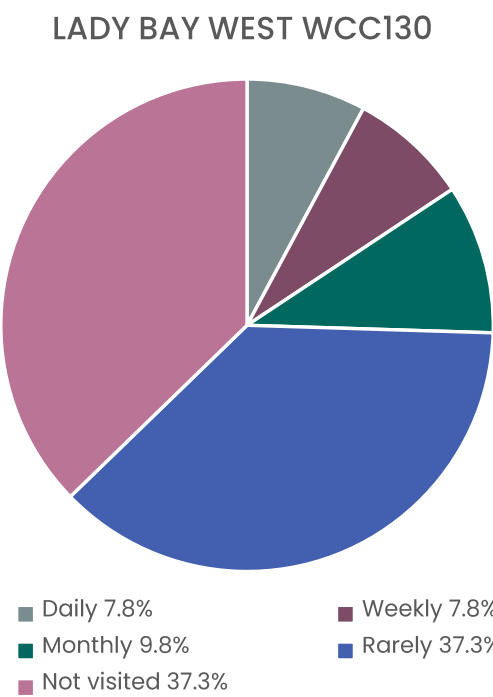


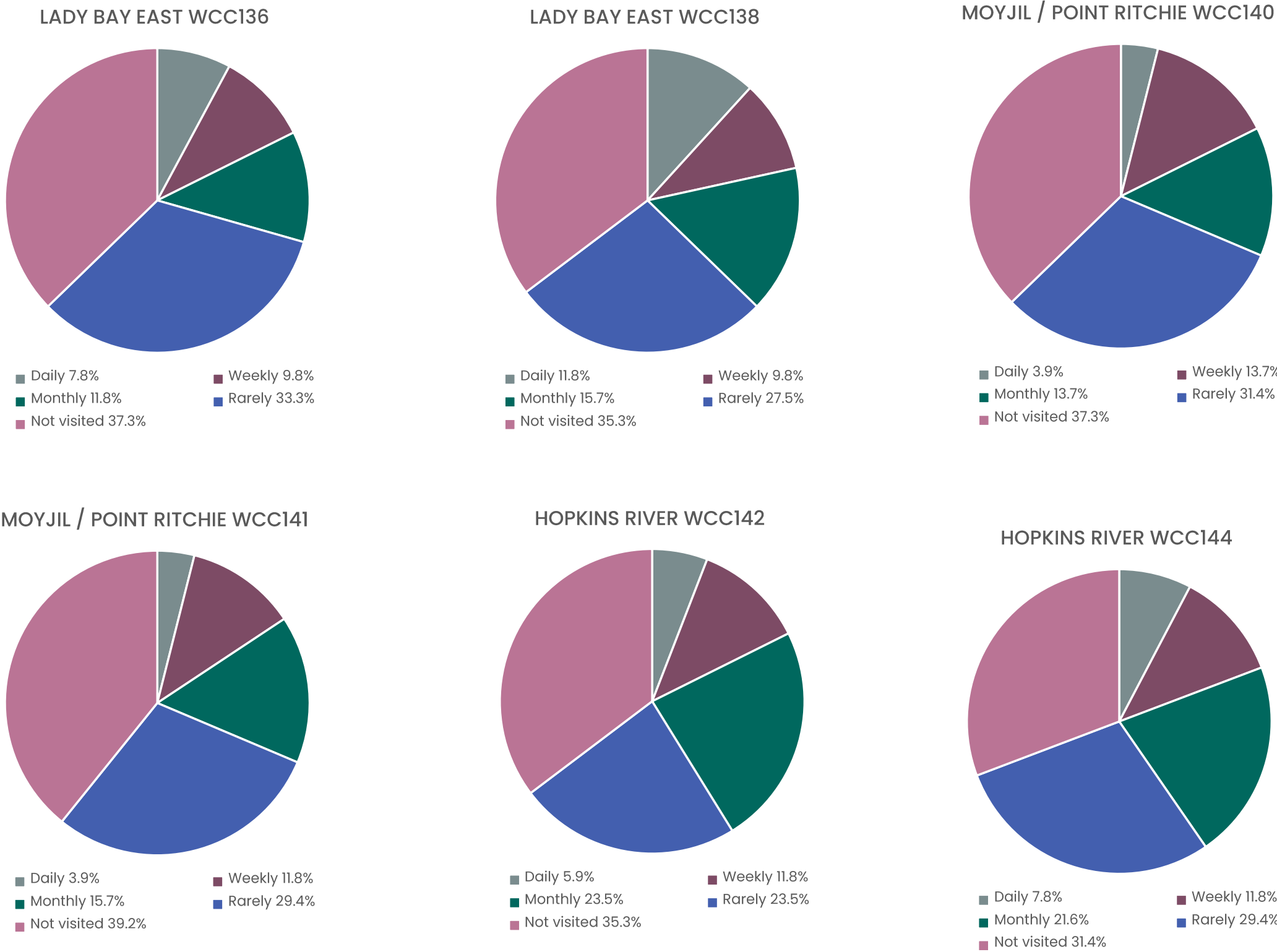
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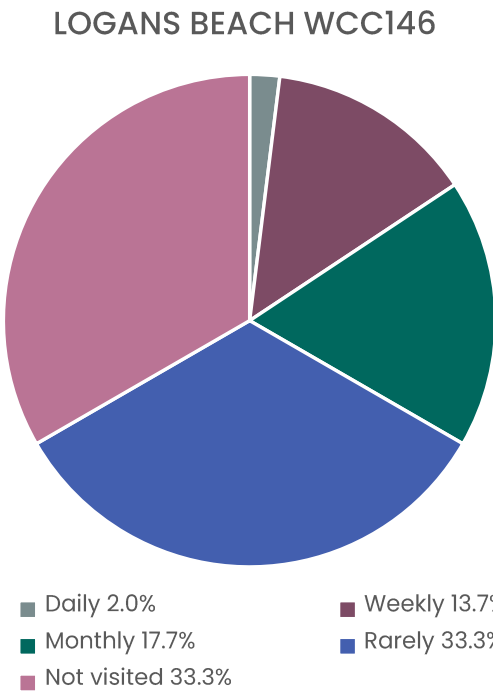
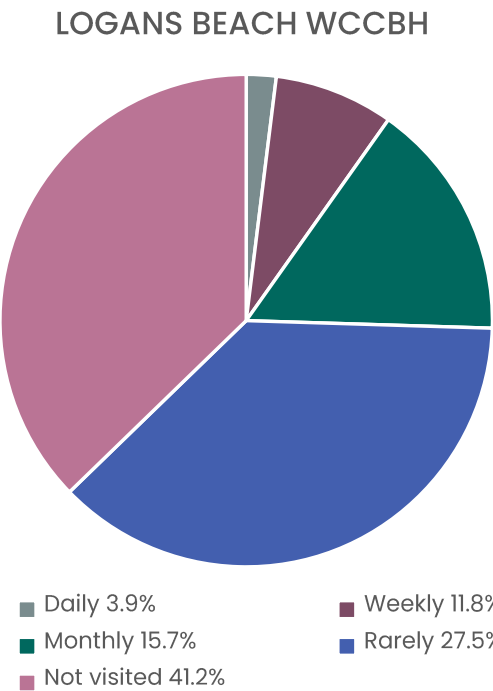
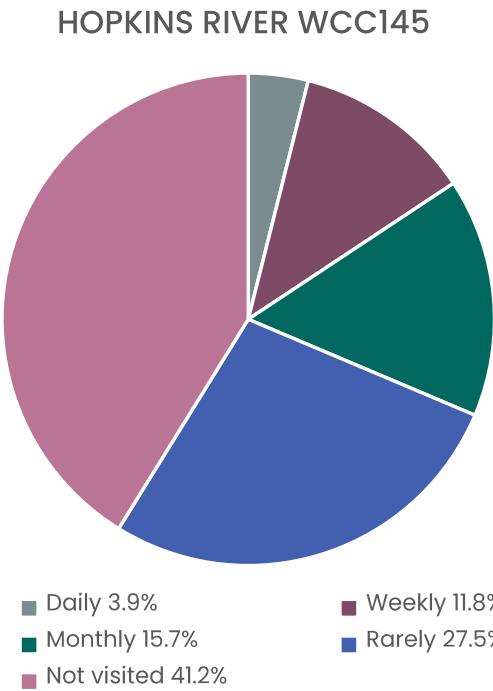


LADY BAY WEST WCC129









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Summary of documentation – Consultants’ Reports

Background

Thirty-one Victorian councils and CASBE are collaborating on a joint research project that aims to elevate Environmentally Sustainable Development (ESD) targets for new development.

This research represents Stage 1 of a two-stage process that aims to build on the existing local ESD Policies held by numerous Victorian Councils and deliver revised and elevated ESD targets for new development, including targets for zero carbon development.

The 31 participating Councils appointed a consultant team via CASBE from August through to December 2021. This comprised of the following:

- Hansen Partnerships, Planning Consultant
- Hip vs Hype, ESD Consultant
- Frontier Economics, Economist Consultant

The three pieces of work were completed by the consultants, with feedback from the working group, in December 2021. The final package included:

- draft planning controls,
- guidance papers and a range of recommendations,
- technical and economic studies and
- a presentation summarising the work undertaken to date.

This package was then distributed to Participating Council officers for feedback in December 2021 and January 2022. This included key staff members from other units and across the 31 Participating Councils. The feedback was then collated and presented back to the authors for response. When this feedback has been addressed, the reports will be finalized and form a key part of the strategic justification to support a proposed planning scheme amendment.

Summary of findings and recommendations

A number of recommendations were made by the consultants to inform the planning scheme amendment process. All recommendations were accepted and have either been completed or are currently in progress to complete as the evidence base is finalised prior to seeking authorisation from the Minister for Planning to place the amendment on public exhibition.

- **Planning consultant, Hansen Partnerships.**
Engaged to undertake a peer review of working draft objectives and standards, analyse available policy tools and identify and prepare the most appropriate planning policy mechanism to implement the elevated ESD objectives and standards.

Key recommendations

- Recommended the 31 participating councils pursue an amendment encompassing a whole new Victorian Particular Provision (VPP), with the following characteristics;
 - Mandatory objectives with associated standards to deliver the objectives
 - A new VPP only applies to councils who ‘opt in’
- Recommended the participating councils request a combined Planning Panel and Ministerial Advisory Committee to consider the amendment.
- Drafted a new draft Victorian Particular Provision Clause 52.XX (attached).

- Recommend the Participating Councils pursue the full suite of objectives and standards in their entirety.
- Consider staging of the standards only if DEWLP do not accept them in their entirety, based on clearly identified disbenefits.

Other recommendations

- Provisions require a number of clear definitions to assist interpretation. (*Work underway*)
- New provisions would also require new tools to assist implementing the new planning provisions, such as an update to the BESS tool and the Green Factor tool. (*Work underway*)
- Further drafting be undertaken on some proposed standards to be framed as 'Performance Measures', in line with the new format for these Performance Measures currently proposed by DELWP. (*Work underway*)
- A consistent set of Application Requirements and relevant reporting templates to support applications preparing application material. (*Work underway*)
- A standard set of Permit Conditions should be developed to deliver the standards and objectives (*Work underway*).
- A *Guidelines for Sustainable Building Design* document be prepared to be used consistently by all councils who apply the new VPP. (*Work underway*).

- **ESD technical consultant, Hip vs Hype**

Concluded that there are no major technical barriers exist to achieving the recommended standards and objectives.

Key recommendations

- Recommended some new standards exist in BESS tool or another sustainable design publication (SDAPP fact sheets), rather than included in a planning control.
- Recommended several wording changes and fine tuning of draft objectives and standards.
- Further detail on each sustainable design category was also included:
 - Energy – Majority of standards are supported in their present form, or with minor modifications.
 - Transport – Bicycle parking standards largely supported, some modifications to 'bicycle parking convenience' standards have been suggested. Electric vehicle charging infrastructure standards were supported, but with some modifications that have been made to avoid overly prescriptive standards in the Planning Scheme.
 - Integrated Water Management – Overall intentions supported but the standards proposed were already largely achieved in the development sector and that an increased water efficiency target of 30% reduction in potable water supply, increased from 25%.
 - Indoor Environment Quality – Recommend that most standards be modified or moved into guidance material and others be removed as they have significant development feasibility impacts. In particular, the thermal comfort temperature settings and the new daylight performance standards needed more background technical work. (*further daylight technical work has been commissioned by CASBE*).

- Circular Economy – Proposed standards on waste collection and recycling are technically feasible and already achieved in current development. Standards concerning use of recycled materials require additional guidance and definition to provide clarity.
 - Green Infrastructure (urban ecology) – Green cover target is a strong driver for achieving a range of benefits relating to the natural environment and ecosystem services, include urban heat, food production and biodiversity.
- **Economist consultant, Frontier Economics**
 - The analysis outcomes were primarily focused on the direct costs associated with addressing the standards within a range of development typologies.
 - A breakeven analysis demonstrated that the new proposed changes may deliver value to the community where sufficient scale is achieved and implemented across development within multiple municipalities.
 - The analysis outcomes demonstrated that the costs involved to meet certain standards varied, particularly across a range of development typologies. An additional factor that influenced the outcomes was whether a council had a pre-existing ESD Local Policy within its Planning Scheme.
 - The methodology used primarily took into consideration quantifiable costs versus quantifiable benefits. The analysis indicated that the quantifiable costs exceeded the quantifiable benefits across each development typology.
 - The benefits are recognised and well documented in the sector, but few of these benefits have a dollar value that can be easily adopted for this study.
 - The project group were however informed that there was limited research and documentation made available to economically quantify the environmental and social benefits attributed to incorporating some of the standards within development.
 - The analysis presented that the costs associated with the thematic categories Urban Ecology (Green Infrastructure) and Indoor Environment Quality (Daylight and Thermal Comfort) were higher in comparison to costs associated with other thematic categories (i.e. Energy, Integrated Water Management, Transport and Circular Economy). However, the calculation of the broader cost impacts and associated benefits were clearer with respect to the latter group of thematic categories which conveyed a more beneficial outcome.
 - The project group were recommended to undertake further investigation into larger scale implementation of the proposed objectives and standards.
 - The project group were notified that based on methodologies commonly exercised with respect to economic studies and cost benefit analyses, the analysis excluded the reduction in energy and utility bills, including other operational and indirect benefits to residents and businesses. Such items are considered as financial or transactional benefits.
 - The project group were informed that the financial impact, resulting from incorporating the standards within development, could be further reviewed through a developer centric evaluation of key performance metrics and criteria. This could include profit margin, development yield and internal rate of return.
 - Given the further recommendations and matters presented by the economist consultant, the Elevating Targets Working Group in conjunction with the participating councils will determine whether further financial analysis including

potential climate risk analysis should be undertaken as part of Stage 2 (the amendment stage).



Sustainability Planning Scheme Amendment – Cost-Benefit Analysis



A report for the Municipal Association of Victoria on behalf of CASBE | 28 March 2022

Sustainability Planning Scheme Amendment – Cost-Benefit Analysis

Final



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1 Introduction

1.1 About this report

The *Council Alliance for a Sustainable Built Environment* (CASBE) is an alliance of Victorian councils committed to the creation of a sustainable built environment within and beyond their municipalities. CASBE's focus is on seeking better sustainability outcomes in the built environment using the planning permit application process. CASBE is auspiced by the Municipal Association of Victoria (MAV). MAV is the peak body for local government in Victoria.

MAV, on behalf of CASBE, has sought expert advice to enable the development of a planning scheme amendment, with a range of new elevated standards of sustainability in buildings.

The purpose of the elevated standards is to ensure that new buildings and significant alterations and additions are planned and designed in a manner which mitigates and adapts to climate change, protects the natural environment, reduces resource consumption and supports the health and wellbeing of future occupants.

This report presents the results of the cost-benefit analysis of the proposed elevated standards. As outlined further in this report, it builds on other workstreams in the project including planning advice and technical and development feasibility. Further information on the standards is provided in the reports for these workstreams.

1.2 The case for change

There are numerous benefits and performance improvements that arise from more sustainable buildings. These include operational cost savings from improved energy and water efficiency, and higher-quality building outputs. Improved indoor environment quality has been shown to improve health outcomes and employee productivity.¹ More sustainable buildings can also help to manage climate, regulatory, or other environmental risks.

Despite these potential benefits, there are several market failures that inhibit new developments from achieving more sustainable outcomes. These include:

- **Information asymmetry** – a lack of information by purchasers or renters on the sustainability performance of buildings. In particular, building qualities like efficiency and indoor environment quality are difficult to detect and verify prior to purchase or lease. When buyers and sellers do not have perfect information, it can lead to inefficient outcomes

¹ For example the following articles discuss various productivity and health benefits from improved indoor environment quality, <https://theconversation.com/research-shows-if-you-improve-the-air-quality-at-work-you-improve-productivity-76695>; <https://v2.wellcertified.com/health-safety/en/air%20and%20water%20quality%20management>; https://www.researchgate.net/publication/273746860_Costs_and_benefits_of_IEQ_improvements_in_LEED_office_buildings



- **Negative externalities** - negative externalities may mean that suboptimal decisions are made in the absence of intervention. For example for energy consumption, energy prices that do not fully reflect the economic cost of consuming energy (including the cost of greenhouse gas emissions) can lead to overconsumption of energy. There are similar issues related to the embedded carbon in construction materials.

Negative externalities mean that energy consumption is higher than economically efficient levels and there is under-investment in energy efficiency.

- **Principal-agent problems** - where builders or designers do not share the objectives of those purchasing new homes (for example to minimise energy bills)

These problems and market failures suggest a form of policy response or intervention may be needed.



2 Methodology

2.1 Overview of Cost-Benefit Analysis

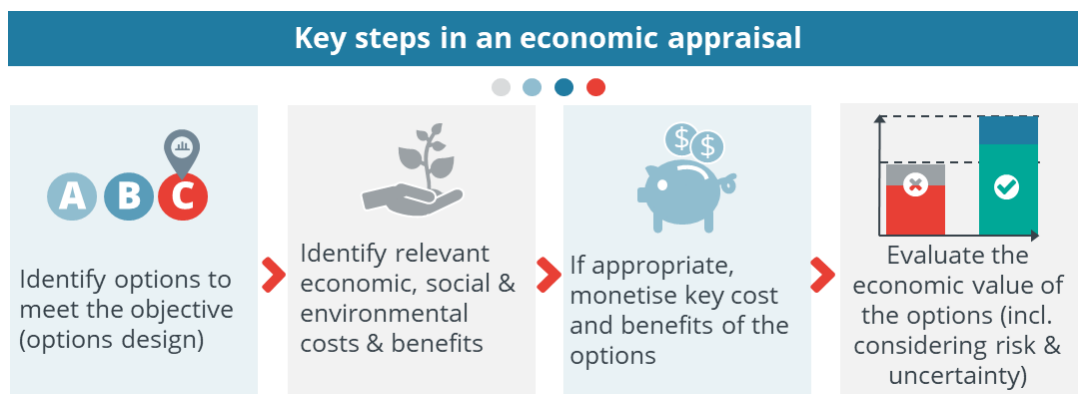
A cost-benefit analysis (CBA) provides a robust framework to assess the impacts of an intervention. A CBA is an assessment tool that compares the costs associated with a potential intervention with the benefits. The analysis is incremental in that it looks at additional costs and benefits over and above a “business as usual” scenario (the base case). The process is shown in

Figure 1 below and involves:

- **Step #1:** Identifying the appropriate Base Case and alternative interventions options (for comparison against the base case)
- **Step #2:** Identifying the range of relevant, incremental economic, social, and environmental costs and benefits of the options
- **Step #3:** Quantifying and monetising (where appropriate) a subset of the incremental economic, social and environmental costs and benefits

Step #4: Undertaking a CBA of the incremental economic value of the options (including considering risk and uncertainty using sensitivity analysis)

Figure 1: CBA process



Source: Frontier Economics.

While a CBA is an economic analysis, it looks to value economic, environmental and social impacts. The focus of a CBA is on ‘real resource’ changes from the point of view of society. That is to say, the focus is on incremental changes in scarce resources (labour, material, natural capital etc.) from the point of view of Victorian society. Financial transactions (such as the purchase of land or the payment of a levy) which make one party better off and another worse off are “transfers” which are excluded from a CBA as they result in no change for society.



Importantly for this analysis, property value uplift is not a real resource impact. Rather this is a financial benefit for a property owner. However, a number of the factors driving the higher property value – lower ongoing utility costs and improved amenity benefits etc. are captured in this analysis.

2.2 How this CBA fits with other workstreams and typologies assessed

This CBA builds on the planning and environmentally sustainable development (ESD) components of the elevating ESD targets project. As outlined in **Figure 2**, the planning advice refined the Sustainability Planning Scheme Amendment standards, the technical ESD component then estimated the costs and impacts associated with the design response for the standards and then this CBA values and profiles impacts based on available data and evidence.

Figure 2: Overarching project process



Source: Frontier Economics

In line with the case study typologies developed in the project, this CBA analyses eight building typologies across a range of locations (ie. inner urban, suburban and regional). For each typology the analysis compares the costs and benefits of an option or *intervention case* (with the Sustainability Planning Scheme Amendment) against two base cases (one for councils with an existing ESD Policy and another for councils that do not have an existing ESD Policy).² These typologies and base cases are outlined in **Table 1** and are hereafter referred to as scenarios. These scenarios align with those analysed across the project as a whole.

² The exception here is the RES 5 typology which only has a single base case (a council with no existing ESD policy).



Table 1: Typologies and base cases included in the analysis.

Typology	Inner Urban	Suburban	Regional
(RES1) Large residential mixed-use development >50 apartments and small retail	ESD Policy	Non-ESD Policy	
(NON-RES 1) Large non-residential >2,000 m2 GFA office development	ESD Policy	Non-ESD Policy	
(NON-RES 2) Large industrial >2,000 m2		ESD Policy	Non-ESD Policy
(RES 2) Small multi-dwelling residential <3 dwellings		ESD Policy	Non-ESD Policy
(RES 3) Small multi-dwelling residential >5 dwellings but < 10 dwellings	ESD Policy	Non-ESD Policy	
(RES 4) Small residential apartment building >10 dwellings but <50 dwellings		ESD Policy Non-ESD Policy	
(NON-RES 3) Small non-residential office and retail <2,000 m2	ESD Policy		Non-ESD Policy
(RES 5) Single dwelling and/or residential extensions greater than 50 m2		Non-ESD Policy	

Source: Frontier Economics

2.3 Impacts

The next step in the CBA process (following the identification of a range of potential options) is to identify the range of incremental economic, social and environmental costs and benefits that accrue to the local and broader Victorian communities, compared to the Base case.

The proposed Sustainability Planning Scheme Amendment (the application of which is the difference between our options and the Base Case) covers a broad range of changes to building requirements across the broad themes of:

- Operational Energy
- Sustainable Transport
- Integrated Water Management
- Indoor Environment Quality
- Circular Economy
- Green Infrastructure

Note that the themes above were based on an early categorisation which removed 'Climate Resilience' and redistributed standards under that theme. This theme has now been reintroduced. In this report, results have not been reported separately for climate resilience however to avoid any doubt, the costs and benefits related to climate resilience are still included as part of other themes. In addition, the 'Circular Economy' category was split into two called 'Waste and Resource Recovery' and 'Embodied Emissions'. More information is contained in the Technical ESD report.



Figure 3: Overview of key cost and benefit themes considered in this analysis



Source: Frontier Economics

The breadth of these themes leads to a broad range of potential impacts. To ensure that this CBA takes a robust approach to analysing these broad impacts, a three-stage approach was taken:

1. Logic mapping exercise undertaken to identify ultimate impacts that should be assessed by category (as opposed to an intermediate implication). The logic mapping process drew on our expertise across these key themes and a range of Australian literature (See Appendix C for more detail). The logic maps started from the theme objective, identified implications and then key impacts.
2. Longlist of potential impacts developed by drawing on the logic mapping exercise.
3. Further research undertaken to identify which outcomes can be quantified and those which should be considered qualitatively (See Appendix C for more detail).

Our logic mapping and potential impacts is shown below in **Table 2**. Importantly, it is the end outcome that are being identified and, if appropriate, valued in the CBA (where possible) as opposed to the initial step in the causal chain or the overall objective.

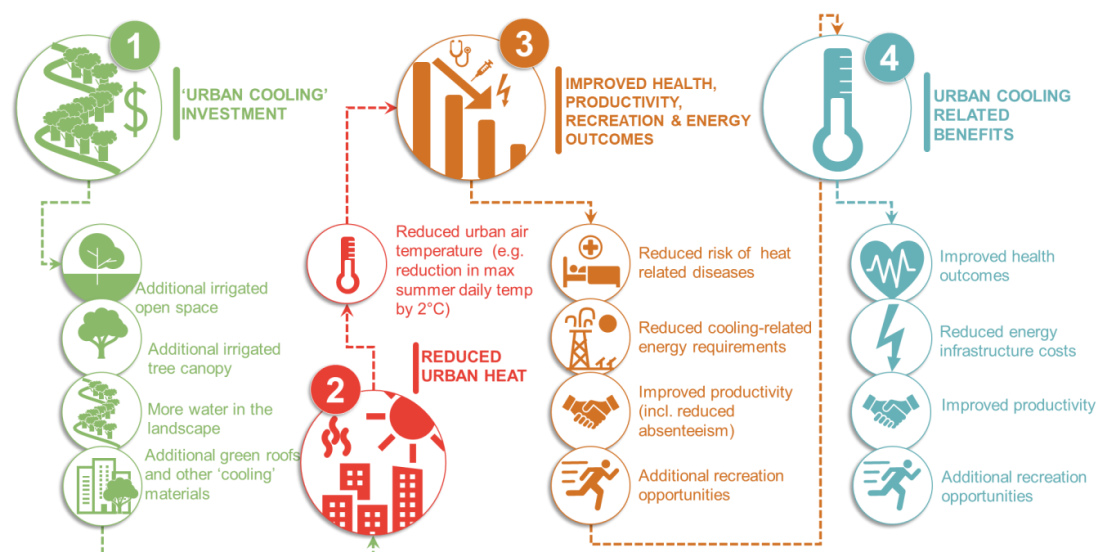
In the discussion below, we elaborate on a logic mapping approach for urban heat. As shown in **Figure 4**, investment to manage urban heat (including investment in irrigated open space and tree canopy, water in the landscape and other cooling-materials such as green roofs) can reduce the urban air temperature (e.g. reducing the max summer daily temperature), providing economic, environmental and social (or liveability-related) benefits to the community.³ This includes:

³ See for example Sydney Water Corporation (2017), Cooling Western Sydney A strategic study on the role of water in mitigating urban heat in Western Sydney; CRCWSC (2016), Impacts of Water Sensitive Urban Design Solutions on Human Thermal Comfort. Available at: https://watersensitivecities.org.au/wp-content/uploads/2016/07/TMR_B3-1_WSUD_thermal_comfort_no2.pdf; Kabisch, N., et al. (2017). "The health benefits of nature-based solutions to urbanization challenges for children and the elderly—A systematic review." *Environmental Research* 159: 362-373.



- **Reductions in the risk of heat-related diseases** – While urban heat is rarely listed as the cause of death, various studies have found that increased heat levels lead to increased risk of death or disease, especially amongst the most vulnerable in the community: the very young and elderly.⁴ A reduction in urban heat can reduce the risk of heat-related diseases, reducing the number of heat-related deaths and the use of health services (reducing the total cost of treatment).
- **Reductions in cooling-related energy requirements** – reduced cooling demand as a result of reduced urban heat, can reduce the generation and network energy infrastructure requirements required to meet future demand. This in turn, defers the operation and augmentation of energy generation and network infrastructure, reducing the future cost of providing the energy infrastructure.
- **Improvement in productivity**– reduced urban heat can lead to improvements in productivity, including reduced absenteeism, which may result from reduced heat stress on the community (for example, reductions in the incidence of disturbed sleep or cancelled workdays due to excess heat).
- **Additional recreation opportunities in the summer** – reduced urban heat can lead to increased participation in active and passive recreation in the summer (in addition to the increased recreation opportunities arising from increased availability of open space).

Figure 4: Link between green infrastructure and urban cooling-related benefits



Source: Frontier Economics

The impacts in the table below are in addition to the incremental upfront and ongoing costs to meet the revised standard (i.e. less any costs under the base case). Note that the impacts that are in **bold** text are those that we have been able to quantify and ultimately, monetise, as discussed in the following section.

⁴ See for example, Center for Disease Control and Prevention (2006), Heat Island Impacts. Available at: <https://www.epa.gov/heat-islands/heat-island-impacts#3> (viewed January 2018).

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Table 2: Logic mapping

Theme	Objectives	Implication	Potential impacts
Operational energy	Net zero operational carbon	<ul style="list-style-type: none"> No natural gas or onsite fossil fuel consumption Maximise onsite renewable energy generation All residual energy to be 100% renewable purchased through Green Power or similar 	<ul style="list-style-type: none"> Reduce GHG emissions arising from reduced grid-based energy demand Reduced energy use, avoiding energy fuel costs and deferring the need for energy network investment
Sustainable transport	Reduce private vehicle trips, support a smooth transition for the future uptake of electric vehicles (EV)	<ul style="list-style-type: none"> Provide for bicycle parking (increase likelihood of residents and workers riding bikes) Provide EV charger outlets Shared space EV charging 	<ul style="list-style-type: none"> Increased active transport and resulting reduction in inactivity-related health benefits / avoided costs arising from increased use of bicycles Increased uptake of EVs leading to reduced GHG emissions and increased electricity use
Integrated water management	Reduce potable water consumption and improve the quality of stormwater discharging from site	<ul style="list-style-type: none"> Provide efficient fitting, fixtures and appliances Provide for rainwater harvesting (rainwater tanks) 	<ul style="list-style-type: none"> Reduced potable water use deferring water network investment Reduced stormwater discharge leading to reduced impact of nitrogen and suspended solids. This can lead to improvements in the health of waterways and surrounding ecology. Value of recovered organic waste (less cost of recovery)

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Theme	Objectives	Implication	Potential impacts
Indoor Environment Quality	Improve the comfort of building occupants including internal temperatures, air quality and daylight access	<ul style="list-style-type: none"> Improved external shading Improved ventilation Improved daylight 	<ul style="list-style-type: none"> Improved productivity Health benefits from improved air quality inside buildings Staff health & retention in non-residential buildings Health benefits from increased natural light
Circular Economy	Improve rates of resource recovery, encourage the use of materials with recycled content as an alternative to virgin material	<ul style="list-style-type: none"> Provide a Construction and Demolition Waste Management Plan that sets a landfill diversion target Utilise low maintenance, durable, reusable, repairable and recyclable building materials 	<ul style="list-style-type: none"> Avoided operational costs of landfill and avoided landfill externalities (disamenity) Value of recycled materials less costs of transport/processing
Green infrastructure	Increase the amount of green infrastructure (such as tree canopy, green roofs and open space) to provide a range of ecosystem service benefits, reduce the contribution of the built environment to the urban heat island effect	<ul style="list-style-type: none"> All new developments to meet target Green Factor score Improved green cover (leading to reduced urban heat island effect) 	<ul style="list-style-type: none"> Reductions in the urban heat-related diseases Improved productivity Reductions in cooling-related energy requirements Improved biodiversity outcomes Additional recreation opportunities in the summer

Source: Frontier Economics



2.4 Approach to valuing costs and benefits

The aim in economic evaluation is to value very different measures of impact in consistent monetary terms to enable a comparison of a range of economic, environmental and social (or liveability-related) outcomes.

As discussed above, this analysis has sought to, where possible, monetise key costs and benefits where there is an incremental difference in ‘real resource’ outcomes between the base case and the intervention case.

Many of these impacts can be considered market impacts as the prices of goods or services are observable in markets. Other impacts, such as the environmental or social impacts (or avoided impacts) can be considered non-market impacts.⁵ Where the incremental costs and benefits have been monetised, these are shown in bold in **Table 2**.

In some circumstances, there was not sufficient data to establish a quantitative causal link or attach a defensible monetary value to the incremental difference between outcomes of the interventions (such as the benefits of IEQ and GI). Where the incremental costs and benefits have been unable to be monetised to include in the CBA in a quantitative way, these are shown unbolded in **Table 2** and have been qualitatively assessed in **Table 4**.

Consistent with best practice and the Victorian Department of Treasury and Finance Guidelines our analysis has:

- **Drawn upon the best available information**, including information provided by Hip V. Hype on incremental costs and impacts of interventions
- **Focused on impacts in the state of Victoria**, consistent with Victorian Treasury Guidelines. This has involved:
 - including impacts that accrue to people in the local and broader Victorian community
 - excluding impacts that accrue to the Australian (such as wider economic impacts) and international communities.
- **Used accepted and relevant methodologies for monetising key costs and benefits**, including the use of benefit transfer techniques (where appropriate) which draw upon existing literature reflecting the willingness to pay or preferences of a similar community for a similar change in outcome. Recognising the potential limitations of benefit transfer, the approach taken in the CBA adopts – as much as is practicable – a range of studies (mainly in VIC) (see Box 1).

⁵ As a price cannot be observed and other methods must be used to derive a monetary value.



Box 1: Overview of valuation approaches

There is a range of techniques available to monetise non-monetary economic, social and environmental outcomes. These include primary monetisation approaches (such as market-based and survey-based techniques) and secondary approaches, such as benefit transfer:

- **Primary approaches:** use original data from the project site or context to derive a monetary value for some quantified change in outcomes caused by a green infrastructure intervention. There are two broad categories of primary approaches:
 - **Market-based or surrogate market-based techniques** – uses market prices or people’s behaviour in a similar or related market to infer the value of outcomes.
 - **Survey Based** - uses surveys that ask people their willingness to pay to value outcomes.
- **Secondary approaches, such as benefit-transfer,** takes values from a pre-existing study, project, or piece of research (i.e. the ‘study site’) and applies it to a new project, or context (i.e. the ‘policy site’). Judgement is required to determine whether results from a previous study are appropriate to use. In addition to scrutinising the quality of the original study needs to ensure there are no technical weaknesses or biases, important preconditions for benefit transfer include:
 - the impact being valued must be essentially the same (e.g. improved thermal comfort)
 - the base case and extent of change should be similar
 - the affected populations should be similar

Given primary research was outside the scope of this analysis (and can be costly and time consuming), we have primarily considered benefit transfer.

Source: Frontier Economics

The following sections provide further detail on our approach to valuing key costs and benefits.

2.4.1 Data for costs and impacts

The CBA takes cost and impact data from the technical ESD analysis undertaken by Hip V. Hype. This data includes:

- upfront incremental capital costs to meet revised standards
- operational energy and water savings incremental to the base case
- avoided waste to landfill
- reduced embodied carbon
- estimated useful life of assets.

Further information on these costs and impacts is provided in the Hip V. Hype report.



2.4.2 Benefit data

Quantified benefits

To value benefits, we have drawn on robust valuation benchmarks as outlined in **Table 3**, with further information provided at Appendix B.

Table 3: CBA valuation benchmarks

Benefit category	Valuation approach
Greenhouse gas (GHG) emission reduction	<p>Our valuation includes the following steps:</p> <ul style="list-style-type: none"> • applying the estimated reduction in gas and electricity consumption (obtained from ESD technical workstream) • forecasting emission intensity factors for Victoria during the evaluation period (see Appendix B) • converting reduced gas and electricity consumption into reduced GHG emissions using forecast emission intensity factors • multiplying the reduced emissions by a social cost of carbon (\$75/tonne CO₂-e) – Frontier Economics estimate of the economic costs, or damages, of emitting one additional tonne of GHG into the atmosphere.
Reduced energy use (electricity & gas)	<p>We have estimated the resource cost savings associated with reduced electricity and gas consumption, including reduced network and wholesale costs:</p> <ul style="list-style-type: none"> • For electricity network costs, we have based our estimates on published values for the long-run marginal cost (LRMC) from Victorian electricity network distribution businesses (\$0.01/kWh). • For deferred gas network costs, we have adopted an estimate of \$4.50/GJ based on a recent Consultation RIS undertaken by ACIL Allen • For electricity wholesale costs, we have assumed a flat \$70/MWh (Frontier Economics estimate/assumption) • For gas wholesale costs, we have used price forecasts from the Australian Energy Market Operator's 2022 Integrated System Plan (based on new entrant combined cycle gas turbine generator prices) (see Appendix B) <p>See Appendix B for further discussion on why we have not applied a retail bill (representing financial savings) in our approach.</p>



Benefit category	Valuation approach
Avoided health costs of electricity generation	<p>Electricity generation produces air pollution containing particulate matter, nitrogen oxides, sulphur dioxide, as well as other emissions. These can cause health problems such as respiratory illness and can also affect local economies.</p> <p>We estimated the health benefits of avoided coal and gas-fired electricity at \$1.78/MWh. See Appendix B for information.</p>
Reduced potable water use	<p>Our valuation approach involves:</p> <ul style="list-style-type: none"> • applying the estimated reduction in potable water use (in megalitres) (obtained from ESD technical workstream) • multiplying the reduction in potable water use by the estimated LPMC of water supply based on the value advised by Melbourne Water (\$2,450/ML).
Reduced embodied carbon	<p>Estimates of reduced embodied carbon obtained from the ESD technical workstream were multiplied by the social cost of carbon discussed above.</p>
Reduced waste to landfill/value of recovered materials	<p>Estimates of reduced construction and demolition waste to landfill (tonnes) were multiplied by the full economic cost of landfill and the net value of recovered materials. This approach provides an estimate of the avoided cost of landfill and value of recovered materials of \$125/tonne. See Appendix B for information.</p>
Recovery of organic waste	<p>Estimates of organic waste recovered, obtained from the ESD technical workstream, were multiplied by an average value added for organic waste. To estimate the average value added for organic waste we used data from Australian Organics Recycling Association's publication 'Australian Organics Recycling Industry Capacity Assessment: 2020-21'. This approach provides an estimate of the value added by additional organic waste recovered of \$93/tonne.</p>
Residual value	<p>Some assets have a useful life that is greater than the analysis period of the CBA. The residual value is the estimated value of assets at the end of the appraisal period, representing the expected value in continuing use. We calculate residual value as the present value of future benefits.</p>

Source: Frontier Economics



We note that our approach is consistent with advice provided by HoustonKemp to the Australian Government for cost-benefit analysis for residential building energy efficiency (**Box 2**).

Box 2: Guidelines for residential building regulatory impact assessment

HoustonKemp were engaged by the Department of the Environment and Energy to develop a robust methodology for evaluating the benefits and costs of possible future increases in the stringency of the energy efficiency provisions in the National Construction Code (NCC).

Our valuation approach outlined in **Table 3** is in line with HoustonKemp's recommendations, including that:

- benefits of reduced energy use be estimated based on LPMC estimates and wholesale market prices where available
- benefits of reduced GHG emissions be based on forecast emission intensity factors and GHG abatement costs
- health, safety and amenity benefits be dealt with qualitatively (unless they can be readily quantified)

Our analysis is also consistent with HoustonKemp's base case description, and recommended evaluation timeframe of at least 20 years (outlined below).

Source: Houston Kemp, Residential Buildings Regulatory Impact Statement Methodology – Report to the Department of Environment and Energy, 6 April 2017.

Non-monetised benefits

Critically, CBA does not require monetisation of all key costs and benefits. While we have aimed to value as many benefits as possible, some impacts are inherently difficult to quantify and value. This is particularly the case where impacts are not traded in markets, such as 'improved biodiversity outcomes', 'improved thermal comfort', or 'improved aesthetics'.

For impacts which do not have a robust valuation method, or do not have a clearly attributable incremental impact, they have been assessed qualitatively (**Table 4**). Qualitative assessment of impacts aligns with CBA guidance including the Victorian Department of Treasury and Finance.

To provide an indication of whether these benefits would alter the broad narrative of our results, we have included an assessment of materiality. In our discussion of the CBA results, we provide a break-even analysis to show how much unquantified benefits would need to be for scenarios to be equal to the incremental costs.



Table 4: Qualitative assessment

Incremental impacts	Most relevant theme	Materiality	Qualitative assessment (why we have not valued these impacts)
Ongoing cost to meet revised standards	All	Uncertain	Any change in ongoing cost will be dependent on the specific materials and products used in the Sustainability Planning Scheme Amendment option compared to the ESD policy or non-ESD policy base case. The technical ESD assessment haven't proposed specific materials in the design responses (except for recycled content concrete in the Circular Economy theme), which makes any assessment uncertain. At a high level, it is expected that some design responses would increase ongoing costs while others reduce ongoing costs and that the overall impact may not be material.
Health and wellbeing benefits from improved thermal comfort	Operational energy	Minor benefit	Increased thermal comfort can lead to a range of health and wellbeing benefits. ⁶ The impacts of increased thermal comfort would be expected to be highly context specific – both in terms of the location of the building and how the building is used (i.e. for residential typologies are residents working from home or out of the house 12 hours a day?). For scenarios where the base case has an existing ESD policy there is likely to be a small incremental impact as the base case provides a good level of thermal comfort. The incremental impact may be more for scenarios where the base case does not have an existing ESD policy.
Increased active transport / avoided costs through improved transport mode usage	Sustainable transport	Benefit with unclear materiality	CBA focuses on impacts which are attributable to the intervention. While improved bike access and storage would make active transport more appealing to building users, there are myriad factors which impact on mode choice decisions. As such, while the incremental impact is a benefit it is not possible to isolate the magnitude of this impact.
Increased uptake of EVs leading to reduced GHG	Sustainable transport	Minor impact	Similar to active transport, uptake of EVs is a complex decision with myriad factors including price of EVs, price of operating internal combustion engine vehicles and the

⁶ For example - Ormandy, D. and Ezratty, V., *Thermal Discomfort and Health: Protecting the Susceptible from Excess Cold and Excess Heat in Housing*, 2015, <https://warwick.ac.uk/fac/sci/med/research/hscience/sssh/publications/publications14/thermal.pdf>

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emissions and increased electricity use			range of EVs. As such, while the incremental impact of reducing vehicle-related emissions is a benefit it is not possible to isolate the exact magnitude of this impact.
Reduced volume of stormwater leading to reduced nitrogen and suspended solids	Integrated Water Management	No impact	The technical ESD assessment identifies that both ESD and non-ESD policy base cases include rainwater tanks for stormwater collection and meet the requirements for the quality of stormwater discharged from the site. Given this, it appears there is unlikely to be any incremental impact related to stormwater.
Health benefits from improved air quality inside buildings	Indoor Environment Quality	Benefit with unclear materiality	Increased natural ventilation should lead improved air quality which, in turn, leads to improved health outcomes. ⁷ The impacts would be highly context specific – both in terms of the location of the building and how the building is used. The incremental impact depends on the base case. For example, for RES 1 the ESD Policy base case includes 100% of apartments being naturally ventilated whereas the non-ESD Policy base case includes “some natural ventilation.” In this example, there may not be an incremental impact on air quality when compared to the ESD Policy base case but there may be some incremental impact when compared to a non-ESD policy base case.
Staff health & retention for non-residential	Indoor Environment Quality	Benefit with unclear materiality	There is some evidence that improved indoor environment quality leads to improved staff health (fewer sick days) and improved staff retention. ⁸ The magnitude of the impact will be highly context dependent, particularly with respect to the base case. For example, in Non-RES 3 the ESD Policy base case includes natural ventilation and daylight requirements have been too location specific to be assessed by the technical ESD assessment.

⁷ For example - Al horr, Y., Arif, M., Kaushik, A.K., Mazroei, A., Katafygiotou, M. and Elsarrag, E., *Occupant productivity and office indoor environment quality : a review of the literature*, 2016, https://usir.salford.ac.uk/id/eprint/39106/3/BAE-D-16-00533_final%20manuscript%2011.pdf and Fisk, W., Health and productivity gains from better indoor environment and their relationship with building energy efficiency, 2000, <https://www.annualreviews.org/doi/full/10.1146/annurev.energy.25.1.537>

⁸ For example, REHVA, *Indoor Climate and Productivity in Offices: How to integrate productivity in life-cycle cost analysis of building services*, 2017, https://biblioteka.ktu.edu/wp-content/uploads/sites/38/2017/06/06_Productivity_2ed_protected.pdf. The International WELL Building Institute cite the following source for healthy buildings lowering staff turnover and burnout - Leiter M, Maslach C. Areas of Worklife Survey. Mindgarden. <https://www.mindgarden.com/274-areas-of-worklife-survey>.

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Health benefits from increased natural light	Indoor Environment Quality	Benefit with unclear materiality	There is some evidence that improved natural light in buildings cause health benefits. ⁹ However, the daylight requirements have been too location specific to be assessed by the technical ESD assessment. As such the incremental impact is unclear.
Reduced risk of heat-related diseases	Green Infrastructure	Benefit with unclear materiality	A benefit of urban greening is reduced urban heat island which can reduce the risk of heat-related diseases. ¹⁰ This is typically a benefit which accrues with precinct or suburb level greening, rather than for an individual building. Given that the scale of this analysis is on individual building benefits, the incremental impact may be negligible.
Improved biodiversity	Green Infrastructure	Benefit with unclear materiality	Biodiversity benefits may arise from additional green cover being used to benefit fauna and flora. The nature of this benefit is likely to be highly context specific and similar to urban greening, would more likely occur with precinct/suburb level greening rather than for an individual building. Green infrastructure may also contribute to avoided costs to the extent that some councils can avoid costs of meeting canopy cover targets.

⁹ For example, Edwards, L. and Torcellini, P., *A Literature Review of the Effects of Natural Light on Building Occupants*, 2002, <https://www.osti.gov/servlets/purl/15000841/>

¹⁰ For example, U.S. Environmental Protection Agency (EPA), *Reduce Urban Heat Island Effect*, accessed from the U.S. EPA's website on 1 November 2021, <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>



2.5 Overarching CBA parameters and sensitivities

As previously stated, the CBA assesses impacts over time. This requires an appraisal period to be defined and the application of a discount rate (to account for the time value of money where a dollar today is worth more than a dollar in future). To enable comparison of the costs and benefits over time, as shown in **Table 5** this analysis:

- Applies a 20-year appraisal period which aligns with a likely useful life of a number of the design responses required to align with the Sustainability Planning Scheme Amendment.
- Includes a residual value to capture the benefits and costs of the assets with lives beyond the modelling period - Some interventions (such as external shading) may have an asset value of more than 20 years. Where this is the case there has been liaison with the technical ESD workstream to identify a likely useful life in order to place a residual value on these assets at the end of the appraisal period. The residual value is included in the analysis as a benefit (see **Box 3**). This is a standard approach in best practice CBAs.
- Applies a discount rate of 7% per year, consistent with the Victorian Department of Treasury and Finance.

Table 5: Overarching parameters for the CBA

Input	Value
Price base	2021
Appraisal start date	1 Jan 2023
Project appraisal period	20 years
Appraisal end date	1 Jan 2043
Discount rate	7% per annum

Source: Frontier Economics

As with any CBA, there are a number of uncertainties relating to the analysis. Sensitivity analysis was undertaken to analyse how the CBA results change if key parameters change. For this analysis, the following sensitivities were tested:

- Low discount rate: 4% per annum
- High discount rate: 10% discount rate
- Low benefits: -50% on all valuation factors
- High benefits: +50% on all valuation factors
- Residual value for external shading and green cover



Box 3: Base case costs and residual values

Base case costs

As previously stated, CBA is incremental in that it looks at additional costs and benefits over and above a “business as usual” scenario (the base case). For example, in this analysis for the RES-1 typology both the ESD Policy and non-ESD Policy base cases include a cost for a gas-fired central hot water system while the Sustainability Planning Scheme Amendment option includes a cost for an electric central hot water system. That is to say, there are differing upfront costs associated with different design responses and the analysis captures the incremental cost. The one design response which is treated differently is EV chargers, which form part of the Sustainability Planning Scheme Amendment option. Rather than assuming no EV chargers in the ESD Policy and non-ESD Policy base cases, the CBA assumes that EV chargers are retrofitted in the base case in 2030 – a point in the future when EV take up would be expected to be higher.

Residual values

As stated above, the project appraisal period is 20 years. This is intended to largely align with the useful life of the design responses in the Sustainability Planning Scheme Amendment option. It is understood that some elements may have longer useful lives. These can be captured in CBA through a residual value. The Department of Treasury and Finance’s Economic Evaluation states that residual value at the end of the appraisal period should be “the lower of (a) the replacement cost or (b) the present value of the future stream of net benefits at the arbitrary earlier end of the project.” Focussing on the two key cost items in a number of scenarios (external shading and green cover), these items do not have benefits that have been valued in the CBA. Hence, following the Department of Treasury and Finance’s guidance means that the residual value of external shading and green cover should be zero. To understand how sensitive the CBA is to this approach, a sensitivity scenario has been undertaken where external shading and green cover are assumed to have a 40 year useful life which results in 50% of their upfront cost being a residual value benefit at the end of the CBA appraisal period (as with all impacts this is then subjected to discounting to reach a present value).

Source: Frontier Economics drawing on documents including Department of Treasury and Finance (2013), Economic Evaluation for Business Cases Technical guidelines.



3 Cost-Benefit Analysis Results

3.1 Results – central scenarios

The next step in the CBA process is to undertake an evaluation of the incremental economic, social, and environmental value of the options. The incremental future costs and benefits are discounted using a social discount rate to a 'net present value' (NPV) and and Benefit-Cost Ratios (BCRs) where:

- **NPV>0 and BCR>1** indicates that the option results in a net benefit to the community relative to the Base Case (i.e. incremental benefits of the option exceed incremental costs).
- **NPV = 0 and BCR=1** indicates that the incremental benefit of the option exactly equals its incremental costs.
- **NPV < 0 and BCR<1** indicates that the option results in a net cost to the community relative to the Base Case (i.e. incremental costs of the option exceed incremental benefits).

The high-level results of the CBA are presented in **Table 6** and **Table 7**. The overall finding from the CBA is that across the different typologies there are negative NPVs and BCRs less than one.

In interpreting these results it is important to note that we were unable to quantify a number of benefits where the magnitude of these benefits is difficult to ascertain. This is particularly the case for benefits associated with the indoor environment quality (IEQ) and green infrastructure (GI) themes. In the sections below we undertake a break-even analysis to provide some guidance on the magnitude of potential benefits from these themes to produce a BCR of 1.

When the costs and benefits from the IEQ and green infrastructure themes are removed from the CBA, the BCRs across typologies are close to or greater than 1. We show these BCRs in the bottom rows of **Table 6** and **Table 7** and throughout this results section.

The NON-RES 1 typology under the ESD base case had the most favourable result with a BCR of 0.64, or 1.41 when IEQ and GI themes are excluded. The Non-RES 2 with ESD Policy base case has the lowest BCR (0.09) while RES 1 with ESD Policy base case has the lowest NPV (-\$1.3m). For Non-RES 2 with ESD Policy base case this result is a combination of having low incremental benefits compared to the ESD Policy base case and also having high costs – with the Green Cover design response comprising \$220k or 83% of total costs in this scenario. For RES 1 with ESD Policy base case there are also high costs (with the Green Cover and external shading design responses making up \$1.4m or 61% of the cost). However, this scenario also has high benefits which total around \$1m.

Comparing the results for the same typology with an ESD Policy base case to the corresponding non-ESD Policy base case, the benefits are generally higher in the non-ESD Policy base case scenarios. This makes sense as in these scenarios the Sustainability Planning Scheme Amendment options provides a bigger increment in outcomes compared to the base case. However, this bigger increment also tends to come with a higher cost. The overall impact is the BCRs for the non-ESD Policy base case are higher than the corresponding ESD Policy base case for 5 of the 7 typologies with two base cases tested.

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Table 6: Cost-benefit analysis results – ESD Policy base case

Typology	RES 1	NON-RES 1	RES 2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS (\$)	1,077,281	294,643	23,089	22,890	36,369	30,671	170,127
TOTAL COSTS (\$)	2,382,798	458,493	46,929	264,994	154,698	156,212	334,398
NET PRESENT VALUES (\$)	-1,305,517	-163,850	- 23,840	- 242,104	- 118,329	- 125,541	- 164,271
BENEFIT-COST RATIO	0.45	0.64	0.49	0.09	0.24	0.20	0.51
BENEFIT-COST RATIO (IEQ AND GI EXCLUDED AS BENEFITS UNQUANTIFIED)	1.15	1.41	0.80	0.85	0.84	2.55	1.09

Source: Frontier Economics

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Table 7: Cost-benefit analysis results – Non-ESD Policy base case

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4	RES 5
TOTAL BENEFITS (\$)	1,182,124	470,315	32,179	65,061	41,877	52,911	142,610	7,646
TOTAL COSTS (\$)	2,451,244	945,133	97,072	364,096	146,298	202,220	255,213	20,086
NET PRESENT VALUES (\$)	-1,269,121	-474,818	-64,893	-299,035	-104,421	-149,309	-112,603	-12,440
BENEFIT-COST RATIO	0.48	0.50	0.33	0.18	0.29	0.26	0.56	0.38
BENEFIT-COST RATIO (IEQ AND GI EXCLUDED AS BENEFITS UNQUANTIFIED)	1.11	1.94	1.01	1.24	1.28	0.93	0.75	0.75

Source: Frontier Economics



Table 8 presents a breakdown of the NPVs by theme for the best and worst performing scenarios (in terms of the benefit-cost ratio) under the central case. A complete set of NPVs by theme are presented in Appendix A.

For the best performing scenario (NON-RES 1, ESD Policy), the Operational Energy, and sustainable transport themes have positive NPVs while the remaining themes have negative NPVs. The key cost streams relate to external shading and green cover.

For the worst performing scenario (NON-RES 2, ESD Policy), Circular Economy has a positive NPV, the operational energy, Sustainable Transport and Indoor Environment Quality have a negative NPV and green infrastructure has a very negative NPV. The Green Cover cost is the driver of the very negative NPV for the green infrastructure theme. The key benefits in this scenario relate embodied carbon reduction.

Table 8: Breakdown of Net Present Value by theme for best and worst performing scenarios (in dollars)

Typology	Best performing NON-RES 1, ESD Policy base case	Worst performing NON-RES 2, ESD Policy base case
OPERATIONAL ENERGY NPV	95,222	-314
SUSTAINABLE TRANSPORT NPV	11,936	-9,537
INTEGRATED WATER MANAGEMENT NPV	- 15,000	
INDOOR ENVIRONMENT QUALITY (IEQ) NPV	- 84,850	-18,800
CIRCULAR ECONOMY NPV	- 6,301	5,875
GREEN INFRASTRUCTURE (GI) NPV	- 164,856	-219,328

3.2 Sensitivity results

Sensitivity analysis looks at how results change with different key assumptions. **Table 9** and **Table 10** present the sensitivity results for the best and worst performing scenarios (from a benefit-cost ratio). A complete set of sensitivity results are presented in Appendix A.

It is no surprise to see that the sensitivities with low discount rate and higher benefits improve the results. A low discount rate means that the benefits which accrue over time are less heavily discounted in the analysis, which makes the benefits look better when compared to costs which are incurred upfront. The high benefits simply inflate the valuation factors which also make the benefits look better when compared to the costs. The opposite effect occurs in the high discount rate and lower benefits.



Notably, for both the best and worst performing scenarios, interpretation of the results does not change in the different sensitivity analyses. That is to say, both have a negative NPV and BCR less than 1 in all the sensitivities.

Table 9: Sensitivity results – best performing scenario (NON-RES 1, ESD Policy base case)

	4% discount rate	10% discount rate	Lower benefits - 50%	Higher benefits +50%	Residual values
TOTAL BENEFITS (\$)	392,144	234,160	154,362	434,925	303,425
TOTAL COSTS (\$)	512,383	424,191	372,029	544,956	458,493
NET PRESENT VALUES (\$)	- 120,238	-190,031	- 217,667	-110,032	-155,068
BENEFIT-COST RATIO	0.77	0.55	0.41	0.80	0.66
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.49	1.34	1.26	1.47	1.41

Table 10: Sensitivity results – worst performing scenario (NON-RES 2, ESD Policy base case)

	4% discount rate	10% discount rate	Lower benefits - 50%	Higher benefits +50%	Residual values
TOTAL BENEFITS (\$)	33,205	16,932	12,165	33,616	31,994
TOTAL COSTS (\$)	265,036	264,967	264,929	265,059	264,994
NET PRESENT VALUES (\$)	-231,831	-248,035	-252,764	-231,443	-233,000
BENEFIT-COST RATIO	0.13	0.06	0.05	0.13	0.12
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.23	0.63	0.45	1.25	0.85



3.3 Break-even analysis

As discussed above, reductions in urban heat leading to reduced urban-heat related disease burden is a potential benefit of the scenarios assessed as part of this CBA, and in particular for the IEQ and GI themes. Mitigating the range of damaging effects of the urban heat island effect is a rising policy and broader sustainability priority in Victoria and across Australia.

While the urban heat island effect can negatively impact a range of outcomes valued by the community, arguably the most critical of these is the impact of soaring temperatures on human health. There is now strong scientific evidence that high temperatures and heatwaves are driving substantial costs on society by causing heat-related disease and death. There are also direct financial costs to the health system associated with this impact, such as the cost of ambulance call-outs and emergency department treatments to address heat-related illness.

This suggests there may be merit in exploring the potential for alternative building standards to contribute to limiting the UHI effect by promoting or mandating the use of materials that do not add to urban heat or can reduce ambient temperatures. As discussed in Box 4, if alternative building standards can drive reductions in peak temperatures on very hot days and during heatwaves, then this temperature reduction can be linked to reductions in heat-related deaths and reductions in costs to the health system.

Box 4: Valuing the health benefits associated with a reduction in urban heat

- The first step is to understand the extent to which alternative building designs, materials, or other urban typology interventions can drive reductions in peak urban temperatures on hot days and during heatwaves. First it must be shown that this causal link exists, and then the magnitude of the impact must be measured.
- The second step is to understand the relationship between each degree of temperature reduction on a very hot day, the prevalence of heat-related illness and death, *and* the assumed population characteristics of the intervention area (ie. in the community where the alternative urban typologies or building standards are applied)
- If we can reasonably and robustly:
 1. assume that the urban typology intervention does drive reductions in temperature
 2. understand how much temperature reduction is likely
 3. assume that the surrounding population that experiences that temperature reduction is sufficiently large and sufficiently similar to the general population, then,
we can link urban temperature reduction to reductions in heat-related illness and heat-related death, and then can place a monetary value on the avoided deaths and on the avoided costs to the health system.

Source: Frontier Economics

3.3.1 Findings of our break-even analysis

Given the availability of information, our analysis:



- assumes interventions are capable of driving down peak ambient temperature on very hot days and during heatwaves to a sufficient extent such that interventions can be causally linked to avoided heat-related deaths
- only considers scenarios that are likely to affect the population most vulnerable to heat-related illness and death – the elderly and the young
- is based on larger scale residential scenarios only
- assumes that, if scaled, the local population has the same age and disease burden characteristics as the general population
- accounts for uncertainty of scenario design and typology impact – including a 50% additional buffer around scenario costs to ensure potentially additional costs of urban cooling are not excluded
- calculates the total value of additional urban cooling benefits, including the avoided social cost of death and the avoided financial cost to the health system associated with ambulance call-outs and emergency department treatments, required to achieve a BCR of 1 or NPV of zero for each scenario. This assumes all impacts are incremental to the base case

As shown in **Table 13**, the break-even analysis indicates that changes under the IEQ and GI themes could deliver value to the community (i.e. incremental benefits outweigh incremental costs), if the investments assessed reduced the rate of urban-heat related deaths by between 0.07 and 1.5 people over the modelling period (depending on the scenario assessed).

Table 11: Results of breakeven analysis: Indicative incremental avoided deaths notionally required to reach a scenario BCR of 1

Scenario	Additional avoided deaths required over 20 year modelling period to achieve BCR of 1 ¹¹	Monetised benefit ¹²
RES 1 - Inner Urban ESD Policy	0.78 – 1.5	\$1,305,517 - \$2,496,916
RES 1 - Suburban Non-ESD Policy	0.76 – 1.5	\$1,269,121 - \$2,494,743
RES 4 - Suburban ESD Policy	0.10 – 0.2	\$164,271 – \$331,471
RES 4 - Suburban Non-ESD Policy	0.07 – 0.14	\$112,603 - \$240,210

Source: Frontier Economics.

¹¹ Figures assume each avoided death is incremental to the base case and that the profile of avoided deaths is constant over the 20 year modelling period

¹² In \$2020-21, discounted at 7%



However, it should be noted that this analysis does not purport to identify whether the scenarios assessed are likely to reduce the burden of urban heat related diseases to this extent.

As discussed above, whether this outcome is achievable (i.e. whether the option could deliver value) will depend on a range of site-specific characteristics, such as the scale of the investment, the affected population – in some cases options may deliver a significant enough reduction in urban heat to deliver the required reduction in disease burden (and thus deliver benefit to the community), in others they may not.

While further site-specific analysis is required to identify whether these projects can deliver significant urban-heat related benefits to the community, given our experience applying this framework to projects elsewhere, we note that:

- These benefits are most likely to be realised in areas that already suffer from high temperatures – the UHI and the potential impact of alternative building materials or additional tree canopy for urban cooling is highly site specific and sensitive to microclimate, prevailing wind patterns, and a large range of other factors.
- The analysis draws on previous studies that considered the combination of changes to urban building materials *in combination with* very large-scale planting of broad-leaf urban canopy to drive reductions in temperature, rather than just the impact of alternative urban typologies alone.
- Benefits will only be realised at scale, for a number of key reasons:
 - Only very large developments are likely to be able to influence the ambient temperature – this cannot robustly be a consistent, ongoing impact attributed to a single (even large building). Sophisticated modelling can determine the extent to which quite a large development can reliably lower the peak temperature.
 - Benefits analysed rely on the statistical comparability of the local population assumed to benefit from (ie. live amongst) the alternative urban typologies/building standards and the general population both in terms of the age distribution and the burden of disease. The benefits therefore can only be considered achievable at the scale of an entire community and not any individual building or cluster of buildings.



4 Conclusion

4.1 Summary of key results

A key finding of this CBA for the Sustainability Planning Scheme Amendment is that the quantified costs exceeded the quantified benefits across each typology.

Importantly, the identified value of these options does not consider the broad range of unmonetised social and environmental impacts. Our breakeven analysis indicates that these projects may deliver value to the community (i.e. incremental benefits outweigh incremental costs) where sufficient scale is achieved.

4.2 Lessons and potential next steps

The key lessons from this project are:

- Overall, the size of benefits (especially those related to reducing disease burden) are likely to be more achievable for larger projects (i.e. scale matters). While a 1.5 person reduction in disease burden per building may appear like a small change, in practice, given overall disease burden, achieving this reduction on a building by building approach may be difficult.
- The size of the benefit in practice will be dependent on a range of site-specific characteristics, including population affected, urban temperature, whether there is pre-existing infrastructure (for example bicycle paths).
- Dollar benefits are likely to be higher when a larger population is involved. The primary driver of the difference between the case study results is the number of people that they affect.
- In considering which types of impacts to quantify, more effort should be expended on those impacts which are likely to be more significant given the circumstances of each case (e.g. urban heat effects in hot regions) and for which there is a sound evidence base.

Importantly, this analysis has been undertaken for a range of indicative projects, rather than for individual projects with site-specific characteristics. In practice, the value of these options is likely to vary significantly depending on the specific intervention and its location. As such there is likely to be value in undertaking further, place-based analysis to identify the value of individual projects. In considering the development of individual projects, key lessons from this project would suggest there is benefit in:

- Undertaking further research on the site-specific value of benefits. This could include site-specific analysis of the change in outcomes or a site-specific study of the community's willingness to pay for improvements in environmental and social outcomes (for example, the willingness to pay for improved biodiversity).
- Broadening the scale of the project - i.e rather than undertake an assessment of a development by development basis, broaden the assessment to development-wide or precinct-wide if possible.
- Focusing on areas where projects can make a large difference, for example, those where:
 - Urban heat is a large problem, so reductions in urban heat are likely to have a comparatively larger impact



- There is a large number vulnerable population (e.g. urban heat diseases impact the elderly and very young, and so reductions in urban heat diseases are most beneficial in areas with vulnerable populations)
- There are constraints in the supply of services, such as energy, water and waste (e.g. there isn't space for the next landfill, so deferring the need for the next landfill site is likely to be more beneficial, than in an area where there is significant space for landfill)
- Identifying the distribution of costs and benefits, to aid in the funding of these investments. It is important to recognise that quantification of benefits does not equate to funding for those investments. While broader benefits may present opportunities to generate additional funding, such projects will not be dependent on securing such funding.

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Net Present Value by theme

Table 12: Breakdown of Net Present Value by theme – ESD Policy base case (in dollars)

Typology	Note	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
OPERATIONAL ENERGY NPV		88,506	95,222	-9,548	-314	-16,026	9,809	23,187
SUSTAINABLE TRANSPORT NPV		-37,841	11,936	1,149	-9,537	-1,230	4,265	6,060
INTEGRATED WATER MANAGEMENT NPV		-44,799	-15,000			734	1,405	1,359
INDOOR ENVIRONMENT QUALITY NPV	(No benefits quantified)	-929,187	-84,850	-17,904	-18,800	-1,910	-10,360	2,926
CIRCULAR ECONOMY NPV		133,325	-6,301	2,463	5,875	9,662	3,159	-17,283
GREEN INFRASTRUCTURE NPV	(No benefits quantified)	-515,520	-164,856		-219,328	-109,560	-133,820	-180,520

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Table 13: Breakdown of Net Present Value by theme – Non-ESD Policy base case (in dollars)

Typology	Note	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4	RES 5
OPERATIONAL ENERGY NPV		109,704	118,864	-9,141	-5,004	-2,605	9,043	-8,508	-6,462
SUSTAINABLE TRANSPORT NPV		-265,744	5,160	-1,466	-5,614	-976	-6,213	13,492	8
INTEGRATED WATER MANAGEMENT NPV		-53,220	20,260	3,357	-5,499	2,967	-19,023	156	
INDOOR ENVIRONMENT QUALITY NPV	(No benefits quantified)	-929,187	-292,200	-19,808	-18,800	-1,910	-26,560	-24,674	-9,921
CIRCULAR ECONOMY NPV		323,887	83,954	7,565	28,810	9,662	12,504	-51,030	3,935
GREEN INFRASTRUCTURE NPV	(No benefits quantified)	-454,560	-410,856	-45,400	-292,928	-111,560	-119,060	-42,040	0

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Sensitivity analysis

Table 14: Cost-benefit results for low discount rate sensitivities – ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS	1,587,383	392,144	33,551	33,205	45,447	41,334	235,152
TOTAL COSTS	2,502,678	512,383	46,929	265,036	154,698	159,192	355,324
NET PRESENT VALUES	-915,295	-120,238	-13,378	-231,831	-109,251	-117,857	-120,172
BENEFIT-COST RATIO	0.63	0.77	0.71	0.13	0.29	0.26	0.66
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.50	1.49	1.16	1.23	1.05	2.75	1.33

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Table 15: Cost-benefit results for low discount rate sensitivities – Non-ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4	RES 5
TOTAL BENEFITS	1,644,524	590,136	40,311	65,074	53,658	65,723	192,559	7,495
TOTAL COSTS	2,562,107	1,008,945	97,072	364,681	146,298	217,668	289,622	20,086
NET PRESENT VALUES	-917,583	-418,809	-56,761	-299,607	-92,640	-151,945	-97,062	-12,591
BENEFIT-COST RATIO	0.64	0.58	0.42	0.18	0.37	0.30	0.66	0.37
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.40	1.93	1.27	1.23	1.63	0.91	0.86	0.74

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Table 16: Cost-benefit results for high discount rate sensitivities – ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS	780,960	234,160	17,056	16,932	26,356	24,288	131,398
TOTAL COSTS	2,310,152	424,191	46,929	264,967	154,698	154,315	321,196
NET PRESENT VALUES	- 1,529,192	-190,031	-29,873	-248,035	-128,342	-130,027	-189,798
BENEFIT-COST RATIO	0.34	0.55	0.36	0.06	0.17	0.16	0.41
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	0.9	1.34	0.59	0.63	0.61	2.4	0.91

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Table 17: Cost-benefit results for high discount rate sensitivities – Non-ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4	RES 5
TOTAL BENEFITS	914,800	354,087	23,424	44,082	30,347	37,993	112,154	5,354
TOTAL COSTS	2,383,835	905,070	97,072	363,767	146,298	193,259	234,182	20,086
NET PRESENT VALUES	-1,469,035	-550,983	-73,647	-319,685	-115,951	-155,266	-122,029	-14,732
BENEFIT-COST RATIO	0.38	0.39	0.24	0.12	0.21	0.20	0.48	0.27
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	0.91	1.75	0.74	0.85	0.92	0.8	0.66	0.53

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Table 18: Cost-benefit results for high benefits – ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS	1,375,906	434,925	31,273	33,616	46,769	43,004	238,823
TOTAL COSTS	2,543,875	544,956	46,929	265,059	154,698	161,359	365,972
NET PRESENT VALUES	-1,167,969	-110,032	-15,656	-231,443	-107,929	-118,355	-127,149
BENEFIT-COST RATIO	0.54	0.80	0.67	0.13	0.30	0.27	0.65
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.25	1.47	1.08	1.25	1.08	2.5	1.27

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Table 19: Cost-benefit results for high benefits – Non-ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4	RES 5
TOTAL BENEFITS	1,566,286	647,680	42,256	74,303	54,102	64,862	193,831	8,374
TOTAL COSTS	2,601,722	1,040,108	97,072	364,715	146,298	220,328	302,634	20,086
NET PRESENT VALUES	-1,035,436	-392,427	-54,816	-290,412	-92,196	-155,466	-108,803	-11,712
BENEFIT-COST RATIO	0.60	0.62	0.44	0.20	0.37	0.29	0.64	0.42
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.29	1.92	1.33	1.4	1.65	0.87	0.82	0.82

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Table 20: Cost-benefit results for low benefits – ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS	778,655	154,362	14,904	12,165	19,823	18,337	101,431
TOTAL COSTS	2,221,721	372,029	46,929	264,929	154,698	151,065	302,825
NET PRESENT VALUES	-1,443,065	-217,667	-32,025	-252,764	-134,875	-132,728	-201,394
BENEFIT-COST RATIO	0.35	0.41	0.32	0.05	0.13	0.12	0.33
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.0	1.26	0.51	0.45	0.46	2.66	0.8

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Table 21: Cost-benefit results for low benefits – Non-ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4	RES 5
TOTAL BENEFITS	797,962	237,222	16,822	29,363	23,506	31,425	91,388	3,884
TOTAL COSTS	2,300,767	850,158	97,072	363,477	146,298	184,113	207,792	20,086
NET PRESENT VALUES	-1,502,805	-612,936	-80,250	-334,114	-122,792	-152,688	-116,403	-16,202
BENEFIT-COST RATIO	0.35	0.28	0.17	0.08	0.16	0.17	0.44	0.19
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	0.87	1.61	0.53	0.57	0.72	0.82	0.64	0.38

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Table 22: Cost-benefit results for residual values – ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS	1,132,234	303,425	23,705	31,994	37,484	35,523	177,028
TOTAL COSTS	2,382,798	458,493	46,929	264,994	154,698	156,212	334,398
NET PRESENT VALUES	-1,250,563	-155,068	-23,224	-233,000	-117,214	-120,689	-157,370
BENEFIT-COST RATIO	0.48	0.66	0.51	0.12	0.24	0.23	0.53
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.15	1.41	0.8	0.85	0.77	2.55	1.09

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Table 23: Cost-benefit results for residual values – Non-ESD Policy base case (in dollars)

Typology	RES 1	NON-RES 1	RES2	NON-RES 2	RES 3	NON-RES 3	RES 4
TOTAL BENEFITS	1,234,747	468,564	31,890	63,750	43,069	53,051	145,272
TOTAL COSTS	2,451,244	945,133	97,072	364,096	146,298	202,220	255,213
NET PRESENT VALUES	-1,216,497	-476,569	-65,182	-300,346	-103,229	-149,170	-109,941
BENEFIT-COST RATIO	0.50	0.50	0.33	0.18	0.29	0.26	0.57
BENEFIT-COST RATIO (IEQ & GI EXCLUDED)	1.11	1.83	0.93	0.99	1.18	0.85	0.75



B More information on benefit valuation

This appendix provides further information on our approach to valuing benefits in the CBA.

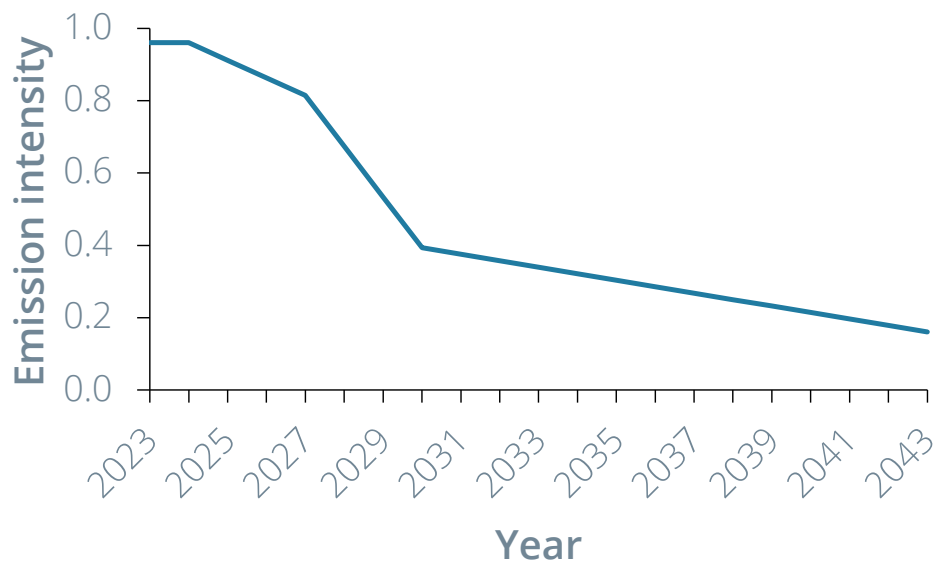
Avoided GHG emissions

Forecast emission intensity

As discussed in section 2.4, to estimate the value of avoided GHG emissions we have applied a forecast of the emission intensity of the Victorian electricity grid. The emission intensity of the grid is expected to fall over time as more renewable energy enters the market.

We have derived our forecasts from the Victorian Government's Victorian Energy Upgrades (VEU) program.¹³ The VEU published forecast 10-year average emission intensity estimates. For example, the 10-year average emission intensity estimate for 2025 is 0.393 tonnes CO₂-e/MWh. We have assumed this represents a reasonable point estimate for 2030. From 2030, we have assumed emission intensity tends towards zero in 2050 in line with the net zero commitment. Our forecast emission intensity is summarised in **Figure 5** below.

Figure 5: Forecast emission intensity (tCO₂-e/MWh)



Source: Frontier Economics, based on Victorian Government commitments.

¹³ See, <https://engage.vic.gov.au/victorian-energy-upgrades/targets>, accessed 29 October 2021.



Reduction in energy use

In valuing reduced energy consumption, it is sometimes considered that the value should be based on the reduction in retail electricity bills experienced by customers as a result of reduced consumption. However, this conflates economic benefits with distributional impacts. For instance, because many retail costs of energy are fixed (i.e. don't vary with the volume of energy consumed), reducing these costs for some customers results in them being redistributed to other customers.

Our approach to valuing benefits from reduced energy use is based on the estimated resource cost savings for society. These include:

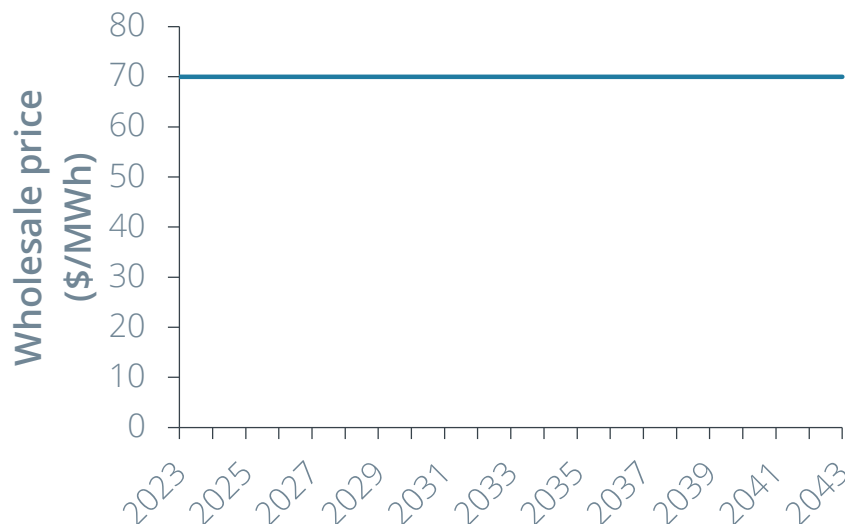
- variable costs avoided (estimated through wholesale market prices) and
- reduced capacity needed in the long run for electricity and gas network infrastructure.

Our approach is in line with guidance provided to the Australian Government for residential energy efficiency regulatory impact studies.¹⁴

Wholesale market prices

We have projected the wholesale electricity price will remain stable at \$70/MWh (\$0.07/kWh) as summarised **Figure 6**.

Figure 6: Wholesale electricity price projection (\$/MWh)



Source: Frontier Economics

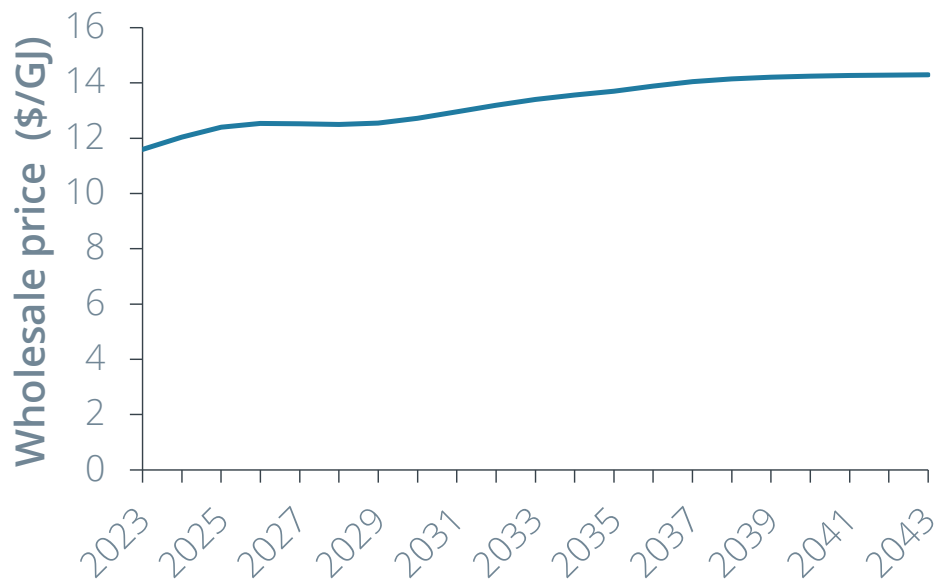
Our forecast wholesale gas price is shown in **Figure 7** below. Our forecast derives from the Australian Energy Market Operators (AEMO's) 2022 Integrated System Plan (ISP). The ISP includes

¹⁴ Houston Kemp, *Residential Buildings Regulatory Impact Statement Methodology – Report to the Department of Environment and Energy*, 6 April 2017, pp13-14.



a modelling assumptions workbook with generator fuel prices. We have applied prices for new combined cycle gas turbine (CCGT) generation in Victoria, as individual generator prices may reflect some view on their legacy contracts. We consider that CCGT is closer to the system profile for gas demand, compared to open cycle gas turbine (OCGT).

Figure 7: Wholesale gas price projections (\$/GJ)



Source: AEMO, 2022 Integrated System Plan – Modelling assumptions workbook

Network costs

A reduction in energy use means that over the longer run investment in new generation capacity may be deferred or avoided. The change in costs as a consequence of small changes in electricity or gas consumption are known as the long run marginal costs (LRMC). LRMC is a forward-looking concept and amounts to a measure of the additional cost incurred as a result of a relatively small increase in output, assuming all factors of production are able to be varied.

Estimates of LRMC are available for electricity network businesses in Victoria as part of their Tariff Structure Statements.¹⁵ We converted residential LRMC (\$/kilowatt/pa) into a single rate LRMC by dividing by the number of hours in a year. This produced an estimate of around \$0.01/kWh.

For deferred gas network costs, we have adopted an estimate of \$4.50/GJ based on a recent Consultation RIS undertaken by ACIL Allen. This estimate is based on forecast capital expenditure on augmentations in the most recent revenue determinations for each gas distributor and the forecast growth in demand from new connections.

¹⁵ For example, see https://jemen.com.au/documents/electricity/2021-2026_tariff-structure-statement.aspx



Avoided health costs of electricity generation

Electricity generation produces air pollution containing particulate matter, nitrogen oxides, sulphur dioxide, as well as other emissions. These can cause health problems such as respiratory illness and can also affect local economies.

We estimated the health benefits of reduced coal and gas-fired electricity using the studies referred to by ACIL Allen in the Consultation RIS for the National Construction Code 2022¹⁶. This resulted in avoided health damage costs of:

- \$2.58/MWh for coal-fired generation
- \$0.93/MWh for gas generation

We applied a weighted average of these values reflecting the share of coal (67.7%) and gas fired (4.5%) electricity generation in Victoria in 2020 (\$1.78/MWh), declining over time as the rate as emission intensity discussed above.

Reduction in potable water use

We have valued reductions in potable water use brought about by elevated ESD standards based on LRMC. LRMC represents the cost of changing the capacity of a water supply system by building a permanent new supply source (such as a dam or a desalination plant). Water utilities use LRMC to decide if a water conservation activity is cheaper or more expensive than the cost of building a permanent augmentation to the water supply system. The LRMC applied in our analysis (\$2,450/ML) is based on advice from Melbourne Water.

Avoided landfill / increased recycling

Estimates of reduced construction and demolition waste to landfill (tonnes) were multiplied by the full economic cost of landfill. To estimate the economic cost of landfill we:

- Reviewed published landfill gate fees for commercial and industrial waste and determined an indicative fee of \$250/tonne (we placed more weight on metro rates given this is where most volume would be generated)
- Subtracted the current waste levy for industrial waste (\$100/tonne) – average of metro and rural representing a financial transfer
- Added an estimate of externality costs of landfill representing visual disamenity (\$1/tonne)¹⁷
- Subtracted an estimated recovery and processing cost for mixed concrete \$43/tonne (including transport)¹⁸

¹⁶ ACIL Allen, National Construction Code 2022 Consultation Regulation Impact Statement for a proposal to increase residential building energy efficiency requirements, 20 September 2021, pp 90-21 https://acilallen.com.au/uploads/projects/377/ACILAllen_RISProposedNCC2022_2021.pdf

¹⁷ This estimate derives from the BDA Group, The full cost of landfill disposal in Australia, July 2009, see: <https://www.awe.gov.au/sites/default/files/documents/landfill-cost.pdf>

¹⁸ The estimate derives from Synergies Economic Consulting, Cost-benefit analysis of the implementation of landfill disposal bans in Queensland, November 2014, pp 27-29 <https://www.synergies.com.au/wp-content/uploads/2019/09/cost-benefit-analysis-landfill-disposal-bans.pdf>



- Added an estimated value of recovered materials for mixed concrete of \$18/tonne)¹⁹

This approach provides an estimate of the avoided cost of landfill and value of recovered materials of \$125/tonne.

¹⁹ Ibid

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C Literature review



Table 24: Literature review

Source	Topic	Key findings	Location
JONES, R. N., SYMONS, J. AND YOUNG, C. K. (2015) ASSESSING THE ECONOMIC VALUE OF GREEN INFRASTRUCTURE: GREEN PAPER. CLIMATE CHANGE WORKING PAPER NO. 24. VICTORIA INSTITUTE OF STRATEGIC ECONOMIC STUDIES, VICTORIA UNIVERSITY, MELBOURNE	Defining Green Infrastructure	Definitions of Green Infrastructure encompasses "blue" infrastructure, some definitions are linked to the functions of the Green infrastructure.	Australia, Victoria
	Value of Green Infrastructure	Non-use values are intangible values that have strong ethical component. They are important because once Green Infrastructure is removed, it is very hard to replace. Social benefits cover physical benefits (e.g. green infrastructure has been found to increase opportunities for recreation), social (e.g. green infrastructure has been found to reduce crime rates and improves patient recovery) and psychological and community-related benefits (e.g. green infrastructure has been found to enhance comfort).	Australia, Victoria
	Economic monetisation: Overview of methods	Some of the largest criticisms of individuals' willingness to pay approaches have come from behavioural economics. When asking what people would pay to gain, or not to lose or to gain a particular thing, Kahneman and Tversky, 1979, found that people valued the loss of something about twice as much as they valued obtaining the same thing. This was developed into prospect theory which states that people make decisions based on the potential value of losses and gains rather than the final outcome, and that people evaluate these losses and gains using certain heuristics, or rules of thumb.	Australia, Victoria

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**SYMONS, J., JONES, R.N.,
YOUNG, C.K. AND
RASMUSSEN, B. (2015)
ASSESSING THE
ECONOMIC VALUE OF
GREEN INFRASTRUCTURE:
LITERATURE REVIEW.
CLIMATE CHANGE
WORKING PAPER NO 23.
VICTORIA INSTITUTE OF
STRATEGIC ECONOMIC
STUDIES, VICTORIA
UNIVERSITY, MELBOURNE**

Economic monetisation: Applying these methods	Existing studies can be used (transferred) to estimate the economic value of changes stemming from other programmes or policies. In conducting an economic valuation with a benefits transfer, it is important to find the most appropriate studies to use in the benefits transfer exercise. However, the technique can also misjudge values by a factor of over 100% if not carried out with care (Rosenberger and Stanley, 2006).	Australia, Victoria
Defining Green Infrastructure	There is no generally agreed definitions for Green Infrastructure. Some definitions are geared towards functionality of the Green Infrastructure and can be detailed to varying extents.	Australia, Victoria
Value of Green Infrastructure	Identifies human well-being benefits as those arising from better access to green spaces increasing physical activity levels, increase in transport walking due land-use mix, better mental health due to regular contact with nature, etc. Environmental benefits include reductions in the urban heat island effect, carbon sequestration/storage and avoided emissions, air quality improvement, water cycle modification, flow control and flood reduction and water quality improvement and protection of Biodiversity (species diversity and population viability; habitat and corridors).	Australia, Victoria
Economic monetisation: Applying these methods	A more sophisticated approach called the transfer function approach where the results from one study are adapted and modified to make it more suitable to another situation – for example making adjustments for location or socio-economic factors. However, the validity of the benefit transfer approach depends upon the rigour of the original study upon which it is based (ECOTEC, 2008) and the suitability of the target area for the transfer.	Australia, Victoria



BADIU, D., ET AL. (2019). "DISENTANGLING THE CONNECTIONS: A NETWORK ANALYSIS OF APPROACHES TO URBAN GREEN INFRASTRUCTURE"	Defining Green Infrastructure	Green Infrastructure definitions evolved over time from the concept of green spaces meant especially to improve the aesthetics of cities, before being associated with health and environmental benefits with the capacity to be connected and to provide several functions. Now, Green Infrastructure is part of larger concepts, such as ecosystem services and is a key element for providing a more healthier environment, for tackling challenges such as climate change, air pollution, water management and social injustice. The concepts associated with Green Infrastructure are determined by their relationship with society.	Global
WORLD HEALTH ORGANISATION (2016). "URBAN GREEN SPACES AND HEALTH: A REVIEW OF EVIDENCE"	Defining Green Infrastructure	There is no universally accepted definition of urban green space, with regard to its health and well-being impacts. Urban green spaces may include places with 'natural surfaces' or 'natural settings', but may also include specific types of urban greenery, such as street trees, and may also include 'blue space' which represents water elements ranging from ponds to coastal zones.	Global
	Value of Green Infrastructure	Green infrastructure can be associated with exposure to air pollutants, risk of allergies and asthma, exposure to pesticides and herbicides, exposure to disease vectors and zoonotic infections, accidental injuries, excessive exposure to UV radiation, vulnerability to crime. However, these detrimental effects are associated with poor maintenance of Green Infrastructure, and thus, can be reduced or prevented through proper planning, organisation and maintenance.	Global
TRANSPORT FOR NEW SOUTH WALES (TFNSW). "COST BENEFIT ANALYSIS GUIDE", (2019)	Benefit valuation: Valuation is more than monetisation of outcomes	Provides guidance on measuring benefits relating to active transport and environmental externalities. TfNSW publishes a set of economic parameters which reveals the estimated value of walking and cycling (in \$/km) relating to various factors from accident cost to air pollution.	Australia, NSW



NSW HEALTH. "GUIDE TO COST BENEFIT ANALYSIS OF HEALTH CAPITAL PROJECTS", (2018)	Benefit valuation: Valuation is more than monetisation of outcomes	Prescribes guidance on measuring health benefits by service stream/scope and improvements in health outcomes, such as the use of the concept known as the disability-adjusted life year (DALY) to quantify health impact, as well as the valuing of health impact via reduced mortality or reduced morbidity.	Australia, NSW
NSW TREASURY. "GUIDE TO COST BENEFIT ANALYSIS", (2017)	Benefit valuation: Valuation is more than monetisation of outcomes	Sector-specific guidance on cost benefit analysis exists for coastal management, energy efficiency and mining and coal seam gas proposals.	Australia, NSW
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ENVIROATLAS 18; URBAN ATLAS IN THE EUROPEAN UNION, 2011	Defining Green Infrastructure	A narrower approach defines Green Infrastructure as "all vegetated land, including agriculture, lawns, forests, wetlands, and gardens. Barren land and impervious surfaces such as concrete and asphalt are excluded." This is similar to "public green areas used predominantly for recreation such as gardens, zoos, parks, and suburban natural areas and forests, or green areas bordered by urban areas that are managed or used for recreational purposes"	USA
GHOFRANI ET AL., "A COMPREHENSIVE REVIEW OF BLUE-GREEN INFRASTRUCTURE CONCEPTS", (2017); HAMMER ET AL., "CITIES AND GREEN. GROWTH: A CONCEPTUAL FRAMEWORK", (2011)	Defining Green Infrastructure	Many sources consider Green Infrastructure in conjunction with Blue Infrastructure as an interconnected network of natural and designed landscapes. This includes waterways, wetlands, wildlife habitats greenways, parks, working farms, forests, which provide multiple functions. This definition is also extended in cases to include cemeteries, squares and plazas, and pathways and greenways.	Australia



VICTORIA STATE GOVERNMENT. "A FRAMEWORK FOR PLACE-BASED APPROACHES", (2020)	Economic monetisation methods: Economic monetisation	The idea of a place-based understanding or approach is one that targets the specific circumstances of a place and engage local people as active participants in development and implementation, requiring government to share decision-making. Place-based approaches can complement the bigger picture of services and infrastructure. They engage with issues and opportunities that are driven by complex, intersecting local factors and require a cross-sectoral or long-term response.	Australia, Victoria
INFRASTRUCTURE AUSTRALIA. "PLANNING LIVEABLE CITIES", (2018)	Economic monetisation methods: Economic monetisation	Cities require a greater focus on the holistic needs of communities and places, rather than on the services provided by individual sectors. This is particularly true in precincts where growth is occurring rapidly. Governments should therefore develop 'place-based' planning frameworks to ensure that the full range of infrastructure communities require, across sectors, is considered when planning for growth.	Australia
LOOMIS, J., (2011) "WHAT'S TO KNOW ABOUT HYPOTHETICAL BIAS IN STATED PREFERENCE VALUATION STUDIES?" JOURNAL OF ECONOMIC SURVEYS, 25, 363-370	Economic monetisation: Overview of methods	Stated and revealed preferences methods may work in market-like situations, but they cannot readily be extended to public goods, where the gain/loss bias increases up to 3:1.	General



**GSOTTBAUER AND VAN
DEN BERGH,
"ENVIRONMENTAL POLICY
THEORY GIVEN BOUNDED
RATIONALITY AND
OTHER-REGARDING
PREFERENCES", (2011)**

Economic
monetisation:
Overview of
methods

Provides a useful and comprehensive survey of behavioural economics and environmental regulation summarising many of these issues. One study that asked people for their willingness to pay for services in urban green spaces and also asked for their perceived gains in wellbeing found that the results were mutually consistent (Dallimer et al., 2014), suggesting that such methods can be reliable when assessing personal benefit.

General

**GILES-CORTI, B., ET AL.
(2005). "INCREASING
WALKING: HOW
IMPORTANT IS DISTANCE
TO, ATTRACTIVENESS,
AND SIZE OF PUBLIC OPEN
SPACE?" AMERICAN
JOURNAL OF PREVENTIVE
MEDICINE 28(2): 169-176.**

Improved
natural
environments
and active
recreation

Found that access to proximate and large public open space with attractive attributes such as trees, water features and bird life is associated with higher levels of walking.

Individuals with 'very good access' to public open space were 2.05 times as likely to use than those with very poor access.

Those who used POS were 2.66x as likely to achieve recommended levels of physical activity (30min for 5 days).

While accessibility was not significantly associated with achieving overall sufficient levels of activity, those with very good access to attractive and large public open space were 1.24-1.5 times more likely to achieve high levels of walking.

Australia,
WA, Perth

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**BALL, K., ET AL. (2001).
"PERCEIVED
ENVIRONMENTAL
AESTHETICS AND
CONVENIENCE AND
COMPANY ARE
ASSOCIATED WITH
WALKING FOR EXERCISE
AMONG AUSTRALIAN
ADULTS." PREVENTIVE
MEDICINE 33(5): 434-440.**

Improved
natural
environments
and physical
activity

Those reporting a moderately aesthetic environment were 16% less likely, and those reporting a low aesthetic environment were 41% less likely to walk for exercise relative to high aesthetic.

Similarly – for moderately convenient 16% less likely and low convenience were 36% less likely to walk for exercise

Australia,
NSW

**GRIGSBY-TOUSSAINT, D.
S., ET AL. (2011). "WHERE
THEY LIVE, HOW THEY
PLAY: NEIGHBORHOOD
GREENNESS AND
OUTDOOR PHYSICAL
ACTIVITY AMONG
PRESCHOOLERS."
INTERNATIONAL JOURNAL
OF HEALTH GEOGRAPHICS
10(1): 66.**

Improved
natural
environments
and physical
activity

Higher levels of neighbourhood greenness as measured by the Normalized Difference Vegetation Index (NDVI) was associated with higher levels of outdoor playing time among preschool-aged children in our sample. Specifically, a one unit increase in neighbourhood greenness increased a child's outdoor playing time by approximately 3 minutes.

USA,
Chicago,
Illinois

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BARTON, J. AND M. ROGERSON (2017). "THE IMPORTANCE OF GREENSPACE FOR MENTAL HEALTH." BJPSYCH. INTERNATIONAL 14(4): 79-81.

Physical activity
and health
outcomes

Incorporating green spaces into building architecture, healthcare facilities, social care settings, homes and communities will encourage physical activity (PA), which may lead to greater social interaction and wellbeing.

Extra weekly use of the natural environment for PA reduces the risk of poor mental health by 6%

United
Kingdom

ZAPATA-DIOMEDI, B., ET AL. (2018). "A METHOD FOR THE INCLUSION OF PHYSICAL ACTIVITY-RELATED HEALTH BENEFITS IN COST-BENEFIT ANALYSIS OF BUILT ENVIRONMENT INITIATIVES." PREVENTIVE MEDICINE 106: 224-230.

Physical activity
and health
outcomes

Health outcomes
and economic
outcomes

They estimated the change in population level of PA attributable to a change in the environment due to the intervention. Then, changes in population levels of PA were translated into monetary values.

Improvements in neighbourhood environments conferred estimated annual physical activity related health benefit worth up to \$70 per person.

Improving neighbourhood walkability was estimated to be worth up to \$30 and improvements in sidewalk availability up to \$22 per adult resident.

Value of physical activity health related benefits of walking and cycling is \$0.98 and \$0.62 per kilometre respectively.

Australia

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MARSELLE, M. R., ET AL. (2013). "WALKING FOR WELL-BEING: ARE GROUP WALKS IN CERTAIN TYPES OF NATURAL ENVIRONMENTS BETTER FOR WELL-BEING THAN GROUP WALKS IN URBAN ENVIRONMENTS?" INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH 10(11): 5603-5628.

Exposure to green space and mental health outcomes

Walking participants who frequently attended in green corridor spaces (-2.81) recorded significantly lower stress scores than those who walked in urban space.

England

BERMAN, M. G., ET AL. (2012). "INTERACTING WITH NATURE IMPROVES COGNITION AND AFFECT FOR INDIVIDUALS WITH DEPRESSION." JOURNAL OF AFFECTIVE DISORDERS 140(3): 300-305.

Exposure to green space and mental health outcomes

Working-memory capacity and positive affect improved to a greater extent after the nature walk relative to the urban walk. Interestingly, these effects were not correlated, suggesting separable mechanisms.

USA, Michigan

GILL, S. E., ET AL. (2007). "ADAPTING CITIES FOR CLIMATE CHANGE: THE ROLE OF THE GREEN INFRASTRUCTURE." BUILT ENVIRONMENT 33(1): 115-133.

Improved natural environments and UHI effect

The magnitude of the urban heat island effect can vary across time and space as a result of meteorological, locational and urban characteristics.

Global



NGIA (2012). MITIGATING EXTREME SUMMER TEMPERATURES WITH VEGETATION, NURSERY PAPERS 5, NURSERY AND GARDEN INDUSTRY AUSTRALIA. AVAILABLE AT: <[HTTPS://WWW.NGIA.COM.AU/ATTACHMENT?ACTION=DOWNLOAD&ATTACHMENT_ID=1451](https://www.ngia.com.au/attachment?action=download&attachment_id=1451)>

Improved natural environments and UHI effect

Suburban areas are predicted to be around 0.5 degrees Celsius (C) cooler than the CBD, while a relatively leafy suburban area may be around 0.7 degrees C cooler than the CBD.

A parkland (such as grassland, shrub-land and sparse forest) or rural area may be around 1.5 to 2 degrees C cooler than the CBD.

Doubling the CBD vegetation coverage may reduce 0.3 degrees C ASDM temperature.

Australia, VIC, Melbourne

ADAMS, M. P. AND P. L. SMITH (2014). "A SYSTEMATIC APPROACH TO MODEL THE INFLUENCE OF THE TYPE AND DENSITY OF VEGETATION COVER ON URBAN HEAT USING REMOTE SENSING." LANDSCAPE AND URBAN PLANNING 132: 47-54.

Improved natural environments and UHI effect

Found that overall, increasing tree cover reduces average surface temperatures more dramatically than mixed vegetation cover.

In a combined model of vegetation and other environmental factors, increase in 1 foliage projection cover (% of area covered by trees) decreases LST by 0.113 degrees C.

Australia, NSW, Sydney



CRCWSC (2016), IMPACTS OF WATER SENSITIVE URBAN DESIGN SOLUTIONS ON HUMAN THERMAL COMFORT, <[HTTPS://WATERSENSITIVECITIES.ORG.AU/WP-CONTENT/UPLOADS/2016/07/TMR_B3-1_WSUD_THERMAL_COMFORT_NO2.PDF](https://watersensitivecities.org.au/wp-content/uploads/2016/07/TMR_B3-1_WSUD_THERMAL_COMFORT_NO2.PDF)>

Improved natural environments and UHI effect

Research found trees can lower the Urban Thermal Climate Index by up to 10 degrees C reducing heat stress from 'very strong' to 'strong'.

Australia

SUSCA, T., ET AL. (2011). "POSITIVE EFFECTS OF VEGETATION: URBAN HEAT ISLAND AND GREEN ROOFS." ENVIRONMENTAL POLLUTION 159(8-9): 2119-2126.

Improved natural environments and UHI effect

The study monitored the urban heat island in four areas of New York City and found an average of 2 degrees C difference of temperatures between the most and the least vegetated areas, ascribable to the substitution of vegetation with man-made building materials.

United States, New York City



<p>BOWLER, D. E., ET AL. (2010). "URBAN GREENING TO COOL TOWNS AND CITIES: A SYSTEMATIC REVIEW OF THE EMPIRICAL EVIDENCE." LANDSCAPE AND URBAN PLANNING 97(3): 147-155..</p>	<p>Improved natural environments and UHI effect</p>	<p>The average temperature reduction in the day was 0.94 degrees C between the urban temperature and the park temperature.</p>	<p>Spain, Italy, Mexico, Japan, Taiwan, Singapore, Sweden, Botswana, USA, Germany, Israel, Russia, Canada, UK and Greece</p>
<p>OLIVEIRA, S., ET AL. (2011). "THE COOLING EFFECT OF GREEN SPACES AS A CONTRIBUTION TO THE MITIGATION OF URBAN HEAT: A CASE STUDY IN LISBON." BUILDING AND ENVIRONMENT 46(11): 2186-2194.</p>	<p>Improved natural environments and UHI effect</p>	<p>Park cool island (PCI) effect was a median 1.5 degrees C difference between the surrounding atmospheric environment and the garden (ranging from 1 - 2.6 degrees C).</p>	<p>Portugal, Lisbon</p>



VOELKER, S., ET AL. (2013). "EVIDENCE FOR THE TEMPERATURE- MITIGATING CAPACITY OF URBAN BLUE SPACE—A HEALTH GEOGRAPHIC PERSPECTIVE." ERDKUNDE: 355-371.	Improved natural environments and UHI effect	<p>Concluded that the bluespaces studied could provide a cooling effect of 2.5 K on average.</p> <p>Wetlands showed the strongest effect ($\Delta T=5.2$ K, min=4.8 K, max=5.6 K, n=2) and ponds the least ($\Delta T=1.6$ K, min=0.4 K, max=4.7 K, n=6). Rivers showed a ΔT of 2.1 K (min=0.6 K, max=4 K, n=8), the unspecified urban blue space type "water" 2.5 K (min=0.5 K, max=3.4 K, n=5).</p>	Portugal, Japan, Germany, China, Canada
SUN, R. AND L. CHEN (2017). "EFFECTS OF GREEN SPACE DYNAMICS ON URBAN HEAT ISLANDS: MITIGATION AND DIVERSIFICATION." ECOSYSTEM SERVICES 23: 38-46.	Improved natural environments and UHI effect	<p>When there was green expansion minor decreases in LST were recorded at -1.11degrees C to -0.67 degrees C. Major increases in LST were recorded in areas of green loss (1.64-2.21degrees C)</p>	China, Beijing
GILL, S. E., ET AL. (2007). "ADAPTING CITIES FOR CLIMATE CHANGE: THE ROLE OF THE GREEN INFRASTRUCTURE." BUILT ENVIRONMENT 33(1): 115- 133.	Improved natural environments and UHI effect	<p>Using the conurbation of Greater Manchester, investigation found that green infrastructure, specifically green rooftops, reduced surface temperature by 6.6 degrees between 1961-1990, making it an effective strategy to keep surface temperatures below the baseline level. Less vegetated surface areas will decrease evaporative cooling, whilst an increase in vegetative surface sealing results in increased surface runoff.</p>	United Kingdom

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ADAMS, M. P. AND P. L. SMITH (2014). "A SYSTEMATIC APPROACH TO MODEL THE INFLUENCE OF THE TYPE AND DENSITY OF VEGETATION COVER ON URBAN HEAT USING REMOTE SENSING." LANDSCAPE AND URBAN PLANNING 132: 47-54.

Improved
natural
environments
and UHI effect

Increasing tree covers reduces average surface temperature significantly more than mixed vegetation cover. If an area with no vegetation was to be replaced by a typical parkland, land surface temperature would be reduced by 3.48 degrees C

Australia
'
Sydney



**NSW OFFICE OF
ENVIRONMENT AND
HERITAGE (2015). URBAN
GREEN COVER IN NSW:
TECHNICAL GUIDELINES,
NSW GOVERNMENT.**

AVAILABLE AT:

**<[HTTPS://CLIMATECHANG
E.ENVIRONMENT.NSW.GO
V.AU/-
/MEDIA/NARCLIM/FILES/S
ECTION-4-PDFS/URBAN-
GREEN-COVER-
TECHNICAL-
GUIDELINES.PDF?LA=EN&
HASH=C7FCADABE417DD2
DF67461F067463054D9408
E2F](https://climatechange.environment.nsw.gov.au/media/narclim/files/section-4-pdfs/urban-green-cover-technical-guidelines.pdf?LA=EN&HASH=C7FCADABE417DD2DF67461F067463054D9408E2F)>**

Improved
natural
environments
and UHI effect

Dark, impervious surfaces can absorb solar energy, causing the temperature of the city to rise as much as 10-20 degrees C higher than surrounding air temperatures. Every 10% increase in tree cover can reduce land surface temperatures by more than 1 degree Celsius. This means that a 14% increase in tree cover would offset this thermal loading effect

Australia,
NSW



**LOUGHNAN, M. E., ET AL.
(2010). "THE EFFECTS OF
SUMMER TEMPERATURE,
AGE AND
SOCIOECONOMIC
CIRCUMSTANCE ON
ACUTE MYOCARDIAL
INFARCTION ADMISSIONS
IN MELBOURNE,
AUSTRALIA."
INTERNATIONAL JOURNAL
OF HEALTH GEOGRAPHICS
9(1): 41.**

UHI effect and
health outcomes

Positive association between AMI admission to hospital and age and socioeconomic inequality.
Residents from highest or lowest socioeconomic standing more likely to be admitted for AMI; younger people most likely to be admitted.

Australia,
Melbourne



**PHUNG, D., ET AL. (2016).
"AMBIENT TEMPERATURE
AND RISK OF
CARDIOVASCULAR
HOSPITALIZATION: AN
UPDATED SYSTEMATIC
REVIEW AND META-
ANALYSIS." SCIENCE OF
THE TOTAL
ENVIRONMENT 550: 1084-
1102.**

UHI effect and
health outcomes

The pooled results suggest that for a change in temperature condition, the risk of cardiovascular hospitalization increased 2.8% for cold exposure, 2.2% for heatwave exposure, and 0.7% for an increase in diurnal temperature. No association was observed for heat exposure.

Effects did change when incorporating variation of effect sizes: 7.8% for cold exposure, 1% for heat exposure, 6.1% for heatwave exposure, and 1.5% for an increase in diurnal temperature.

Germany,
South Korea,
Greece, UK,
Taiwan,
Australia,
China,
Portugal,
Japan, USA,
Vietnam,
Mozambique,
Czech
Republic,
Denmark,
Thailand,
Italy,
Lithuania,
Slovenia,
France and
Russia

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**MUELLER, N., ET AL.
(2016). "URBAN AND
TRANSPORT PLANNING
RELATED EXPOSURES AND
MORTALITY: A HEALTH
IMPACT ASSESSMENT FOR
CITIES." ENVIRONMENTAL
HEALTH PERSPECTIVES
125(1): 89-96.**

UHI effect and
health outcomes

Reducing heat by 4 degrees prevents 376 deaths, increasing life expectancy by 34 days.

Barcelona,
Spain

**YE, X., ET AL. (2011).
"AMBIENT TEMPERATURE
AND MORBIDITY: A
REVIEW OF
EPIDEMIOLOGICAL
EVIDENCE."
ENVIRONMENTAL HEALTH
PERSPECTIVES 120(1): 19-
28.**

UHI effect and
health outcomes

The majority of studies reported a significant relationship between ambient temperature and total or cause-specific morbidities. However, there were some inconsistencies in the direction and magnitude of nonlinear lag effects.

The majority of studies reported detrimental effects of heat on the same day or up to the following 3 days.

USA,
Canada,
Japan,
Taiwan,
Australia,
Greece,
Spain, South
Korea, UK,
Switzerland
and Italy

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**XU, Z., ET AL. (2012).
"IMPACT OF AMBIENT
TEMPERATURE ON
CHILDREN'S HEALTH: A
SYSTEMATIC REVIEW."
ENVIRONMENTAL
RESEARCH 117: 120-131.**

UHI effect and
health outcomes

The existing literature indicates that very young children, especially children under one year of age, are particularly vulnerable to heat-related deaths. Hot and cold temperatures mainly affect cases of infectious diseases among children, including gastrointestinal diseases and respiratory diseases. Pediatric allergic diseases, like eczema, are also sensitive to temperature extremes. During heat waves, the incidences of renal disease, fever and electrolyte imbalance among children increase significantly.

Peru, Malta,
Japan,
Germany,
UK,
Bangladesh,
Burkina
Faso,
Australia,
Spain,
Greece,
Taiwan, USA,
Cameroon
and
Singapore

**CENTER FOR DISEASE
CONTROL AND
PREVENTION (2006), HEAT
ISLAND IMPACTS, VIEWED
JANUARY 2018,
<[HTTPS://WWW.EPA.GOV/
HEAT-ISLANDS/HEAT-
ISLAND-IMPACTS#3](https://www.epa.gov/heat-islands/heat-island-impacts#3)>**

UHI effect and
health outcomes

Estimates that from 1979–2003, excessive heat exposure contributed to more than 8,000 premature deaths in the United States

United
States

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**KABISCH, N., ET AL. (2017).
"THE HEALTH BENEFITS OF
NATURE-BASED
SOLUTIONS TO
URBANIZATION
CHALLENGES FOR
CHILDREN AND THE
ELDERLY-A SYSTEMATIC
REVIEW."
ENVIRONMENTAL
RESEARCH 159: 362-373.**

UHI effect and
health outcomes

Kabisch, van den Bosch and Laforteza (2017) found that urban trees and other vegetation provides cooling through shade and evapotranspiration, which reduce the impact of the UHI on hot summer days

Global

**KJELLSTROM, T. AND H. J.
WEAVER (2009). "CLIMATE
CHANGE AND HEALTH:
IMPACTS, VULNERABILITY,
ADAPTATION AND
MITIGATION." NEW
SOUTH WALES PUBLIC
HEALTH BULLETIN 20(2):
5-9.**

UHI effect and
health outcomes

Heat island effect contributes to greater heat exposure, which is positively associated with morbidity and mortality; mortality increases at temperatures above 28 degrees C, particularly amongst people 65+ years.

Australia,
ACT



**PERČIČ, S., ET AL. (2018).
"NUMBER OF HEAT WAVE
DEATHS BY DIAGNOSIS,
SEX, AGE GROUPS, AND
AREA, IN SLOVENIA, 2015
VS. 2003."
INTERNATIONAL JOURNAL
OF ENVIRONMENTAL
RESEARCH AND PUBLIC
HEALTH 15(1): 173.**

UHI effect and
health outcomes

People over 75 years and those with pre-existing acute circulatory diseases are most heavily impacted by heatwave.

Risk factors of hypertension include being overweight and sedentary lifestyle.

Slovenia

Older people with physiological cardiovascular impairment are more sensitive to heat waves

**SMITH, K. R. AND P. J.
ROEBBER (2011). "GREEN
ROOF MITIGATION
POTENTIAL FOR A PROXY
FUTURE CLIMATE
SCENARIO IN CHICAGO,
ILLINOIS." JOURNAL OF
APPLIED METEOROLOGY
AND CLIMATOLOGY 50(3):
507-522.**

UHI effect and
urban
environments

Widespread adoption of vegetated roofs could reduce localised temperatures up to 3 degrees C, but the effect is similar to other technologies (e.g. white roofs). The green roof approach also has several limitations including that the reduced temperature reduces natural circulation at the warmest times. Though this could reduce pollutants in the city, it also reduces natural cooling.

USA

**ZANDER, K. K., ET AL.
(2015). "HEAT STRESS
CAUSES SUBSTANTIAL
LABOUR PRODUCTIVITY
LOSS IN AUSTRALIA."
NATURE CLIMATE CHANGE
5(7): 647.**

Health outcomes
and economic
outcomes

Estimated productivity may decrease by 11-27% in hot regions by 2080, and by 20% globally in hot months by 2050.

Annual economic burden estimated to be US\$6.2b for Australian workforce.

Australia



KJELLSTROM, T. AND H. J. WEAVER (2009). "CLIMATE CHANGE AND HEALTH: IMPACTS, VULNERABILITY, ADAPTATION AND MITIGATION." NEW SOUTH WALES PUBLIC HEALTH BULLETIN 20(2): 5-9.

Health outcomes and economic outcomes

Positive association between direct heat exposure and labourer's ability to carry out physical work, increased absenteeism and reduced labour productivity

Australia, ACT

GREEN BELT (2015). THE IMPACT OF GREEN SPACE ON HEAT AND AIR POLLUTION IN URBAN COMMUNITIES: A META-NARRATIVE SYSTEMATIC REVIEW. THE DAVID SUZUKI FOUNDATION. AVAILABLE AT: <[HTTPS://DAVIDSUZUKI.ORG/WP-CONTENT/UPLOADS/2017/09/IMPACT-GREEN-SPACE-HEAT-AIR-POLLUTION-URBAN-COMMUNITIES.PDF](https://davidsuzuki.org/wp-content/uploads/2017/09/IMPACT-GREEN-SPACE-HEAT-AIR-POLLUTION-URBAN-COMMUNITIES.PDF)>

Improved natural environments and UHI effect
Improved natural environments and air quality

Among the identified studies on green space and air pollution, 92% reported pollution mitigating effects, Among studies on heat mitigation, 98% reported urban cooling effects associated with green space

USA, China, Japan, UK, Italy, Greece, Germany, Canada



<p>VAN DEN BOSCH, M. AND Å. O. SANG (2017). "URBAN NATURAL ENVIRONMENTS AS NATURE-BASED SOLUTIONS FOR IMPROVED PUBLIC HEALTH-A SYSTEMATIC REVIEW OF REVIEWS." ENVIRONMENTAL RESEARCH 158: 373-384.</p>	<p>Improved natural environments and all health risk factors</p> <p>All health risk factors and health outcomes</p>	<p>Increase in natural green space accessibility strongly associated with increased physical activity, with greatest benefit being reduced cardio-vascular disease (CVD) risk and related mortality. Inconclusive association between obesity as an outcome of physical inactivity but strong evidence of association between obesity and CVD, and obesity and mental disorders. Strong association between physical activity and reduced levels of anger and sadness.</p> <p>Association between excess heat and disease susceptibility due to reduced 'adaptation capacity of human thermoregulation' (may exacerbate existing chronic conditions).</p> <p>Moderate to strong evidence of positive association between green space and all-cause mortality</p>	<p>Global</p>
<p>OFFICE OF BEST PRACTICE REGULATION (2014). BEST PRACTICE REGULATION GUIDANCE NOTE VALUE OF STATISTICAL LIFE. AUSTRALIAN GOVERNMENT DEPARTMENT OF THE PRIME MINISTER AND CABINET. AVAILABLE AT: <HTTPS://WWW.PMC.GOV.AU/SITES/DEFAULT/FILES/PUBLICATIONS/VALUE_OF_STATISTICAL_LIFE_GUIDANCE_NOTE.PDF ></p>	<p>Health outcomes and economic outcomes</p>	<p>WTP method is most appropriate for measuring the value of statistical life (reductions in the risk of physical harm). WTP involves identifying how much a consumer would pay for products that reduce/mitigate the risk of death or serious injury</p>	<p>Global</p>



**ABELSON, P. (2008).
ESTABLISHING A
MONETARY VALUE FOR
LIVES SAVED: ISSUES AND
CONTROVERSIES. OFFICE
OF BEST PRACTICE
REGULATION. AVAILABLE
AT:
<[HTTPS://WWW.PMC.GOV.
AU/SITES/DEFAULT/FILES/
PUBLICATIONS/WORKING
_PAPER_2_PETER_ABELSON
.PDF](https://www.pmc.gov.au/sites/default/files/publications/working_paper_2_peter_abelson.pdf)>**

Health outcomes
and economic
outcomes

VSL from studies ranged from A\$3m to A\$15m. Paper suggests that public agencies in Australia adopt a VSL of \$3.5m for avoiding an immediate death of a healthy individual in middle age (about 50) or younger; a constant VLY of \$151 000 which is independent of age; and age-specific VSLs for older persons equal to the present value of future VLYs of \$151,000 discounted by 3% per annum.

Australia

**ACCESS ECONOMICS
(2007). THE HEALTH OF
NATIONS: THE VALUE OF
STATISTICAL LIFE.
AUSTRALIAN SAFETY AND
COMPENSATION
COUNCIL. AVAILABLE AT:
<[HTTPS://WWW.SAFEWOR
KAUSTRALIA.GOV.AU/SYST
EM/FILES/DOCUMENTS/17
02/THEHEALTHOFNATION
S_VALUE_STATISTICALIFE_
2008_PDF.PDF](https://www.safewor kaustralia.gov.au/system/files/documents/1702/thehealthofnations_value_statisticallife_2008.pdf)>**

Health outcomes
and economic
outcomes

While VSL is somewhat flawed as a concept to capture the value of health life, WTP approach to valuing human life have been the focus of the literature in this area since the 1960s. Revealed preference studies are generally considered superior to stated preference methods in revealing WTP as they are based on real world empirical binding market transactions. A literature review suggests a mean VSL in Australia of \$5.7m and a median of \$2.9m.

Global



**ORGANISATION FOR
ECONOMIC COOPERATION
& DEVELOPMENT 2012,
THE VALUATION OF
MORTALITY RISK,
MORTALITY RISK
VALUATION IN
ENVIRONMENT, HEALTH
AND TRANSPORT
POLICIES, OECD
PUBLISHING. AVAILABLE
AT:
<[HTTP://WWW.OECD.ORG/
ENVIRONMENT/MORTALIT
YRISKVALUATIONINENVIR
ONMENTHEALTHANDTRA
NSPORTPOLICIES.HTM](http://www.oecd.org/environment/mortality-risk-valuation-in-environment-health-and-transport-policies.htm)>**

Health outcomes
and economic
outcomes

While in some cases, a new primary valuation study, tailored for the specific policy in question, might be needed in order to carry out an appropriate CBA, in many situations benefit transfer (where VSL values that have been estimated in one context are– with appropriate adjustments – used in policy assessments in another context) will generally be less time- and resource-consuming. Average adult VSL for OECD countries ranges between US \$1.5m-4.5m, with a base value of US \$3m.

Global

**VISCUSI, W. K. AND J. E.
ALDY (2003). "THE VALUE
OF A STATISTICAL LIFE: A
CRITICAL REVIEW OF
MARKET ESTIMATES
THROUGHOUT THE
WORLD." NATIONAL
BUREAU OF ECONOMIC
RESEARCH WORKING
PAPER SERIES 9487.**

Health outcomes
and economic
outcomes

Median value of VSL of prime-aged workers is \$7m
Income elasticity of VSL ranges from 0.5 to 0.6

USA



**JORDAN. H, DUNT ET. AL
(UNDATED). MEASURING
THE COST OF HUMAN
MORBIDITY AND
MORTALITY FROM
ZONOTIC DISEASES.
AUSTRALIAN CENTRE OF
EXCELLENCE FOR RISK
ANALYSIS. AUSTRALIA.
AVAILABLE AT:
<[HTTPS://CEBRA.UNIMELB
.EDU.AU/_DATA/ASSETS/P
DF_FILE/0008/2220875/100
2B01D1FR.PDF](https://cebraz.unimelb.edu.au/_data/assets/pdf_file/0008/2220875/1002B01D1FR.PDF)>**

Health outcomes
and economic
outcomes

Must consider burden of disease as when measuring consequences of illness;
must consider single or multi-criteria approach, use of data, time and resources
available, contribution of modelling and equity consideration when measuring
economic costs

WTP method may be warranted if intangible costs are important. Review
recommends use of Cost of Illness method to measure economic costs of human
morbidity and mortality

Australia

**MARKEVYCH, I., ET AL.
(2017). "EXPLORING
PATHWAYS LINKING
GREENSPACE TO HEALTH:
THEORETICAL AND
METHODOLOGICAL
GUIDANCE."
ENVIRONMENTAL
RESEARCH 158: 301-317.**

Improved
natural
environments
and health
outcomes

Green spaces have 3 functions: reducing harm (air pollution, noise reduction,
heat reduction), restoring capacities (attention and focus restoration) & building
capacities (encouraging physical activity & facilitating social cohesion). These
functions may lead to improving physical health & wellbeing (self-perceived
health, higher birth weight, lower BMI, lower risk of depression and
cardiovascular disease)

Global

Source: Frontier Economics

Sustainability Planning Scheme Amendment – Cost-Benefit Analysis

Final



Frontier Economics

Brisbane | Melbourne | Singapore | Sydney

Frontier Economics Pty Ltd
395 Collins Street Melbourne Victoria 3000

Tel: +61 3 9620 4488

<https://www.frontier-economics.com.au>

ACN: 087 553 124 ABN: 13 087 553 124



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH

PART B: PLANNING ADVICE

for the **Municipal Association of Victoria** on behalf of **CASBE**

March 2022



urban planning | urban design | landscape architecture

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

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SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

1.0 INTRODUCTION

Hansen Partnership, Hip V Hype and Frontier Economics have been engaged to provide advice on a range of draft ESD standards proposed for inclusion in the planning schemes of a growing number of participating councils. These standards represent an 'elevation' of existing standards currently found in the local policies of 20 of Victoria's councils.

A total of 31 Victorian councils are involved in the 'Elevating Environmentally Sustainable Development (ESD) Targets Planning Policy Amendment' project (the project), indicating the increasing awareness of the importance of planning in delivering ESD. It also signals the importance that planning plays in the ability of local governments to act in response to their communities concerns, expressed through various declarations associated with the climate emergency.

Hansen's role has been to review the proposed standards and recommend adjustments, and to provide advice on related questions of implementation. HIP V. HYPE undertook an assessment of the technical and financial implications of the Standards (Component A), and Frontier Economics considered undertook a cost benefit analysis (Component C).

This report contains two key sections - the first documents the outcomes of a review of draft standards provided to the project group, bringing together input from not only Hansen, but also technical advice and feedback from stakeholders. The second component of this report responds to a series of questions related to how those Standards could, or should, be implemented through Victoria's planning system, before the report concludes with a series of recommendations.



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

2.0 PEER REVIEW OF STANDARDS

Hansen have undertaken a thorough review of the proposed Standards. The outcome of this review and associated discussion is contained in this section of the report.

The review process comprised a number of stages:

- Initial review and identification of matters which were not appropriate for implementation through a planning scheme. Some of these were identified as more appropriate as guidelines, some were identified as duplicating other standards, and others were not matters that are suitably addressed through a planning scheme, for example:

All engineered wood should meet the maximum total indoor pollutant emissions limits as set out in most current GECA, Global GreenTag GreenRate, Green Star or WELL standards.

- A workshop was then held with members of the client group who had been involved in a 'strategic working group', developing the Standards in their early phases. Through this process, the intent behind particular Standards was discussed and additional Standards resolved for removal, modification or consolidation were identified.
- Hansen then undertook a more thorough review of the Standards considering the following:
 - The likely implementation mechanism and therefore the appropriate 'framing' of the Objectives and Standards.
 - Existing content within planning schemes, and content proposed through current reforms.
 - Opportunities for simplification and clarification.
 - The ability for planners to assess the proposed Standards and the ways in which they might do so.
- Following this, the Standards were further updated on the basis of advice prepared as part of Component A of this project which examined the technical feasibility and viability of the proposed Standards. Where technical challenges were identified with respect to implementing and embedding relevant standards, corresponding adjustments were made to address this.
- The Standards were also tested with a number of stakeholder groups, such as ESD practitioners and peak industry bodies.

The updated Objectives and Standards are included on the following pages, followed by identification of Standards which are recommended to not be pursued further as part of this project.

There are a number of matters to note:

- The Objectives and Standards have been arranged thematically. However, these themes have been adjusted from those originally proposed. The rationale for these adjustments is outlined in the highlight box opposite.
- While the particular requirements of development have been retained as 'Standards', it is noted that these may require further translation once the preferred implementation mechanism has been confirmed and DELWP preferences ascertained. For example - it may be that more specific Performance Measures and Criteria are preferred, or Requirements and Guidelines. See Implementation into Planning Schemes for further details.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEMES

ENERGY

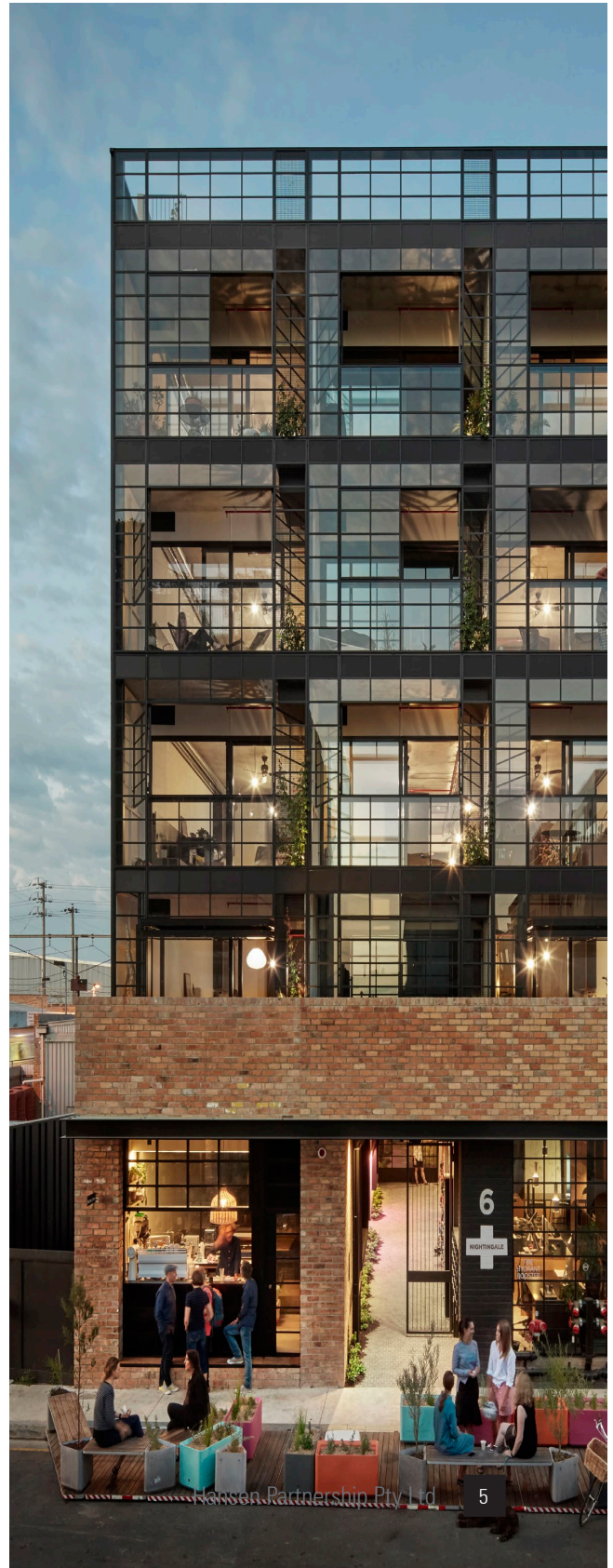
This theme has been split into Operational Energy and Embodied Carbon. This allows for the splitting of objectives related to these two matters. The introduction of a new Embodied Carbon theme allows for an increased emphasis on this and to provide a logical 'home' for Standards which are seeking to achieve objectives related to this. While most of the Standards in this theme are not quantitative or specific, it provides the opportunity for later updates as consideration of embodied carbon becomes more resolved.

GREEN INFRASTRUCTURE

This theme replaces Urban Ecology. While urban ecology is important, as a theme it fails to appropriately encompass the range of matters addressed under this heading and is perhaps more aligned with specific 'biodiversity' outcomes which are often situated in other parts of the scheme. Green Infrastructure allows a greater focus on health and wellbeing considerations alongside biodiversity outcomes.

WASTE & RESOURCE RECOVERY

While this theme was originally identified as Waste, Materials & the Circular Economy, much of the content related to materials has been moved to the Embodied Carbon theme. While the Objectives of this theme certainly relate to the development of a circular economy, it is considered that the Standards proposed under this relate primarily to waste and resource recovery rather than the broader circular economy and so a thematic heading which reflects that provides greater clarity.



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

2.1 THE OBJECTIVES AND STANDARDS

The table is broken into relevant themes, and for each a series of Objectives are detailed. Below these the revised Standards are included. These have been subject to a rigorous process of review and testing with stakeholders but should be subject to a further round of review prior to any exhibition of a Planning Scheme Amendment

For each theme, the relevant Objectives which the Standard is intended to deliver is identified, along with some commentary as to how the standards would be assessed through the proposed process. It is important that all the Standards are practical in terms of how they can be assessed by any decision-maker and also that they do not impose unreasonable burdens on applicants. These should be read in conjunction with the discussion at Section 2.3 on application requirements and supporting material.

THEME: OPERATIONAL ENERGY

Objectives

- .1 To ensure new development achieves net zero carbon emissions from operational energy use.
- .2 To support the inclusion of renewable energy generation and ensure a transition to renewable energy sources.
- .3 To ensure higher levels of energy efficiency and reduce pressure on energy networks.
- .4 To support effective energy load management and storage.
- .5 To support development that demonstrates innovation in the delivery of carbon positive emission outcomes.

Standards	Assessment process	Objectives
<p>S1</p> <p>All development should be designed to reflect the following hierarchy in achieving net zero carbon performance from all operational energy use:</p> <ol style="list-style-type: none"> 1. Design buildings to be all electric; 2. Design building orientation, envelope and openings to increase energy efficiency; 3. Selection of energy efficient systems, equipment and appliances; 4. Onsite generation of renewable energy; 5. Purchase of offsite renewable energy. 	<p>As part proposed Sustainability Management Plan (SMP) templates (see Section 2.3) a 'checklist' could be included which, on completion, provides the planner or other decision-maker with a clear understanding of the order and steps taken by the applicant to meet the Standard.</p>	<p>1, 2, 3, 4, 5.</p>

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards	Assessment process	Objectives
<p>S2</p> <p>All new development should be designed to avoid consumption of natural gas or other onsite fossil fuels.</p>	<p>This can be clearly identified in the SMP and on relevant plans, including the proposed Sustainability Response Plan. The Guidelines document will provide 'helpful hints' as to ways to overcome common issues with gas. The Guidelines should also include a clear list of uses for which discretion may be warranted from this standard, and any associated parameters.</p> <p>It is noted that advocacy for corresponding changes to the VPPs to address the issue of gas providers as Determining Authority for some permit applications will also need to be pursued.</p>	1
<p>S3</p> <p>All development should be designed to reflect the following hierarchy in achieving net zero carbon emissions from all operational energy use:</p> <ol style="list-style-type: none"> 1. Design buildings to be all electric; 2. Design building orientation, envelope and openings to increase energy efficiency; 3. Selection of energy efficient systems, equipment and appliances; 4. Onsite generation of renewable energy; 5. Purchase of offsite renewable energy. 	<p>This would be assessed through review of built form as shown on plans, and also as articulated through the SMP. Appropriate design responses would vary dependant on context, but examples of common best practice could be provided through the Guidelines.</p>	3
<p>S4</p> <p>All development should be designed to minimise energy use including:</p> <ul style="list-style-type: none"> • Provision of clotheslines to allow natural drying of clothes and bedlinen, that do not impact the amenity of external secluded private open space, or internal room function. • Provision of appropriate energy management systems (such as load management) to support use of renewable energy generated onsite and efficient energy consumption throughout the day. 	<p>Clothes drying areas would be marked on plans allowing for easy assessment and SMP would contain details of any proposed energy management systems as part of documentation. Guidelines again, could provide details as to common and cost effective forms of energy management for different typologies.</p>	3, 4
<p>S5</p> <p>All residential developments should achieve an average 7 Star NatHERS rating.</p>	<p>Relevant NatHERs modelling reports would be incorporated into the SMP.</p> <p>Note: it is anticipated that this Standard will be removed following delivery of Victorias commitment to pursuing this standard through updates to the building regulations.</p>	1, 3, 4

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards	Assessment process	Objectives
<p>S6</p> <p>All development should maximise potential utilisation of solar energy and where appropriate, wind, through the following measures:</p> <ul style="list-style-type: none"> Ensuring electrical systems are designed to optimise the onsite consumption of generated electricity. Optimising roof form, pitch and orientation for photovoltaic arrays and/or solar air or water heating. Minimising shading and obstructions. Designing for appropriate roof structure to accommodate and access equipment. Consider spatial requirements for future renewable energy storage or other energy management systems. 	<p>The SMP would provide detail on measures proposed, and the Guidelines would provide certainty as to what matters might need to be specified in terms of electrical systems for different typologies.</p> <p>Plans, including the Sustainability Response Plan, could detail roof characteristics allow for assessment, and again, the Guidelines could clearly articulate appropriate responses in different contexts.</p> <p>Where relevant and if load management or storage is suggested to be part of the response, relevant notations and definition of spatial requirements on plans could be sought.</p>	<p>1, 2, 4</p>



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards	Assessment process	Objectives										
<p>S7</p> <p>All developments should provide the following minimum requirements for onsite renewable energy generation:</p> <table><tr><th>DEVELOPMENT</th><th>REQUIREMENT</th></tr><tr><td>Single dwelling, Two or more dwellings on a lot (multi-dwellings other than apartments)</td><td>A 3kW minimum capacity solar photovoltaic (PV) system should be installed for each 1-2 bedroom dwelling and an additional 1.0kW per bedroom for each bedroom there-after.</td></tr><tr><td>Apartment development</td><td>Provide a solar PV system with a capacity of at least 25W per square meters of the development's site coverage, OR 1kW per dwelling.</td></tr><tr><td>Office, Retail, Other non-residential</td><td>Provide a solar PV system with a capacity of at least 25W per square meters of the development's site coverage.</td></tr><tr><td>Industrial & Warehouse</td><td>A solar PV system that is: Sized to meet the energy needs of the building(s) services (lighting, air-conditioning, industrial processes). When no industrial process is proposed, minimum 1.5kW per tenancy plus 1kW for every 150m2 of gross floor area must be provided, OR Where an energy intensive industrial process is likely, maximised based on the available unencumbered roof area.</td></tr></table>	DEVELOPMENT	REQUIREMENT	Single dwelling, Two or more dwellings on a lot (multi-dwellings other than apartments)	A 3kW minimum capacity solar photovoltaic (PV) system should be installed for each 1-2 bedroom dwelling and an additional 1.0kW per bedroom for each bedroom there-after.	Apartment development	Provide a solar PV system with a capacity of at least 25W per square meters of the development's site coverage, OR 1kW per dwelling.	Office, Retail, Other non-residential	Provide a solar PV system with a capacity of at least 25W per square meters of the development's site coverage.	Industrial & Warehouse	A solar PV system that is: Sized to meet the energy needs of the building(s) services (lighting, air-conditioning, industrial processes). When no industrial process is proposed, minimum 1.5kW per tenancy plus 1kW for every 150m2 of gross floor area must be provided, OR Where an energy intensive industrial process is likely, maximised based on the available unencumbered roof area.	<p>The solar PV proposed would be shown on the plans and detailed in the SMP, allowing for easy assessment against the Standard. There will clearly be some instances where there is a need for discretion in the application of this Standard, including where roofs are already overshadowed (where the application of such a requirement would be unreasonable) or where a better overall sustainability outcome is generated through a combination of measures proposed for the site which results in this Standard not being appropriate.</p> <p>In order to ensure transparency, situations where discretion would always lead to the Standard not being applied should be clearly outlined in the Guidelines or suitable wording added to the Standard. Other situations where discretion may be exercised could be identified though case study examples but should not be specifically listed within the Guidelines. Where relevant these matters could be integrated into decision guidelines.</p>	<p>1, 2</p>
DEVELOPMENT	REQUIREMENT											
Single dwelling, Two or more dwellings on a lot (multi-dwellings other than apartments)	A 3kW minimum capacity solar photovoltaic (PV) system should be installed for each 1-2 bedroom dwelling and an additional 1.0kW per bedroom for each bedroom there-after.											
Apartment development	Provide a solar PV system with a capacity of at least 25W per square meters of the development's site coverage, OR 1kW per dwelling.											
Office, Retail, Other non-residential	Provide a solar PV system with a capacity of at least 25W per square meters of the development's site coverage.											
Industrial & Warehouse	A solar PV system that is: Sized to meet the energy needs of the building(s) services (lighting, air-conditioning, industrial processes). When no industrial process is proposed, minimum 1.5kW per tenancy plus 1kW for every 150m2 of gross floor area must be provided, OR Where an energy intensive industrial process is likely, maximised based on the available unencumbered roof area.											
<p>S8</p> <p>All residual operational energy should be 100% renewable, purchased through government accredited off-site Green Power, power purchasing agreement or similar.</p>	<p>See Section 3.7 for more in depth discussion of how this Standard could be implemented and assessed.</p>	<p>1</p>										

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEME: EMBODIED CARBON

Objectives

- .1 To encourage development that considers the lifecycle impacts of resource use and supports lower carbon emissions.**

Standards	Assessment process	Objectives
<p>S9</p> <p>Development should reduce the impact of embodied carbon emissions in materials used through a combination of the following measures:</p> <ul style="list-style-type: none"> • Reusing all, or part, of existing buildings. • Use of reclaimed or repurposed materials where appropriate. • Use of new materials with a recycled content. • Identifying opportunities to substitute high impact materials, such as concrete or steel, with materials with lower embodied carbon. • Selecting materials from sources which have undertaken offsetting of any carbon emissions. 	<p>The SMP would provide detail on measures proposed by the applicant to meet this Standard. The template could be structured to identify opportunities, which the applicant could confirm if they have taken up or not. Guidelines could provide guidance as to the reductions that would be considered reasonable and the circumstances where discretion would be anticipated.</p>	1
<p>S10</p> <p>Development should demonstrate consideration of the potential for future adaptation and / or alternate uses where relevant, in the design of buildings.</p>	<p>This could be detailed in the SMP, where a template could provide a checklist of measures that have been considered in response to the Standard.</p> <p>The relevant section of the Guidelines could provide best practice case study examples.</p>	1
<p>S11</p> <p>Development should contribute to the reduction in future embodied carbon through careful material selection, including:</p> <ul style="list-style-type: none"> • Utilising materials that are durable, reducing need for replacement. • Utilising materials and construction methods which facilitate future recycling of materials. • Considering the application of 'design for disassembly' principles. 	<p>Materials and finishes specifications are anticipated to be provided as per standard application requirements. This would allow assessment against the first and second dot point. Similarly to the above, the SMP template could provide a checklist against matters which have been considered by the applicant in responding to the Standard.</p> <p>Guidelines again could provide locally relevant case studies and ideas that could be considered by applicants.</p>	1

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEME: SUSTAINABLE TRANSPORT

Objectives

- .1 To ensure development supports sustainable and equitable transport patterns through the provision of transport infrastructure that prioritises active transport.
- .2 To support and encourage zero emissions transport.
- .3 To support development that is designed to encourage behavioural changes to reduce transport related emissions and congestion.
- .4 To ensure that development is designed to accommodate the expected increase in use of lower emission modes of transport through the provision of infrastructure that is efficient and can adapt to meet changing needs and innovations in transport technology.

Standards	Assessment process	Objectives												
<p>S12</p> <p>All development should provide the following rates of bicycle parking:</p> <table><tr><th>DEVELOPMENT</th><th>REQUIREMENT</th></tr><tr><td>New residential development</td><td><p>A minimum of one secure undercover bicycle space per dwelling. Where a lesser provision of bicycle parking is proposed, development should demonstrate how additional space (i.e. car parking spaces) could be repurposed for bicycle parking should demand arise.</p><p>A minimum of one visitor bicycle space per 4 dwelling.</p></td></tr><tr><td>New retail development</td><td><p>A minimum of one secure undercover employee bicycle parking space per 100 sqm net leasable area.</p><p>Visitor bicycle spaces equal to at least 5% of the peak visitors capacity.</p></td></tr><tr><td>New development associated with a Place of Assembly</td><td><p>A minimum of 2 secure staff bicycle spaces per 1500 sqm of a place of assembly.</p><p>A minimum of four visitor spaces for the first 1500 sqm and 2 additional spaces for every 1500 sqm thereafter.</p></td></tr><tr><td>New office development</td><td><p>A minimum of one secure undercover staff bicycle parking space per 100 sqm net leasable area of office.</p><p>A minimum of one visitor space per 500 sqm net leasable area of office.</p></td></tr><tr><td>For all other non-residential uses</td><td>Provide bicycle parking equal to at least 10% of regular occupants.</td></tr></table>	DEVELOPMENT	REQUIREMENT	New residential development	<p>A minimum of one secure undercover bicycle space per dwelling. Where a lesser provision of bicycle parking is proposed, development should demonstrate how additional space (i.e. car parking spaces) could be repurposed for bicycle parking should demand arise.</p> <p>A minimum of one visitor bicycle space per 4 dwelling.</p>	New retail development	<p>A minimum of one secure undercover employee bicycle parking space per 100 sqm net leasable area.</p> <p>Visitor bicycle spaces equal to at least 5% of the peak visitors capacity.</p>	New development associated with a Place of Assembly	<p>A minimum of 2 secure staff bicycle spaces per 1500 sqm of a place of assembly.</p> <p>A minimum of four visitor spaces for the first 1500 sqm and 2 additional spaces for every 1500 sqm thereafter.</p>	New office development	<p>A minimum of one secure undercover staff bicycle parking space per 100 sqm net leasable area of office.</p> <p>A minimum of one visitor space per 500 sqm net leasable area of office.</p>	For all other non-residential uses	Provide bicycle parking equal to at least 10% of regular occupants.	<p>Bicycle parking areas and proposed numbers should be included on relevant plans. They should also be detailed with the relevant SMP (see recommendation for consolidation of current Green Travel Plan requirements with a single SMP). SMP template could contain an adjustable table with the relevant uses so applicants can just add in relevant floor areas and identify numbers of bicycle parking spaces provided, with justification for any reduction required. This template could also allow for the easy identification of the number of 'other' types of bicycle parking provided (i.e cargo bikes, electric bikes spaces with charging etc).</p>	<p>1, 2, 4</p>
DEVELOPMENT	REQUIREMENT													
New residential development	<p>A minimum of one secure undercover bicycle space per dwelling. Where a lesser provision of bicycle parking is proposed, development should demonstrate how additional space (i.e. car parking spaces) could be repurposed for bicycle parking should demand arise.</p> <p>A minimum of one visitor bicycle space per 4 dwelling.</p>													
New retail development	<p>A minimum of one secure undercover employee bicycle parking space per 100 sqm net leasable area.</p> <p>Visitor bicycle spaces equal to at least 5% of the peak visitors capacity.</p>													
New development associated with a Place of Assembly	<p>A minimum of 2 secure staff bicycle spaces per 1500 sqm of a place of assembly.</p> <p>A minimum of four visitor spaces for the first 1500 sqm and 2 additional spaces for every 1500 sqm thereafter.</p>													
New office development	<p>A minimum of one secure undercover staff bicycle parking space per 100 sqm net leasable area of office.</p> <p>A minimum of one visitor space per 500 sqm net leasable area of office.</p>													
For all other non-residential uses	Provide bicycle parking equal to at least 10% of regular occupants.													

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards	Assessment process	Objectives
<p>S13 All non-residential developments should provide:</p> <ul style="list-style-type: none"> One shower for the first 5 employee bicycle spaces, plus 1 to each 10 employee bicycle spaces thereafter. Personal lockers are to be provided with each bicycle space required if 10 or more employee bicycle spaces are provided. If more than 30 bicycle spaces are required, then a change room should be provided with direct access to each shower. The change room may be a combined shower and change room. 	<p>As above, this could be included as a table to fill out in any SMP template, and should be marked on relevant plans.</p>	<p>1, 2, 4</p>
<p>S14 All bicycle parking facilities should be designed for convenient access, including:</p> <ul style="list-style-type: none"> Locating the majority of bicycle parking facilities for occupants at ground level, where this does not compromise other relevant objectives. For bicycle parking not at ground level, providing the majority within 10 meters of vertical pedestrian access ways (i.e. lifts, stairs). Providing safe access to bicycle parking facilities in basement car parks via a separate line of travel or by clearly signalling cycle priority through surface treatments and to facilities accessed via lanes by providing suitable lighting and surveillance. Ensuring any lifts used to access bicycle parking areas are at least 1800mm deep. Ensuring at least 20% of residential bicycle parking facilities are of a type which support equitable access through a combination of well-spaced ground level facilities to support ease of use and provision of parking spaces to accommodate a diverse range of bicycles (such as cargo bikes or three wheeled bikes). 	<p>Details of how the design has considered easy access could be documented in the SMP, with relevant content included on plans. The Guidelines should include examples of application types for which dot points relating to ground floor locations and separate lines of travel may not be appropriate. As with previous Standards, where decision guidelines etc are used, these matters could be addressed there.</p>	<p>1, 2, 4</p>

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards		Assessment process	Objectives
S15 All development should be designed to support the use of electric vehicles through the provision of:		SMPs will contain a section which includes details of EV provisions proposed on site. The template could be set up to allow easy assessment against the Standards. Location of relevant infrastructure should also be shown on relevant plans.	2, 3, 4, 5
DEVELOPMENT	REQUIREMENT		
Single dwellings / Two or more dwellings on a lot	Appropriate infrastructure and cabling to support at least moderate speed, efficient EV charging (without the EV charger unit) in each garage/ carport.		
Apartment development	Electrical capacity capable of supporting the provision of an appropriate moderate speed, efficient EV charging outlet to all car parking spaces. Appropriate EV infrastructure and cabling must be provided to ensure peak demand is managed for example, distribution boards, power use metering systems, scalable load management systems, and cable trays or conduit installation.		
Non-residential development under 5,000 sqm gross floor area	Electrical capacity capable of supporting the provision of an appropriate moderate speed, efficient EV charging outlet to 20% of all staff car parking spaces (or a minimum of one space). Appropriate EV infrastructure and cabling must be provided to ensure peak demand is managed, for example, distribution boards, power use metering systems, scalable load management systems, and cable trays or conduit installation.		
Non-residential development over 5,000 sqm gross floor area	Installed EV charging infrastructure complete with chargers and signage to 5% of all car parking spaces. Electrical capacity capable of supporting the provision of an appropriate moderate speed, efficient EV charging outlet to 20% of all staff car parking spaces (or a minimum of one space). Appropriate EV infrastructure and cabling must be provided to ensure peak demand is managed for example, distribution use metering systems, scalable load management systems, and cable trays or conduit installation.		

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards	Assessment process	Objectives
<p>S16</p> <p>All car parking facilities should be designed to support the charging of shared or visitor vehicles through:</p> <ul style="list-style-type: none"> The provision of a minimum of one EV enabled shared parking space if visitor or shared parking spaces are proposed. Locating shared EV charging space(s) in highly visible, priority locations. Providing clear signage indicating that EV charging is available at the shared space(s). 	<p>As with above this information could be detailed in the EV section of the SMP through use of a template model, and through the inclusion of relevant spatial details on the plans.</p>	<p>2,3,4,5</p>
<p>S17</p> <p>All car parking facilities should be designed to support the charging of motorcycle, moped, electric bicycle or scooters through:</p> <ul style="list-style-type: none"> Providing electrical capacity for appropriate charging outlets at the parking / storage area. Providing a general power outlet for every six vehicle parking spaces to support charging. 	<p>As above.</p>	<p>2, 3, 4</p>
<p>S18</p> <p>All development should be designed to support modal shift to more sustainable forms of transport through:</p> <ul style="list-style-type: none"> Locating low and zero emission vehicles in a prominent, accessible locations within parking facilities. Designing car parking facilities to be adaptable to other uses. Adopting flexibility in the allocation of car parking spaces to facilitate adaptable uses or transfer of ownership. 	<p>SMP template could provide a section where applicant can outline steps they have taken to support modal shift which may include measures beyond those identified in the Standard. Where items included in the Standard have not been pursued by the applicant the expectation would be the rationale for this is documented in the SMP also.</p>	<p>1, 2, 4, 5</p>

THEME: INTEGRATED WATER MANAGEMENT

Objectives

- .1 To support development that minimises total operating potable water use.
- .2 To support development that reduces the amount of stormwater runoff on site, and improves its quality of stormwater, and impacts for stormwater that leaves a development.
- .3 To ensure development considers and addresses the impact of future climate conditions in the management of water resources.
- .4 To encourage development that supports innovation in the use and reuse of water

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Standards	Assessment process	Objectives
<p>S19</p> <p>All development should be designed to reduce potable water use on site by at least 30% in interior and irrigation uses, in comparison to an equivalent standard development, with use of roof harvested rainwater supply prioritised in the delivery of reductions.</p>	<p>SMP template would include an area where the water use of the 'equivalent standard development' would be recorded (in line with definition and Guideline content). The anticipated usage based on measures which would also be outlined could then be recorded, allowing an easy assessment of the reduction in use anticipated to be achieved by the development. A breakdown of where the reductions have been achieved could also be provided.</p>	<p>1, 4</p>
<p>S20</p> <p>Design developments to use water resources efficiently through a range of measures, including;</p> <ul style="list-style-type: none"> Collection of rainwater from above ground catchments, and appropriate filtering for on-site use for toilet flushing as a minimum, and additional uses such as laundry, irrigation, wash down facilities, etc. Capture of fire-test water for on-site reuse Collection of stormwater for on-site reuse Considering opportunities for onsite recycling of wastewater through the installation of approved greywater or blackwater systems Reducing potable water use for irrigation by selection of drought tolerant landscaping, design for passive irrigation, and selection of efficient irrigation systems where needed Connecting to a precinct scale Class A recycled water source if available and technically feasible (including a third pipe connection to all non-potable sources). Providing water efficient fixtures, fittings and equipment. 	<p>Measures taken to achieve water efficiency will vary from site to site, but should be documented in the SMP. The SMP could include all measures identified in the Standard to ensure direct response to these key opportunities but would also allow for other measures to be identified.</p>	<p>1, 3, 4</p>
<p>S21</p> <p>Reduce the volume and flow of stormwater discharging from the site by appropriate on-site detention and on-site retention strategies, consistent with catchment scale IWM objectives and targets.</p>	<p>This would be demonstrated through use of tools such as STORM / MUSIC as is currently the case. The results would be included in the SMP.</p>	<p>2</p>
<p>S22</p> <p>Improve the quality of stormwater discharging from the site by meeting best practice urban stormwater standards.</p>	<p>This would be demonstrated through use of tools such as STORM / MUSIC as is currently the case. The results would be included in the SMP.</p>	<p>2</p>

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEME: GREEN INFRASTRUCTURE

Objectives

- .1 To deliver development that protects existing landscape values on and adjoining the development site, including canopy, vegetation, and habitat for biodiversity.
- .2 To deliver development that increases vegetation, particularly indigenous and native vegetation, and enhances existing landscape values, connects biodiversity corridors and increases the resilience of ecosystems.
- .3 To ensure landscaping proposed as part of development will be resilient to future climate conditions and supports integrated water management and energy efficiency outcomes.
- .4 To support development that increases amenity, improves connections to surrounding natural landscapes and supports health and wellbeing.
- .5 To encourage development that provides opportunities for on-site food production.

Standards	Assessment process	Objectives
<p>S23</p> <p>All new development should achieve a Green Factor score of 0.55 (0.25 for industrial and warehouse uses)</p> <p>OR</p> <p>A minimum of at least 40% of the total site coverage area (20% for Industrial or Warehouse) must comprise green cover (external landscaping) that delivers at least one of the following:</p> <ul style="list-style-type: none"> • A minimum of 65% of the required green cover area as new or existing canopy planting and a minimum of 35% as understory planting. Canopy planting and understory planting can overlap. • Species selection and associated planting arrangement comprising native and / or indigenous species which provides habitat for native fauna. • Green cover which is located to provide maximum benefit in relation to the cooling of the adjoining public realm. Green walls or facades under this pathway must benefit the public realm and be on the lower levels of the building. 	<p>If using the Green Factor Tool (GFT), the final score report which is generated would be provided allowing the Standard to be easily assessed.</p> <p>If alternate measures are proposed to meet the Standard then this would be documented on the relevant plans, including planting schedules. Guidelines would be needed to provide additional detail as to the parameters of how the alternate pathway would be assessed (i.e. lower levels are up to three storeys etc).</p>	1, 2, 3, 5

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

<p>S24 Green infrastructure should:</p> <ul style="list-style-type: none"> • Support the creation of complex and biodiverse habitat. • Provide a layered approach, incorporating both understory and canopy planting. • Provide either native, indigenous and/or climate change resilient exotic plants that provide resources for native fauna. • Support the creation of vegetation links between areas of high biodiversity through planting selection and design. • Ensure species selection is appropriate to address expected future climate conditions. 	<p>As per some earlier standards, a 'checkbox' approach within the SMP template could provide an easy mechanism for assessment.</p>	<p>1, 2, 3, 5</p>
<p>S25 Siting of buildings should seek to retain existing mature canopy trees (excluding invasive species) or significant areas of other green cover which contribute to biodiversity corridors and habitat.</p>	<p>Existing trees would be shown on plans. Any removal of mature canopy trees would need to be justified as part of any application. Guidelines would make clear the parameters what appropriate responses may be in different circumstances. This could addresses approaches based on preferred densities, location of trees on lots etc. If trees are proposed for removal an arborists report would form part of application requirements.</p>	<p>1, 2, 3</p>
<p>S26 Development should ensure appropriate measures are integrated to support the establishment and ongoing maintenance of landscaping</p>	<p>Review of landscape plans and any associated material should detail proposed measures (noting crossover with IWM requirements).</p>	<p>5</p>



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEME: CLIMATE RESILIENCE

Objectives

- .1 To improve the resilience of the built environment to climate change related hazards and natural disasters.
- .2 To deliver development that reduces the urban heat island effect.

Standards	Assessment process	Objectives
<p>S27</p> <p>New development should demonstrate that future climate impacts have been considered and addressed in any design response.</p>	<p>Applicants would be required to prepare a Sustainability Response Plan, similar to existing Design Response Plans, which identify the future climate impacts. Impacts would be as per State of the Climate reports. This plan would summarise impacts and then identify proposed responses which would be outlined in more detail in SMPs. Guidelines could provide further information of the impacts that would need to be considered and what potential responses could include.</p>	<p>1, 2</p>
<p>S28</p> <p>Provide at least 75% of the development's total site area with a combination of the following elements to reduce the impact of the urban heat island effect:</p> <ul style="list-style-type: none"> • Green infrastructure. • Roof and shading structures with cooling colours and finishes that have a solar reflectance index (SRI) of: <ul style="list-style-type: none"> • For roofing with less than 15 degree pitch, a SRI of at least 80. • For roofing with a pitch of greater than 15 degrees, a SRI of at least 40 • Water features or pools. • Hardscaping materials with SRI of minimum 40. 	<p>The total 75% area would be documented on the Sustainability Response Plan, allowing for easy assessment as per current documentation of permeability requirements under ResCode.</p>	<p>1,2</p>
<p>S29</p> <p>Pedestrian pathways should be designed with thermal comfort in mind. This includes incorporating landscaping (tree canopy and other vegetation), shading and covered structures.</p>	<p>Plans would allow easy assessment of whether pedestrian paths incorporate responses to urban heat.</p>	<p>1,2</p>

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEME: INDOOR ENVIRONMENTAL QUALITY

Objectives

- .1 To support development that achieves safe and healthy indoor environments, specifically addressing:
 - Thermal comfort
 - Thermal safety
 - Access to clean, fresh air
 - Access to daylight and sunlight
 - Harmful indoor air pollutants
- .2 To deliver development that considers the impact of future climate conditions on indoor environment quality.

Standards	Assessment process	Objectives								
<p>S30</p> <p>Buildings should be designed to be able to provide appropriate levels of thermal comfort without reliance on mechanical heating and cooling systems, as follows:</p> <table><tr><th>DEVELOPMENT</th><th>REQUIREMENT</th></tr><tr><td>Single dwellings Two or more dwellings on a lot</td><td>All habitable rooms should be cross ventilated.</td></tr><tr><td>Apartment development Residential Buildings</td><td>60% of all apartments should be effectively naturally ventilated, either via cross ventilation, single-sided ventilation or a combination At least 40% of apartments on every floor to be cross ventilated</td></tr><tr><td>Non-Residential development</td><td>All regular use areas of non-residential spaces should be effectively naturally ventilated; or commensurate mechanical measures provided.</td></tr></table>	DEVELOPMENT	REQUIREMENT	Single dwellings Two or more dwellings on a lot	All habitable rooms should be cross ventilated.	Apartment development Residential Buildings	60% of all apartments should be effectively naturally ventilated, either via cross ventilation, single-sided ventilation or a combination At least 40% of apartments on every floor to be cross ventilated	Non-Residential development	All regular use areas of non-residential spaces should be effectively naturally ventilated; or commensurate mechanical measures provided.	<p>Plans should document proposed flow paths allowing for assessment of ventilation. Guidelines should make definitions of cross and single side ventilation clear.</p>	1
DEVELOPMENT	REQUIREMENT									
Single dwellings Two or more dwellings on a lot	All habitable rooms should be cross ventilated.									
Apartment development Residential Buildings	60% of all apartments should be effectively naturally ventilated, either via cross ventilation, single-sided ventilation or a combination At least 40% of apartments on every floor to be cross ventilated									
Non-Residential development	All regular use areas of non-residential spaces should be effectively naturally ventilated; or commensurate mechanical measures provided.									
<p>S31</p> <p>Buildings should achieve a daylight level across the entirety of every habitable room of 100 lux and of 50 lux across the entirety of any other regularly occupied space.</p>	<p>Proposed lux levels should be documented in the SMP. For larger and more complex development, application requirements would include specialist reporting.</p>	1								
<p>S32</p> <p>Internal spaces in buildings should utilise natural light to minimise the use of artificial lighting during daylight hours, unless the proposed use of the room is contrary to the provision of glazing.</p>	<p>Standard application plans such as elevations would be used to assess this Standard.</p>	1								

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

<p>S33 Primary living areas of at least 70% of all dwellings in a development should achieve direct sunlight for 2 hours on the 21st day of June to at least 1.5m deep into the room through glazing.</p>	<p>Extent of sunlight through glazing could be documented on plans. Guidelines could show how this should be demonstrated, and detail considerations in calculating solar access. For larger and more complex development, application requirements would include specialist reporting.</p>	<p>1</p>
<p>S34 Development should include openable external windows to circulation corridors and lift lobbies to facilitate natural ventilation for residential development below six storeys.</p>	<p>Plans notate openable windows.</p>	<p>1, 2</p>
<p>S35 Development should use materials which are low toxicity in manufacture and use, and that do not cause harm to people or ecosystems.</p>	<p>Guidelines would list materials to be avoided and cross references could occur with Materials and Finishes specification.</p>	<p>1</p>



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

THEME: WASTE & RESOURCE RECOVERY		
Objectives		
<p>.1 To facilitate development that supports functional waste recovery and management.</p> <p>.2 To enable the continuous improvement of sustainable waste management and resource recovery</p>		
Standards	Assessment process	Objectives
<p>S36</p> <p>Development should include:</p> <ul style="list-style-type: none"> Adequate waste and recycling infrastructure to manage the waste demand of the development in a sustainable manner and to support recycling, such as an appropriate number of bins, waste chutes, and cleaning facilities. Waste and recycling infrastructure and enclosures which are: <ul style="list-style-type: none"> Adequately ventilated. Integrated into the design of the development. Located and designed for convenient access by occupants and made easily accessible to people with limited mobility Signposted to support recycling and reuse. Adequate facilities or arrangements for bin washing. 	<p>A Waste Management Plan would be required as part of application requirements for applications other than single dwellings, and a template will assist easy assessment against aspects of the Standards.</p>	1
<p>S37</p> <p>Development should be designed to facilitate:</p> <ul style="list-style-type: none"> Collection, separation and storage, and where appropriate, opportunities for on-site management of food waste through composting or other waste recovery as appropriate. Collection, storage, and reuse of garden waste, including opportunities for on-site treatment, where appropriate, or off-site removal for reprocessing. Collection and storage of glass recycling Collection and storage of containers under any Container Deposit Scheme as appropriate for the proposed use and scale. The provision of adequate circulation space on site to allow waste and recycling collection vehicles to enter and leave the site without reversing. Waste and recycling separation, storage and collection designed and managed in accordance with an approved Waste Management Plan, if required by the responsible authority. For apartment development, the provision of space for communal storage of additional waste streams including E waste, hard waste and textiles. 	<p>A Waste Management Plan would be required as part of application requirements for applications other than single dwellings, and a template will assist easy assessment against aspects of the Standards.</p>	1
<p>S38</p> <p>An application should demonstrate through the provision of a Construction / Demolition Waste Management Plan, if required by the Responsible Authority, that all practical and feasible practices and activities to minimise waste and increase resource recovery will be implemented.</p>	<p>The required CMP, and associated template would support assessment.</p>	1

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

2.1.1 OTHER STANDARDS

It is noted that a number of other Standards were initially proposed as part of this amendment. Some of these initial Standards will inform updates to BESS (CASBE's sustainability rating tool) or relevant Guidelines, while others may form part of a future planning scheme amendment when further work has been undertaken.

The Standards which were not pursued at this point in time related to:

ENERGY

- Improvements on NCC for commercial energy efficiency.
- Glazing specifications.
- Airtightness requirements.
- Penetration points in insulation.
- Appliance and system efficiency requirements.
- Electric heat pump minimum standards.
- Illumination power density of internal lighting.
- Provision of electric cooktops.
- Basement car park ventilation.
- Installation and specification of HVAC systems.
- Specific controls for energy management.
- Preparation of an EV management plan.
- Discretionary fast charging points.
- Reduction in vehicle crossover lengths.
- Efficient fixtures, appliances and fittings.

INTEGRATED WATER MANAGEMENT

- Increased permeability requirement.
- Reduction in flood impact on site and in associated context.
- Modelling of flood impacts.
- Ensuring environmental safety and human health in reuse of water.

GREEN INFRASTRUCTURE

- Retention of soil profiles.
- Provision of composting and soil conditioning.
- Provision of uncontaminated top soil.
- Landscape measures compliance reporting.

- Shared urban ecology space (including food production) requirements.
- Water supply and taps to balconies.

CLIMATE RESILIENCE

- Strengthening local community resilience.
- Blackout refuge requirements.

INDOOR ENVIRONMENTAL QUALITY

- Internal room temperature minimum and maximums for habitable rooms.
- Workplace heating requirements.
- Provision of double glazing.
- Heating and cooling load densities of habitable rooms.
- Higher provision of daylight levels to specified proportion of habitable rooms.
- Winter sun access to primary private open space.
- Provision of layered views from habitable rooms.
- Distance between fixed points of occupation (i.e desks) and glazing.
- Pollutant emissions of engineered wood, carpet, paint and sealants and other materials.
- Olfactory comfort in non-residential development.
- Land use directives for development within proximity of main roads truck routes and diesel train corridors and other sources of pollution.
- Specific technical requirements for development within proximity of main roads truck routes and diesel train corridors.

WASTE & RESOURCE RECOVERY

- Onsite reuse of materials.
- Private waste contractor resource diversion.
- Onsite versus street collection of waste and street space allocation.
- Internal waste storage space (dwellings).
- Provision of charity donation bins.
- Waste capacity for peak demand times.
- Odour impacts of waste collection vehicles.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

2.2 ASSOCIATED MATTERS

2.2.1 DEFINITIONS

While planning should always be drafted in plain English, in the case of ESD, this can often mean including reference to specific elements, for example “green infrastructure” or “Solar Reflectance Index (SRI)”. It is important that there is a consistent understanding of these terms.

There are two options for including definitions. They could be included within the provision itself (which is standard practice) or they could be included in a Glossary which is an Incorporated Document within the schemes. If further consideration or legal advice suggests only a small number of terms would require statutory weight then the definitions could be included within the provision. If however, there are a large number of terms requiring definition with statutory weight, then the Incorporated Document is the preferred approach as it is considered that most of the terms are unlikely to require an ‘explanation’ for most users of the scheme. Specific definitions are relevant only when a Councils definition of them (for example) as included in the proposed Policy Document) is challenged in a legal setting. In that scenario, the statutory weight accorded to a definition included as an Incorporated Document becomes important. If agreed State definitions are introduced through Clause 73 then these definitions may not be required.

Terminology included within the proposed Standards which may benefit from definition include:

- Net zero carbon performance
- Operational energy use
- Residual carbon emissions
- Embodied carbon
- Green infrastructure
- Green cover
- Solar Reflectance Index (SRI)
- Net Leasable Area (NLA)
- Available unencumbered roof area
- Peak visitor capacity
- Regular occupants
- Total site area
- EV ready
- Mature canopy trees
- Regularly occupied spaces

2.2.2 INFORMATION REQUIREMENTS

The review also identified other considerations and associated requirements which may be needed to support planners, and other relevant officers or decision-makers, in assessing the various Standards.

Generally speaking, it is considered that the *content* required to undertake an assessment against these Standards is likely to be similar across all scale and types of development. What is likely to differ is the *scope and level of detail of information* provided under relevant themes.

New format Local Policy does not allow for the identification of application requirements. Consistent with the *Planning and Building Approvals Process Review* undertaken in 2019 by Better Regulation Victoria, application requirements should be identified by councils external to planning schemes.

While this approach is supported, it is also important to ensure that it is clear to applicants what information is required to allow decision-makers to assess their proposal against relevant Standards. This need is reflected in proposed changes to ResCode (*Improving the operation of ResCode*, 2021) which retains the Information Requirements against the various Standards contained within those Clauses. If such a model is adopted then relevant requirements should be integrated into the provision.

While relevant documents such as Sustainability Management Plans (SMPs) are sometimes provided only as Permit Conditions, it is considered that in delivering these Standards, councils will need additional information to be able to efficiently assess the Standards. Upfront provision of such documents also signals the importance of integrating their content with the overarching design of any development, rather than ESD measures being an ‘add-on’.

There are significant opportunities to streamline the required information pertaining to other parts of the scheme (for instance Water Sensitive Urban Design / Integrated Water Management requirements) into a single document, reducing complexity and avoiding contradictions. Well-considered structuring of a shared templates for participating councils will also significantly improve consistency and transparency for applicants in required ESD information.

Developing templates will not only support council staff in ensuring that the ‘right’ information is provided upfront, reducing the need for Requests for Further Information, but will also assist applicants (particularly those who may not be frequent users of the planning system) in understanding what material needs to be provided and what council will be considering during any assessment phase.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Sustainability Management Plan

As noted earlier, this is a key document and should be seen as an 'automatic' requirement similar to the requirement for an Urban Context Report for apartment development. A refresh of these key documents as part of this process is suggested. This would allow the development of a consistent template, and also make clear the level of expectation in terms of content for differing scales of development. A Practice Note on the preparation of an SMP would also be of benefit.

Sustainability Response Plan

In addition to the more detailed SMP, it is suggested that all development should include within their set of plans a 'Sustainability Response Plan', modelled on the current Design Response required under ResCode - with a focus on responding to existing and future environmental conditions rather than neighbourhood character. This would not be a replacement for the more detailed SMP or the inclusion of relevant elements on other plans, but a way of bringing upfront acknowledgement of the climatic and other environmental conditions to which the design of any building should be responding to. It would provide a summary of key elements of the design response relevant to sustainability on a single plan.

In addition, a number of other reports are likely to be required to allow assessment. These are discussed briefly below:

- A **Waste Management Plan** (WMP) which deals with how operational waste will be managed on the site should be required for all development, other than single dwellings or two dwellings on a lot. As part of reducing complexity and ensuring the burden on applicants is not unreasonable, templates for smaller scale development should be considered to allow applicants to provide this information without the need to employ specialist waste experts. This 'template' could also be used to convey 'best practice' to applicants and educate them in effective ways of managing their waste. For larger scale developments more typical WMPs would still be required, with relevant updates and endorsement to follow as part of any issue of permit, as per current practice.

- In addition to operational waste, construction (and in relevant cases where a permit is triggered, demolition) waste is also a key source of landfill. While some targets proposed have sought specific landfill diversion targets etc, the diversity of areas covered by the councils affiliated with these Standards means a flexible approach is more appropriate. Permit Conditions now often require **Construction Management Plans** for larger scale development and similar application requirements are embedded in other parts of the scheme (i.e. requirement that the application describes how the site will be managed prior to and during construction periods at Clause 53.18) - such requirements could be integrated with this requirement, and this integration communicated through Application Requirement guidelines. Similar to the approach proposed to WMPs it is suggested that a template for the management of construction waste, including tips for best practice could also be adopted.
- Although again, increasingly standard practice, it will be important that a **Landscape Plan**, and associated maintenance plan for larger scale development is also submitted with any applications. See discussion on Guideline Material for more detail.

Finally, it should be made clear through any Application Requirement guidelines that all relevant ESD content should be shown spatially on plans where relevant to ensure they are carried through all stages of the construction process. As part of a 'support package' for implementation of any amendment, Application Requirement guidelines could be prepared which could be used by all councils who apply the seek to integrate the Elevated ESD Standards in their schemes.

2.2.3 PERMIT CONDITIONS

As outlined in Section 3.7 of this report, Permit Conditions will be critical in ensuring objectives for net zero operational energy. The proposed requirement for Sustainability Certificates at Construction and Operational stages would need to be included as Permit Conditions.

There are also a number of other matters which would need to be addressed as Permit Conditions to effectively implement the proposed Standards. While many of these are already applied by some councils, again, a consistent approach across all councils applying the Elevated ESD Standards would be highly beneficial.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Other matters to be addressed by Permit Conditions would include:

- Endorsement of the SMP (including EV management and also IWM) prior to construction commencing.
- Endorsement of the Construction / Demolition management plan (if required) prior to construction commencing.
- Endorsement of the WMP prior to construction commencing.
- Endorsement of Landscape Plan/s and associated Maintenance Plan (if required) prior to construction commencing.
- Endorsement of any Green Travel Plan, if relevant and not integrated into the SMP.

2.2.4 GUIDELINE MATERIAL

As noted in the Peer Review of the Standards, a number of the initial standards and some of the more 'technical' details are suggested for inclusion in a document which sits outside planning schemes.

A **Guidelines for Sustainable Building Design** document is recommended which could be used consistently by all councils who apply the Elevated ESD Standards, and could be included as a Background Document in relevant schemes. This could provide more explicit technical information, appropriate alternatives for responding to performance criteria, and real life case studies. Its inclusion as a Background Document may provide the flexibility for it to be included (similar to the Best Practice Environmental Management Guidelines) in a manner which allows it to be updated over time as technology changes (i.e. "or as updated"), ensuring the technical recommendations are consistent with any contemporary best practice.

These Guidelines could provide not only clear direction as to options for delivering the Standards, but could also clearly articulate expectations at different scales of development. This confusion about expectations from different councils is a key issue for applicants, as a lack of understanding of what may be expected in the 'ESD' space can act as a significant barrier. Guidelines can assist with breaking down this barrier. Importantly, the Guidelines should be structured and drafted to directly relate to the content within the schemes which would be assessed through any approval process.

Areas relevant to the proposed Standards which could benefit from coverage in any guidelines include:

- SMP content, outlining expectations of a SMP and the level of detail required for different development. This could then link directly to different thematic headings where common issues, helpful tips and best practice case studies are documented.
- Landscape plans & maintenance plans, in particular requirements at different scales and references to other key resources (such as the City of Melbourne Green our City resources).
- Best practice case studies of construction waste management.
- Guidelines for designing for adaptation or 'design for disassembly' for different typologies.
- How to maximise available roof space for solar and options for managing competing space requirements.
- Expectations around EV infrastructure, including addressing tricky issues like how EV infrastructure might be integrated with car stackers.
- Guidelines for ventilation, across all typologies and tips for addressing common issues.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.0 IMPLEMENTATION CONSIDERATIONS

This part of the report addresses a number of specific questions posed in the project brief. They include the following:

Advise on what proportion of technical information can be contained within the draft objectives and standards, and what proportion would be better located elsewhere..

Advise on how other external references such as incorporated documents, background documents and reference tools could be utilised to deliver the best format and structure.

Review proposed staged triggers for the planning scheme amendment. Consider the value of this as a tool for implementing the more ambitious and challenging aspects of the proposed objectives and standards.

Consider whether these staged triggers could be exhibited and published as part of one planning scheme amendment, rather than a series of amendments.

To assist the analysis, consider the proposed planning mechanisms in context of the eight development typologies included below to ensure an adequate cross section of development typologies across Victoria are represented to demonstrate net community benefit of sustainable resilient built environments.

Advise on suitable application documentation, such as Sustainability Management Plan (SMP) being suitable for initial development application and assessment.

Advise on suitable operational evidence and reporting options, by referring to previously completed legal advice from Maddocks and consider how best to administer new provisions notably the operational aspects of the zero-carbon performance standard including ongoing operational purchasing of renewable energy, by considering the following;

- i. Use of SMP and planning permit conditions to set ESD performance standards, including new zero carbon standards.*
- ii. Use of s173 agreements, Owners' Corporation Rules, Tenancy agreements or other devices to require renewable energy purchasing for the life of the building.*
- iii. Use of Implementation Reports, similar to Operational Waste Management Plans,*
- iv. Other alternative reporting, submission or assessment mechanisms as necessary.*

3.1 TECHNICAL INFORMATION WITHIN OBJECTIVES AND STANDARDS

A question posed in the brief was to:

Advise on what proportion of technical information can be contained within the draft objectives and standards, and what proportion would be better located elsewhere.

The initial draft of the elevated standards circulated with the brief contained considerable detailed technical information and reference to technical requirements and standards. Examples include:

- *Buildings must be designed, constructed and tested to achieve a maximum air permeability of 5 m3/hr.m2 when tested at 50 Pa.*
- *Electric heat pump hot water must have a COP of at least 3.0 at winter design conditions or within 85% of most efficient system available.*
- *Infrastructure and cabling (without the EV charger unit) is to be provided for each garage, to support a minimum Level 2 (Mode 3) 7kW 32Amp EV car charging.*

It also included reference to some sustainability assessment tools such as the Green Factor Tool and NatHERS.

Planning is the first stage of the approvals process for the construction buildings. Initially the planning process dealt with basic issues concerning the use and the development of land (i.e. the construction of buildings and works). In relation to buildings, it focussed on the basics of siting, form and design, and the impacts of buildings on their surrounds.

The building system deals with more detailed technical information that sets minimum requirements for safety, health, amenity and energy efficiency in the design and construction of new buildings.

Over time, increasingly more detailed and technical information has been incorporated into planning schemes. This is largely because the building process focusses on minimum standards whereas the planning process provides the opportunity to implement higher than minimum standards. This is particularly relevant in relation to sustainability standards.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

The outcome is that additional technical expertise and specialised tools are required to assess planning permit applications. Sustainability engineers and other more specialised areas of expertise, and documents that relate specifically to sustainability, such as Sustainable Design Assessments and Sustainability Management Plans, are now required as part of the planning permit application and assessment process.

The proposed elevated ESD Standards contain considerable additional technical information in relation to requirements to be met for sustainable buildings. In deciding on the type of technical information appropriate to include in planning policies and controls, the following principles should be applied:

- The information must assist in realising a planning objective.
- The information must assist in determining whether a development meets stated objectives or requirements contained in a planning control.
- The information must be from a verified and legitimate source that is recognised by the planning system.
- The information must be understood and be capable of being measured, applied and assessed by professionals that are commonly involved in assessing planning permit applications, both within local government and the development industry.
- Should not replicate standards included in other legislation.

It is considered appropriate for technical information that complies with the above principles to be included in objectives and standards in any provisions proposed to be included in planning schemes.

3.2 USE OF EXTERNAL AND OTHER DOCUMENTS

The project brief seeks advice on:

... how other external references such as incorporated documents, background documents and reference tools could be used to deliver the best format and structure.

3.2.1 DOCUMENTS REFERRED TO IN THE VPPS

Planning Practice Note 13 Incorporated and Background Documents explains the role of external documents in planning schemes. Two options exist in relation to referencing external documents in schemes:

- Incorporated documents.
- Background documents.

Incorporated documents

Incorporated documents are documents that are essential to the function of planning schemes. Incorporated documents form part of planning schemes. They carry the same weight as other parts of the scheme. An incorporated document can only be changed by a planning scheme amendment. It can include planning controls and requirements and can trigger the need for a planning permit.

An incorporated document must be listed in Clause 72.04 of the VPPs, which provides a list of all documents that are incorporated into a scheme.

There is a strong preference as part of the planning reform process underway in Victoria, to simplify and streamline planning provisions. The aim is for all planning requirements to be included within planning schemes rather than in incorporated documents, wherever possible.

Principles for including technical details in the VPPs

- Must assist in realising a planning objective.
- Must assist in determining if a development meets stated objectives or requirements.
- Must be from a verified and legitimate source.
- Must be understood and be capable of being measured, applied and assessed by professionals involved in assessing planning permit applications.
- Should not replicate standards included in other legislation.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

It is not considered necessary to include an incorporated document into the VPPs to implement the proposed Standards as part of this project. All relevant provisions related to elevated ESD Standards for sustainable buildings can be included in appropriate controls within the framework provided by the VPPs, such as particular provisions. See also discussion on Definitions (at Section 2.2.1) which identifies one potential use of an Incorporated document that may be considered.

Background documents

Background documents are documents that are referred to in planning schemes but which are not actually part of schemes.

They are documents that may provide useful background advice to applicants or that assist in understanding planning scheme requirements, why particular requirements are included in the planning scheme, substantiate issues or provide background to specific decision guidelines in local planning policies or schedules. The substantive planning elements of background documents are generally included within the planning scheme itself.

Background documents must be listed in Clause 72.08 of the VPPs. As set out in that clause a background document is one that may:

- Have informed the preparation of, or an amendment to, the planning scheme;
- Provide information to explain the context within which a provision has been framed; or
- Assist the understanding of the planning scheme.

The key documents and key tools that are referred to in any proposed planning provision included in the VPPs as part of this project, will need to be listed as background documents. An example of this might be the proposed *Guidelines for Sustainable Building Design*.

3.2.2 SUSTAINABILITY TOOLS

The proposed elevated ESD Standards include reference to external tools and other published standards such as:

- NatHERS – The National House Energy Rating Scheme, which measures the energy efficiency of dwellings.
- The Green Factor Tool, developed by the City of Melbourne (currently in a voluntary pilot phase) to deliver green infrastructure in line with international best practice.

It is commonplace for planning schemes to refer to external tools to be used in the assessment of planning permit applications. Tools that are presently commonly referred to in planning schemes include:

- NatHERS.
- Green Star.
- The Built Environment Sustainability Scorecard (BESS) tool.
- STORM and MUSIC – Calculators used to model stormwater treatments for small subdivisions (STORM) and more complex projects (MUSIC).

Application of external sustainability tools in planning schemes has been considered and supported by Planning Panels Victoria in a number of key panel hearings in relation to planning scheme amendments:

- Environmentally Efficient Design Local Policies, Planning Panels Victoria 2014
- Fishermans Bend Planning Review, Planning Panels Victoria, 2018

In both cases the committees / panels supported reference to various sustainability tools within planning policies in planning schemes. The amendments have since been approved.

Various approaches have been used to reference tools in existing planning schemes:

- Some tools are listed as reference documents (i.e. Melbourne Planning Scheme, Clause 22.19-7, Port Phillip Planning Scheme Clause 22.13-6, Manningham Planning Scheme, Clause 22.21-6).
- In some cases they are 'defined' in local policies (i.e. Melbourne Clause 22.19.8).
- In others that are included as policy guidelines (i.e. Moreland).

None of the documents mentioned above are presently listed as background documents in Clause 74.08 of those planning schemes. This is probably because the schemes were amended prior to the VPPs being reformatted as a consequence of Amendment VC148.

It will be necessary to list any sustainability tool directly referred to in any proposed planning provisions within the actual provision and also in Clause 74.08 of the VPPs.

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In the case of the Green Factor Tool, it is noted that current testing is underway to ensure it broader applicability beyond an inner city context. It will also be important to provide a level of transparency in the content of any tool referenced in the planning scheme. This may be addressed through a current review of governance arrangements, but alternatively the relevant Standard could include a 'date' thereby ensuring that any change to the tool from that identified time would require a planning scheme amendment to carry statutory weight. This would ensure relevant 'checks and balances' are in place.

Principles for including references to external tools in the VPPs

- It will be necessary to list any sustainability tools referred to in the planning provisions as a background document
- Any tool would need to be transparent in relation to the content against which any application would be assessed.

While considering the use of external tools it is pertinent to also note some further work which could be undertaken in this area. While current practice to refer to a variety of tools that can be used to support assessments has many benefits, there is the potential for a more streamlined approach to the use of external tools which would be beneficial.

Given the role that CASBE plays in leading both this amendment project and in the governance of the BESS tool, the benefits of more widespread use of that tool is noted. While this is happening to a degree naturally due to the ease of use and the alignment of the tools with requirements of existing Local ESD policies, it should be encouraged. If possible, further liaison should occur with the State government around issues of governance and responsibilities for maintenance. These discussions around governance of external tools will also likely be important in generating support at State level for tools such as the Green factor Tool.

There may also be benefit in some clearer articulation of the different tools currently referenced in planning schemes and their role through a Planning Practice Note. This could provide clarity for planners, many of whom may benefit from a greater understanding of, for example, what NatHERS does, as opposed to more holistic tools such as BESS or Green Star. Such a note may also allow for the identification of preferred tools, while leaving open the opportunity to utilise other tools where appropriate.

3.3 PLANNING PRACTICE NOTES

Planning Practice Notes give advice about how to prepare, apply and use planning provisions contained in planning schemes.

A wide range of planning practice notes that have been prepared by DELWP for a wide range of issues. They generally relate to statewide issues.

No planning practice note has been prepared to date that explains the sustainability initiatives that presently exist in planning schemes and how such matters are to be taken into account in the assessment of planning permit applications.

Benefit would exist in the Department preparing a planning practice note in relation to sustainable buildings. The practice note could:

- Explain the policy context and justification for sustainability requirements for buildings.
- Explain the relationship between the proposed statewide building sustainability requirements and the elevated sustainability standards proposed to be included in planning schemes as a consequence of this project.

3.4 SUSTAINABILITY GUIDELINES

The initial list of elevated ESD Standards generated by the client, upon which this project is based, was extensive. It included many initiatives that were not appropriate to be included in a planning provision as Objectives or Standards but which were good design ideas to improve the sustainability of buildings.

Merit exists preparing a separate detailed document called *Guidelines for Sustainable Building Design*. That document could be listed as a background document in the VPPs and / or referenced in the proposed particular provisions recommended to be included into the VPPs as part of this project.

The guidelines would provide additional sustainability advice and guidance beyond that contained in the particular provision itself. It could operate in a similar fashion to the *Urban Design Guidelines for Victoria* which were prepared by DELWP and which are a reference document in all planning schemes through the state.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.5 PERMIT TRIGGERS

Generally the VPPs provide the opportunity to impose requirements on development that needs a planning permit. The VPPs do not generally provide the opportunity for standards to be imposed on development that does not require a planning permit. Exceptions to this do exist. It is not recommended that an exception be pursued for the purpose of implementing sustainable building standards. The preferred approach to apply sustainability standards to developments that do not require a planning permit would be:

- Via the National Construction Code.
- Via public education and a voluntary approach. The design guidelines referred to in the previous section could be made available to the general community, builders and designers.

Planning permits are required for most buildings and works undertaken in most zones. Noticeable exceptions include:

- Single dwellings on standard size lots (i.e. 300 to 500 sqm or more).
- Public buildings in public use zones such as universities, hospitals, local government building etc, on land that is zoned for public purposes.

3.5.1 ZONES AND OVERLAY TRIGGERS

The requirement for a planning permit for buildings and works arises from the VPPs provisions from either:

- Zone controls.
- Overlay controls.
- A particular provision.

In situations where a planning permit is not required for buildings and works by zone controls, an overlay may trigger the need for a permit. When an application under an overlay is being assessed, it is only assessed against the purpose for which the overlay has been introduced. For example:

- A single dwelling in a residential zone does not require a planning permit.
- However a planning permit is required because the land is covered by a heritage overlay.
- The only matters that can be taken into account in assessing the application, are heritage matters.
- The fact that a heritage overlay triggers the need for a planning permit, would not enable sustainability requirements contained in a particular provision to be imposed.

3.5.2 VICSMART

VicSmart is a fast track process for assessing planning permit applications that are triggered by other requirements of the VPPs – either zone or overlay requirements. VicSmart provisions do not trigger the need for planning permits in their own right.

One of the features of the VicSmart process is that the matters to be taken into account when assessing a planning permit application, are limited to only those specified for that type of application (i.e. decision guidelines). Sustainability requirements contained in a particular provision, could only be taken into consideration in assessing a VicSmart application, if they were specified as a VicSmart decision guideline for that class of application in the scheme (either as a standard requirement or as a local requirement).

Most development that has been identified for assessment via the VicSmart process, is smaller types of development or extensions. In most cases, it would not be necessary to specify that sustainability considerations need to be taken into account for VicSmart applications.

Under VicSmart a council officer cannot ask for more information than the planning scheme requires. A council can only consider a local planning policy where it is included in the decision guidelines for a VicSmart class of application and included in the planning scheme.

Under the VicSmart process there is an application requirement for buildings and works pathway for a written statement describing whether the proposed buildings and works meet *“Any development requirement specified in the zone or the schedule to the zone”*. There are requirements to meet certain clauses of ResCode but energy efficiency, for example, is not one of these.

A DDO would also trigger assessment under VicSmart (and therefore not allow for consideration of local policy) in any commercial zone or a Special Use, Comprehensive Development, Capital City, Docklands, Priority Development or Activity Centre Zone up to \$500k or in an industrial zone up to \$1million

For land in a Design and Development Overlay, a written description of the proposal including *“how the proposal responds to the design objectives specified in a schedule to the overlay”* and *“how the proposal meets the requirements specified in a schedule to the overlay”*.

There is no explicit reference under VicSmart requirements that reference the need to comply with any particular provisions.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.6 BUILDING TYPOLOGIES

The brief sought advice in relation to the types and scale of development that might be used as a basis for staging:

To assist the analysis, please consider the proposed planning mechanisms in context of the eight development typologies included below to ensure an adequate cross section of development typologies across Victoria are represented to demonstrate net community benefit of sustainable resilient built environments.

The suggested typologies and scales referenced in the brief included the following:

Typology
i. Large residential mixed use development > 50 apartments and small retail
ii. Large non-residential > 2000sqm GFA office development
iii. Large industrial > 2000sqm
iv. Small multi-dwelling residential < 3 dwellings
v. Small multi-dwelling residential > 5 dwellings but less than < 10 dwellings
vi. Small residential apartment building < 10 dwellings but > 20 dwellings
vii. Small non-residential office and retail > 2000sqm
viii. Single dwelling and/or residential extensions

Another suggestion was included as part of the documentation of initial draft Standards, also attached to the brief. These differed slightly and were as follows:

Typology
Residential: 100 or more dwellings
Non-residential: > 5000sqm new floor space
Residential: 50 or more dwellings
Non-residential: > 3000sqm new floor space
Residential: 20 or more dwellings
Non-residential: > 2000sqm new floor space
Residential: 2 or more dwellings
Non-residential: > 200sqm new floor space

Building typologies shown in the first table above, categorise buildings by three land use types:

- Residential
- Non-residential
- Industrial

For non-residential and industrial development only one category was suggested, for larger developments of more than 2,000 sqm. No category was suggested for smaller developments of less than 2,000 sqm. It is noted that existing local policies for sustainable buildings in planning schemes, commonly apply to non-residential buildings of less than 2,000 sqm, often down to 50 sqm in area (i.e. Moreland, Port Phillip etc.) Local policies in the Melbourne Planning Scheme relate to offices of all sizes, although lesser standards apply to smaller offices.

There is a need for a consistent approach to classifying building typologies. Typologies used for sustainability standards should closely align with land use definitions and building types used throughout the VPPs. The VPPs define land uses and group (or nest) similar uses together in nesting diagrams contained in Clause 73.43 of the VPPs. This grouping of land uses is an effective way to categorising different groups of land uses to which the elevated ESD Standards can be applied. The recommended approach is outlined in the following table. The table:

- Lists all of the land use 'nesting groups' identified in Clause 73.04 of the VPPs.
- Identifies those groups appropriate to be subject to sustainable building guidelines.
- Identifies categories of uses with each group, where appropriate. This only relates to residential development.
- Groups together 'nesting groups' that have similar built form characteristics.
- Lists the names of the building typologies recommended to be used for the purpose of this project.
- Identifies scales of development (i.e. small or large) for typologies where it is appropriate to do so.

A number of "nesting groups" are identified in the table as not needing sustainability standards. They are generally land uses that do not rely on buildings for the use of the land. Where some buildings are required in association with the use (i.e. an office, a restaurant, a workshop, storage building etc), Standards applicable to those particular activities should be applied to those buildings. The typologies to which the elevated ESD Standards applied is likely to require further refinement during any implementation phase, particularly considering non-metropolitan contexts.

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Nesting groups	Are standards needed?	Categories within group	Similar groups	Recommended building typologies	Size classification (where relevant)	
					Small	Large
Accommodation	Yes	Single dwelling		Single dwelling		
		Multi-dwellings – other than apartments		Multi-dwellings – other than apartments	10 or less	More than 10
		Multi-dwellings - apartments		Multi-dwellings – apartments		
		Other accommodation <u>i.e.</u> corrective institution, residential aged care facility, residential building, residential village, retirement village		Accommodation (other than dwellings)		
Agriculture	No					
Education centre	Yes		Hospital	Institutional – Includes education centre and hospitals	1,000 sqm or less	Greater than 1,000 sqm
Industry	Yes		Warehouse	Industry and warehouse – <u>includes</u> storage		
Leisure and recreation	Yes		Place of assembly Transport terminal			
Earth and energy resource industry	No					
Office	Yes		Shop			
Place of assembly	Yes		Leisure and recreation Transport Terminal	Place of assembly and other gathering places – includes Place of assembly, Leisure and recreation, Transport terminal	1,000 sqm or less	Greater than 1,000 sqm
Recreational and boat facility	No					

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Nesting groups	Are standards needed?	Categories within group	Similar groups	Recommended building typologies	Size classification (where relevant)	
					Small	Large
Retail premises – other than shop	Yes		Retail premise - shop Office	Retail premises and offices	1,000 sqm or less	Greater than 1,000 sqm
Retail premises – shop	Yes		Retail premises – other than shop Office			
Transport terminal	Yes		Place of assembly Leisure and recreation			
Utility installation	No					
Warehouse	Yes		Industry			
Energy generation	No					

Table 1: Assessment of typologies



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.7 NET ZERO CARBON

A key objective of the elevated ESD Standards is to achieve net zero carbon emissions during the operational stage of buildings. If this is to be sought through the issue of the planning permit there are a number of important considerations. Any requirement of a planning permit condition / or a Sustainability Management Plan must be able to be monitored and enforced by council for it to have effect.

There are four stages of the development cycle: Design, Construction, Operation and Demolition. Planning generally deals with the first two stages – design and construction. It also deals with the third stage to a more limited degree. Permits can contain conditions that regulate the future use of the land such as hours of operation, patron numbers, compliance with EPA requirements etc.

The question is whether an objective for net zero operational carbon is appropriate or necessary to include in the elevated sustainability standards. Given this is a key objective and a strong case can be made for the built environment to deliver net zero buildings and for the role of the planning system in this, the critical question becomes, how can it be monitored and applied?

It is noted that planning regulation to ensure that new development does not contribute to increased carbon emissions is only one part of jigsaw in the current transition phase. However, planning controls are important in an efficient transition as it is well understood that embedding appropriate responses at a planning stage results in more considered and integrated responses.

One of the matters required to be taken into account by Ministerial Direction 11 – Strategic Assessment of Amendments, is the administrative burden an amendment will place on a responsible authority:

- To monitor compliance with a permit condition that required ongoing carbon emissions to be met during the operational life of a building would likely require either regular inspections from Council enforcement officers or a self-reporting mechanism like a certificate of compliance lodged by owners or tenants of the building.
- To be effective throughout the operational life of building, this would need to be done on an ongoing basis. While some typologies or developers may chose a pathway such as NABERS which includes monitoring of operational energy use, for most development, ongoing monitoring would place an unreasonable administrative burden on Councils.

It is therefore considered that the need for one certificate of compliance upon occupation of a building (i.e. within 12 months), would be sufficient to demonstrate that the requirements of a permit condition had been complied with, at least in the short term. Such a requirement is less likely to impose an unreasonable administrative burden on a Council. The process for issue of this operational certificate may also be able to be undertaken by a consolidated resource (i.e through funding of a compliance program via CASBE).

In addition, given the complexity and the varying interpretations of associated terms, statutory definition of net zero operational emissions must be included in any amendment. Any other relevant terms such as green power or offsets should also be included.

Any process for documenting and demonstrating compliance should be documented in the proposed Guidelines so this is clear to applicants. This should include the various 'options' that would be considered acceptable in demonstrating to Council the achievement of relevant standards (such as through external tools such as NABERS or GreenStar).

For applicants the process could look as follows:

1. Document proposed approach to delivery of zero carbon in the SMP, including anticipated energy efficiency, proposed onsite energy generation and proposed approach to delivery of green power (e.g. through a power purchase agreement, Section 173, GreenStar certification or other).
2. Permit conditions would be applied and updated SMP endorsed as part of the planning permit process.
3. If applicable, S173 applied (CASBE should consider development of a 'standard' S173 for consistent application) if this option is used.
4. At construction completion, an '*ESD compliance certificate: construction*' would be issued. This certificate could be issued either by Council or by a consolidated resource funded through CASBE for those councils without sufficient internal resources. Where relevant external certification could be used. This would confirm that all the proposed steps to deliver net zero outlined in the SMP had been delivered. A standard assessment template / process should be developed by CASBE.

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5. At a certain timeframe post occupancy a second certificate '*ESD compliance certificate: occupation*' would be issued. This should only occur one time, nominally 1 year post occupation. This certificate would focus on ensuring that required operational aspects of the SMP has been delivered, including relevant greenpower or purchase arrangements.

This last step has been subject to further legal advice as to how any operational compliance would operate in respect the strata titled or multi-tenancy development, where the operational components of energy use may fall outside the control of any landowner to whom the planning permit would apply. The legality of the proposed approach and applicable responsibilities has been confirmed through this advice.

Given net zero can be achieved through the purchase of GreenPower etc, without major changes to building fabric, there remains avenues to achieve compliance with the net zero objective even in a post-construction phase. Consideration should be given to the wording of permit conditions to ensure that councils can seek alternative approaches to the delivery of net zero objectives if constructed development precludes any approach which formed part of original planning approvals.

The process for assessing and issuing 'compliance' certificates should be documented to ensure this occurs in a consistent manner across all councils. This could be modelled on, or build on, the Residential Energy Efficiency Scorecard program to ensure compatibility with other programs and with NatHERS. Any process must be designed in a manner which integrates with existing processes to avoid creating additional burdens. As noted, where compliance monitoring is required at construction and operational stages, consideration should be given to whether this can be absorbed within existing regulatory processes of participating councils or through RBS processes or if a more effective approach may be through shared central or regional resources to undertake this work. It is recommended that a monitoring and review system be implemented so that common issues and levels of compliance can be tracked and processes improved or adjusted if needed.



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3.8 IMPLEMENTATION INTO PLANNING SCHEMES

A question in the brief was to:

Provide advice on the best format and location for the zero carbon and elevated sustainability outcomes in the Victorian planning scheme.

Initial policy work has indicated that a preferred location would be for a new local schedule for a new Victorian Particular Provision (VPP), from the ESD Roadmap or other (e.g. Existing or new Particular Provision addressing ESD objectives). This relies on an appropriate VPP being in place. This also assumes that any State drafted VPP changes will be of a lower standard to what is drafted as part of this project. Review and assess this position and consider whether there is another suitable place in the planning scheme that may have higher value. See DEWLP discussion paper for detail on ESD Roadmap.

Before the new VPPs are finalised, the draft planning scheme amendment is currently formatted as a Design and Development Overlay for entire municipalities. Analyse whether this is viable over all zones and land uses across the range of local government areas contained within the participating councils.

The Advisory Committee that considered the amendments exhibited by Councils in 2014, considered options as to how the provisions should be implemented. It considered the following five options:

- Incorporated document.
- Local planning policy framework.
- Amended existing particular provisions – i.e. Clause 55, 56, 58 etc.
- A new particular provision.
- Design and Development Overlays.

The committee noted that each option had advantages and disadvantages, and may be appropriate in different circumstances. However, it did not form an opinion on the most appropriate option, as the amendments before it proposed local policies.

The Table 2 on the following pages includes an updated review of options to include elevated ESD Standards into the VPPs.

A new particular provision in Clause 53 of the VPPs is considered the most appropriate way to introduce elevated ESD Standards for buildings into the VPPs. A new particular provision is considered a superior option to a DDO.

A new particular provision would work in the following way:

- It would be a freestanding Clause that would include all operational provisions required to implement the elevated ESD Standards in the one clause in the VPPs.
- This Clause would appear in planning schemes in Victoria, where a council had adopted the Clause for its municipality.
- The provision would include a list of municipalities to which the provision applies.
- Those municipalities that choose to adopt the Standards would amend their planning schemes to add the name of their municipality to the list.
- Any local policies regarding sustainable buildings already contained in municipal planning schemes would need to be reviewed and potentially deleted as part of the amendment, to avoid duplication and inconsistencies between existing policies and the new particular provision.
- If the state government introduced a separate statewide policy for sustainable buildings at a later date, both provisions could apply in a municipality. If a contradiction existed between two controls the accepted practice is that the more stringent control applies.
- There would be no need to amend other clauses that may apply to existing uses (such as Clause 55, Clause 56, Clause 58 etc).

A new particular provision in the VPPs is the most appropriate way in which to introduce elevated standards for sustainable buildings

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Location in the VPPs	Comments
Local Planning Policy	<p>Similar to the way existing sustainability requirements are implemented into many municipal schemes.</p> <p>A policy has less statutory weight than a requirement that is contained within a planning control, such as a DDO or a particular provision.</p> <p>A policy cannot be applied as a mandatory requirement or include mandatory standards.</p> <p>Conflicting policies need to be balanced in regard to net community benefit and sustainability. This may lead to policies for sustainable buildings being given lesser weight than other policies in some circumstances.</p> <p>An aim of this project is to move beyond the current policy approach and to give greater statutory weight to elevated sustainability requirements.</p> <p>Application requirements, definitions and decision guidelines cannot be included in Local Policy the new PPF format</p>
Design and Development Overlay	<p>A municipal wide DDO would be a mechanism that could be used to introduce elevated sustainability standards into planning schemes.</p> <p>DDOs can introduce planning permit triggers for buildings and works into a planning scheme that may not presently require a permit under other provisions of a planning scheme.</p> <p>Both discretionary and mandatory requirements can be included in a DDO.</p> <p>A municipal wide DDO could be crafted to relate to all land uses within a municipality, or to different uses in different parts of a municipality.</p> <p>The opportunity would exist to apply different DDOs to different zones or localities within a municipality, if there was a benefit in doing so i.e. Central City Zone, industrial zones, residential zones etc.</p> <p>The structure and set sections of a DDO schedule are not ideal and do not provide enough flexibility to achieve what is intended from the elevated targets (i.e. bicycle parking rates could not be included).</p> <p>DDOs are generally designed to apply to specific locations within a municipality and are not the preferred tool for a requirement that applies across a whole municipality.</p>
Particular Provision	<p>A particular provision would be an appropriate mechanism by which to introduce elevated sustainability standards into planning schemes.</p> <p>Generally, particular provisions are statewide provisions. They usually apply to a particular issue or to a particular type of use or development across the state, often regardless of the zoning of the land.</p> <p>Other than in a few situations where schedules exist, there is no opportunity for a local council / or groups of local Council's to introduce a new particular provision into the VPPs. However, with the consent of DELWP, it would be possible to introduce elevated ESD as a new particular provision into Clause 53 of the VPPs (i.e. General Requirements and Performance Standards). This would involve preparing a particular provision that contained a clause that stated which municipality the provision applied to. As additional municipalities adopt the elevated sustainability standards, a simple amendment would be made to the VPPs to add the name of those municipalities to the list of municipalities to which the provision applies.</p> <p>Greater flexibility exists in the structure of a particular provision than a schedule to a DDO, as the contents and structure of schedules to DDOs are set out in a Ministerial Direction regarding the Form and Content of Planning Schemes. This is not the case in relation to particular provisions.</p> <p>This approach could be presented to DELWP as a provision that will apply across the state, but only in those municipalities that choose to adopt the provision, technically meeting the test of being a statewide provision.</p> <p>Some flexibility could be included in the scheme for municipal variations and for staged implementation with municipalities, by the inclusion of a schedule to the provision if deemed necessary.</p>

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Location in the VPPs	Comments
All standards in the one place in the planning scheme or spread throughout the scheme.	<p>Preferably, elevated sustainability standards should be embedded into relevant existing provisions contained in the VPPs for particular uses or issues in a fully integrated way (i.e. Clause 52.34 Bicycle Facilities; Clause 53.18 Stormwater in Urban Areas; Clause 55 Multi dwellings; Clause 58 Apartments etc). This would remove the potential for duplication and contradictory standards between different clauses of the planning scheme and would be a better overall approach.</p> <p>This approach would only be possible where standard statewide provisions are introduced into the VPPs that apply to all municipalities from the outset. Such an amendment could include a thorough review other aspects of the VPPs that also relate to sustainability, and make consequent changes to those clauses to achieve a fully integrated outcome.</p> <p>This approach would not be practicable where elevated sustainability standards are being introduced at the municipal level, as proposed by this project. It would not be practical to amend other statewide provisions of the planning scheme (i.e. Clause 55 and 58) to include sustainability standards that only applied in specified municipalities.</p> <p>The most practical approach to include elevated standards for specified municipalities, is for all standards to be included in the one place in the VPPs, either a single particular provision (preferable) or alternatively a schedule to a DDO.</p> <p>This may result in some duplication and conflict between provisions that already exist in other clauses of planning schemes. However, such an outcome is justified in the short to medium term, until elevated standards eventually become statewide standards and any duplication is removed.</p> <p>This approach has been supported by Planning Panels Victoria in relation to Amendment C278 to the Melbourne Planning Scheme. That amendment introduced new mandatory overshadowing controls for parks throughout the municipality. Those controls contradicted numerous other specific overshadowing controls contained in numerous other schedules to DDOs throughout Melbourne. Where two contradictory controls exist, the planning principle is that the most stringent control applies.</p>
Special Control Overlay	Inconsistent with the stated purpose of the overlay.
Incorporated document	<p>Technically, elevated sustainability standards could be presented in a single document that sits outside the planning scheme but which is incorporated into the planning scheme by a planning scheme amendment.</p> <p>An incorporated document is read as if it is part of the planning scheme and it can include planning permit triggers and both discretionary and mandatory requirements.</p> <p>There is a strong preference within DELWP for planning provisions to be included in the VPPs, rather than to be included in separate free standing document, wherever possible.</p>

Table 2: Potential implementation options

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3.9 ALIGNMENT WITH STATE GOVERNMENT'S APPROACH TO SUSTAINABILITY STANDARDS

It is understood that the state government is preparing statewide standards for sustainable buildings that are likely to be included as a particular provision in the VPPs. These provisions are likely to be based on lesser targets and a lesser number of matters than the elevated targets advanced as part of this project.

This does not present an impediment to the introduction of elevated standards that can be applied in those municipalities that choose to adopt them in their planning schemes.

As far back as 2007, when one of the first reports was prepared that investigated the role of sustainability requirements for buildings in planning schemes in Victoria, it was noted that there is a valid role for local government to encourage and to trial best practice sustainability standards in municipal planning schemes. The observation was made that municipal planning schemes provide a legitimate vehicle to implement new best practice requirements, ahead of the introduction of more widespread statewide planning requirements, or ultimately requirements that might eventually be included in the National Construction Code.



Figure 1: Interaction between standards in the planning and buildings systems in Victoria

Elevated municipal targets would work in conjunction with proposed state government targets as follows:

- The elevated targets would only apply in those municipalities listed in the particular provision.
- Upon the introduction of statewide provisions by the state government, those provisions would apply in those municipalities that had chosen to adopt the elevated standards.
- In municipalities in which both sets of provisions apply, the established planning principle is that the most stringent control prevails.
- In municipalities in which only the statewide provisions applies, those provision would apply with no reference to the elevated standards.
- Over time as the elevated standards become more widely applied in more municipalities, the ambition would be that the state government would adopt the elevated standards as statewide provisions.
- In the longer term, the opportunity may exist for all or many of the standards to be adopted as requirements of the National Construction Code. This would remove the burden of requiring and assessing compliance with the standards as part of the planning process.

The advisory committee that considered a number of amendments exhibited by Council's in 2013 to concurrently implement local planning policies sustainable buildings into planning schemes, discussed the appropriateness of including local provisions for sustainable buildings in schemes, as distinct from statewide provisions. The committee supported the approach, commenting as follows:

- A statewide approach would be the most effective way to implement sustainability outcomes into planning schemes.
- In the absence of a statewide approach it is appropriate for Councils to develop local policies for sustainable buildings.
- It would be a concern if Councils adopted different approaches between municipalities.
- Until statewide policies are prepared, it is appropriate for municipalities to include a local policy in their planning schemes.
- Even if a statewide policy is introduced, local policies may still be appropriate where municipalities seek to raise the bar either in specific locations, or where the community has higher sustainability expectations.

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- There would be merit in including a sunset clause in any local policies introduced. That would enable the review of the policies in light of any statewide approach introduced. If the policies duplicated the statewide approach it would be appropriate for the local policies to be deleted. However, if the local policies went further than the statewide approach, the policies could be refined to delete areas of duplication and retain those elements that are higher than the state wide provisions.

The above comments clearly envisage a role of local sustainability standards that are higher than statewide targets. Whilst the comments were made in relation to local policies into schemes, it is considered they are also relevant to standards in planning controls, rather than policy.

3.9.2 WHERE MIGHT DUPLICATION OCCUR?

While the previous section of the report discusses the broad parameters of alignment with State level ESD standards, it is noted that as part of the second stage of the delivery of the ESD Roadmap (now scheduled for mid 2022) also identifies areas where specific Standards are being developed. The development of specific State level ESD standards means it will be important to assess any duplication or key differences to properly integrate the two processes.

Areas where specific State level standards are proposed include the following. The table includes relevant cross-references to proposed 'local' Standards:

ESD Roadmap areas of interest	Standard
Residential:	
Improved guidance on passive design including building and subdivision orientation	S3
Support for generation and deployment of renewable and distributed energy systems	S1, S6, S7
Updated development standards to minimise overshadowing	S6
Clearer guidance on assessing 'unreasonable' overshadowing of rooftop solar panels	N/A

Investigate measures to support 'solar ready' building design to support future installation of rooftop solar systems	S7
Enhance planning system guidance to support implementation of the 2018 stormwater reforms	S20, S21, S22, S23
Review measures to support water efficiency/ use of alternative water sources	S20, S21
Update of standards for apartments and developments of two or more dwellings on lot to include key elements from Sustainability Victoria's Better Practice Guide for Waste Management and Recycling in Multi-unit Developments	S37, S38
Encourage assessment of opportunities for subdivision infrastructure to facilitate small scale recycling and resource recovery technologies (e.g. reverse vending machines)	N/A
Investigate design measures to support new multi-unit developments being EV ready	S17
Review bicycle space allocation requirements and end of trip facility standards of clause 52.34	S14
Consideration of development interaction with strategic cycling corridors	N/A
Review planning policy, tools and guidance to support sustainable and active transport outcomes for land use development	S13, S14, S15, S16
Suite of planning measures to support retaining and increasing urban tree cover as further developed through the forthcoming planning response to cooling and greening	S24, S25, S26
Guidance and new planning standards to reduce urban heat exposure (in addition to tree canopy cover), including cool paving and surfaces, shade devices and water sensitive urban design	S29

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Extend apartment noise design standards to other residential developments and other noise sensitive land uses	Local Standard not pursued
Implement siting and design standards to reduce impacts of air and noise pollution from transport corridors on building occupants	Local Standard not pursued
Commercial & Industrial	
Support for generation and deployment of renewable and distributed energy systems	S1, S6, S7
Enhance planning system guidance to support implementation of the 2018 stormwater reforms (e.g. advice on treatment options to meet planning standards)	Guide only
Review how to support VicSmart processes to improve assessment of stormwater management	N/A
Adopt minimum requirements to support effective management, separation and storage of waste and recycling	S37, S38
Encourage assessment of opportunities for subdivision infrastructure to facilitate small scale recycling and resource recovery technologies (e.g. bio-digestion unit in commercial precinct)	N/A
Investigate design measures to support new developments being EV ready	S13, S17, S18, S19
Investigate measures to support new industrial developments being designed to be EV ready, where appropriate	S17
Suite of planning measures to support retaining and increasing urban tree cover as further developed through the forthcoming planning response to cooling and greening*	S24, S25, S26
Consideration of measures to support urban biodiversity	S24, S25, S26

Guidance and new planning standards to reduce urban heat exposure (in addition to tree canopy cover), including cool paving and surfaces, shade devices and water sensitive urban design ^	S29
Implement noise and air pollution siting and design standards for sensitive land uses	Local Standard not pursued

Table 3: Alignment with ESD Roadmap

3.9.3 OTHER REFORM CONSIDERATIONS

In addition to any alignment of Standard with comparable Standard, in light of ongoing programs of planning reform (see <https://reform.planning.vic.gov.au/>) it is important to also acknowledge any potential influences on recommendations which may arise.

In particular the following is noted:

- The introduction and potential expansion of the VicSmart program, which includes specification of application requirements, what can be assessed by any decision-maker and a shorter timeframe for assessment. See Section 3.5.2 for more in depth discussion of VicSmart implications
- Introduction of other streamlined planning pathways for particular types of development (such as State Significant projects etc which include similar restrictions on matters which inform any assessment of permits. In some cases this may include the turning off of other VPPs.
- Introduction of new decision-makers for some precincts or areas, meaning in some cases, local government may not be the decision-maker for applications.
- Reforms to ResCode provisions to align with future digitalisation of the system and introduction of new code assessment pathways. As part of the implementation of SMART planning objectives around digitisation, there is clear intention to deliver increased clarity to the planning system to allow some aspects to be easily assessed as part of a 'code' that increases clarity for applicants that if they commit to certain performance measures they can have greater confidence in the approval process and reduction in assessment timeframes can be achieved.

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3.10 STAGING IMPLEMENTATION

The project brief seeks advice on the following matters:

Review proposed staged triggers for the planning scheme amendment. Consider the value of this as a tool for implementing the more ambitious and challenging aspects of these proposed objectives and standards.

Consider whether staged triggers could be exhibited and published as part of one planning scheme amendment, rather than a series of amendments.

To assist the analysis, consider the proposed planning mechanisms in context of the eight development typologies included below to ensure an adequate cross section of development typologies across Victoria are represented to demonstrate net community benefit of sustainable resilient built environments.

3.10.1 A STAGED APPROACH

A staged approach to the implementation of elevated ESD Standards may be easier to gain approval from the State government, as it provides the ability to progressively introduce new standards into planning schemes over time.

However, it is recommended that the full suite of proposed elevated ESD Standards should be presented to the State Government. The package should be seen as an indication of the preferred level of building sustainability standards sought to be included in planning schemes and any changes to the proposed suite of Standards should be tested through a transparent and independent Panel process. It should be presented as the benchmark to be pursued by local government preferably also by state government. This process would also ensure the development industry and the community are aware of local government ambitions for sustainable buildings in Victoria.

If the package of standards is to be introduced in stages, the aim should be to pare back the full suite of Standards, in a number of progressive steps, with each step based on minimising the disbenefits to the community of retreating from the full suite of Standards.



SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

Options for staging the introduction of sustainability provisions

Immediate implementation of the full package of elevated ESD Standards is the preferred approach. The need to progress to a zero net carbon built environment is urgent. After a decade of debate, a staged implementation plan would result in further greenhouse gas emissions from the built environment and more buildings which may require expensive retrofitting. The elevated ESD Standards proposed are an important component in slowing climate change, which has been highlighted by the UN as critically important in the next eight years.

While the following are not considered to apply, it should be acknowledged that there is a potential rationale that may suggest a staged approach to implementation including matters such as:

- Potential political impacts of concerns from the community and the development industry about perceived additional costs and regulations, particularly around housing affordability.
- The need to give to the development industry 'time' to adapt to new requirements.
- If the complexity of assessing the benefits of some Standards makes the justification for more ambitious requirements less clear.
- To enable the time to build up resources and implement capacity building to support implementation of the Standards through assessment of planning permit applications.

However, in relation to 'staging', it must be acknowledged that the proposal to introduce elevated ESD Standards as a particular provision into the planning scheme will be a form of staged implementation in itself:

- A number of municipalities already have policies for sustainable buildings in their planning schemes. This project is advancing those existing policies, giving them greater statutory weight by making them planning requirements rather than just planning policy, and by including elevated targets and a wider range of considerations.
- The new particular provision would only apply to those municipalities that amend their planning schemes to apply the particular provision. This would result in a gradual increase (i.e. a staged implementation) in the number of municipalities that apply the provisions over time.

It is considered that the need to allow for time for adaptation is of less relevance than if an entirely new suite of controls was proposed.

If the Standards were not implemented as a single package as recommended, the following alternative approaches exist to staging the implementation of provisions:

- A transition period.
- A two tiered system.
- By theme.
- By location.
- By building use / size of development.

Transition period

This option would involve:

- The particular provision being included in the VPPs in its entirety.
- The provision being worded to the effect that "This provision will not come into effect until 1 year (or an alternative time to be determined) after the approval date. Until that time a responsible authority and planning permit applicant may agree to apply the requirements of this provision in part or in full."
- During the 'transition period' councils could seek to implement the provisions with the 'co-operation' of planning permit applicants.

This approach would lend itself to introducing the full package of requirements into the planning scheme at the outset. This would enable the development industry and community to become aware of the elevated ESD Standards and adapt to them prior to them becoming mandatory controls.

Two tier system

This option would involve wording the particular provisions to set out two different levels of standards. For example:

- Standard requirements – Standards that are based on lesser targets or a lesser number of items than included in the full package.
- Preferred requirements - The full list of elevated ESD Standards ultimately sought to be applied by the proposed particular provision.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

The particular provision would be worded to say that the 'standard requirements' apply for a specified period i.e. one year. After that period the 'preferred requirements' would apply and the standard requirements would become redundant. The provision could be worded so that the transition period applies from the 'approval date' at which each municipality amends its planning scheme to make the provisions apply to that municipality.

The consultant team has not identified which standards fall within each category. This would need to be further considered and determined by the project working group.

By theme

The proposed standards are framed around the following themes:

- Operational Energy
- Embodied Carbon
- Sustainable Transport
- Integrated water management
- Green Infrastructure
- Climate resilience
- Indoor environmental quality
- Waste and resource recovery

Implementation could be staged by theme. Those themes that are considered more critical to the issue of climate change, more consistent with existing state planning policies and those that have a higher level of strategic justification could be implemented first. Requirements in relation to other themes could be implemented over time, as State government policies evolve to provide a higher level of strategic justification for the inclusion of additional requirements into planning schemes.

Themes or standards for which there is presently insufficient supporting information to enable standards to be prepared and assessed, should be deferred from inclusion in the amendment until those matters are rectified.

By location

This option involves staging the implementation of the particular provisions for different regions within the state. Logical regions include:

- Metropolitan Melbourne.
- Municipalities comprising Victoria's main regional centres i.e. Greater Geelong, Greater Ballarat, Greater Bendigo and Latrobe City.
- The 'rest of the state'.

The particular provision could be worded so it initially only applies to municipalities within specified parts of the state i.e. metropolitan Melbourne and the municipalities of Greater Geelong, Greater Ballarat, Greater Bendigo, Latrobe Valley and Greater Shepparton. Municipalities within those parts of the state would still need to decide to amend their individual planning schemes before the provisions would apply.

Application of the elevated ESD Standards to metropolitan Melbourne and major regional cities would maximise the community benefit of the amendment, as those locations accommodate the vast majority of the state's population and the majority of new building development.

By building use and scale

The existing approach to sustainable building policies contained in a number of planning schemes, commonly applies to different land uses (i.e. residential or non-residential) and has different requirements and assessment pathways for buildings of different scales (i.e. number of dwellings or floor area).

The elevated provisions recommended as part of this project have been specifically designed to be applicable to all urban land uses and to developments of all sizes. Accordingly, there is no technical need for implementation of the provisions to be staged based on the use of the building or the scale of the development.

In linking staged implementation to different type of buildings, the aim should be to ensure that Stage 1 applies to those building types that are most commonly constructed throughout Victoria.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

It can be assumed that the value of building approvals for different types of buildings, equates to the floor area of buildings constructed, which equates to the sustainability benefits that would accrue by applying sustainability standards to those types of buildings. The following table (Table 4) summarises the value of building approvals in Victoria as at March 2020. That date has been used to avoid the impacts of Covid on the building industry. It shows the total value of construction works by building use. The building typologies that experienced the greatest value of approvals in the calendar year up to March 2020 were, in order of priority:

- Domestic (single dwellings - by far the highest value)
- Commercial
- Public buildings
- Retail
- Residential (apartments and other)
- Industrial

If a staged approach based on building typologies was to proceed, maximum sustainability benefits would be realised by applying the elevated ESD Standards based on the priorities listed above. Given that detached dwellings (i.e. domestic) do not generally require a planning permit, the greatest benefits would be achieved by a staged approach that commenced with commercial buildings (i.e. offices) and public buildings. However, at a municipal level the proportion of investment in different types of buildings varies considerably, depending on whether municipalities contain large activity centres or industrial precincts. For this reason, the first stage of sustainability standards should also be applied to residential developments (other than single dwellings).

FINANCIAL YEAR TO DATE

Period	Current Financial Year		Previous Financial Year		Analysis	
	July 2019 to March 2020		July 2018 to March 2019		% Changes	
Building Use	No. of Permits	CoW \$M	No. of Permits	CoW \$M	No. of Permits	CoW \$M
Domestic	63,848	17,900.65	68,486	18,449.07	(6.77%)	(2.97%)
Residential	582	1,134.83	580	1,224.53	0.34%	(7.33%)
Commercial	5,007	4,686.67	5,466	4,607.79	(8.40%)	1.71%
Retail	3,170	1,476.41	3,322	1,610.62	(4.58%)	(8.33%)
Industrial	1,030	822.76	961	612.59	7.18%	34.31%
Hospital/Healthcare	344	404.51	410	663.58	(16.10%)	(39.04%)
Public Buildings	2,975	2,613.29	3,116	2,369.91	(4.53%)	10.27%
Total	76,956	29,039.11	82,341	29,538.09	(6.54%)	(1.69%)

Table 4: Summary of number and value of building approvals by building use as at March 2020, Victorian Building Authority

Note: CoW stand for 'cost of works'

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.11 CAN STAGED TRIGGERS BE PART OF ONE AMENDMENT

The brief sought advice on whether the staged triggers could be exhibited and published as part of one planning scheme amendment, rather than a series of amendments.

Maddocks Lawyers addressed this issue in its advice which the consultant team has reviewed. Maddocks did not see any impediment to introducing staged permit triggers into planning schemes by way of different commencement dates for different types (and scales) of development.

3.12 RECOMMENDED APPROACH TO STAGING

The level of detail DELWP is likely to allow in any amendment will likely be a political decision. It is likely to be based on the Department's opinion about the degree that municipal sustainability standards can vary from proposed State standards, if at all. As a consequence it is not possible to recommend a definitive approach to staging at this time. However, it is recommended the following approach should be followed to resolving this issue:

- **Pursue the full suite of standards in their entirety as a starting point.** This is because there is an imperative to improve the sustainability of buildings to the highest degree possible, as soon as possible. The initial draft amendment should express the preferred optimal outcome. This will establish a starting position as the basis for discussion with the Department. It will also provide an end point to aim for, if the full suite of provisions are included in any initial amendment supported by the Department.
- **Staging of the standards should only be considered if the Department will not accept the full suite of standards.** The approach to staging that results, will depend on the variables that the department is prepared to accept.
- **Minimising the sustainability disbenefits to the community** of a staged withdrawal from the full suite of standards, should be the key guiding principle in any discussions with the Department about staging. The starting point should be the full suite of standards. Any withdrawal from that starting point, should be based on adjusting those variables that have the least impact on net sustainability outcomes, until a position of agreement is reached with the department.

It is recommended that the discussion process with the department proceeds on the following basis:

- Priority 1 – **Implement the full suite of standards** (i.e. the preferred requirements) to all building types and make the particular provision available for all municipalities across the state to adopt.
- Priority 2 – Implement the preferred standards but **vary the municipalities** that can adopt the particular provision, based on the following order of priority:
 - Municipalities in metropolitan Melbourne.
 - Municipalities containing larger regional cities: Greater Geelong, Greater Bendigo, Greater Ballarat, Latrobe, Greater Shepparton.
 - Municipalities containing major regional towns.
 - All other municipalities.
- Priority 3 – As for Priority 2 but vary the standards to only implement the **standard requirements** identified and not the preferred standards.
- Priority 4 – As for Priority 3 but only apply the standards to **larger buildings / developments**.
- Priority 5 – As for Priority 3 but limit the **type of buildings** the standards apply to, based on an agreed order of priority linked to scale of impact.

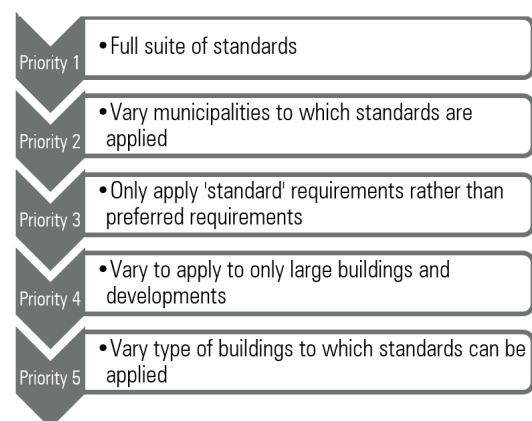


Figure 2: Priorities for stage implementation

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.11 APPLICATION REQUIREMENTS AND ASSESSMENT DETAILS

The project brief requested a response to the following questions

Advise on suitable application documentation, such as Sustainability Management Plan (SMP) being suitable for initial development application and assessment.

Advise on suitable operational evidence and reporting options, by referring to previously completed legal advice from Maddocks and consider how best to administer new provisions notably the operational aspects of the zero-carbon performance standard including ongoing operational purchasing of renewable energy, by considering the following:

- i. *Use of SMP and planning permit conditions to set ESD performance standards, including new zero carbon standards.*
- ii. *Use of s173 agreements, Owners' Corporation Rules, Tenancy agreements or other devices to require renewable energy purchasing for the life of the building.*
- iii. *Use of Implementation Reports, similar to Operational Waste Management Plans,*
- iv. *Other alternative reporting, submission or assessment mechanisms as necessary.*

Whilst there is some variation between different municipalities, existing policies regarding sustainable buildings contained in planning schemes generally refer to two key documents:

- A Sustainability Design Assessment (SDA) for small scale developments – provides a simple assessment that can generally be prepared by a specialist.
- A Sustainability Management Plan (SMP) – provides a more detailed assessment of a development that generally needs to be prepared by a specialist consultant.

These documents have an established place in the planning permit process that is generally accepted by the industry and by planning practitioners. It is appropriate that the use of these documents continue in any approach recommended as part of this project. However, given the aim of the project to include higher standards of sustainability into planning scheme than in the past, the use of more basic Sustainability Design Assessment is unlikely to be appropriate in assessing applications under the proposed new planning provisions.

Sustainability is relevant at four stages of the development process of buildings:

- Permit application stage – To ensure that the design of a building complies with all relevant sustainability policies and requirements contained in a planning scheme.
- Construction stage – To confirm that all sustainability initiatives required to include in a development have actually been built into the development.
- Ongoing operation stage – To confirm that a building is being operated in accordance with any requirements included in the initial sustainability management plan, which are relevant to the ongoing operation of a building.
- Demolition stage – To confirm waste minimisation and maximisation of the reuse of buildings materials.

Maddocks Lawyers were asked to provide advice in relation to the legality of requiring sustainability management plans or the like, at each of these three stages of the process. Their advice was that it is possible to require management plans or like at each stage, provided that the need for such was clearly expressed as a requirement in the planning provisions to be included in planning schemes. If the requirement for such documents is contained in a planning control, the documents that can only be prepared after a planning permit has been issued, can be required either by a planning permit condition or a Section 173 Agreement.

While Section 2.2.1 of this report addresses proposed application requirements, the following discussion addresses the questions contained in the brief more specifically.

3.11.1 SUSTAINABILITY MANAGEMENT PLAN

A Sustainability Management Plan (SMP) should be required to be lodged with a planning permit application. The plan should address sustainability requirements at the permit application, construction and operational stages of a development.

If the plan lodged with a planning permit application is not adequate, either a request for further information can be made to rectify the deficiencies, before a planning permit application is assessed, or a condition can be placed on a permit requiring changes to the SMP before it is endorsed as part of the approved planning permit.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

3.11.2 CERTIFICATES OF COMPLIANCE

This section of the report details with the issue of certificates of compliance at the construction stage and during the operational stage of a building's lifecycle.

The relevance of and the need for certificates of compliance for operational aspects of buildings was discussed in Section 2 of this report. This section further discusses the issue, assuming that a one-off certificate of compliance is required.

The documents required to be submitted at the construction phase and operation phase of a development are not management plans as such, which set out what needs to be done to make a development comply with the sustainability requirements contained in the planning scheme. Rather, they are documents that confirm that the requirements of the endorsed sustainability management plan are met. Accordingly, they should be referred to as certificates of compliance rather than management plans. They could be referred to as follows:

- Sustainability Certificate – Construction
- Sustainability Certificate – Operation

In relation to a Sustainability Certificate – Operation, a question is, when and how often should such a certificate be required. It is considered that an operations certificate should only be required once, 12 months after the occupation of a development. To require a certificate on an ongoing basis would impose an excessive administrative burden on both Council and the owner / body corporate of a development.

Whilst Maddock's advice was that a condition could be included on a planning permit requiring an operation certificate to be provided at some time after a building had been occupied, there are practical issues. Who is responsible for providing such a certificate once a development has been strata subdivided and an owners corporation and multiple owners exist? There may be an ability to seek a certificate from the owners corporation that relates to the communal areas it is responsible for. However it would be impractical and an administrative burden to require certifications from multiple owners of dwellings within a large development. This matter needs to be clarified by further legal opinion.

The following actions are required in response to the question of application requirements and compliance with requirements at the construction and operation stage of a development:

- Include a requirement in the planning scheme (if appropriate based on mechanism) or in any Application Requirement guidelines that a Sustainability Management Plan must be submitted with a planning permit application.
- Include a requirement in the planning scheme that a *Sustainability Certificate – Construction* must be submitted to the satisfaction of the responsible authority upon completion or within 6 months of the occupation of a building. That certificate is to demonstrate that all requirements of the Sustainability Management Plan relevant at the construction stage of a development are complied with.
- Include a requirement in the planning scheme that a *Sustainability Certificate – Operation* is required to be submitted to the satisfaction of the responsible authority within 12 months of the occupation of a building. That certificate is to demonstrate that all requirements of the Sustainability Management Plan relevant to the ongoing operation of the building are complied with (subject to further legal opinion).

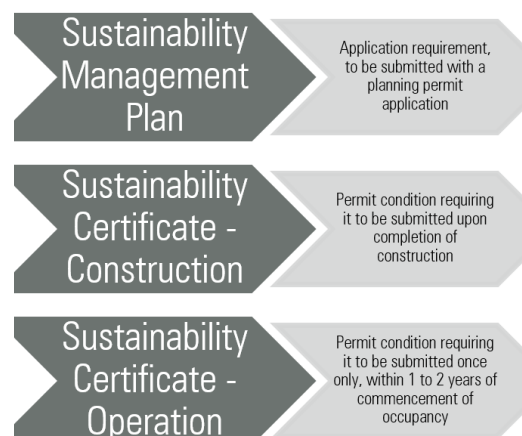


Figure 3: Key permit conditions

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

4.0 SUMMARY RECOMMENDATIONS

As outlined above, the following key recommendations are suggested:

- That a new Particular Provision be prepared and incorporated into the planning schemes of relevant councils that includes the elevated ESD standards. The new Particular Provision would include the following characteristics.
 - Mandatory objectives, with associated Standards (or performance measures and criteria) which would be applied as relevant to ascertain delivery of the Objectives.
 - Provision would only to those municipalities who 'opt in' to the elevated standards and amend their schemes to include the provision. State guidelines on ESD would be applied through proposed changes (to clauses 54, 55 and 58, as well as the new particular provision for commercial and industrial uses) and would apply to all other municipalities.
 - Provisions would include relevant definitions if a small number required (i.e net zero operational carbon).
 - Inclusion of a specific 'date-stamped' reference to the Green Factor Tool to ensure certainty. Resolution of external governance issues may mean this is not required.
- Further work may be undertaken to adjust existing proposed Standards to be suitably framed as performance 'measures' (i.e where specific metrics have been identified) and criteria (where a range of measure may be appropriate) consistent with proposed reforms to particular provisions. This would also allow clear identification of the information required to support assessment of the relevant performance measure / criteria. However, this should not occur until there is a greater degree of certainty as to that proposed reform.
- Further work would also be required to confirm participating Councils expectations regarding the inclusion of typologies as proposed in the current Standards.
- A consistent set of Application Requirements should be developed, along with relevant templates, in particular a standard Sustainability Management Plan template, to support applicants in preparing application material. These templates would also assist in ensuring consistent responses across the various municipalities.
- A consistent set of Permit Conditions should be developed to deliver Standards (i.e. sustainability certificates).
- A *Guidelines for Sustainable Building Design* document be prepared that could be used consistently by all councils who apply the elevated ESD standards, and would be included as a Background Document in relevant schemes. This should provide more explicit technical information where relevant, appropriate alternatives for responding to Objectives where Standards cannot be met, and real life examples.
- Background documents could be included in any local strategies contained in the Planning Policy Framework which address ESD and underpin the application of the particular provision.
- A consistent set of Definitions should also be incorporated into relevant planning schemes. If a small number then integration within provision is recommended, if large then consideration of Glossary as Incorporated Document should be considered. Ideally definitions should be consistent across State and included at Clause 73 General Terms.

4.1 RATIONALE AND BENEFITS OF THIS APPROACH

As clearly articulated by DELWP (for example, in relation to neighbourhood character as part of ResCode reforms) Local Policy should not be used as a planning control, nor is it mandatory. What this means is that for Local Government to have any certainty about the delivery of ESD outcomes through their planning schemes, a Local Policy is no longer appropriate, unless it is drafted in a manner which is directly contradictory to instruction contained within the Practitioners Guide prepared by the Department. The approach to the delivery of ESD Standards recommended in this report offers a number of benefits, including:

- Provides certainty to Local Government about the standard of design responses that will be delivered through their planning schemes.
- Provides a mechanism to ensure that actions proposed through the any development approval process are delivered.
- Provides a much greater level of transparency and certainty to the development community as to what is required to meet policy Objectives.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

- Provides the opportunity for a much greater level of consistency in requirements and assessment of ESD across the municipalities to which the Standards would apply.
- Provides a framework within the planning scheme for future changes in response to new evidence, and the flexibility for robustly tested standards to be migrated to Statewide provisions if appetite for change increases at a State level.
- Allows for other municipalities to join the 'elevated' ESD group if and when their council and community supports such a move.
- Fills key gaps in the delivery of ESD outcomes prior to any more widespread changes to building regulations.

It is noted particularly, that in current processes, many of the elements addressed through the proposed Standards are already considered and delivered through Permit Conditions under existing Local Policies. The consideration of these matters through Permit Conditions occurs without any legislated timeframes and without clear guidance. In many ways, while these targets represent an 'elevation' of existing targets, and certainly bring new aspects such as Climate Resilience, Green Infrastructure and net zero outcomes into greater focus they are, in fact, also streamlining an existing process in many ways. They do this by bringing consideration and agreement about relevant ESD matters upfront in the process, and integrating them with broader consideration of the appropriateness of any application.

4.2 ALTERNATE PATHWAYS

While the preferred option for the integration of these Standards has been clearly articulated, it must be acknowledged that there is the possibility of some resistance at a State level to some of the underlying rationale behind what is proposed through any amendment seeking to introduce more stringent and elevated ESD Standards applied to participating municipalities, rather than Statewide.

It is acknowledged that the approach taken by this amendment and sought by the participating councils, in some ways, represents a shift from business as usual. It seeks to position the planning scheme as the 'front line' in the critical transition to net zero across all sectors, while other systems lag in the delivery of appropriate responses to the current climate emergency. This is however, more accurately characterised as an 'evolution' of the role planning schemes already play in ensuring that aspects of sustainable design are embedded from the earliest stages of the development process.

Careful consideration has been needed to ensure that the proposed Standards act in a complementary way to other regulations. While it is considered that the right 'balance' has been identified, other options must also be considered, not least due to the preferred option requiring State level commitment to a new provision prior to any amendment gaining authorisation for exhibition.

The alternate pathways and the implications of these are therefore explored in Figure 4 on the following page.

SUSTAINABILITY PLANNING SCHEME AMENDMENT BACKGROUND RESEARCH - COMPONENT B: PLANNING ADVICE

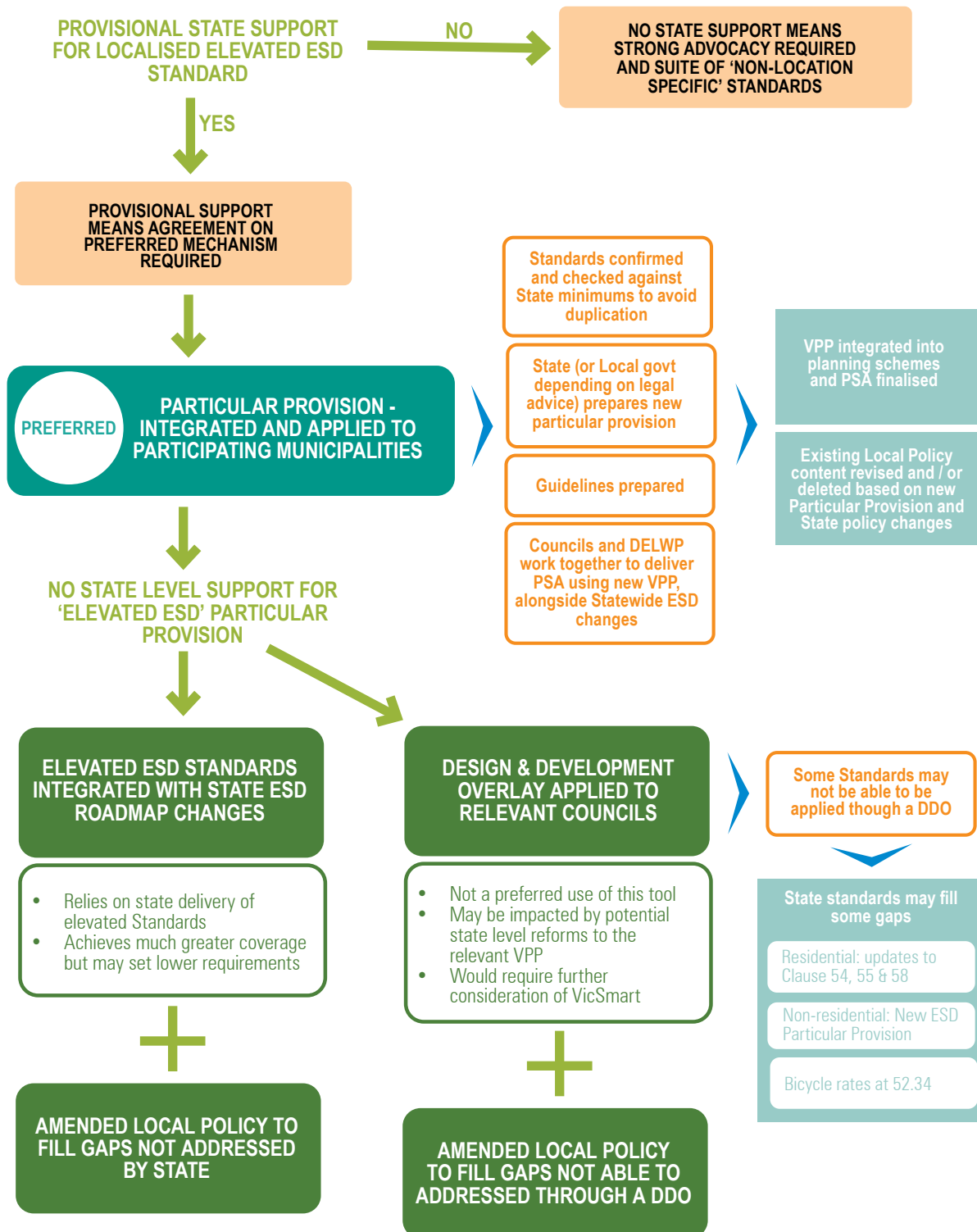


Figure 4: Alternate implementation pathways

Version: Final (Updated)
Date: 28 March 2022

Sustainability Planning Scheme Amendment - Background Research

Part A. Technical ESD and Development Feasibility

Municipal Association of Victoria on behalf of the Council Alliance for a Sustainable Built Environment

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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.

—

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.




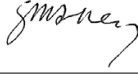


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REV	DATE	DETAILS	NAME, POSITION	SIGNATURE
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1.2	28.03.22	Final (updated)	Gavin Ashley, Lead	

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Introduction

For approximately 20 years local government in Victoria has been leading both voluntary and policy led approaches to sustainable design assessment in the planning process. This leadership is built on community expectation, their role as a responsible authority and the urgency to act on critical environmental challenges such as climate change.

Both planning and building processes have a role in evolving and elevating best practice to deliver a sustainable built environment. The Council Alliance for a Sustainable Built Environment (CASBE) is an alliance of Victorian councils committed to the creation of a sustainable built environment within and beyond their municipalities with a focus on the planning process as the lever for delivering more climate and environmentally responsive development.

CASBE provides a supportive environment for councils and seek to enable the development industry to achieve better buildings through consultative, informative relationships. In this work CASBE is acting on behalf of 31 member councils to develop an evidence base to support new planning policy. CASBE is auspiced by the Municipal Association of Victoria and is the owner and manager of the Built Environment Sustainability Scorecard (BESS), a key tool for demonstrating environmentally sustainable design (ESD) credentials at the site scale, at the planning stage.

POLICY CONTEXT

The evolution of planning policy and its relation to delivering sustainability outcomes in the built environment is long and complex. Whilst there is some State planning policy support for sustainability outcomes, much of the environmental sustainability planning policy development has been developed through local policy. In 2013 the City of Melbourne developed a local policy; Clause 22.19 - Energy, Water, Waste Efficiency. In 2015, 6 local councils collaborated on a planning scheme amendment for a local ESD policy. Almost identical ESD policies are now in place in over 20 municipal planning schemes.

City of Melbourne is now progressing an update and a broadening of their own local policy, and CASBE (supported by 31 councils) is progressing a new policy which would replace the existing ESD policy in some Councils and introduce an ESD assessment approach to others. The policy update is required to respond to evolving best practice and to reflect the increased urgency in response to climate change.

SCOPE

CASBE has commissioned background research in three parts:

- Part A. Technical ESD and Development Feasibility
- Part B. Planning Advice
- Part C. Economic Benefit Cost Analysis

A consultant team comprising Hansen Partnership, Frontier Economics and HIP V. HYPE Sustainability has been appointed to undertake the background research. This report responds to Part A of the brief. HIP V. HYPE have been supported in responding to Part A by Jackson Clements Burrows (JCB) Architects.

CASBE has developed policy objectives and standards to a working draft stage to support the project. All parts of the project are focused on testing these objectives and standards and developing evidence to justify their inclusion in the planning scheme.

The scope of Part A is as follows:

Task 1 – Design Response

This task involves the development of design responses which meet agreed objectives and standards for 8 building typologies. The design responses build on case studies drawn from councils who are supporting the research, some of whom have a local ESD policy in place and others who rely on State policy or other locally specific provisions for assessing ESD at the planning stage.

Task 2 – Technical Feasibility

This task includes the analysis of technical feasibility of these design responses.

Task 3 – Development Feasibility (Financial Viability)

This task presents an itemised development feasibility of each standard, including cost variations where applicable and benefits (including financial) that are applicable to each standard.

Task 4 – Prepare a summary of recommendations

This task includes a summary of recommendations, including any variations or recommendations for removal of any standards and their justification.

The method applied to the above scope is detailed in Section 2 of this report.

Introduction

PURPOSE OF REPORT

The purpose of this report is to present the outcomes of the above research, which when combined with the outputs of Part B and Part C, represent a robust evidence base to support further development of the proposed planning scheme amendment.

The report allows the planning scheme amendment process to consider likely impacts of the proposed policy from a technical feasibility and financial viability perspective, recognising that the benefits of ESD standards accrue to a range of stakeholders in the development process.

STRUCTURE OF REPORT

The report is structured as follows:

1. Executive Summary
2. Introduction (this section)
3. Method (detailing the approach to the meeting the requirements of the project)
4. Technical Feasibility and Financial Viability (detailing the results of the two critical research components across each ESD category)
5. Conclusions (key findings and further research)
6. Appendices



Rooftop garden and solar photovoltaic panels at Burwood Brickworks.
Photography by Kim Landy

Method

The approach to the project for this technical and development feasibility research has centred on applying a range of proposed standards across six ESD categories or themes to real world case studies. Appropriate design responses to meet the standards were developed and their impact documented.

This section of the report outlines the method applied to the project.

CASE STUDY SELECTION

To ensure the proposed elevated standards were assessed against a diverse and representative sample of developments, HV.H worked with the CASBE and its network of councils to identify suitable case studies. These case studies were selected to satisfy the typology criteria (below), provide a diversity of localities and local policy contexts. ‘Middle of the road’ examples were sought to ensure that the case studies chosen were representative of standard responses to existing policy settings. Sufficient documentation of the endorsed developments was also a consideration.

For each typology, two case studies were sourced which represented councils with local ESD policies (from the 2015 and subsequent amendments) and councils without.

For the single dwelling typology, only one case study was sourced as this typology does not commonly have a local ESD policy applied. Note that some non-ESD policy case studies for Inner Urban and Suburban councils included ESD Statements and/or assessments against the Built Environment Sustainability Scorecard (BESS) which highlights the voluntary uptake of such objectives and tools despite a lack of local planning policy.

The councils of Melbourne, Port Phillip, Stonnington, Yarra, Darebin and Moreland were considered Inner Urban, all other metropolitan Councils considered Suburban and all councils outside the metropolitan boundary considered Regional.

TYPOLOGY	INNER URBAN	SUBURBAN	REGIONAL
(RES1) Large residential mixed-use development >50 apartments and small retail	ESD Policy	Non-ESD Policy	
(NON-RES 1) Large non-residential >2,000 m2 GFA office development	ESD Policy	Non-ESD Policy	
(NON-RES 2) Large industrial >2,000 m2		ESD Policy	Non-ESD Policy
(RES 2) Small multi-dwelling residential <3 dwellings		ESD Policy	Non-ESD Policy
(RES 3) Small multi-dwelling residential >5 dwellings but < 10 dwellings	ESD Policy	Non-ESD Policy	
(RES 4) Small residential apartment building >10 dwellings but <50 dwellings		ESD Policy Non-ESD Policy	
(NON-RES 3) Small non-residential office and retail <2,000 m2	ESD Policy		Non-ESD Policy
(RES 5) Single dwelling and/or residential extensions greater than 50 m2		Non-ESD Policy	

Matrix detailing the eight typologies, the case study locality type and the local ESD policy context.

Method

DOCUMENTATION

The proposed standards (which were sourced from work developed to working draft stage by CASBE) were reviewed by HV.H against the case study documentation including plans, ESD Statements and BESS assessments, and these base case design responses documented. Where documentation was not sufficient to determine the base case design response, assumptions were based on the BESS benchmarks, policy or regulatory settings and/or using the response of the other base case for the same typology.

To allow for standardisation of results across both case studies and the alternative, the second base case was ‘scaled’ using built form of one case study (the case study with a local ESD policy). This involved using the built form parameters of the first case study such as site area, gross floor area and dwelling number but applying the design responses of the second case study. This provided for a consistent basis for comparison. This was particularly relevant for initiatives that were directly informed by the scale of the built form such as bicycle parking, where total parking numbers were not comparable and a parking ratio applied to the selected built form allowed for equivalence.

ALTERNATIVE DESIGN RESPONSES AND TECHNICAL FEASIBILITY

Following the documentation of the base case designs, alternative design responses which satisfied the proposed standards were developed by HV.H for all standards (with the exception of those that had been ruled out by through preliminary assessment by Hansen Partnership). These responses included specifications or a built form response, and aimed to clearly communicate the change required to meet the proposed standards as the key input into the cost benefit analysis.

For those initiatives which had a built form response, these were discussed at a series of design workshops attended by HV.H Sustainability, HV.H Projects and JCB Architects. The implications of the standards were tested to ensure that any built form response was cost-effective and technically feasible.

BENEFITS EVALUATION

A range of benefits associated with the alternative design responses were evaluated by HV.H including quantitative benefits such as an operational energy, operational water and landfill diversion. Qualitative benefits were also noted such as carbon reduction, thermal comfort improvements and ecosystem services benefits.

Operational energy (HVAC and hot water) and water benefits (potable water reduction for interior uses and irrigation) were quantified using the BESS calculators. Other figures such as total energy use, construction and organic waste generation, and embodied carbon of concrete were quantified using industry benchmarks and average figures. Refer to appendices for further detail of sources and calculations methodology.

These benefits were communicated to Frontier Economics for incorporation into the cost-benefit analysis.



Electric vehicle charging station at The Cape development.
Photography by Kim Landy

Method

FINANCIAL VIABILITY

Through the analysis, HV.H provided preliminary feedback on the proposed standards to Hansen where the costs and/or yield loss were considered prohibitive. Such examples include requiring a separate line of travel for cyclists in basement car parking.

The capital cost of design responses was quantified for standards where the alternative response was different to the base case and the alternate response incurred either a cost or saving. These capital costs were communicated to Frontier Economics for incorporation into the cost-benefit analysis.

The costs were derived from a range of sources according to the following hierarchy:

- Rawlinsons Australian Construction Handbook (note that the 2020 version was used as this was considered less likely to be impacted by fluctuations in the market during the COVID pandemic)
- Suppliers (written and verbal quotations) and product listings
- Industry reports
- Consultancies with industry expertise

Refer to appendices for full list of costs and sources.

STANDARDS RECOMMENDATIONS

Insights from the above analysis informed advice from HV.H to Hansen as to whether a proposed standard should be excluded or modified to ensure improved financial and technical feasibility. Such examples include some required rates of on-site solar photovoltaic generation not being achievable, or reducing the prescriptive approach of non-residential ventilation standards.

COST-BENEFIT ANALYSIS INTEGRATION

Discussions between HV.H and Frontier Economics ensured that the capital costs and quantitative and qualitative benefits HV.H documented were appropriate and could be integrated into the cost benefit framework. These costs and benefits from the technical and financial analysis were incorporated by Frontier into the cost-benefit analysis.

REPORTING

The above activities, outputs and insights are summarised within this report. Key findings, limitations and next steps are detailed for use by the Municipal Association of Victoria as part of the future Sustainability Planning Scheme Amendment.

Note that as work of different expertise streams (e.g. ESD and planning) was undertaken in parallel, there are some differences in wording and distribution of draft standards across different ESD categories as these have evolved over time. This report has aligned category theme wording as best as possible with the planning report, and a summary of the relationship between ESD categories as defined in the planning report has been included as an appendix for reference.



Urban greenery in Elwood. Photography by Adam Gibson

Technical Feasibility and Financial Viability

This section of the report outlines the results of technical feasibility and financial viability testing of proposed objectives and standards.

ESD CATEGORIES

This report is based on six ESD categories as follows:

- Operational Energy
- Sustainable Transport
- Integrated Water Management
- Indoor Environment Quality (IEQ)
- Circular Economy
- Green Infrastructure

Note that the above categories were based on an early restructured categorisation by Hansen Partnership which removed the ‘Climate Resilience’ theme and redistributed standards initially under that theme. The ‘Climate Resilience’ theme was reintroduced as part of subsequent planning advice after the ESD analysis was undertaken, while the ‘Circular Economy’ category was split into two called ‘Waste and Resource Recovery and ‘Embodied Emissions’ (see Appendix D).

In this section of the report, results are presented for each category in turn, drawing on analysis relating to both technical and financial impacts of proposed standards.

The results are presented in table format. The tables have adopted the same structure as the early set of restructured standards presented by Hansen. The standards tested in this analysis were also from the early restructure by Hansen, with wording largely unaltered at that stage. Subsequent rewording by Hansen was reviewed by HV.H to ensure the intent of both versions was similar and that the technical analysis would not be impacted.

The table sets out the following in relation to each standard:

- Standard (description)
- Nested standard (this applies only when the standard differs between typologies)

Then with reference to base cases (Local policy, State policy)

- Design Impact (including variations between typologies)
- Cost impacts (by typology)
- Benefits (by typology)
- Recommendation

Our advice in the recommendations is either to retain a standard in its current form, to modify a standard or to remove the standard altogether. In the case that a standard is recommended for removal either by Hansen or HV.H, the standard is noted as:

- Appropriate as a guideline (e.g. Guidelines for Sustainable Building Design)
- Appropriate for incorporation in future updates to the BESS
- Requiring further testing and analysis to determine potential pathway
- Is inappropriate to be addressed through any of the above mechanisms.

Where a standard is recommended to be modified, this feedback has been incorporated by Hansen into the planning advice Following the tabulated analysis a summary is provided for each category.



Construction site of townhouse development.
Photography by Sunlyt Studios

Operational Energy

This theme focuses on energy efficiency, on-site renewable energy generation and energy supply, with the aim of achieving net zero operational carbon.



Rooftop solar photovoltaic panels at Burwood Brickworks. Photography by Kim Landy

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S1 A Net-zero carbon performance from all operational energy use must be achieved through a combination of measures	There is no design impact as this standard is met by a range of other standards (e.g. S2, S6, S8)	N/A	N/A	We recommend that the standard be removed and reinstated as an objective only as other standards deliver energy efficiency, prohibit fossil fuels, deliver on-site renewable energy generation and require off-site renewable energy purchasing.
S2 No natural gas or other onsite fossil fuel consumption is permitted (*continued on next page)	Design / technical impact is generally negligible with the exception of very large buildings. No design responses created insurmountable issues with technical feasibility. In regard to hot water provision, in larger residential typologies, the most likely design response to meet the standard is a centralised electric hot water heat pump, which has a reasonably significant impact on roof plant spatial allocation (but does not result in a reduction of any residential space). Design responses for all other typologies 'swap out' gas instantaneous or storage hot water systems for either electric heat pumps (smaller residential) and electric instantaneous (non-residential).	<p>The cost impact varies. The electric alternative generally has a higher capital cost than the gas alternative, with the exception of the electric instantaneous which is marginally favourable in terms of capital cost. Whilst not included in our analysis of costs, where the infrastructure associated with gas is avoided altogether further cost reductions are available.</p> <p>In certain circumstances, electricity peak demand may trigger a contribution to network infrastructure (such as a transformer upgrade). There is an avoided future cost of retrofit (would be required to meet State and National carbon reduction targets).</p>	<p>All electric alternatives with the exception of electric instantaneous offer an operational energy and corresponding cost saving. Smaller residential typologies also offer the benefit of avoiding a supply charge for gas.</p> <p>Electric alternatives can further reduce carbon impact when matched with on-site renewable energy or completely remove operational energy emissions if there is a renewable electricity contract in place.</p> <p>Gas alternatives lock in fossil fuel dependence and do not allow for zero carbon in operation without offsets.</p> <p>Excluding natural gas also better aligns inclusion of demand management systems with potential future income. There is also greater certainty around achieving zero net emissions given the future emissions intensity of the electricity and gas networks are not locked in for the life of a building. Whilst carbon associated with grid electricity will decrease with clear policy and trend, for gas networks this is much less clear.</p>	<p>The standard has strong justification based on a range of benefits and manageable cost impacts.</p> <p>We recommend the standard be discretionary to allow for the very limited range of uses (e.g. commercial kitchens and industrial uses with high thermal loads) where further industry transition is required before a mandatory control can be introduced. This discretion should be applied in very limited circumstances.</p> <p>We recommend that the proposed Guidelines for Sustainable Building Design apply discretion for electric instantaneous systems for taller residential buildings and non-residential buildings.</p>

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S2 No natural gas or other onsite fossil fuel consumption is permitted (*continued from previous page)	The design response for all typologies for cooking was electric induction. For many of the typologies, induction was already specified. Induction cooking is now common in residential development (estimated to be approximately 25% of applications in City of Yarra in 2021) and no design responses created insurmountable issues with technical feasibility, however may contribute to peak electrical demand for the building. Food and beverage (commercial kitchen scale) may present some challenges from a market acceptance perspective.	The cost impact is approximately 25% at the dwelling level, but maybe partially offset by reducing piping costs from central gas supply.	Electric induction cooking is: _More efficient than gas cooking offering an operational energy saving _Safer than gas cooking _Able to be matched with renewable energy _Avoid health (air quality) impacts associated with indoor gas combustion	See above.
S4 Residential (Class 1 & 2) and Aged Care (Class 3) only Residential developments should achieve an average 7 Star NatHERS	The design impact of meeting the proposed standard varies according to strategies employed and can be achieved using a variety of methods including passive solar design changes (orientation, window size, window placement, shading) or specification improvements (window performance, insulation).	No capital cost is incurred as the proposed standard is already recommended to be included in the proposed changes to National Construction Code (NCC) in 2022. If this does not occur it is highly likely that the Victorian government will take the step to 7-star themselves.	The heating and cooling energy consumption benefit of moving from 6 star to 7 star NatHERS is approximately 28% reduction in predicted energy use per m2. This benefit has not been incorporated in the cost benefit analysis, because the increase in thermal performance will likely be required through a building permit requirement in the short term. A health and wellbeing benefit would also be delivered related to the improvement in thermal performance.	We recommend that the standard be retained for completeness, but removed from the proposed planning scheme amendment if the proposed 7 star NCC 2022 standards (or Victorian variation) are confirmed. We recommend that aged care (Class 3) not be included as NatHERS is not an appropriate measure for this development type. We recommend that evidence from the following report be used to support the evidence base if the proposed NCC 2022 changes are not adopted as drafted.
S5 Residential and aged care only Provide external natural clothes drying facilities that does not impact open space area or visual amenity	The design impact of meeting the proposed standard is restricted to amenity and visual obstruction issues. Many owners corporation rules still prohibit hanging clothes on balconies where they can be seen by other residents, but a range of flexible solutions are now available that nest drying clothes in behind the balustrade and also allow for the space to be usable for recreation when not in use. In an aged care setting, the impact is similar. Note that some planning overlays or restrictions on title prohibit clothes lines being visible from frontage.	Capital cost is negligible, so has not been sourced.	Benefits relate to operational energy savings, as outdoor drying avoids the use of clothes dryers but have not been quantified.	We recommend that the standard be retained in its current form, but more consultation occur with the aged care sector to ensure that guidelines for implementation do not impact private open space amenity. We recommend that the term open space be clarified (private open space versus public open space).

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use: Medium density only A 3kW minimum capacity solar photovoltaic (PV) system must be installed for each 1-2 bedroom dwelling and an additional 1.0kW per bedroom for each bedroom there-after. The electrical system should be designed to maximise on-site consumption of renewably generated electricity (i.e. minimizing grid export).</p>	<p>The design impact of solar PV for smaller residential typologies (single dwellings and town houses) is minimal, with roof spaces generally with adequate space provision to meet the standard.</p>	<p>Capital cost impact is now less than \$1,000 per kWp at this scale.</p>	<p>Solar energy generation offsets on site consumption of electricity creating an operational saving (with a return on investment of generally less than 5 years).</p> <p>There is a corresponding carbon reduction benefit.</p>	<p>We recommend retaining the standard, based on strong financial benefit to the occupant, but allowing some discretion, when there is conflicting roof space with an alternative use which has environmental or social benefit or when existing or an approved building will overshadow the roofspace.</p> <p>If roofspace is restricted, Building Integrated Photovoltaic (BIPV) Panels could be considered as an appropriate strategy to achieve the required solar PV capacity, however, should not be required.</p> <p>We believe this standard could apply to single dwellings as well as medium density.</p>
<p>S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use: Apartments only Provide a solar PV system with a capacity of at least 25W per square meters of the development’s site coverage, OR 1kW per dwelling. *Capacity of solar PV system: kW = Site coverage (m2) x 25 (W/m2) / 1000(W/kW). The system should be designed to optimise use of on-site generated electricity</p>	<p>The design impact of meeting the proposed standard for apartments is significant, especially for larger buildings. Based on the largest of the case studies (RES 1), a 38kWp system would be required to meet the proposed standard, however our analysis indicates that only 16kWp is achievable (with additional pergola shading structures to support panels over some communal terrace areas), based on rooftop capacity.</p>	<p>Capital cost based on industry standards remains below \$1,000 per kWp, but may be higher in certain circumstances.</p>	<p>Benefits are as above for all solar PV standards.</p>	<p>We recommend modifying the standard to account for discretion in circumstances where the amount of unencumbered roof space is not available to meet the standard.</p> <p>Whilst the standard could be modified in many ways, we consider that because the standard is unable to be met only when there are significant competing roof top uses, that the standard could be reworded as discretionary ie that buildings should provide the benchmark solar PV capacity.</p> <p>We recommend that proposed Guidelines for Sustainable Building Design should outline specific (narrow) circumstances where discretion may be required such as competing beneficial roof uses and existing or known future overshadowing.</p> <p>Standard S7 would drive optimisation of roof capacity to ensure the best available space for solar PV.</p> <p>Where apartments are a mixed use building (e.g. have ground floor retail), the standard for the predominant use in the development should apply.</p>

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use:</p> <p>Industrial & warehouse only</p> <p>All roofs must be structurally designed to be able to accommodate full PV coverage, excluding areas set aside for plant equipment or areas significantly shaded by other structures</p>	<p>The design impact of meeting this standard has not been tested as the existing structural load of the case studies was not able to be determined.</p> <p>However, we note that one case study planned to engage an engineer at building permit application stage to ensure the structural design allowed for the future installation of solar panels.</p> <p>Imposing a standard across a whole building is somewhat problematic, as in the vast majority of situations an industrial building would have a significantly larger roof than is required to match energy consumption with solar. Distribution network businesses routinely limit the size or export limit solar PV installation in business parks and industrial estates to ensure network issues don't occur. This would mean the roof is designed with capacity that is never needed. Portal frames are a highly cost effective solution and increasing loading would require changes to design.</p>	<p>Not able to be determined as it is not clear whether the base cases would have required alteration.</p>	<p>The benefit is that the structure allows for additional solar PV to be retrofitted at a future date, therefore reducing the retrofit cost of reinforcing a structure.</p> <p>This increases the feasibility of new solar being able to be accommodated.</p>	<p>We recommend engaging a structural engineer to provide targeted advice on the load requirements of an industrial roof to support solar PV to clarify differences with current NCC minimum requirements (including those proposed under NCC 2022) or standard designs.</p> <p>Depending on this advice, we caution applying a blanket structural improvement across the the whole industrial roof space unless the impact / cost is minimal. This is because the vast majority of industrial roofs will not be used for this future purpose. The embodied carbon of additional structural steel should also be accounted for in this decision.</p> <p>We recommend awaiting the outcome of the NCC 2022 provisions before confirming a decision.</p>

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use:</p> <p>Industrial & warehouse only</p> <p>Include a solar PV system that is:</p> <ul style="list-style-type: none"> - Sized to meet the energy needs of the building(s) services (lightning, air- conditioning, industrial processes); or - Maximized based on the available roof area; or - When no industrial process is proposed, minimum 1.5kW per tenancy plus 1kW for every 150m² of gross floor area must be provided. <p>The system should be designed to optimise use of on-site generated electricity.</p>	<p>The design impact of meeting this standard is negligible (subject to structural requirements above), as industrial roofs have expansive, flat roof space which can accommodate solar PV capacity without significant design implications. Generally speaking however, buildings do not always have a confirmed tenant when they are developed, so whether or not an industrial tenant has an energy intensive industrial process may not be known.</p> <p>The standard which would apply when no industrial process is proposed represents approximately 10% of available roof space.</p> <p>We note that in the case that a number of industrial buildings are co-located, that export of solar PV generation (which would occur on the weekends where occupation is low and equipment is not in operation) may cause localised network impacts and may have to be limited.</p>	<p>Capital cost based on industry standards remains below \$1,000 per kWp, not including any cost impact to increased structural capacity required to facilitate a solar PV system.</p>	<p>As above.</p>	<p>We recommend the standard be retained, but modified to encourage increased solar PV system sizes, where the roof can support the additional load and where an energy intensive industrial process is likely.</p>
<p>S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use:</p> <p>Office, educational buildings, health facilities, aged care, student accommodation, commercial and other non-residential buildings</p> <p>Should install onsite renewable energy generation up to or exceeding predicted annual energy consumption</p>	<p>The design impact of meeting the proposed standard for non-residential buildings is significant, especially for larger buildings. Based on one of the non-residential case studies, a system of over 100kWp would be required, but the roof capacity based on some conservative assumptions will only account for 19kWp. Refer to the diagram on the following page.</p> <p>Alternatively, if applying a rate of 25W per square metre of the development's site coverage (similar to the apartments standard), the case study rooftops would have sufficient space to meet such a requirement.</p>	<p>Capital cost based on industry standards remains below \$1,000 per kWp, but may be higher in certain circumstances.</p>	<p>Benefits are as above for all solar PV standards.</p>	<p>We recommend that the standard be modified for consistency with the apartment standard.</p> <p>An updated standard could reference "a solar PV system with a capacity of at least 25W per square meters of the development's site coverage".</p>

Operational Energy

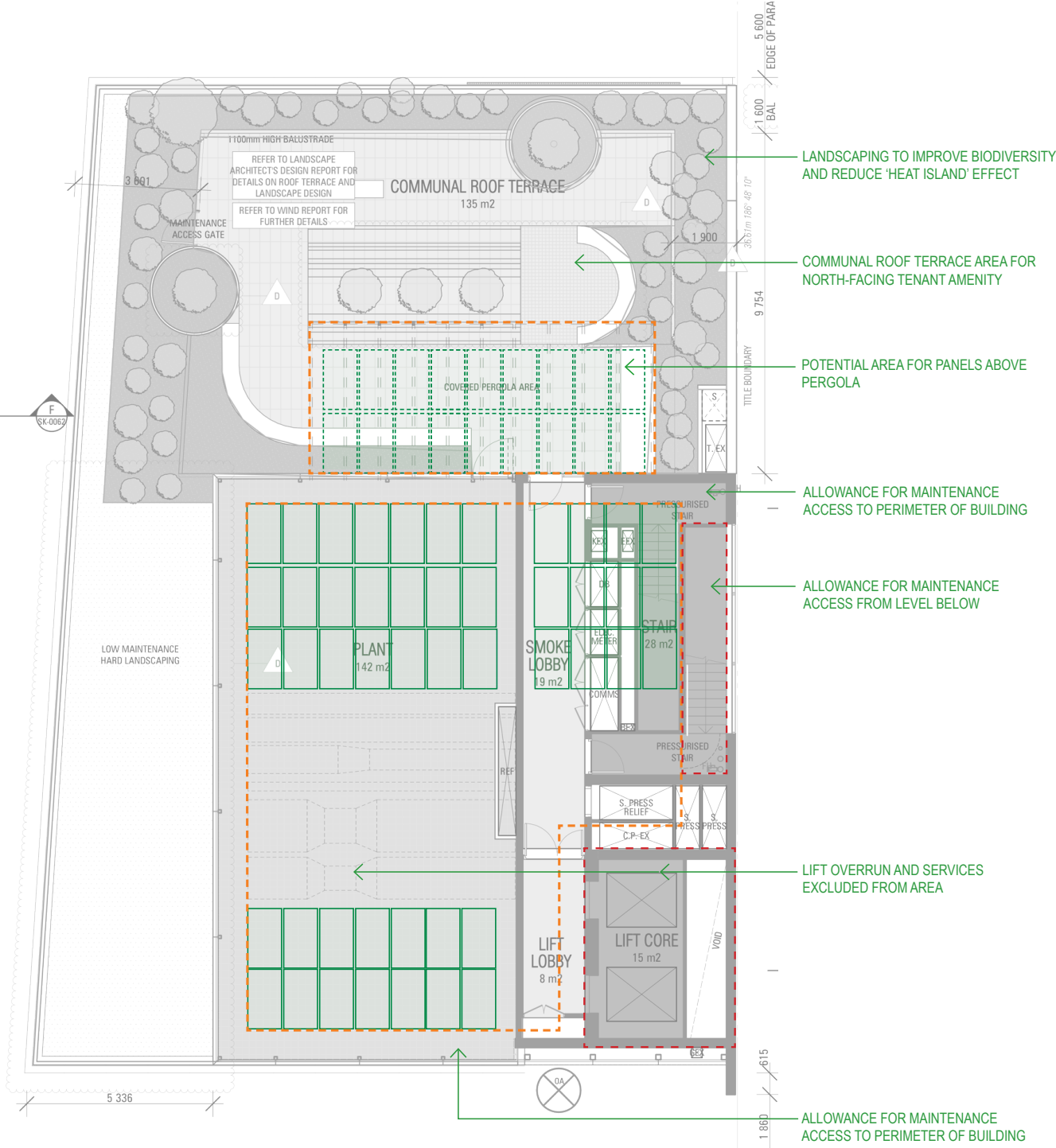


Diagram demonstrating potential solar photovoltaic capacity for the rooftop of an office case study. The image demonstrates 19.5kWp of solar. Image by JCB Architects

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S7 Maximise the opportunity to generate solar electricity on all roofs by: designing roof structures to accommodate solar PV arrays, minimise shading and obstructions, optimise roof pitch and orientation. The system should be designed to optimise use of on-site generated electricity	The design impact of the standard is confined to the smaller residential typologies where roof structures can be more complex. There are no major technical issues associated with maximising the opportunity, however a simplification of some roof lines will be required to meet the standard and deliver the solar PV target in Standard S6. Refer to the diagram on the following page.	No capital cost impact is expected, and in some circumstances may reduce the cost of the roof structure.	The benefit is documented in relation to Standard S6, however there may be an additional opportunity for dematerialisation and reduced waste if roof structures are simplified.	We recommend that the standard be retained in its current form, and that Guidelines for Sustainable Building Design provide guidance for architects and designers looking to maximise viable zones for solar rooftops.
S8 All residual operational energy to be 100% renewable purchased through offsite Green Power, power purchasing agreement or similar	There are no design impacts related to this standard.	No capital costs, but a minor Operational Expenditure (OPEX) impact which is being addressed through the cost benefit analysis.	Benefit is significant in terms of carbon reduction. When delivered in combination with S2 this standard delivers zero carbon for stationary energy for a building's operation (generally its largest emissions impact).	We recommend retention of the standard, based on the very high impact. Part B of this project further examines how operational energy management can be implemented through a planning mechanism.
S9 Design to enable for future renewable energy battery storage including space allocation	Design and technical feasibility was investigated for smaller residential typologies and industrial typologies only. The reason technical feasibility was restricted to these typologies / uses is that in all other circumstances, on-site renewable energy is unlikely to deliver a surplus of energy that would prompt the future inclusion of battery storage. Single dwellings and town houses had space in garages that could be reallocated to support battery storage and industrial buildings has significant space to support battery storage if it was financially viable at a future date.	No capital cost impact as no new space allocation required.	There is no quantifiable energy or financial benefit accruing from space allocation for future battery storage.	<p>We recommend that the standard be removed in its current form, with the principle of future proofing embedded in a generalised standard which allows for future upgrades (but does not pick battery storage as a winner). Single dwellings and townhouses have garage storage space that can otherwise be converted and industrial buildings have ample space opportunity that can be reallocated. We also consider that EV integration may mean that batteries at the household level are not routinely specified or retrofitted in the numbers that were anticipated several years ago, so creating space specifically for them is not required.</p> <p>We do not recommend inclusion in Guidelines for Sustainable Building Design or BESS.</p>

Operational Energy

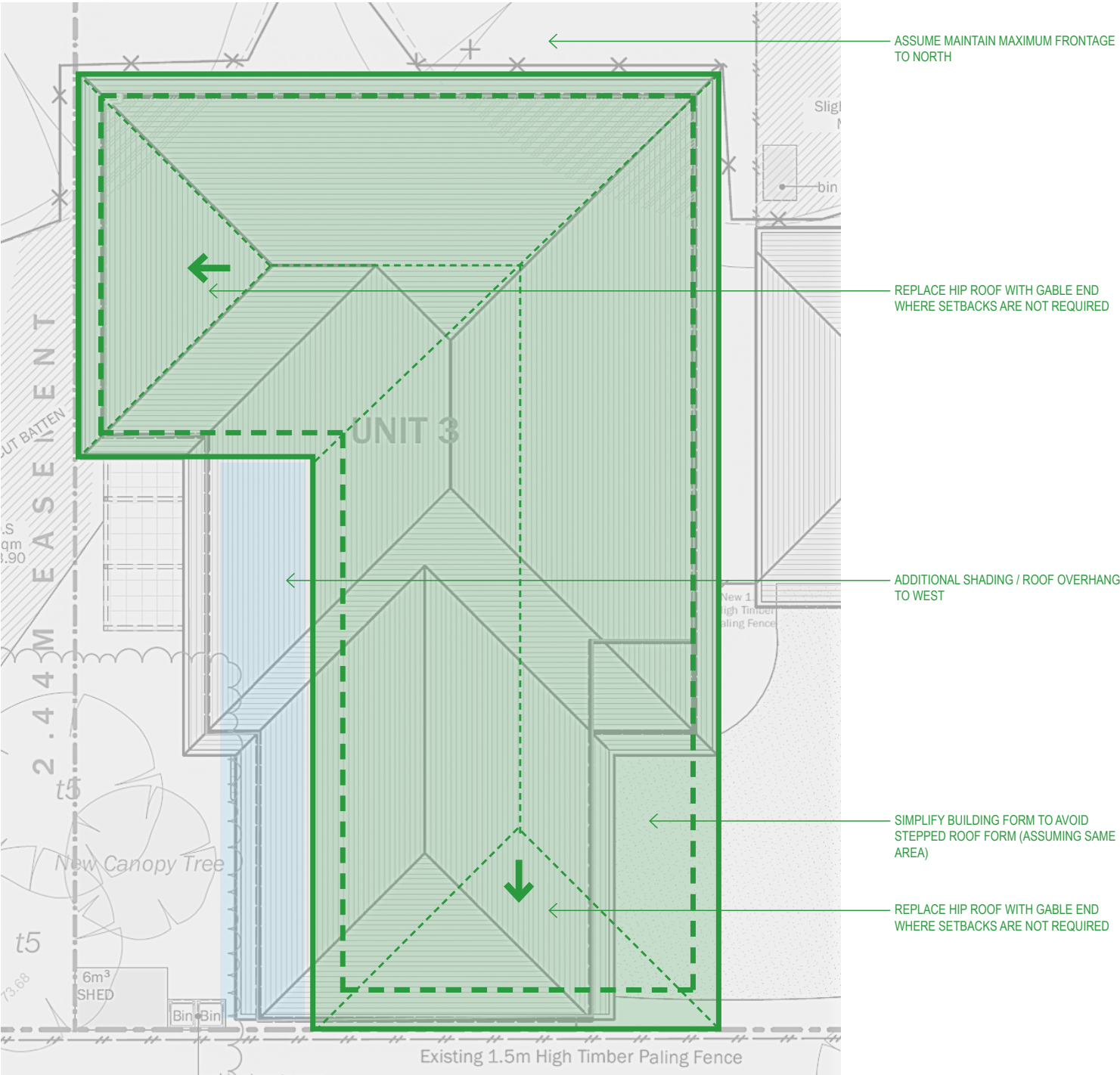


Diagram demonstrating the possibilities for simplification of a single dwelling pitched roof to increase opportunities for solar photovoltaic panels.
Image by JCB Architects

Operational Energy

The following standards were not included in the analysis as they were either flagged for removal due to planning advice or the impact, costs and benefits were addressed in similar standards. Note that some standards may not have been fully analysed but are still included in the previous tables as there was relevant commentary to document.

STANDARD	REASON FOR EXCLUSION FROM ANALYSIS
S3 Provide effective shading to glazed surfaces of conditioned spaces exposed to summer sun	Refer to Standard S38.
S10 Select materials that minimise carbon emissions, and offset these emissions onsite or through a verified carbon offset scheme	Refer to Standard S58.
All non-residential developments should exceed National Construction Code Building Code of Australia Volume One Section J or Volume 2 Part 2.6 Energy Efficiency building fabric and thermal performance requirements by in excess of 10 per cent	Although this was not originally proposed to be a standard and therefore has not been analysed, we note there is not an energy efficiency standard driving efficiency beyond NCC 2019. We feel this is appropriate due to step change in increased efficiency requirements from NCC 2016 to 2019 but consider that BESS may want to be updated periodically to reward performance above NCC minimum requirements outside the planning policy.

Sustainable Transport

This theme focuses on facilitating increased active transport with the aim of reducing private vehicle trips, and setting the condition to ensure a smooth transition for the future uptake of electric vehicles.



Ground level bicycle parking area at Nightingale 2 apartment development. Photography by Jake Roden

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S11 Developments should provide the following rates of bicycle parking and associated facilities: New residential development</p> <ul style="list-style-type: none"> • A minimum of one secure undercover bicycle space per dwelling • A minimum of one visitor bicycle space per 4 dwellings 	<p>The design impact in relation to increased bicycle parking provision is complex. This standard relates to the provision of the bicycle parking infrastructure and the associated space allocation. The impact on space allocation is estimated at 1m² per park (e.g hanging rack), however in some cases this can be reduced by two-tier bicycle storage options (e.g. Josta), but this requires minimum 2.6m floor to ceiling clearance so is only able to be used at ground level or where basement car parking is more generous than standard. Implementation of the infrastructure solutions is straight forward, subject to the space allocation being made.</p> <p>For residential development the impact is confined to apartments. Townhouses and single dwellings have more flexible storage options. The diagram on the following page graphically highlights the impact of the bicycle parking standards as a suite. From a design perspective the additional bicycle parking space does not pose technical issues, but represents either a loss in yield from other uses (e.g. car parking or retail if at ground floor level) or an additional space allocation which comes at an additional construction cost.</p>	<p>The capital cost impact related to infrastructure ranges between \$410 and \$1,640 per space depending on the solution.</p> <p>The capital cost of the additional space is estimated at \$1,630 per sqm.</p>	<p>Benefits related to additional bike parking provision are also complex. A theoretical approach would see the extra bicycle parking provision motivate a change in behaviour (travel mode) for residents and workers. This would have a flow on benefit of reducing private vehicle transport (which causes carbon emissions and congestion) and increasing health and wellbeing related to additional exercise as a result of active transport.</p> <p>Whilst there is confidence that the impact exists, modelling the benefit is complex as outlined in the Cost Benefit Analysis.</p>	<p>We recommend that the standard be modified to allow for discretion in circumstances where the medium to long term expected take up of bike parking spaces is less than the proposed 1:1 dwelling rate. In these circumstances, the project should outline how additional space (nominally car parking) could be repurposed for bicycle parking as demand rises and reliance on private vehicle ownership declines.</p>
<p>S11 Developments should provide the following rates of bicycle parking and associated facilities: New retail development</p> <ul style="list-style-type: none"> • A minimum of one secure undercover employee bicycle parking space per 100 sqm Net Lettable Area (NLA). • Provide visitors bicycle spaces equal to at least 5% of the peak visitors capacity 	<p>For retail development, the issues are consistent to those in residential apartments, but in all non-residential case studies, the standard proposed is close to or already being met.</p>	<p>As per above.</p>	<p>As per above.</p>	<p>We recommend that the standard be retained as the expected impact to space allocation and infrastructure costs is minimal, based on only a minor gap (if at all) between business as usual provision and the level proposed under the standards. Further work could explore a higher rate for locations with a strong cycling culture.</p>

Sustainable Transport

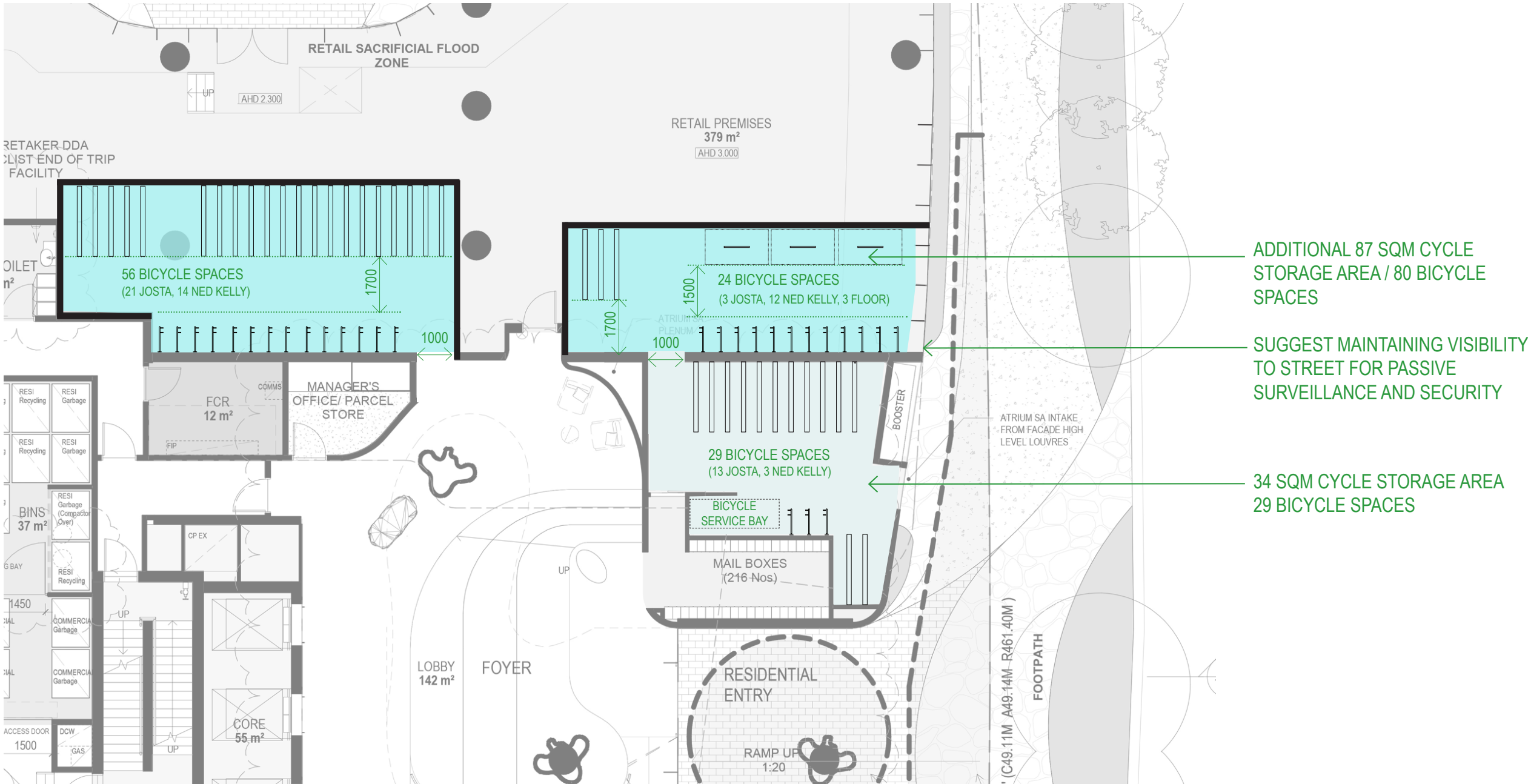


Diagram highlighting the impact of the bicycle parking standards as a suite of measures for a mixed use development. Image by JCB Architects
Note: The following storage types have been utilised - two tier system (Josta), hanging rack (Ned Kelly) and hoop (floor).

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S11 Developments should provide the following rates of bicycle parking and associated facilities: New development associated with a Place of Assembly, Office or Education use</p> <ul style="list-style-type: none"> ▪ A minimum of one secure undercover staff bicycle parking space per 100 sqm NLA of office ▪ A minimum of one visitor space per 500 sqm NLA of office ▪ A minimum of 2 secure staff bicycle spaces per 1500 sqm of a place of assembly ▪ A minimum of four visitor spaces for the first 1500 sqm and 2 additional spaces for every 1500 sqm thereafter for place of assembly? ▪ A minimum of one secure staff bicycle parking space per ten employees of education centres ▪ A minimum of one per five students of education centres 	<p>For place of assembly, office or educational development, the issues are consistent to those in retail and residential apartments, but in all non-residential case studies, the standard proposed is close to or already being met.</p>	<p>As per above.</p>	<p>As per above.</p>	<p>Recommendation is as per the retail standard.</p>
<p>S11 Developments should provide the following rates of bicycle parking and associated facilities: For all other non-residential</p> <ul style="list-style-type: none"> ▪ Provide bicycle parking equal to at least 10% of regular occupants 	<p>The design impact of this standard is similar to other non-residential bicycle standards.</p>	<p>As per above.</p>	<p>As per above.</p>	<p>Recommendation is as per the retail standard.</p>
<p>S12 Bicycle parking – non-residential facilities One shower for the first 5 employee bicycle spaces, plus 1 to each 10 employee bicycle spaces thereafter should also be provided. If 10 or more employee bicycle spaces are required, personal lockers are to be provided with each bicycle space required. If more than 30 bicycle spaces are required, then a change room must be provided with direct access to each shower. The change room may be a combined shower and change room.</p>	<p>This standard is linked to S11, and can therefore result in requirements greater than Clause 52.34. However, the design impact for increased wet areas was negligible for the case study design responses. Additional space for locker provision is required but has a relatively small footprint.</p>	<p>The capital cost impact of the standard is minor as increased area for showers (the most expensive component of the standard) was negligible for the case studies. Space provision and capital cost per locker is minimal.</p>	<p>As per bicycle parking, with the infrastructure provision (in this context to change and shower) workers are more likely to ride to work. Whilst there is confidence that the impact exists, modelling the benefit is complex as outlined in the Cost Benefit Analysis.</p>	<p>We recommend that the standard be retained as the expected impact to space allocation and infrastructure costs is minimal. Inclusion of locker provision makes the provision of EOT facilities more comprehensive.</p>

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S13 Bicycle Parking - Convenience.</p> <p>All bicycle parking facilities must be convenient and accessible, and:</p> <ul style="list-style-type: none"> Locating the majority of bicycle parking facilities for residents at ground level For any other bicycle parking, providing this within 10 meters of vertical pedestrian access ways (ie lifts, stairs) Providing access to bicycle parking facilities in basement car parks via a separate line of travel to vehicles and pedestrians Ensuring any lifts used to access to bicycle parking areas are at least 1800mm deep Ensuring at least 20% of residents bicycle parking facilities are ground level or horizontal type racks to ensure equitable access 	<p>The design impact of some elements of the proposed standard is very significant as outlined below.</p> <p>Locating the majority of bicycle parking at ground level (i.e. ground floor) may in some circumstances have a negative impact on activation of retail space, however with the exception of one typology the case studies had already prioritised ground floor bike parking access.</p> <p>To provide bicycle parking within 10m of vertical pedestrian access was tested in detail in relation to the RES 1 case study. The result of meeting the standard is that the corners of the building become underutilised space as they are unsuitable for car parking access. Space closer to lift cores would need to be reallocated to bicycle parking which has a positive outcome for cycling access, but will mean additional basement needs to be constructed to maintain car parking rates (although a partial waiver may be possible).</p> <p>The requirement for a separate line of travel for cyclists has a major impact on the efficiency of basement car parks. This would increase car park aisle widths by approximately 1m and decrease the efficiency of the basement car park significantly.</p> <p>Both other elements of the standard have only minor design impacts and do not impact technical feasibility. Note that storage stacker or supported lift parking systems can be utilised to improve accessibility for parking not on the floor.</p>	<p>From a development feasibility perspective, the loss of potential retail space to provide bicycle parking at grade actually provides a construction cost benefit (basement per sqm costs are lower), but there is lost revenue on this space, which would exceed the revenue associated with the equivalent space allocation in a basement. This is explored more in the Cost Benefit Analysis.</p> <p>The impact of the 10m maximum distance to bicycle parking and the separate line of travel on cost would require the construction of significant additional basement area. The construction cost per sqm of basement area is \$1630 per sqm. By way of example if 2 additional car spaces and 20m of dedicated (separate) line of travel was required the impact would be in the order of \$114,000 with no financial return.</p> <p>Other cost impacts (lift size and ground level preference) were not quantified as the majority met the standard already.</p>	<p>As per bicycle parking and end of trip facilities, the improved infrastructure location means residents and workers are more likely to ride. Whilst there is confidence that the impact exists, modelling the benefit is complex as outlined in the Cost Benefit Analysis.</p>	<p>We recommend that the standard be modified to remove the requirement for the separate line of travel, the spatial implication will add major cost to a basement. We instead recommend that surface treatments be used to afford cyclists priority without increasing car park aisle width. We recommend that the standard relating to no more than 10m access to vertical pedestrian access ways be modified to require the majority of basement bike parking to be within this distance.</p> <p>We further recommend that the standard relating to ground level/ floor for the majority be discretionary to allow for performance solutions that provide a good outcome without the majority of bike parking being at ground level.</p> <p>Modification of the language for the 20% standard is recommended to remove confusion with ground floor of the building (our interpretation is that it means close to the ground rather than the ground level of the building). Equitable access facilities should address not only the proximity of racks to the ground but also the spatial allocation for different bicycle types (e.g. recumbent bicycles). This can be detailed in Guidelines.</p> <p>We recommend this standard be modified to encourage design that can see particularly non-residential car space reallocated to bicycle parking over time.</p>
S15 Preparation of an EV Management Plan.	There is no design impact based on the preparation of an EV Management Plan.	The capital cost is restricted to the cost of the consultancy as infrastructure costed elsewhere.	Benefit is derived from improved management of EV charging, however this is not quantified.	We recommend that planning advice from Hansen be referred to relating to whether an additional plan specifically for managing EV's is appropriate.

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S16 The proposed location of EV charger outlets and units demonstrated on the plans: Medium density only Infrastructure and cabling (without the EV charger unit) is to be provided for each garage, to support a minimum Level 2 (Mode 3) 7kW 32Amp EV car charging.	The design impact of this standard is negligible, it does not require any additional space allocation and from a technical perspective is achievable using standard electrical contractors.	The cost impact of the standard is approximately \$500 per dwelling.	There are no immediate benefits, however the existence of the infrastructure will reduce a potential barrier to EV uptake and avoid a more costly retrofit cost in the future. There is an indirect carbon benefit, based on the higher likelihood of replacement of a internal combustion vehicle with electric vehicle (higher efficiency and lower carbon emissions).	We recommend that the intent of the standard be retained, but the standard be modified to remove the prescriptive guidance on capacity, instead ensuring that the standard provides clarity that increased capacity for moderate speed (Level 2) and efficient charging (beyond a standard General Power Outlet) is required to support EV chargers being easily installed in the future. We support the prescriptive wording as current best practice, but consider it is more appropriate in the proposed Guideline for Sustainable Building Design.
S16 The proposed location of EV charger outlets and units demonstrated on the plans: Apartments only Required Capacity Electrical infrastructure capable of supplying: <ul style="list-style-type: none">12kWh of energy for charging during off peak periods; andA minimum Level 2 (Mode 3) 7kW, 32Amp single phase EV charging outlets to all residential car parking spaces.	As per above, the design impact of this standard is negligible, it does not require significant additional space allocation and from a technical perspective can be designed by electrical engineers.	The cost impact of the standard is approximately \$869 per car space.	As per above.	As per above
S16 The proposed location of EV charger outlets and units demonstrated on the plans: Apartments only EV infrastructure and cabling must be provided and may include, for example, distribution boards, power use metering systems, scalable load management systems, and cable trays or conduit installation.	The design impact of this standard is moderate (including a spatial allocation for distribution boards), but the approach is technically feasible as a method of future proofing the building. Based on direct feedback from HV.H projects, there are specific issues that need to be resolved for car stackers and further industry learning needs to take place for electrical engineers and within the electricity network businesses to design and deliver scalable load management systems that provide confidence that peak demand on a building will not be exceeded, additionally that the expectation of EV drivers that they will be always 100% charged at 7am may need to be challenged.	Costs included in above.	The benefit is an extension of the above. The scaleable load management system, will allow for increases in peak electricity demand to be avoided, but further advocacy and stakeholder engagement is required to ensure that risk averse responses do not add to significant cost implications.	We recommend that the standard should be retained, as the avoided cost of future retrofit is significant and the complexity of governance arrangements of owners corporations may make a retrofit very challenging. We recommend the standard be strengthened to ensure that load management is employed to manage any network peak demand issues (s14). Potential rewording could be “...must be provided to ensure peak demand is managed and may include...”. We recommend that the Guideline for Sustainable Building Design note the specific issues with car stackers.

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S16 The proposed location of EV charger outlets and units demonstrated on the plans: Non-Residential EV Charging 20% of carparking spaces in office, educational centres, places of assembly, retail and all other non- residential development types must meet all the requirements of the apartment criteria above, (or a minimum of one space).	As per above, the design impact of this standard is negligible, it does not require significant additional space allocation and from a technical perspective can be designed by electrical engineers.	The cost impact of the standard is approximately \$869 per car space.	As per medium density and apartments standard.	As per medium density and apartments standard. The standard should effectively require 20% of spaces to have undertaken the pre-work to support future electric vehicle charging, even if charging is not fitted at the time of build.
S16 The proposed location of EV charger outlets and units demonstrated on the plans: Non-Residential EV Charging 5,000 sqm trigger - 5% of car spaces must have installed EV charging infrastructure complete with chargers and signage	The design impact of meeting this standard is simply an extension of delivering the capacity under the proposed standard above.	Capital cost impact is \$2,200 for charging infrastructure per space.	The availability of EV Charging builds confidence in EV purchase. This has operational savings for the consumer and results indirectly in reduced carbon emissions.	The standard is recommended to be retained. It is consistent with a Green Star standard that has been in place for some time and allows for at least some Day 1 provision to support uptake of EV's as potential fleet vehicles or similar.
S17 Shared Space EV Charging •Where one or more visitor/shared parking spaces are provided in a development a minimum of one enabled EV charging unit(s) is required to be installed at a shared parking space. •Communal EV charging space(s) should be located in highly visible, priority locations, to encouraged EV uptake. •Clear signage indicating that EV charging is available at the shared space(s).	The design impact of this standard is negligible and technically there are no implementation issues (there is widespread adoption)	Capital cost impact is \$2,200 for charging infrastructure to support one shared space.	The availability of EV Charging builds confidence in EV purchase. This has operational savings for the consumer and results indirectly in reduced carbon emissions.	The standard should be clarified to define shared, visitor and communal as the standard appears to use the terms interchangeably. The intent is supported, and the cost impact is low, but further work is required to refine the land uses or typologies that would benefit from the standard and should reasonably be asked to provide the infrastructure.
S19 Motor cycle, moped, electric bicycle or scooter parking •Where space is provided for motor cycle, moped, bicycle or scooter parking a 10 or 15 A charging outlets is to be provided at the parking/ storage area. •A charging outlet is to be provided for every six vehicle parking spaces to facilitate charging of electric bicycles, scooters, mopeds or motorcycles.	The design impact of this standard is negligible and technically there are no implementation issues (there is widespread adoption)	The capital cost is negligible, so has not been quantified.	As per bicycle parking and end of trip facilities, the improved infrastructure location means residents and workers are more likely to ride. Whilst there is confidence that the impact exists, modelling the benefit is complex as outlined in the Cost Benefit Analysis.	The standard should be modified to delete the first dot point (as the specification is too detailed for a planning scheme) and these are standard General Power Outlet in any case.

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S20 Parking Facilities ▪ Parking facilities for these low and zero emission vehicles should be located in a prominent, accessible location to encourage their easy access for use on short trips, ahead of higher emission and less space efficient vehicles.	The design impact of this standard is negligible as there is no additional space allocation required, simply a reallocation of existing car parking to prioritise the most sustainable private vehicle options	There is no capital cost implication.	The availability of EV prioritised car parking builds confidence in EV purchase. This has operational savings for the consumer and results indirectly in reduced carbon emissions.	The standard should be retained in its current form.

The following standards were not included in the analysis as they were either flagged for removal due to planning advice or the impact, costs and benefits were addressed in similar standards. Note that some standards may not have been fully analysed but are still included in the previous tables as there was relevant commentary to document.

STANDARD	REASON FOR EXCLUSION FROM ANALYSIS
S14 EV charging infrastructure must ensure that peak energy demand is managed to minimise the impact to the electricity supply network.	The impact of this standard is addressed through S16 as the scalable load management system is the principal design response. We have recommended that management of peak energy demand be included in S16.
S18 Rapid/Fast EV Charging The provision of fast charging spaces is not to be mandated but is to be a decision of developer.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. This is a suitable consideration for Guidelines for Sustainable Building Design.
S21 Reducing crossover length, minimising cross-fall in pedestrian areas and maintaining sightlines at entry/egress of developments	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. This is a suitable consideration for Guidelines for Sustainable Building Design.

Integrated Water Management

This theme focuses on the reduction of potable water consumption through efficiency measures and use of non-potable water sources, and the improving the quality of stormwater discharging from site.



Rainwater tank in rear garden of dwelling at The Cape development. Photography by Kim Landy

Integrated Water Management

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S22 Reduce the total design amount of potable use on site by at least 30% in comparison to an equivalent standard development	Design impact is delivered through other standards. Note that the potable water reduction has been considered for interior uses and irrigation only.	N/A	N/A	<p>We recommend that the standard be retained to drive potable water reduction outcomes while allowing the flexibility to decide how those reductions are achieved. Such a standard supports a performance based approach rather than a prescriptive approach which may not be suitable to all developments.</p> <p>The standard should be modified to clarify which potable water uses are to be assessed as part of the percentage reduction (e.g. only interior uses and irrigation, supported by rainwater reuse).</p> <p>Note that the analysis showed many cases studies already achieved >30% reduction for interior uses and irrigation support by rainwater reuse, and alternative design responses had the potential to further reduce potable water use above the minimum 30%.</p> <p>While further research could be undertaken to determine whether a more ambitious percentage reduction target is feasible, stakeholder consultation flagged that pursuit of a target greater than 30% could have amenity impacts for occupants and queried how far the role of the building sector should go in reducing potable water use compared to sectors with higher usage and greater opportunity.</p> <p>CASBE will need to define 'equivalent standard development'.</p>
S23 Provide efficient fittings, fixtures, appliances and equipment including heating, cooling and ventilation (HVAC) systems and re-use of fire safety system test water	The design impact is negligible and an appropriate design response is achieved through specifications. Such specifications were used as a potable water reduction strategy to meet Standard S22. Note that in all cases the potable water reduction target of 30% in Standard S22 was either already achieved in the base case or achieved through improved efficiencies to one or more fittings, fixtures and/or appliances.	Capital cost impact is negligible for fixtures and fittings, and approximate 50% premium on water efficient appliances.	<p>High efficiency fixtures, fittings and appliances result in an operational water saving.</p> <p>Note that further potable water reductions are possible for the alternative design responses as any improved efficiencies were only undertaken with the aim of achieving at least a 30% reduction.</p>	<p>We recommend that the standard be removed as a standalone standard but strategies listed under Standard S22. The specification of high efficiency fixtures, fittings and appliances must be considered as part of a suite of strategies to achieve potable water reduction. Specific mention of water efficiency (and strategies such as efficient fittings for example) should be included in Standard S22 as a means to achieve potable water reduction.</p> <p>Further detail on strategies to reduce potable water consumption can be included in Guidelines for Sustainable Building Design.</p>

Integrated Water Management

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S24 Provide onsite stormwater collection from suitable roof rainwater harvesting areas with reuse to toilets as a minimum and additional uses such as laundry, irrigation, external wash down facilities and hot water systems.	The design impact of providing onsite stormwater collection is negligible as all but two case studies included rainwater tanks. As the case studies with the built forms selected for a standardised analysis already had a spatial allocation for rainwater tank/s, there was no spatial implication for the two case studies requiring a tank. More broadly, apartment buildings and office high-rises where space is limited would be impacted most, however for most typologies a rainwater tank is the preferred method of meeting the Best Practice Environmental Management (BPEM) Guidelines. Optimising rainwater tank capacity based on the available collection catchment and reuse demand early in the design process can ensure a suitably sized location is provided for any tank/s.	Capital cost impact for a rainwater tank can range from \$1,000-4,500, depending on the tank capacity.	<p>Inclusion of rainwater tanks result in an operational water saving, largely through reuse in toilet flushing and irrigation.</p> <p>Use of rainwater tanks also helps deliver improvements to stormwater quality.</p> <p>Improved resilience during intense rainfall events.</p>	<p>We note that rainwater tanks are potentially commonly undersized in the absence of specific policy lever relating to tanks and potable water reduction. This is due to tank capacity often being driven by stormwater quality objectives, which may not result in optimised rainwater reuse.</p> <p>We recommend this standard be retained but slightly modified to include reference to maximising tank capacity aligned to reuse potential, not just size to achieve compliance with stormwater quality requirements. The inclusion of rainwater tanks is a cost effective way to provide multiple benefits relating to resource efficiency and environmental protection.</p> <p>We also recommend this standard highlight the need for filtration from rainwater harvested surfaces.</p>
S25 Connect to a precinct scale Class A recycled water source if available and technically feasible including a third pipe connection to all non-potable sources	The design impact of meeting this standard has been thoroughly tested through several strategic planning processes (such as Fishermans Bend), where the business case for provision of third pipe is highly dependent on mandated connection to the service.	Not measured.	Benefit of potable water reduction.	<p>We consider this standard is likely redundant in most circumstances where there is opportunity to connect to a recycled water supply because it would generally be mandated by a separate planning instrument.</p> <p>We support its inclusion not as a standalone standard but as a potential strategy under a suite of measures in the standard for efficient water use.</p>
S26 Consider alternative uses such as approved greywater and blackwater systems installed on site	The design impact of meeting this standard has not been tested as it is a consideration rather than a requirement.	Not measured as only a consideration.	Benefit of potable water reduction.	<p>We recommend retaining but modifying the standard to sit as a potential strategy for using water resources efficiently.</p> <p>Additionally, it could be included in the proposed Guidelines for Sustainable Building Design (with specific reference to the regional contexts which may not be sewered).</p>

Integrated Water Management

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S27 Provide landscaping irrigation that is connected to non-potable sources	The design impact of providing landscape irrigation connected to non-potable sources varies depending on the location of the landscaping. Most case studies already had connections and those without did not require a connection to achieve the potable water reduction target of Standard S22. Irrigation connected to non-potable sources should be considered as part of a suite of potable water reduction strategies, and may only be employed where the amount of harvested rainwater exceeds other all year round reuse demands such as toilet flushing, or where landscaping and associated irrigation is closer to the point of collection than some toilets. This approach can ensure efficiencies for hydraulic services within a development (e.g. avoid unnecessarily pumping water from the basement to a roof garden when it can be reused on lower levels).	Not measured as costs are highly variable based on the location of landscaping relative to the non-potable water source.	Benefit of potable water reduction.	<p>We recommend that the standard be removed, instead clarifying in S22 the types of demand reduction strategies that should contribute to the standard being met. The specification of landscaping irrigation connections to non-potable water sources should be considered one option of a suite of strategies to achieve potable water reduction, but should not be a mandatory strategy.</p> <p>Developments should achieve the 30% reduction in potable water use of Standard S22 through water efficiency and reuse measures, however, there should be the flexibility to achieve the 30% reduction without landscape irrigation connected to non-potable sources. This allows a contextual approach to potable water reduction for individual developments, and can avoid irrigation connections and associated pumps which don't achieve added benefit (e.g. if no rainwater leftover from toilet flushing to be used for irrigation, the hydraulic infrastructure is redundant).</p> <p>The inclusion of irrigation as part of the 30% reduction target may require some further work to determine what would be a suitable benchmark for irrigation in an 'equivalent standard development', with a methodology created to determine this for each assessment. If this isn't pursued, then a separate standard targeting water efficient landscaping without a target may be appropriate. Note that BESS does currently reward rainwater reuse for irrigation under Credit Water 1.1.</p> <p>Further detail on strategies to reduce potable water consumption can be included in Guidelines for Sustainable Building Design.</p>
S28 Consider landscaping that is drought tolerant and considers xeriscape design principles	The design impact is negligible as it is specification in the landscape design.	Cost neutral design specification.	Specification of drought tolerant species or use of xerispace design principles can help to reduce potable water demand.	We recommend that the standard be modified to be strengthened in language (but remain discretionary) and be less specific (e.g. remove xeriscape design principles) and focus more broadly on landscape design which reduces potable water consumption. Guidance materials (e.g. BESS Tool Notes and the proposed Guideline for Sustainable Building Design) can detail strategies to reduce water use in landscape design.

Integrated Water Management

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S29 Reduce the volume and flow of stormwater from discharging from the site by appropriate on-site detention and on-site retention strategies	The design impact of meeting this standard has not been tested as the impact was not able to be quantified and is more commonly addressed through engineering requirements during planning. Note that the use of rainwater tanks under Standard S24 is considered an on-site retention strategies and would contribute to the aim of reducing the volume and flow of stormwater discharged from site.	Not measured.	Operational water benefit from rainwater reuse and stormwater quality improvement from reduced flows off-site.	We recommend that the standard be retained with the intent of generally reducing volume and flow of stormwater. Further work would need to be undertaken for the standard to be linked to an explicit reduction target.
S30 Improve the quality of stormwater discharging from the site by meeting best practice urban stormwater standards	The design impact of improving stormwater quality is negligible as addressing this is commonplace. All case studies achieved the best practice urban stormwater standards (or where detail was insufficient were assumed to as per requirements of Clause 53.18). Stormwater quality can be improved through a range of strategies including maximising pervious surfaces, rainwater tanks, water sensitive urban design measures (e.g. raingardens) or stormwater offset contributions (e.g. Melbourne Water or local council schemes). Such strategies are routinely utilised by industry.	No capital cost is incurred as the proposed standard is addressed by existing planning provisions.	Stormwater quality improvements in line with the Best Practice Environment Management Guidelines (BPEM) standards.	We recommend that the standard be retained to further support existing planning provisions relating to stormwater management while also ensuring an integrated approach to water management is taken. Refer to planning advice as to whether inclusion of such a standard is a duplication of State provisions.
S31 Provide at least 30% of the site with pervious surfaces	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured.	N/A	N/A	We recommend that the standard be removed as the percentage target is not suitable for all typologies. Further exploration could be undertaken to determine whether a suitable permeability-related standard could be adopted, supporting additional integrated water management objectives. The principle of maximising pervious surfaces can be highlighted in Guidelines for Sustainable Building Design.
S32 Reduce the impact of flooding and the urban heat island effect on the direct site and its associated context	The design impact of this standard has not been tested as it is achieved either through measures of other standards (e.g. Standards S83) or existing planning mechanisms (e.g. Land Subject to Inundation Overlay).	Not measured.	Not measured.	We recommend that the standard be removed as it is a duplication of another standard and addressed through other planning mechanisms such as overlays.

Integrated Water Management

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S33 Improve the resilience of the design by modelling and demonstrating a response to future specified future flood modelling that considers impacts from climate change such as flooding, intense storm events, sea level rise, storm surge and drought	The design impact of responses to future climate impacts has not been measured as such measures are highly contextual to individual developments due to factors such as location and associated hazards. Due to the site-specific nature, the creation of design responses for the case studies is not beneficial as the impact cannot be easily extrapolated across other developments within the same typology.	Capital cost resulting from integrating climate risk assessment recommendations into the design are not able to be determined. Consultancy cost of approximately \$15,000 if a formal Climate Risk Assessment aligned with Australian Standards / Green Star Buildings is required.	Long-term benefits associated with future-proofing a development from predicted climate impacts are tangible. Example benefits include reduced rate of material replacement.	We recommend that the standard be modified to address future climate impacts broadly. The standard would however need to be supported by guidance (Guidelines for Sustainable Building Design) as to what is considered an appropriate response from a planning applicant, as the approach to consideration of future climate impacts could range from a simple statement of design responses to a formal climate risk assessment.
S34 Ensuring the environmental safety and protection of human health through - onsite water collection, treatment, filtration, and usage, especially potable water use and irrigation on productive food gardens	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated.	N/A	N/A	We recommend that the standard be removed and addressed through S24. The concerns about public health implications from rainwater reuse (reference to appropriate filtration) should be included in any rainwater reuse standard.

Indoor Environment Quality (IEQ)

This theme focuses on improving the comfort of building occupants including internal temperatures, air quality and daylight access.



Natural light in Bendigo Hospital. Photography by Peter Clarke

Indoor Environment Quality (IEQ)

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S35 No habitable rooms should have internal temperature greater than 21 degrees continuous for 72 hours, demonstrated through NatHERS modelling in free-running mode	<p>This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured in detail.</p> <p>We do note however that when a NatHERS FirstRate file for an 8.2 Star dwelling was interrogated it did not meet the standard.</p>	Not measured.	Not quantified.	We recommend that the standard as currently written be removed, consistent with Hansen's advice. However, we support the intent of the standard so suggest further work to refine the wording and the temperature and time range. We suggest including a reporting requirement in BESS which doesn't impact assessments scoring, but allows for the gathering of an evidence base.
S37 Ventilation standard: Apartments only Apartment buildings should have all apartments effectively naturally ventilated, either via cross ventilation, single-sided ventilation or a combination	<p>The design impact of meeting this standard is significant for some apartment buildings (however only one apartment case study was impacted). Whilst the standard does not prescribe specific depths that would meet single sided ventilation standards or breeze paths that would meet cross ventilation standards, the tool notes for the BESS tool provide guidance as outlined below:</p> <p>_Single sided ventilation - Maximum permissible depth of room 5m (separated openings high and low or split across the width of the room/facade, each 5% of the floor area are preferred)</p> <p>_Cross flow ventilation - Breeze path length less than 15m measured between ventilation openings and around internal walls, obstructions & partitions (note no more than 1 door between openings and that openings must be on opposite or adjacent walls)</p> <p>The most significant impact is where apartments are loaded off each side of a central corridor, but have living room and kitchen depths of greater than 5m. The standard structure of these apartments (see below) does not allow for the standard to be met without significant redesign, to introduce new external facades to the built form. This could have multiple impacts, including increasing the length of external walls (with a thermal performance impact that needs to be managed), a major loss of yield and complicating the building structure (apartment buildings of this type are often built on a standard 8.4m grid which allows for walls between apartments to sit directly above car parking pylons separated by 3 car spaces).</p> <p>Mechanical ventilation solutions which can preserve energy recovery, better control air quality and condensation as air tightness increases may be preferable in a wide variety of contexts.</p>	<p>The capital cost impact of the standard is highly variable depending on the base case design.</p> <p>Whilst there is no standard response, in the case of RES 1 CS2 one design response, focusing on the built form on the western edge of the site (image below) would be to delete Apartment 101 to externalise the access to all apartments (via an open walkway). The capital cost impact would actually be positive (approximately \$300K per 100m2 apartment) but the lost revenue (in relation to the dwelling sale) would potentially be three-fold in the context that administration, land values etc remain constant.</p> <p>If redesigned from the 'ground up' then design responses to meet the proposed standard may result in a reduced yield impact.</p>	<p>The benefit of the standard is to deliver improved health and wellbeing outcomes and assist in delivering passive cooling (delivering an improvement to thermal performance).</p>	<p>We recommend that the standard be modified to allow discretion for demonstrated performance of mechanical solutions to ventilation where there may be other advantages including controlling energy losses, filtering air on high pollen days and controlling condensation as air tightness increase.</p> <p>We do not consider that the standard as written is appropriate unless BESS guidelines for definition of single sided ventilation are relaxed.</p> <p>We recommend as an alternative to retain the current benchmark of 60% natural ventilation as it also promotes other positive outcomes, but this would reduce the detrimental impact on development feasibility, supported by a minimum cross ventilation outcome for each floor.</p>

Indoor Environment Quality (IEQ)

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S37 Ventilation standard: Detached houses and townhouses All habitable rooms of detached houses and townhouses should be cross ventilated.	The standard does have some impact on design of dwellings, but design responses to meet the standard are generally speaking modest. In the examples studied design responses included replacement of fixed windows with operable, and introducing additional windows. Note that three study rooms of a town house case study could not achieve cross flow ventilation due to only having one external face (rooms adjoined neighbouring dwellings or garage).	Cost impact related to the replacing fixed with operable windows (an impact of approximately \$90 per sqm) and replacement of facade with operable glazing (an impact which varies with the construction material it replaces).	Benefits are as per the apartment standard.	We recommend the standard be retained as only small, low cost modifications were required to meet the standard, however, clarity is needed as to whether home offices / studies would be required to meet the standard.
S37 Ventilation standard: All regular use areas of non-residential spaces should be effectively naturally ventilated; or provided with 50% greater outdoor air than the minimum required by AS1668:2012; or have CO2 concentrations maintained below 800 ppm.	<p>The design impact of this standard is significant and may have unintended consequences. The impact would be from a larger mechanical ventilation system - an increase in fan size and power, and also increased duct sizes resulting in spatial implications such as larger risers in the building and larger footprints in plant rooms. Energy requirements would be increased.</p> <p>Whilst this plant room impact is minor it will impact the net lettable area from a developer perspective.</p> <p>The standard also prescribes a specific solution to improved ventilation when alternatives such as Heat Recovery Ventilation may be preferable.</p>	Cost impact related to the standard would depend on the individual building context and was unable to quantified in a way that conclusions could be accurately drawn from the results.	Benefits are as per the apartment and townhouse standard. An additional benefit relates to worker productivity.	<p>We recommend that the standard be modified to maintain the goal of natural ventilation but keep open mechanical design solutions for increased ventilation, especially those that do not have an energy implication.</p> <p>The intent of the PPM standard is supported, however we note that the detail required to model this outcome would not generally be known at the planning stage.</p>
S38 Buildings should achieve effective external shading to west, north and east facing glazing and skylights.	<p>The design impact of this standard is significant. Required responses range from external awning solutions for smaller residential typologies to vertical fins and horizontal eaves for larger residential and non-residential developments. There are no major technical issues as a wide range of solutions exist to suit a variety of contexts.</p> <p>For the RES 1 case study, the alternative design response proposed an optimised glazing to wall ratio, with a height reduction in east and west glazing from 2.7m to 2m (changed to spandrel construction) to avoid excessive heat gain while reducing the shading costs associated with a larger amount glazing.</p>	<p>The capital cost impact of shading is significant.</p> <p>The implication for a single residential dwelling was \$9,000 and in the large residential case study this was over \$3,500 per dwelling.</p> <p>The modelled cost impact was based on retaining the same amount of glass and shading it except for RES 1. With a reduction of 25% on east and west facades the impact was significantly reduced (\$3,570 per dwelling in additional cost, but with an additional saving of approximately \$500 per dwelling through the conversion of glazing to a spandrel facade).</p>	<p>Benefits include a thermal performance (energy saving) benefit related to reduced cooling loads (with a related peak demand improvement) as well as improved health and wellbeing outcomes.</p> <p>The average NatHERS improvement attributed to externally shaded windows is in the order of 0.2 Stars (or 10 mj/m2 per year)</p>	<p>We recommend that the standard be modified to broaden the design strategies for managing excessive heat gain that the shading is attempting to address. This will allow for a wider range of solutions to be deployed and potentially reduce the cost associated with controlling excessive heat gain.</p> <p>Alternatives include; reducing east and west glazing ratios, spandrels, balconies with wing wall protection etc. This could be integrated with other passive design principles).</p> <p>The updated standard by Hansen allows for the flexibility in approach to reducing heat gain.</p>

Indoor Environment Quality (IEQ)

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S39 Buildings should have at least double glazing with improved frames to all habitable rooms and nominated areas OR All dwellings to have PMV between -1 and +1 for 95% of areas of each space for 98% of annual hours of operation (NCC2019 for NABERS, Green Star and JV3 is - 1 to +1)	<p>The design impact of the standard varies with respect to the base case, but in almost all contexts double glazing was already specified. The design impact of the double glazing component of the standard is therefore negligible in the residential context.</p> <p>The predicted mean vote (PMV) component of the standard is problematic, principally because the information required to model it accurately is often not available at the planning stage and not often used for residential developments.</p>	The cost impact of double glazing over single glazing was not measured as in all but one base cases (of 9) double glazing was already specified.	<p>Double glazing and PMV optimisation both produce a thermal comfort benefit and drive improved thermal performance and therefore both an energy saving and a health and wellbeing outcome.</p> <p>As all but one base cases had specified double glazing already, the operational savings and health benefits associated with the standard were not calculated.</p>	<p>We recommend that the standard be removed, as the inclusion of double glazing will (in the circumstances it is not already routinely delivered) be driven through the adoption of the proposed 7 star NatHERS standard through NCC 2022 (or otherwise through this proposed policy). Double glazing is supported as one of several strategies to improve thermal performance.</p> <p>The PMV standard may be appropriate to reference in Guidelines for Sustainable Building Design.</p> <p>Double glazing can be highlighted in Guidelines for Sustainable Building Design as a key strategy to improve thermal performance and comfort.</p>
S40 All habitable rooms should have annual heating load density under 150% of dwelling annual heating load density.	The impact of this standard was tested using a FirstRate file for an 8.2 Star dwelling. It was determined that the lower the density figures of a dwelling, the more easily this results in non-compliance with the standard. This may have the unintended consequence of penalising high-performing dwellings (i.e. those with low loads).	The cost impact was not measured as initial testing of technical feasibility determined the standard should be removed.	Intended benefit of the standard is to avoid isolated thermal comfort issues in individual rooms.	<p>We recommend that the standard be removed as it is likely to have the unintended consequence of penalising high-performing dwellings. If the intent of the standard is to be pursued, the standard would need further investigation to establish an appropriate metric rather than a percentage ratio related to annual dwelling heating load density. An alternative metric to be explored is maximum heating and cooling loads for individual rooms.</p> <p>We suggest including a reporting requirement in BESS which doesn't impact scoring, but allows for the gathering of an evidence base.</p>

Indoor Environment Quality (IEQ)

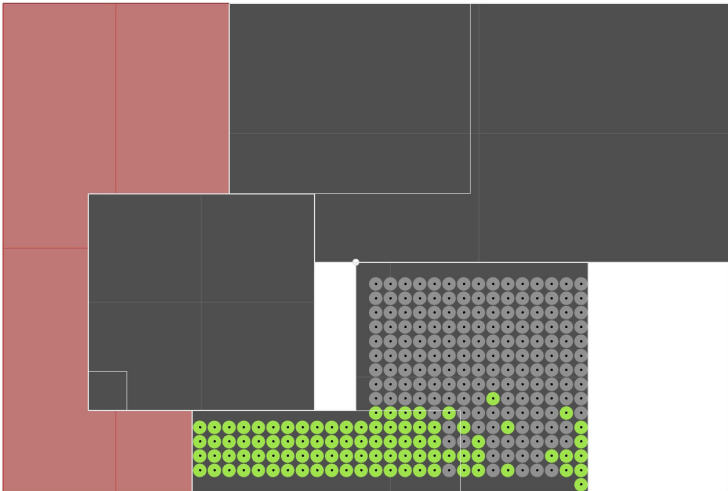
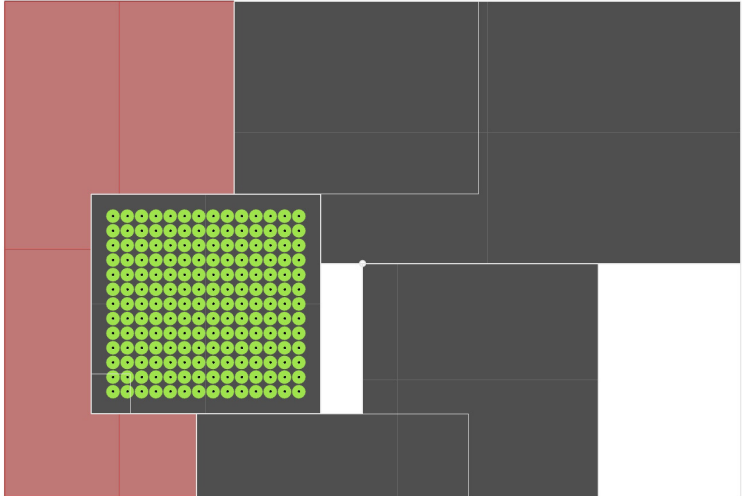
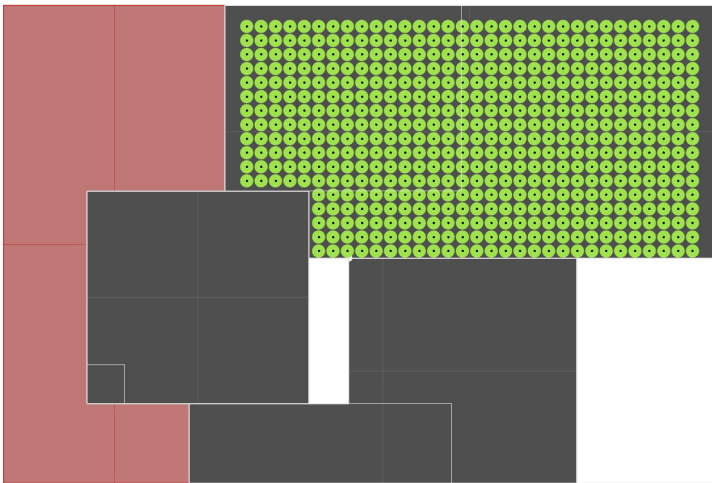
STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S42 Buildings must achieve a daylight level of minimum 200 lux for at least half of daylit hours each day to at least half the area of every habitable room and regularly occupied space.	<p>The impact of this standard as written will be varied across different typologies of the built environment. For residential apartment buildings, specific design restrictions on habitable room depth, building orientation, setbacks, building separation and glazing visible light transmittance specifications will be necessary.</p> <p>The impost of this standard on bedrooms (as currently written) is considered impractical, given the usage patterns in bedrooms is generally aligned with non-daylit hours. It would require both bedrooms to have nearly full aperture directly to daylight or to a shallow balcony, which would mean that dwellings would need to exceed the standard 8.4m apartment grid. This would mean that 2 bedroom apartments would need to be in excess of 80 sqm to accommodate the standard which would significantly impact affordability.</p> <p>Refer to daylight modelling outputs on following page.</p>	The capital cost impact is that two bedroom dwellings would need to be much bigger (impacting affordability) or significantly shallower which would impact yield and have a flow on benefit for affordability.	<p>The benefit (over current standards) is primarily restricted to improved daylight amenity for second bedrooms, where a 'battle axe' arrangement restricts daylight amenity.</p> <p>More broadly, evidence exists relating to minimum daylight levels for occupant health (e.g. base levels of circadian rhythm). Further detail can be found in the report 'Health impacts of daylight in buildings' prepared by UTS for MAV / CASBE / DELWP.</p>	<p>We recommend modifying the standard based on the impact to development feasibility. The ethics of daylight access are complex and whilst we consider that people who spend significant time during the day in bedrooms should be afforded an improved daylight outcome, we consider that a broad application of this standard to ensure good daylight access to a second bedroom is outweighed by the impact on development feasibility (and the flow on impact to affordability) in its current form.</p> <p>We would support a revised standard which averaged the 200 lux daylight level over the winter period rather than each (every) day over the whole year.</p> <p>Alternatively, further testing could be undertaken for the standard as is currently written but with a modified period of time (e.g. 2 hours rather than half of daylit hours). This testing could occur through the daylight scope separately commissioned by CASBE.</p>
S43 Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux or 100 lux depending on the space type (refer to detailed daylight criteria table).	<p>The design impacts of this standard is considered minimal, given the low levels of lux requirements across habitable rooms. This standard is generally in alignment with the current BESS Daylight Factor levels however the increase to 100% creates additional challenges if applied in a residential setting.</p> <p>If the 50 lux level is applied to habitable rooms of dwellings, then all rooms which meet standard S42 will pass this standard already.</p> <p>Refer to daylight modelling outputs on following pages.</p>	The capital cost impact of the standard is not significant, however yield would be impacted due to increased building separation / setbacks if a standard higher than 50 lux was applied in a residential setting.	The benefit delivers improved daylight amenity for both living areas and bedrooms..	<p>We recommend reviewing the standard further through the daylight scope separately commissioned by CASBE. On the basis of the results in this case study the standard appears redundant for residential applications.</p> <p>We also recommend that a standard to minimise use of artificial light may be appropriate.</p>

Indoor Environment Quality (IEQ)

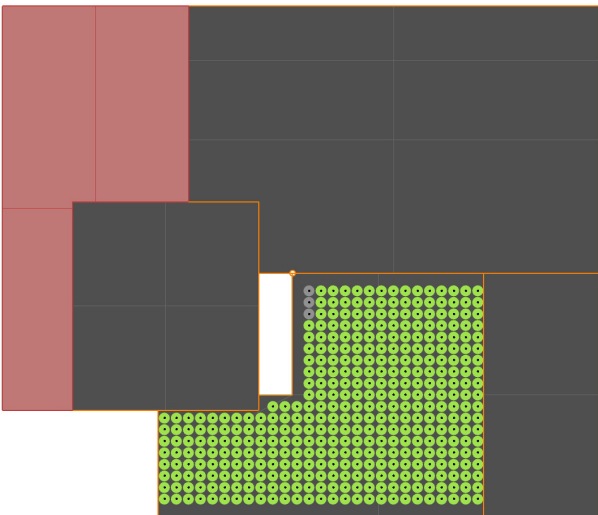
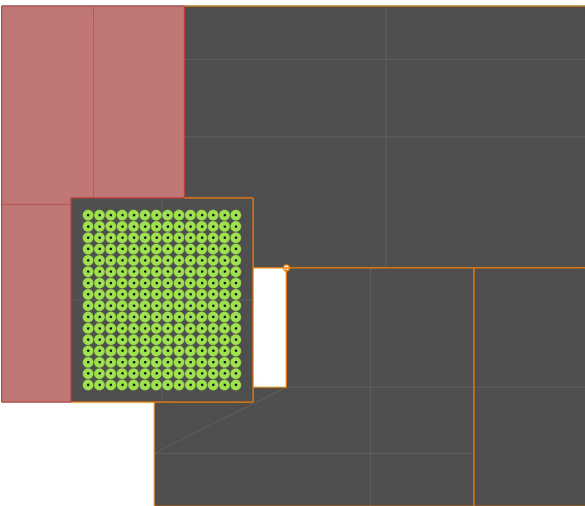
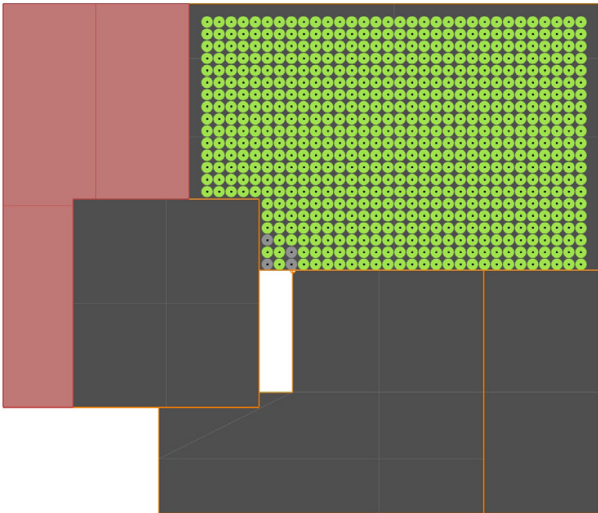
PROPOSED ELEVATED STANDARD 1

Buildings must achieve a daylight level of minimum 200 lux for at least half of daylit hours each day to at least half the area of every habitable room and regularly occupied space. (sDA200,50%).

Refer to Appendix C for full daylight modelling results.



Original apartment layout



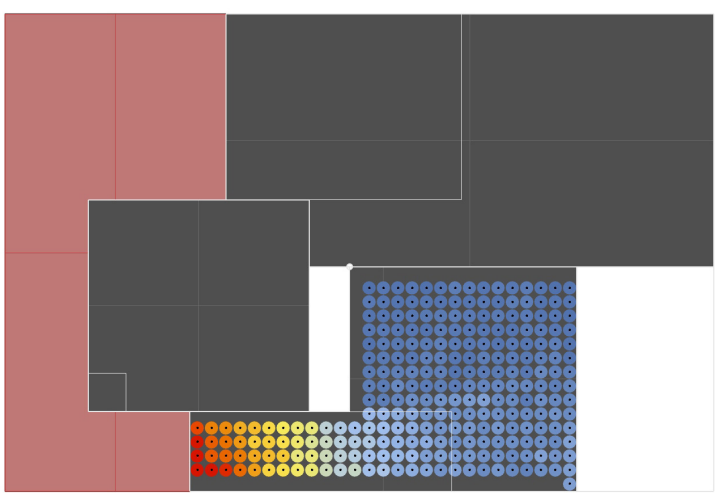
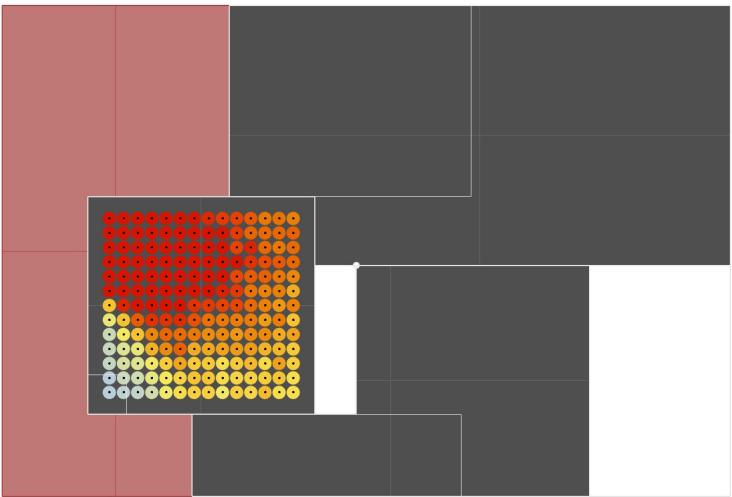
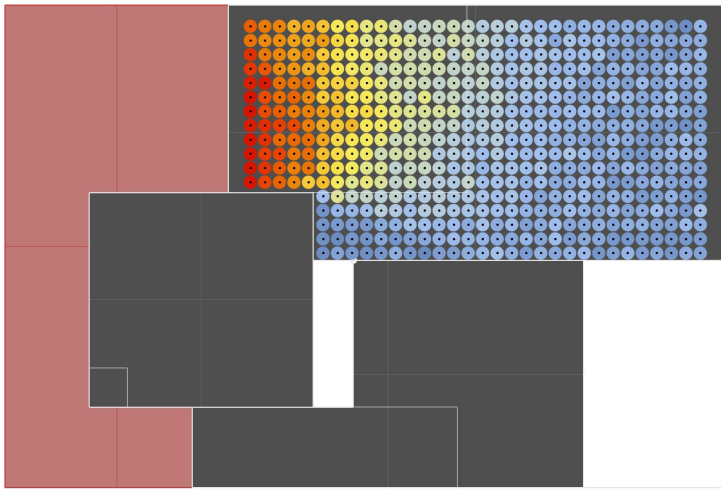
Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to Better Apartment Design Standards (BADS))

Indoor Environment Quality (IEQ)

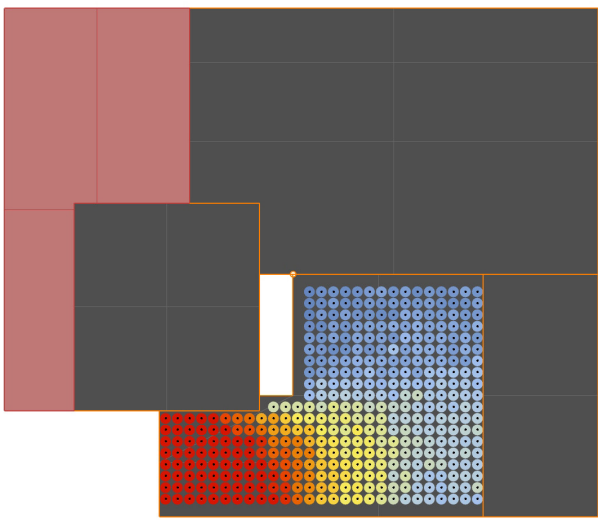
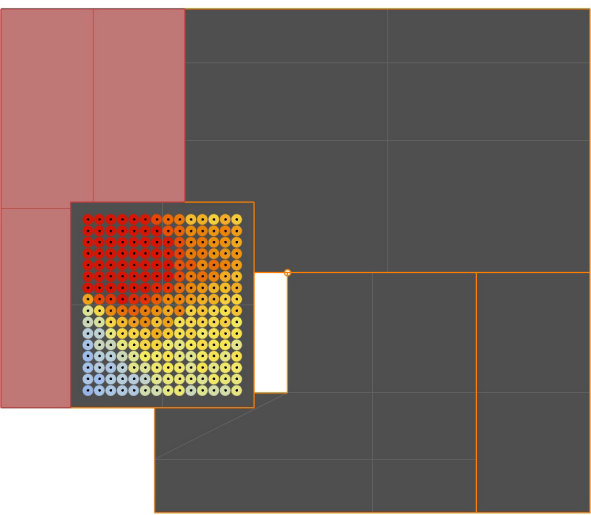
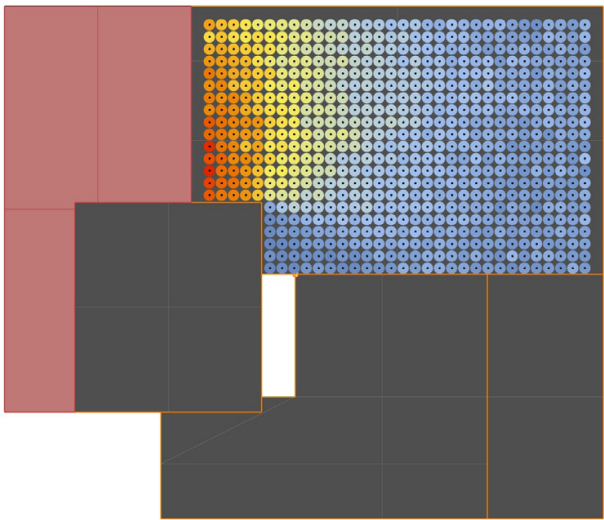
PROPOSED ELEVATED STANDARD 2

Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux depending on the space type.

Refer to Appendix C for full daylight modelling results.



Original apartment layout



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Indoor Environment Quality (IEQ)

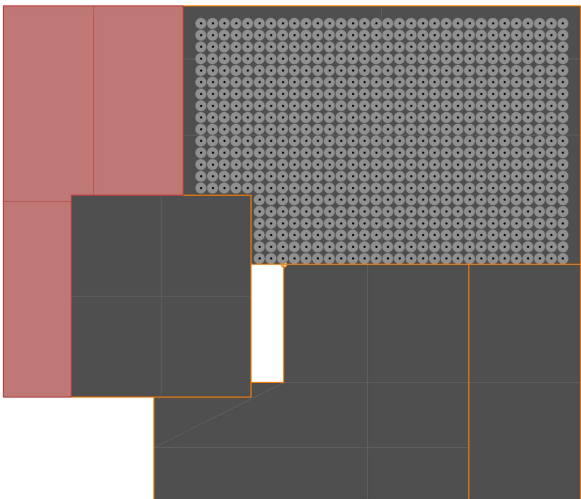
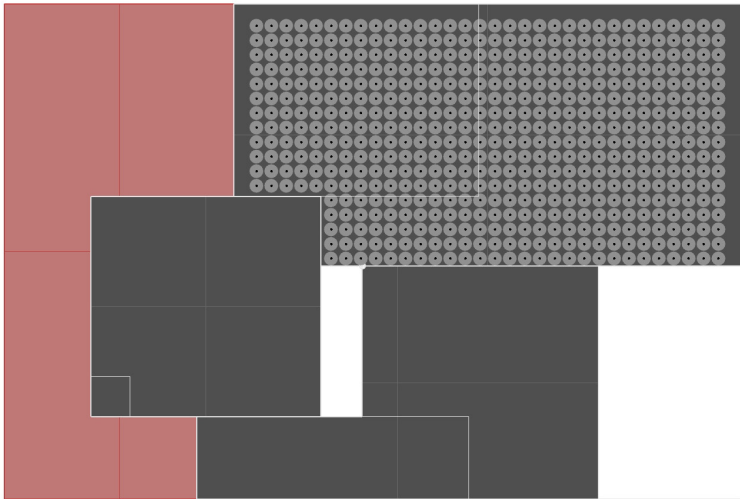
STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S44 Buildings should achieve direct sunlight to all primary living areas for 2 hours on June 21 to at least 1.5 m deep into the room from glazing.	<p>The design impact of this standard as written would rule out the development of any southern-only aspect dwellings. Primary living areas would be required to face either north, east or west in order to have the potential to receive direct sunlight for at least 2 hours.</p> <p>The testing undertaken found that where a wing wall is present on the north side of an east or west facing dwelling with an adjacent living space that the standard could not be met without reducing the depth of the balcony (impacting outdoor amenity) the length of the wing wall considerably, or adjusting its height (which might impact privacy and structural integrity).</p> <p>Refer to daylight modelling outputs on following page.</p>	The capital cost impact of the standard is not significant, however as written, the standard is not possible to meet for buildings with south facing aspects.	Amenity is improved when dwellings have direct access to sunlight.	<p>We recommend that at a minimum the standard be modified by targeting a reduced number of compliant living rooms as it is not practical for a large development (in particular a large east-west site) to totally avoid a south facing aspect for some living areas. Further testing is required through the dedicated scope commissioned by CASBE to test multiple design iterations beyond a single case study condition (which would include testing a 70%, 75% and 80% threshold).</p> <p>We also query the use of the winter solstice (June 21) .We suggest that the an average over winter months (June-August) is more appropriate.</p> <p>We support a sunlight standard being pursued, but further work beyond our scope is required.</p>
S46 Buildings should have all habitable rooms and frequently occupied spaces provided with glazing to the outside. An exception can be made where external views and daylighting are contrary to the nature and role of the activity in the space (e.g. cinemas).	The design impact of this standard is negligible as in all cases the residential typologies already met the standard.	No cost impact.	The benefit is related to amenity, but as all base cases already meet the standard no benefit can be quantified.	We recommend that the standard be retained, pending a review by Hansen as to whether the standard duplicates other planning policy or building regulations.

Indoor Environment Quality (IEQ)

PROPOSED ELEVATED STANDARD 3

Buildings should achieve direct sunlight to all primary living areas for 2 hours on June 21 to at least 1.5 m deep into the room from glazing.

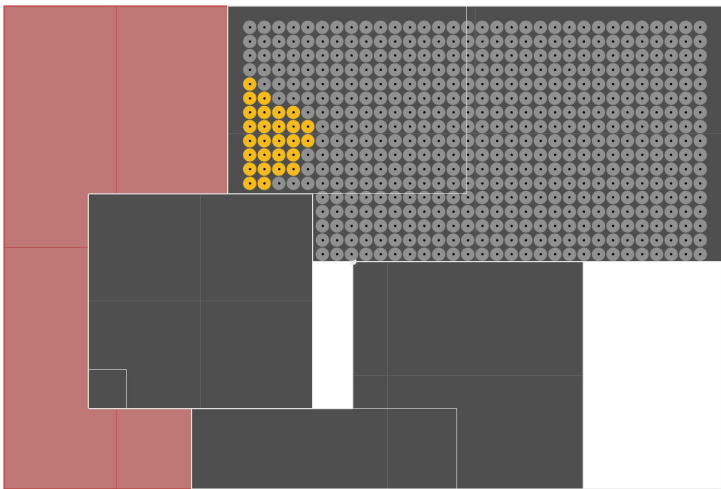
Refer to Appendix C for full daylight modelling results.



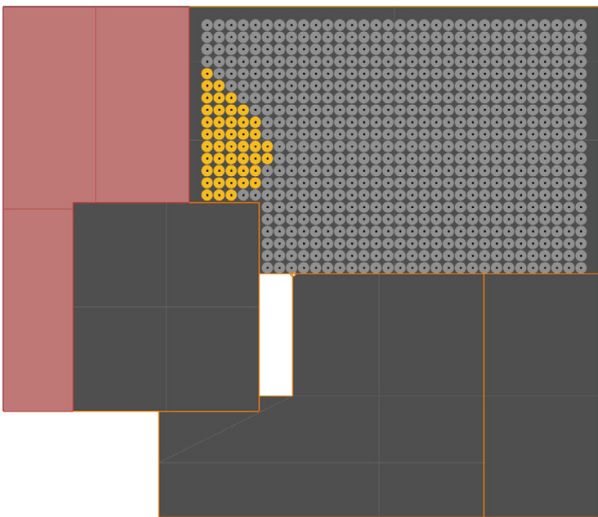
ADJUSTED ELEVATED STANDARD 3

Buildings should achieve direct sunlight to all primary living areas for 2 hours to at least 1.5 m deep into the room from glazing.

This demonstrates that only when averaged over the whole year does this type of apartment layout come close to meeting the standard.



Original apartment layout



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Indoor Environment Quality (IEQ)

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S56 Buildings should include openable external windows to circulation corridors and lift lobbies to facilitate natural ventilation and daylight.	<p>The design impact of this standard is constrained to Class 2 (apartment) buildings. The most significant impact is where apartments are loaded off each side of a central corridor and the corridor is fully enclosed within the building footprint.</p> <p>We note that for level above approximately 5 storeys that natural ventilation to corridors may not be the best solution due to wind issues, and as outlined in relation to dwelling ventilation, mechanical systems may have better performance outcomes.</p> <p>A secondary issue is natural ventilation of corridors requires walls onto the corridor to be treated as external spaces from a thermal performance perspective, increasing the insulation requirements to meet the same modelled outcome.</p> <p>Depending on the floor layout, meeting the standard may impact on yield (in one of the base cases, approximately 16 sqm per level).</p>	<p>The capital cost impact may actually be positive (as to meet the standard requires a reduction in building footprint). By way of example the loss of 16m2 of residential space could save up approximately \$50K in construction cost, but would represent a loss in yield of well in excess of double that value (depending on location). Administration costs, land costs, preliminaries etc would all remain relatively constant.</p> <p>There is also a cost impact to increase thermal fabric of the walls abutting the corridor space.</p>	The benefit of the standard is to deliver improved amenity outcomes (reduced odours, improved health etc).	<p>We recommend that the standard be modified to account for mechanical ventilation solutions which may be more appropriate for non-residential buildings and taller residential buildings, as well as delivering a range of other benefits (thermal performance etc). We consider that the daylight component of the standard be retained.</p> <p>We recommend that a standard clarify which building typologies it would be applicable to (hospitals, aged care, some office typologies etc all have central corridors but it appears the standard has been drafted with primary reference to apartment buildings) and have regard to wind issues in taller buildings.</p>

The following standards were not included in the analysis as they were either flagged for removal due to planning advice or the impact, costs and benefits were addressed in similar standards. Note that some standards may not have been fully analysed but are still included in the previous tables as there was relevant commentary to document.

STANDARD	REASON FOR EXCLUSION FROM ANALYSIS
No habitable rooms should have internal temperature less than 16 degrees continuous for 72 hours, demonstrated through NatHERS modelling in free-running mode.	Refer to Standard S35.
All habitable rooms should have annual cooling load density under 150% of dwelling annual cooling load density.	Refer to Standard S40.
Buildings should achieve winter sun access to all proposed primary private open spaces. At least 50% or 9 m2, whichever is the lesser, of the primary private open space should receive a minimum of two hours of sunlight between 9 am and 3 pm on 21 June.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider that other planning scheme instruments are preferable to an ESD policy for ensuring outdoor amenity.
Buildings should have all habitable rooms and frequently occupied spaces provided with a layered view comprising 3 distinct layers: sky (background), landscape (middle ground) and ground (foreground)	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this an appropriate objective to be included in Guidelines for Sustainable Building Design.
Buildings should have a maximum horizontal distance from a fixed point of occupation (e.g. sales desk, retail checkout, office desk, work station) to the external glazing of 8 m.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider that this information is not available at the planning stage and so it not appropriate to be included within the proposed Guideline for Sustainable Design.

Indoor Environment Quality (IEQ)

STANDARD	REASON FOR EXCLUSION FROM ANALYSIS
All paints, sealants and adhesives should meet the maximum total indoor pollutant emissions limits as set out in most current GECA, Global GreenTag GreenRate, Green Star or WELL standards.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this as an appropriate standard to be included in Guidelines for Sustainable Building Design.
100% of relevant products should meet the maximum total indoor pollutant emission limits	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider that this information is not available at the planning stage and so it not appropriate to be included within the proposed Guideline for Sustainable Design.
All carpets should meet the maximum total indoor pollutant emissions limits as set out in most current GECA, Global GreenTag GreenRate, Carpet Institute Australia Environmental Classification Scheme Level 2, Green Star or WELL standards.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this as an appropriate standard to be included in Guidelines for Sustainable Building Design.
All engineered wood should meet the maximum total indoor pollutant emissions limits as set out in most current GECA, Global GreenTag GreenRate, Green Star or WELL standards.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider that this information is not available at the planning stage and so it not appropriate to be included within the proposed Guideline for Sustainable Design.
Non-residential only Internal smell and odour control for olfactory comfort - use negative pressurisation, self-closing doors or area separation (e.g. via corridors, air-lock) to prevent migration from bathrooms, kitchens, dining areas and pantries to workspaces (WELL credit).	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider that this information is not available at the planning stage and so it not appropriate to be included within the proposed Guideline for Sustainable Design.
Where the development is within 150m of main roads, truck routes and rail corridors carrying diesel trains: •Sensitive use facilities are not supported within this zone. Acceptable indoor air quality may be achieved through HEPA or MERV16 filters, however acceptable open space air quality is not deemed to be achievable. •All other development types within this zone should include all outdoor air supply filtered through HEPA or MERV16 filter system. Development to include air pollution monitoring system including PM1, PM2.5 and PM10 levels.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider that an ESD policy is not the appropriate mechanism for ensuring air pollution standards and buffer distances for sensitive uses.
Where the development is within 500m of main roads, truck routes and rail corridors carrying diesel trains: •All development types within this zone (including sensitive use types) should include all outdoor air supply filtered through HEPA filter system. •Development to include air pollution monitoring system including PM1, PM2.5 and PM10 levels.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. We consider that an ESD policy is not the appropriate mechanism for ensuring air pollution standards and buffer distances for sensitive uses.

Circular Economy

This theme focuses on improving rates of resource recovery during both construction and operation, and closing the loop by encouraging the use of materials with recycled content as an alternative to virgin materials.



Public waste receptacle with disposal points for multiple streams at Burwood Brickworks. Photography by Kim Landy

Circular Economy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S57 Provide a Construction and Demolition Waste Management Plan that sets a landfill diversion target by demonstrating practices and activities in line with minimising waste and increasing resource recovery.	There are no design impacts related to this standard as it is an operational practice.	Capital cost impact is not measurable as waste disposal services do not commonly offer an option of 'all waste to landfill' and an option of 'XX% waste diverted from landfill'. This is further compounded as the rates of different service providers vary as they are dependent on factors such as proximity to a construction site and whether a provider operates its own recycling processing facility or has arrangements with another party, therefore making comparison across providers problematic. Note that there is no cost impact for an increased percentage of diversion (e.g. no cost premium for a recovery rate of 70% versus rate of 80%).	Significant benefits from increased resource recovery/ landfill diversion. Volume of waste diverted from landfill largely dependent on the typology.	We recommend that the standard be retained but modified to include a minimum 80% landfill diversion target for construction and demolition waste. This will help to achieve consistent responses to the standard and ambitious but achievable resource recovery rates.
S58 Utilise low maintenance, durable, reusable, repairable and recyclable building materials. S59 Utilise materials that include a high recycled content. S60 Utilise low embodied energy, water and carbon through informed responsible procurement and product stewardship measures. S61 Avoid materials which are low toxicity in manufacture and use, and that may cause harm to people, the ecosystem and other biodiversity	The design impact is varied depending on the strategies used and extent to which this standard is addressed. The selection of more sustainable materials would be achieved through specifications which prioritise alternatives over business-as-usual materials. As materials selection options are highly varied, we applied one consistent example which is generally accepted by industry and easily quantified - the specification of concrete with cement replacements (supplementary cementitious materials) over a standard concrete mix. This applied as a standard design response for the case study alternatives.	Capital cost premium of a concrete with supplementary cementitious materials is approximately \$10/m3.	For the example of concrete with supplementary cementitious materials: Resource recovery benefit from the reuse of a waste product/by-product (fly ash). Carbon benefit from replacement of carbon intensive materials (cement).	We recommend that the standard be modified to consolidate multiple draft standards relating to materials selection, and focus the revised standard on use of recycled content materials and materials with low embodied carbon. Guidance such as BESS tool notes and the proposed Guideline for Sustainable Building Design is required to communicate what strategies are considered adequate to meet the standard. Low toxicity may be appropriate as a standalone IEQ standard.
S62 Utilise materials that are locally sourced and supplied, supported by relevant chain of custody or third-party verification process.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured.	N/A	N/A	We recommend that although this standard has been flagged for removal, the principle of local sourcing can be included under standards relating to reducing (travel related) embodied emissions.

Circular Economy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S63 General Collection and Management Enable the separation and collection of resources from all current waste and recycling streams and provide spatial allocation for future waste and recovery streams.</p>	<p>The design impact of meeting this standard relates to the ability of a development to cater for the disposal and collection of a variety of waste streams. At a minimum, all case studies provided space for both general waste and recycling, with some also providing space for organics, glass and hard waste recovery. An increase in waste streams collected (e.g. glass recycling & FOGO) may result in the need for increased spatial allocations, however, this is not a given as some developments may respond with a range of measures to avoid requiring additional floor space dedicated to resource recovery (e.g. increase collection frequency, use of compactors/crushers).</p>	<p>Cost implication has not been measured, as this will be a result of State policy rather than this standard directly.</p>	<p>Carbon benefit due to avoided CO2e emissions of organics in landfill.</p> <p>Note that the amount calculated for the CBA assumes that occupant behaviour results in full diversion of organics from landfill if appropriate infrastructure is present and collection services are available.</p>	<p>This standard should be retained but modified to be an overarching waste collection and management standard where elements of other standards can be consolidated into.</p> <p>Note that part of the role of the standard is to reinforce State policy direction of the near future (i.e. Recycling Victoria), particularly waste stream diversification. We recommend that apartment developments consider additional waste streams such as textiles and e-waste.</p>
<p>S66 Individual/ Localised Management Developments should include dedicated areas of adequate internal storage space within each dwelling to enable the separation and storage of waste, recyclables and food and organic waste.</p>	<p>The design impact of meeting this standard is negligible. Dedicated internal storage space within dwellings for waste management was not ordinarily evident in the case studies but adequate collection systems can easily be integrated into existing/standard storage space (e.g. a 600mm x 600mm area).</p>	<p>Capital cost is none/negligible.</p>	<p>Potential to improve waste separation at the source and improve resource recovery.</p>	<p>We recommend that this standard be consolidated into a broader/ overarching standard relating to waste collection and management.</p>
<p>S67 Consolidated/ Centralised Management Developments should include dedicated facilities for the collection, separation and storage of waste and recyclables; which are:</p> <ul style="list-style-type: none"> – Adequate in size, durable, waterproof and blend- in with the development. – Adequately ventilated. – Accommodating similar transfer passages for all waste and recycling streams – Located and designed for convenient access including for people with limited mobility – Include appropriate signage and labelling 	<p>The design impact of meeting this standard is negligible as consolidated/centralised management is commonplace across the majority of typologies (e.g. a central waste storage room in a basement).</p>	<p>Capital cost is none/negligible.</p>	<p>Potential to improve waste separation at the point of disposal and improve resource recovery.</p>	<p>We recommend that although the intent of the standard is supported it should be consolidated into a broader/overarching standard relating to waste collection and management.</p>

Circular Economy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S68 Consolidated/ Centralised Management Developments should include dedicated areas for the collection, storage and reuse of food and garden organics, including opportunities for on-site treatment, where appropriate, or off-site removal for reprocessing	Refer to Standard S63	N/A	N/A	We recommend that this standard be consolidated into a broader/ overarching standard relating to waste collection and management.
S69 Consolidated/ Centralised Management Developments should include adequate facilities for bin washing.	The design impact of meeting this standard is varied due to the options available for bin washing. One option may be on-site infrastructure in the waste collection area (e.g. a tap and floor waste), which some case studies did include. However, some developments may opt for bin cleaning by a mobile cleaning vehicle (i.e. hooks bins up to the back of the truck, washes out and returns to storage space). The latter option would not require on-site infrastructure, only space for the temporary parking of a washing vehicle which could be the same as any on-site collection space.	Cost implication has not been measured as the differing strategies range from capital costs (e.g. taps - negligible cost) to operational costs (e.g. arrangement for in-truck washing).	Improved amenity for occupants due to a cleaner waste disposal area.	We recommend that this standard be modified to clarify that 'facilities' does not necessarily mean on-site infrastructure such as taps and floor waste is required. While such infrastructure can be encouraged, the modification allows flexibility for other approaches to bin washing.
S70 Collection Points and Access Developments should include adequate circulation to allow waste and recycling collection vehicles to enter and leave the site without reversing.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. Note that the design impact of requiring vehicle circulation on-site that allows entry and exit without reversing is significant. This objective is often already sought for by Councils however is largely not evident or practical in the case studies reviewed. For many smaller sites such as inner city apartment and office developments, this is either impractical or would have a large spatial implication.	N/A	N/A	N/A
S73 Materials Encourage development to include a framework for ease of repair, design disassembly and resource recovery for future renovations and demolition.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured.	N/A	N/A	We recommend that although this standard has been flagged for removal, designing for disassembly and future recyclability could be incorporated elsewhere as a standard or in objectives.

Circular Economy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S75 Design Design adaptable buildings that enable transitional and alternative use.	The design impact of meeting this standard is varied given a range of strategies can be utilised to create adaptable buildings. Adaptive design responses apart from optimising floor-to-floor heights of above ground car parking levels are either highly contextual or not easily measured/quantified. Therefore due to the site-specific nature, the creation of design responses for the case studies is not beneficial as the impact cannot be easily extrapolated across other developments within the same typology.	Capital cost implications are varied, depending on site-specific response. The example of optimised floor to floor heights results in an increased cost associated with a greater amount of external facade.	Long-term benefits associated with future-proofing a development. Main benefit is the reduced need to retrofit a building to suit a future alternative use.	We recommend that the standard be retained but supported by clear guidance (in Guidelines for Sustainable Building Design) detailing what measures are considered appropriate responses (e.g. specific floor to floor heights for above ground car parking; easily moved internal walls). This ensures the standard is consistently assessed against and provides certainty to applicants/developers.

The following standards were not included in the analysis as they were either flagged for removal due to planning advice or the impact, costs and benefits were addressed in similar standards. Note that some standards may not have been fully analysed but are still included in the previous tables as there was relevant commentary to document.

STANDARD	REASON FOR EXCLUSION FROM ANALYSIS
S64 General Collection and Management Waste and recycling separation, storage and collection must be designed and managed in accordance with a Waste Management Plan approved by the responsible authority and: <ul style="list-style-type: none">– Meet best practice waste and recycling management guidelines– Provide capacity for periods of peak waste and recycling generation based on modelled estimates.– Consider shared waste and recycling disposal options– Minimize the impacts of odour, noise and hazards associated with waste collection vehicle movements.	This standard was flagged for simplification/consolidation with an overarching standard by Hansen in a preliminary review, and was therefore not evaluated.
S65 General Collection and Management Residential only Projects equal to or larger than 50 dwellings a charity donation bin must be provided and included in the management plan.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this as an appropriate standard to be included in Guidelines for Sustainable Building Design.
S71 Collection Points and Access Prioritise on-site collection of waste and recycling as opposed to on-street collection, where applicable.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. We consider this as an appropriate standard to be included in Guidelines for Sustainable Building Design, to the extent that this does not limit the waste streams available for collection.
S72 Private Contractors Consider, as relevant, that if a private waste contractor is required, that the handling and separation of various waste and recycling streams is facilitated ensuring that all resources are diverted from landfill.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. We consider that regardless of who collects waste, that the landfill diversion (as demonstrated through S63) is central to the approach. We refer to the planning advice as to the extent that this is covered through S63.
S74 Materials Encourage reduced product use where appropriate.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured. We consider dematerialisation should be addressed in proposed Guidelines for Sustainable Building Design.

Green Infrastructure

This theme focuses on increasing the amount of green infrastructure to provide a range of ecosystem service benefits, and reducing the contribution of the built environment to the urban heat island effect.

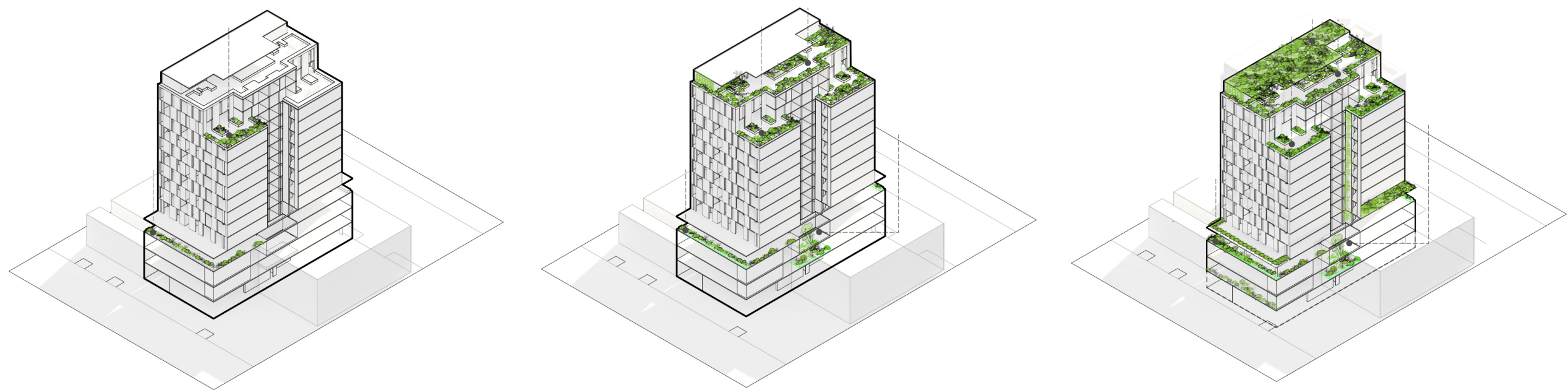


Landscaping on the rooftop of Nightingale 2 development. Photography by Rory Gardiner

Green Infrastructure

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
<p>S76 All new development to meet a Green Factor score of (High= 0.55, Mid=0.4, Low=0.25) *Note: further work required to establish target score for different contexts OR provide green cover (external landscaping) as follows:</p> <p>Any alternate delivery of green cover must provide at least (high=40%, mid=30%, low=15% equivalence) of the total site coverage area as green cover comprising at least one of the following:</p> <ul style="list-style-type: none">▪ A minimum of 65% of the required green cover as new or existing canopy planting and a minimum of 35% as understory planting. Canopy planting and understory planting can overlap.▪ Species selection and associated planting scheme of native and / or indigenous species which provides valuable habitat for native fauna.▪ Green cover which is located to provide maximum benefit in relation of cooling of the adjoining public realm. Green walls or facades under this pathway must benefit the public realm and be on the lower levels of the building.	<p>The design impact is variable depending on typology. Some case studies for detached dwellings already achieved the 40% cover due to the availability of ground level space for landscaping. However, the majority of case studies had green cover anywhere between 2% and 36%. In most cases, there was limited remaining ground level space for landscaping either due to the building footprint, car parking or existing landscaping. Therefore generally the design impact to achieve 40% cover is through the incorporation of vertical or on-structure landscaping (e.g. planters, climbers or green roofs). Exact green infrastructure design responses (e.g. determining where planters would be located) were not developed for each alternative design, as this would require an extensive assessment, and the design response based on the case study built form would not necessarily be able to be extrapolated to other built forms of the typology. However, different proportions of green infrastructure types were used for different typologies based on the building context and opportunity.</p> <p>Generally speaking, to achieve the required increase in green cover through vertical or on-structure landscaping, there would be some spatial implications to allow for sufficient growing medium (i.e. soil) and potentially some structural implications for green roofs and their associated weight loading.</p> <p>Note that extensive investigation was undertaken for the development of the Green Factor tool for the City of Melbourne, including testing the feasibility of the green cover targets on a range of typologies. This work found that meeting a 40% green cover target was feasible on all typologies with the exception of industrial, where larger hard stand areas and light weight roofs restricted outcomes. A 20% green cover target (or 0.25 Green Factor score) is considered appropriate for this land use.</p>	<p>Capital cost varies significantly between green infrastructure types. The following are approximate rates:</p> <p>\$200/m2 - inground landscaping \$1,640/m2 - planter \$596/m2 - green facade \$808/m2 - green roof</p> <p>This can represent an impact of in the order of 1% of the construction cost of the building if the 40% (high) green cover is targeted.</p>	<p>The incorporation of green infrastructure has a range of ecosystem service benefits including:</p> <ol style="list-style-type: none">1. Urban Temperature Regulation (Cooling Effect)2. Habitat for Biodiversity3. Run Off Mitigation4. Recreation5. Place Values and Social Cohesion6. Aesthetic Benefits7. Food Supply	<p>We recommend that the standard is retained as it supports a range of objectives relating to biodiversity, urban heat mitigation and stormwater runoff, while also supporting positive social outcomes.</p> <p>Note that as written the proposed standard states ‘at least one of the following’ for the alternative delivery of green cover. The original source of these requirements was the proposed Amendment C376 from City of Melbourne and may not specify ‘at least one’. We recommend reviewing wording and determining whether any divergence from the wording of City of Melbourne is appropriate.</p> <p>Note that HV.H led the consultant team to develop the Green Factor tool but the tool is wholly owned by the City of Melbourne.</p>

Green Infrastructure



Greening scenarios for an example large residential typology. Business as usual scenario (left) showing a Green Factor score of 0.14, moderate greening scenario (centre) showing a Green Factor score of 0.55 and an optimised greening scenario (right) demonstrating a Green Factor score of 0.84. Images by SBLA

Green Infrastructure

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S77 Existing mature canopy trees or vegetation which contributes to biodiversity corridors and habitat should be retained.	<p>The design impact of this standard could be significant if applied to its full extent (i.e. all mature canopy trees retained without exception). For example, it was estimated from aerial imagery that one case study had removed approximately 80m2 of canopy to develop the full 1000m2 of the site. If this canopy was to be retained, this would have a significant impact on the yield potential of the multi-storey office development.</p> <p>Technical feasibility of the standard could not be evaluated due to lack of information and the highly variable nature of the impact from one development to the next. Approximately half of the case studies did not have sufficient or definitive information available to determine the presence of mature canopy prior to development, however, some sites it could be assumed based on the location (e.g. inner city) that there was no existing trees. A couple of case studies included commitments for the replacement of removed trees with equivalent vegetation. As the retention of canopy should be guided by multiple factors including the health and function of the trees (information which is site-specific and also not available for these case studies) and the role of Council local laws and planning overlays, no design responses were proposed which included the retention of any existing canopy. At a high level, retention of canopy should be encouraged however requires site-specific assessments to determining the value.</p>	Not measured however would impact on development yield.	Benefits include habitat for biodiversity and urban cooling benefits.	<p>We recommend the standard be modified to clarify the conditions which would need to be met for a mature canopy tree (regardless of whether it is native or exotic) to be either retained or removed as part of a development application. The retention of existing mature canopy trees or vegetation should be encouraged but may not always deliver the best outcome for a site. We consider that mature trees should be retained where possible.</p> <p>Note that there is a strong intersection with other planning mechanisms (e.g. overlays) and local laws for tree removal which will need to be considered during the planning approvals process. Tree removal often occurs separate from a buildings and works application, so we consider amendments to other policies may be a more appropriate mechanism for delivering the outcome sought.</p>
<p>S78 Developments should:</p> <ul style="list-style-type: none">– Retain existing soil profiles and conditions on site where possible.– Provide appropriate deep soil area to support the growth of canopy trees and vegetation to mature sizes.– Provide composting facilities and/or worm farms as appropriate to the scale of development– Incorporate effective soil conditioning (mulch, compost, manure, gypsum etc)– Ensure that imported topsoil is productive, free of contaminants, and of a high quality	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured.	N/A	N/A	We recommend that although this standard has been flagged for removal, the principles could be detailed elsewhere (Guidelines for Sustainable Building Design).

Green Infrastructure

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S79 Green cover proposed should: <ul style="list-style-type: none">▪ Support the creation of complex and biodiverse habitat.▪ Provide a layered approach, incorporating both understory and canopy planting.▪ Provide either native, indigenous or climate change resilient exotic plants that provide resources for native fauna.▪ Support the creation of vegetation links between areas of high biodiversity through planting selection and design.▪ Consider appropriateness of species selected to expected future climate conditions.	The design impact of this standard is largely a change to the landscaping specification (species selection) and improvements to design (increased diversity of plant forms within the existing landscaped area). These impacts are considered to not impact technical feasibility.	Capital cost is none/negligible.	The main benefit is improved biodiversity outcomes, with secondary benefits such as aesthetic benefits and urban cooling.	We recommend the standard be retained to complement Standard S76 and support the achievement of biodiversity outcomes.
S83 Demonstrate that at least 75% of the development's total site area (building and landscape) comprises elements that reduce the impact of the urban heat island effect. These elements include: <ul style="list-style-type: none">▪ Green infrastructure▪ Roof and shading structures with less than 15° pitch having SRI of minimum 80 and 40 for pitches of more than 15°▪ Solar panels▪ Hardscaping materials with SRI of minimum 40	The design impact to meet this standard is the specification of urban heat reducing materials. Several case studies were compliant with the standard, commonly through a combination of landscaping and a light coloured roof. Alternative design responses which satisfy the standard are easily achievable through consideration of surface colour.	Capital cost impact for lighter coloured metal and pavers is considered cost neutral. Capital cost premium of \$24/m2 for concrete with white cement/ pigment.	Reduced urban heat resulting in more thermally comfortable environments for occupants and pedestrians.	We recommend that the standard be retained as it is an effective approach to achieving urban cooling outcomes in a manner which has a relatively low cost impact. We recommend solar panels be excluded from the calculation for increased consistency with the Green Star Buildings tool methodology.
S85 Utilise paving treatments which assist in cooling such as permeable paving or light-coloured aggregates, where applicable	The design impact of this standard specifically was not measured as it is considered a duplication of Standard S83.	Not measured.	N/A	We recommend this standard be removed and merged with Standard S83. A separate standard focusing on high pedestrian amenity (shade etc) may be appropriate.

Green Infrastructure

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S87 Use materials that are resistant to extreme weather.	This standard was flagged for consolidation with another by Hansen in a preliminary review of the standards, and was therefore not measured.	N/A	N/A	We recommend this standard be removed and a materials focused standards incorporate a principle relating to durability as this is an important element of adaptive building design and supports local government as a decision maker in their climate related responsibilities under the Local Government Act. Material selection for extreme weather/hazards (e.g. fire) is often driven by building regulations, or would flow from risks identified during a climate risk assessment. Materials selection for all circumstances (e.g. current and future weather) can be considered as part of broader suite of objectives for materials.
S88 Incorporate cooling pathways and corridors to minimise urban heat and address heat health matters.	The design impact of the standard specifically was not measured as its objectives were considered to be addressed by other standards such as S76 and S83.	Not measured.	Quantified / addressed elsewhere.	We recommend this standard be retained to guide design which supports the greening outcomes of Standard S76.

The following standards were not included in the analysis as they were either flagged for removal due to planning advice or the impact, costs and benefits were addressed in similar standards. Note that some standards may not have been fully analysed but are still included in the previous tables as there was relevant commentary to document.

STANDARD	REASON FOR EXCLUSION FROM ANALYSIS
S80 Ensure shared urban ecology facilities are accessible for all users - at least the following amount of vegetated outdoor common space, including food production areas: <ul style="list-style-type: none">1m² for each of the first 50 occupantsAdditional 0.5m² for each occupant between 51 and 250Additional 0.25m² for each occupant above 251.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this is appropriate to be included in the proposed Guidelines for Sustainable Building Design. We note that the Green Factor Tool rewards accessible green space through the recreation and aesthetic benefits ecosystem service scoring, so caution should be exercised in rewarding meeting this standard in BESS (potential double counting).
S81 Assess the proposed development site against current and future climate related hazards and natural disasters.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. Climate risk is addressed under Standard S33.
S82 Demonstrate that the development will be able to strengthen community climate resilience within its immediate or local context	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this could be included as an objective in Guidelines for Sustainable Building Design, with specific examples of how this could be achieved.
S84 Non-glazed façade materials exposed to summer sun must have an SRI of minimum 40	Refer to Standard S83 as design impact, costs and benefits are the same.
S86 Combine renewable energy with energy storage and smart energy management to provide resilience and enable ‘refuge’ from heat wave during power blackouts.	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not evaluated. We consider this could be encouraged through the proposed Guidelines for Sustainable Building Design.

Conclusions

This section of the report summarises key findings, gaps, uncertainties and limitations and next steps.

KEY FINDINGS

The technical feasibility and financial viability analysis examined effective design responses to meeting proposed standards. This analysis had regard to technical and spatial implications of each standard, unless it had been ruled out through preliminary analysis by Hansen Partnership. Where the design response incurred a cost or benefit these were documented and then integrated where relevant with the cost benefit analysis.

The results of the analysis were mixed, with some standards being recommended to be retained in their current form, others modified and several standards recommended for removal altogether.

Taken at an aggregate level standards were recommended to be retained when technical impacts could be effectively managed, where cost impacts were either low or benefits high relative to the costs. Examples that met this criteria include solar PV for smaller residential typologies and bicycle parking rates for office buildings.

Standards were recommended for modification where the intent of the standard was appropriate for planning policy, but the standard could be improved to either address technical feasibility issues, address cost impacts or improve benefits. An example includes bicycle parking convenience where some elements of the standard were beneficial and other elements delivered an unreasonable yield impact relative to the benefit.

Standards were recommended for removal in circumstances where the level of prescription was more appropriate in a guideline, where technical issues can not be addressed through modification of the standard, or meeting the standard requires design responses which create an unreasonable cost impact or yield reduction relative to the benefit.

This process of analysis has resulted in standards being recommended for retention in largely their current form, a further number being recommended to be modified and others being recommended for removal.

The table on the following page outlined a summary of advice. We note that at the time of this analysis Part B and Part C of the project were yet to be completed and may recommend additional standards for removal / modification on planning and / or economic grounds.



Community interaction across private and public space.
Photography by Tess Kelly

Conclusions

THEME	KEY FINDINGS
OPERATIONAL ENERGY	Generally speaking the majority of standards were retained either in their present form or otherwise recommended to be modified to remove some of the prescriptive detail. Two of the solar standards were recommended to be modified significantly as they were found to not be technically feasible. Fuel switching and procurement of GreenPower were noted as being highly effective as reducing carbon emissions.
SUSTAINABLE TRANSPORT	Standards relating to the provision of bicycle parking were largely supported due the minimal expected cost for space allocation and infrastructure. Modifications to the bicycle parking convenience standard were suggested to avoid potentially significant impacts to basement and ground floor space. Electric vehicle standards were noted as important for future proofing buildings, however we recommended that the standards avoid prescriptive guidance and that a guideline which is updatable without the need for a planning scheme amendment is preferred.
INTEGRATED WATER MANAGEMENT	In the majority of cases the standards were already met by the case studies, for example the inclusion of rainwater tanks and the achievement of best practice stormwater quality standards were widespread. Overall the intentions for most standards were supported, however, some modifications were recommended to allow a flexible approach to achieving potable water reductions. It was noted that the potable water reduction target of 30% could be more ambitious, subject to further analysis.
INDOOR ENVIRONMENT QUALITY (IEQ)	Most standards were either suggested for modification or removal as they were better suited as guidance or were found to have significant development feasibility impacts. Preliminary testing determined standards for internal temperatures and heating and cooling loads were either not achievable or could have unintended consequences. Daylight modelling demonstrated significant challenges with meeting standards as written. It is noted that the intent of these standards is supported, but further work such as refining thresholds and metrics would be necessary for several standards before they would be suitable as a planning mechanism. In relation to daylight this work is understood to have been recently commissioned by CASBE.
CIRCULAR ECONOMY	A number of these standards are technically feasible and are seen in current developments. It is noted that standards relating to waste collection and management aim to strengthen the ability of Council’s to achieve the outcomes they already seek. There is strong opportunity to drive the uptake of recycled content and durable materials, and the design of adaptable buildings, however these standards require additional guidance to provide clarity for both applicants and Councils.
GREEN INFRASTRUCTURE	A green cover target is a strong driver for increasing green infrastructure and achieving a range of ecosystem services benefits. While the retention of existing mature canopy trees should be encouraged, the intersection with local laws and existing planning mechanisms such as overlays should be considered, with these mechanisms possibly better able to deliver the outcome sought. A standard for cool surfaces and materials it is an effective approach to reducing urban heat in a manner which has a relatively low cost impact.

Conclusions

GAPS, UNCERTAINTIES AND LIMITATIONS
<p>As noted in a number of sections of this report, whilst the qualitative analysis for the project has provided a number of insights into benefits accruing to individual standards, not all of these benefits are able to be quantified. The analysis in this report is limited to quantifying energy, water and landfill diversion benefits associated with standards. In some circumstances, even when there is a high level of confidence that a benefit exists there is not the evidence to quantify it and it has been excluded. The cost benefit analysis will quantify a greater range of economic benefits associated with meeting the proposed standards.</p> <p>The analysis is also somewhat limited by the number of case studies able to be included in the study. Whilst every effort was made for the case studies to be representative of a broad range of typologies and development contexts, technical feasibility and financial viability impacts may be limited by the designs and specific context of the case studies. In addition, design responses were developed based on our professional development, architecture and sustainability experience. We acknowledge that design responses to meet the standards may be different in other contexts and development teams.</p> <p>A third limitation are the costs. Whilst costs were sourced on the best available contemporary data, they will not be perfect. If costs change, so does the relationship between benefits and costs.</p>

NEXT STEPS
<p>This report is issued slightly ahead of Part B and Part C of the project. This allows those outputs to be informed by this report.</p> <p>We anticipate that decisions on next steps will be made by CASBE on the basis of all reports, rather than this report alone.</p> <p>If following the conclusion of all parts, a planning scheme amendment is pursued, we anticipate further work may be required to:</p> <ul style="list-style-type: none">– Ensure that design responses are representative of the most cost effective industry response to the standard– Update costs ahead of a planning panel (we have structured our analysis work to allow for this to be a seamless process)– Enhance the quantitative analysis where new robust evidence becomes available as to benefits associated with particular design responses (and standards)– Update the analysis if the proposed move to 7 stars NatHERS under NCC 2022 is not forthcoming– Extend the analysis to additional case studies, if stakeholder consultation highlights a gap in those chosen– Update this report to align ESD categories to the most up to date wording proposed as part of a planning scheme amendment.

Appendix A

The following details calculation methodologies and assumptions used to determine benefits used in the analysis.

EMBODIED CARBON

For the design response relating to recycled content materials, concrete with supplementary cementitious materials was used. In order to determine the amount of concrete in a building and embodied carbon reduction achieved through the design response, a number of calculations and assumptions were made.

Using an existing Life Cycle Assessment (LCA) for a mid-rise apartment building with concrete panel facade, two values of tonnes per m2 GFA were determined.

Building GFA	2,712m2
Concrete - precast	821 tonnes
Concrete - poured	3,059 tonnes
Concrete per GFA (precast and poured)	1.43 tonnes per m2
Concrete per GFA (poured only)	1.13 tonnes per m2

The figure of 1.43 tonnes per m2 GFA was then used to calculate the amount of concrete across case studies where concrete was a predominant material. For case studies where concrete was less prevalent (e.g. a curtain wall high rise development), the figure of 1.13 tonnes per m2 GFA was used.

Using the above values, the GFA for each case study and the below embodied carbon values from the EPiC database, embodied carbon (kg CO2e) reductions resulting from the design response of concrete with SCMs were calculated.

Concrete 40 MPa	497 kg CO2e per m3
Concrete 40 MPa - 30% fly ash	373 kg CO2e per m3

ORGANICS WASTE GENERATION

Organics generation was calculated primarily using Sustainability Victoria’s [Waste and Recycling Generation Rates Calculator](#). As this calculator does not calculate organics generation for non-residential developments (only garbage and recycling), a value of 26% was used to approximate the proportion of food waste generated by non-residential developments.

Although this figure is attributable to commercial and industrial waste in metropolitan Melbourne, [as detailed](#) by the Metropolitan Waste and Resource Recovery Group, it was deemed a suitable generalisation for all non-residential developments throughout Victoria.

CONSTRUCTION WASTE GENERATION

The generation of construction waste is highly dependent on the development typology and construction materials used. Limited information detailing specific figures which account for the above factors is available, therefore a general assumption was made.

Green Star Design & As Built v1.3 Credit 22 contains to pathways for diversion of construction waste from landfill. The Fixed Benchmark awards 1 point where <10kg of waste / m2 (GFA) goes to landfill. The Percentage Benchmark awards 1 point where 90% of construction waste is diverted from landfill.

To create an approximate total waste kg/m2, the figures of each benchmark required to achieve 1 point were assumed to be equivalent.

1 point achieved for waste kg/m2 (GFA) to landfill	<10kg
1 point achieved for waste % diverted from landfill	90%
Assumed total waste as a proportion of GFA	100kg per m2

Assuming a 90% diversion rate achieves only 10kg going to landfill, a generation rate of 100kg/m2 (GFA) was calculated.

TOTAL ENERGY USE

As the total predicted energy consumption was not always detailed in case study documentation, and is not calculated by BESS (focus is on HVAC and hot water), an average percentage breakdown in combination with known figures (e.g. HVAC) was used to calculate other energy uses and the total use. The following figures were sourced from the SDAPP Energy Efficiency Fact Sheet for residential developments.

Heating and cooling	60%
Water heating	20%
Appliances incl. TV & computer	10%
Cooking appliances	3%
Fridge and freezer	4%
Lighting	3%

The following figures were sourced from the [Baseline Energy Consumption and Greenhouse Gas Emissions In Commercial Buildings in Australia Report](#) for non-residential developments.

HVAC	18%
Lighting	37%
Equipment	31%
Hot water	3%
Other	11%

Appendix B

The following details the capital costs used in the analysis, the cost source and any relevant notes.

ITEM	COST (\$)	PER	SOURCE / REFERENCE
Electric hot water system (localised instantaneous)	890	unit	Rawlinsons (p. 461)
Electric hot water system (central heat pump) - per dwelling / per 1000m2 non-res GFA	2,358	unit	Approximation based on high rise central heat pump figure (based on Dave Mahony advice)
Electric hot water system (central heat pump) - greater than 5 stories (e.g. 20 stories, >200 dwellings)	500,000	unit	HIP V. HYPE Better Buildings Lead Dave Mahony (advice for 212 dwelling apartment development)
Electric hot water system (individual heat pump e.g. townhouses & single dwelling)	4600	unit	Rawlinsons (p. 461)
Electric hot water system (electric boosted solar hot water)	6800	unit	Rawlinsons (p. 463)
Gas hot water system (localised instantaneous)	920	unit	Rawlinsons (p. 461)
Gas hot water system (central) - per dwelling / per 1000m2 non-res GFA	1,887	unit	Proportion of the high rise central heat pump figure (based on Dave Mahony advice)
Gas hot water system (central) - greater than 5 stories (e.g. 20 stories, >200 dwellings)	400,000	unit	Dave Mahony (advice for 212 dwelling apartment development)
Gas hot water system (storage)	3000	unit	Rawlinsons (\$3000) - 410L
Gas cooktop	2,700	system	Rawlinsons (p. 681)
Induction cooktop	3,500	system	Rawlinsons (p. 681)
Solar PV system (residential)	939	kW	Average based on https://www.solarchoice.net.au/blog/solar-power-system-prices
Solar PV system (commercial)	985	kW	Average based on https://www.solarchoice.net.au/blog/solar-power-system-prices
Bicycle hoop (e.g. standard in ground)	410	hoop	Rawlinsons (p. 303)
Bicycle rack (e.g. Ned Kelly)	319	rack	Written quote (NJM Group, supplier of Ned Kelly racks)
Bicycle stacker (e.g. Arc, Josta, Cora)	1640	system	Written quote (Five At Heart, supplier of Arc stackers)
End-of-trip locker (two tier)	289	item	Rawlinsons (p. 307)
Electric vehicle capacity - infrastructure & cabling (medium density)	500	dwelling	Moreland City Council Low Emission Electric Vehicles Standard Report (2021) (p.108)
Electric vehicle capacity - infrastructure & cabling (apartment & non-residential)	869	parking space	Moreland City Council Low Emission Electric Vehicles Standard Report (2021) (p. 110)
Electric vehicle capacity - retrofit (medium density)	750	dwelling	Moreland City Council Low Emission Electric Vehicles Standard Report (2021) (p. 65)
Electric vehicle capacity - retrofit (apartment)	2,607	parking space	Moreland City Council Low Emission Electric Vehicles Standard Report (2021) (p. 66)
Electric vehicle charging units	2,200	system	Moreland City Council Low Emission Electric Vehicles Standard Report (2021), via Brendan Wheeler from EVSE

Appendix B

The following details the capital costs used in the analysis, the cost source and any relevant notes.

ITEM	COST (\$)	PER	SOURCE / REFERENCE
Space allocation - Basement (e.g. car & bike parking space) - Construction	1,630	m2	Rawlinsons (p. 35)
Space allocation - Wet area (e.g. shower & changing space) - Construction	2,605	m2	Rawlinsons (p. 30)
Space allocation - Residential (townhouses) - Construction	2390	m2	Rawlinsons (p. 43)
Space allocation - Residential (apartments) - Construction	3270	m2	Rawlinsons (p. 43)
Space allocation - Covered walkway - Construction	1380	m2	Rawlinsons (p. 23)
Space allocation - Non-residential (retail) - Construction	2830	m2	Rawlinsons (p. 47)
Space allocation - Non-residential (office) - Construction	2600	m2	Rawlinsons (p. 33)
Space allocation - Non-residential (warehouse) - Construction	885	m2	Rawlinsons (p. 30)
Showerheads: 3 Star (>7.5 but <=9L/min)	No differential	unit	https://www.harveynorman.com.au/bathroom-tiles-renovations/bathroom-sink-tapware/shower-heads-arms/caroma/3+stars/993-1411
Showerheads: 4 Star (>6 but <=7.5L/min)	No differential	unit	https://www.harveynorman.com.au/caroma-urbane-ii-hand-shower-brushed-nickel.html
Showerheads: 4 Star (>4.5 but <=6L/min)	No differential	unit	https://www.harveynorman.com.au/caroma-luna-multifunction-hand-shower-brushed-nickel.html
Washing machine: 3 Star	800	unit	Approximation from available Harvey Norman products
Washing machine: 4 Star	749	unit	https://www.harveynorman.com.au/bosch-series-4-8kg-front-load-washing-machine.html
Washing machine: 5 Star	1200	unit	https://www.harveynorman.com.au/bosch-8kg-front-load-washing-machine-2.html
Toilets: 3 Star	No differential	unit	https://www.bunnings.com.au/estilo-wels-3-star-3-6l-min-pvc-link-p-trap-toilet-suite_p4821911 https://www.bunnings.com.au/stylus-wels-3-star-4l-min-allegro-link-toilet-suite_p4823156 https://www.bunnings.com.au/caroma-wels-3-star-4l-min-uniset-ii-connector-s-trap-toilet-suite_p4823150
Toilets: 4 Star	No differential	unit	https://www.reece.com.au/product/toilets-c469/toilet-suites-c705/base-link-toilet-suite-s-trap-with-seat-white-4-9503292 https://www.reece.com.au/product/toilets-c469/toilet-suites-c705/posh-solus-round-close-coupled-s-trap-toilet-9500993 https://www.reece.com.au/product/toilets-c469/toilet-suites-c705/american-standard-studio-round-close-coupled-9506994
Taps	No differential	unit	Approximation / comparison from of product listings from online suppliers

Appendix B

The following details the capital costs used in the analysis, the cost source and any relevant notes.

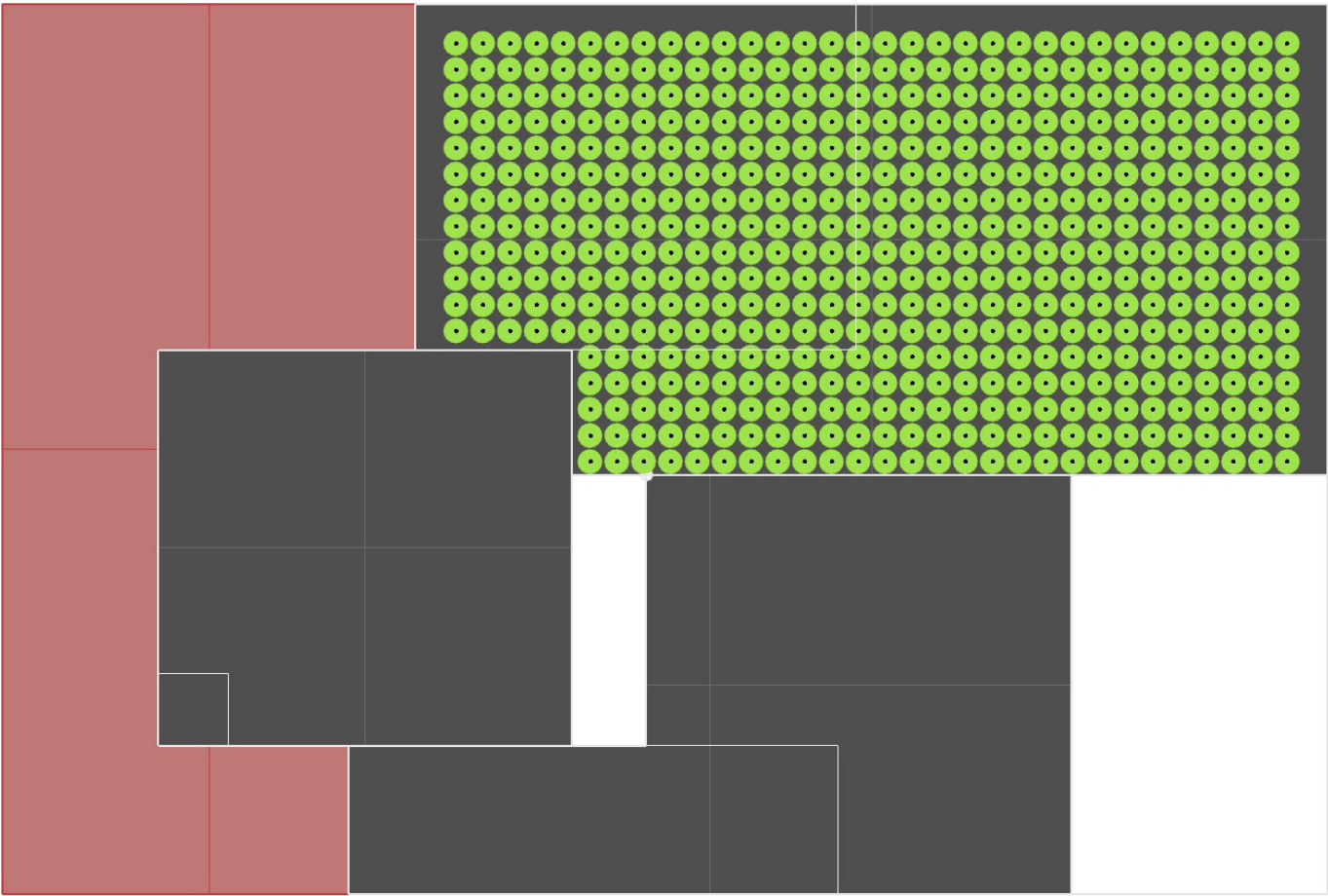
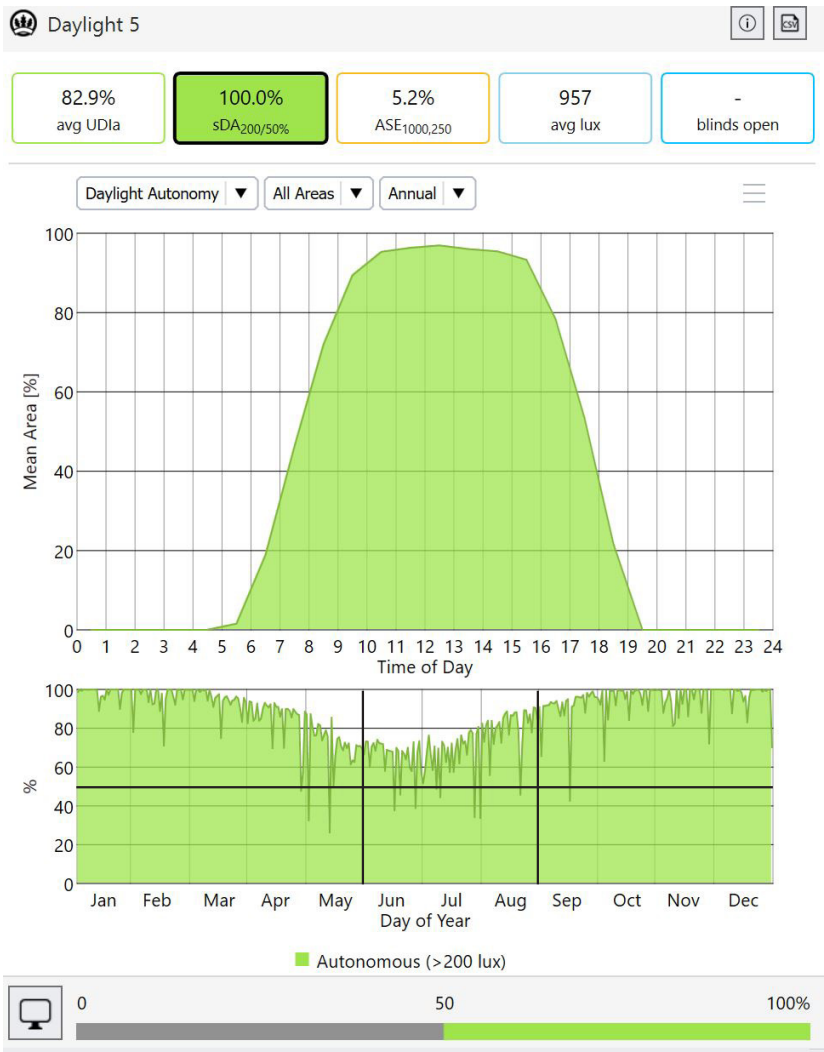
ITEM	COST (\$)	PER	SOURCE / REFERENCE
Dishwasher: 3 Star	799	unit	https://www.thegoodguys.com.au/bosch-stainless-steel-freestanding-dishwasher-sms40e08au
Dishwasher: 4 Star	1049	unit	https://www.thegoodguys.com.au/bosch-60cm-freestanding-dishwasher--sms4hvi01a
Dishwasher: 5 Star	1299	unit	https://www.thegoodguys.com.au/bosch-60cm-freestanding-dishwasher-sms6hai01a
Rainwater tank - 5000L	1720	tank	https://www.tankworld.com.au/tanks-accessories-pumps/5000l-slimline-slr-2/
Rainwater tank - 32000L	4,390	tank	https://www.bluewatertanks.com.au/tanks/round-poly-tanks/32-000-litre-poly-water-tank/
Climate Risk Assessment	15,000	Report	HV.H
Glazing - double glazed fixed	439	m2	Rawlinsons (p. 363)
Glazing - double glazed operable	529	m2	Rawlinsons (p. 363)
Glazing - double glazed curtain wall component (additional to curtain wall framing)	385	m2	Rawlinsons (p. 366)
Facade - spandrel glass & insulation (additional to curtain wall framing)	228	m2	Rawlinsons (p. 366)
Facade - Face brick (total wall construction) (e.g. RES 2)	272	m2	Rawlinsons (p. 127)
Facade - Timber cladding (total wall construction) (e.g. RES 3)	147	m2	Rawlinsons (p. 129)
Facade - Precast concrete (total wall construction) (e.g. RES 4)	420	m2	Rawlinsons (p. 252)
Shading - fixed fins or louvres (e.g office)	400	m2	Rawlinsons (p. 387)
Shading - screens (on track) (e.g. apartments)	405	m2	Rawlinsons (p. 368)
Shading - fixed horizontal	370	m2	Rawlinsons (p. 387)
Shading - canvas awnings (townhouses & single dwellings)	320	m2	Rawlinsons (p. 387)
Roof - optimised design	Cost neutral / possible cost saving	dwelling	JCB Architects
Materials (low embodied) - 30% SCM concrete (cost premium)	10	m3	Holcim (verbal conversation) and Boral (written response)
Materials (high SRI) - white cement (e.g. RES 1)	24	m2	Rawlinsons (p. 252)
Green cover / landscaping - Planter	1,640	m2	City of Melbourne (average figure)
Green cover / landscaping - Green facade	596	m2	City of Melbourne (assumed 1m2 planter to every 5m2 of climber)
Green cover / landscaping - Green roof	808	m2	City of Melbourne
Green cover / landscaping - In ground only	200	m2	GLAS Landscape Architects

Appendix C

Spatial Daylight Autonomy

Buildings must achieve a daylight level of minimum 200 lux for at least half of daylight hours each day to at least half the area of every habitable room and regularly occupied space.

(sDA200,50%)

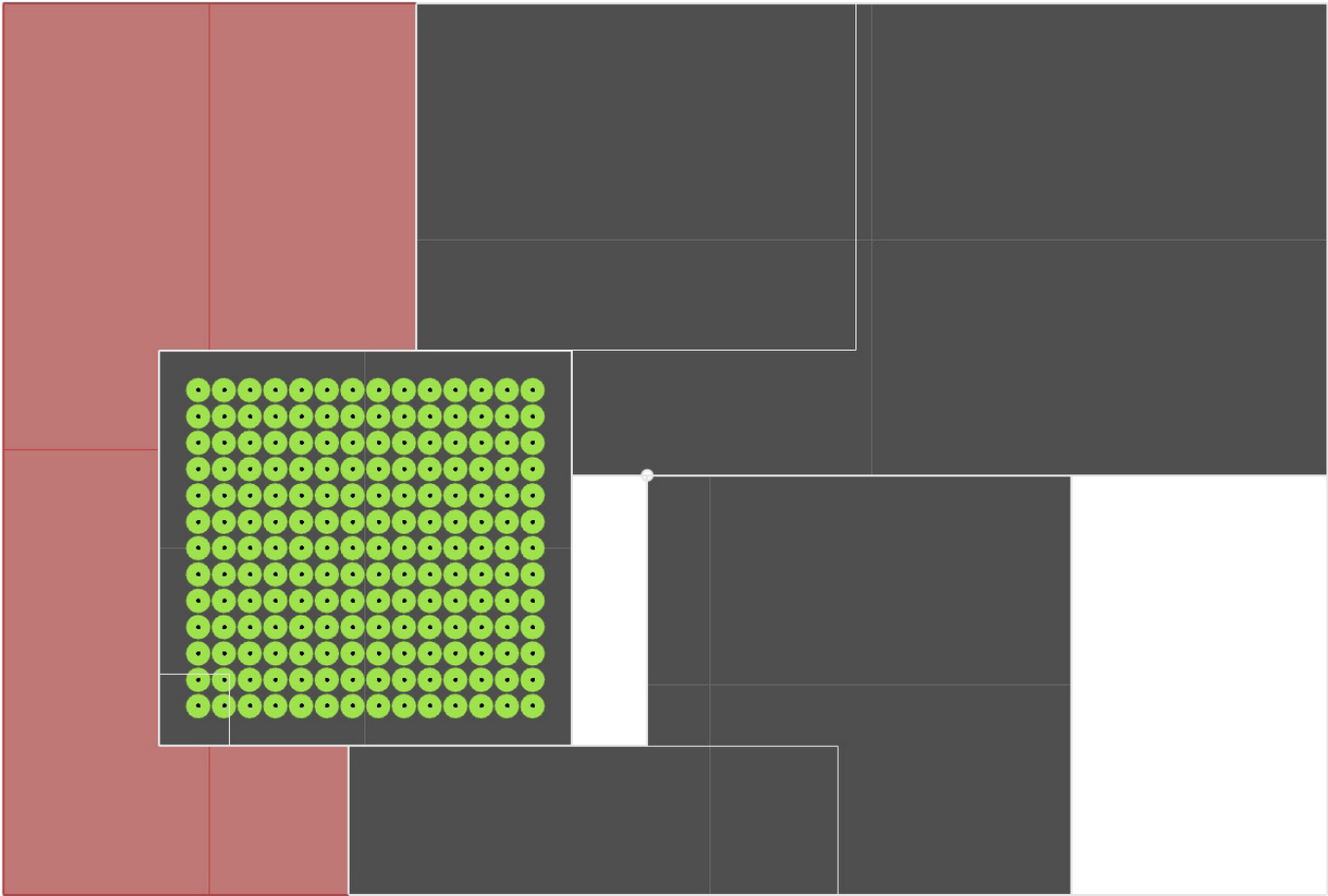
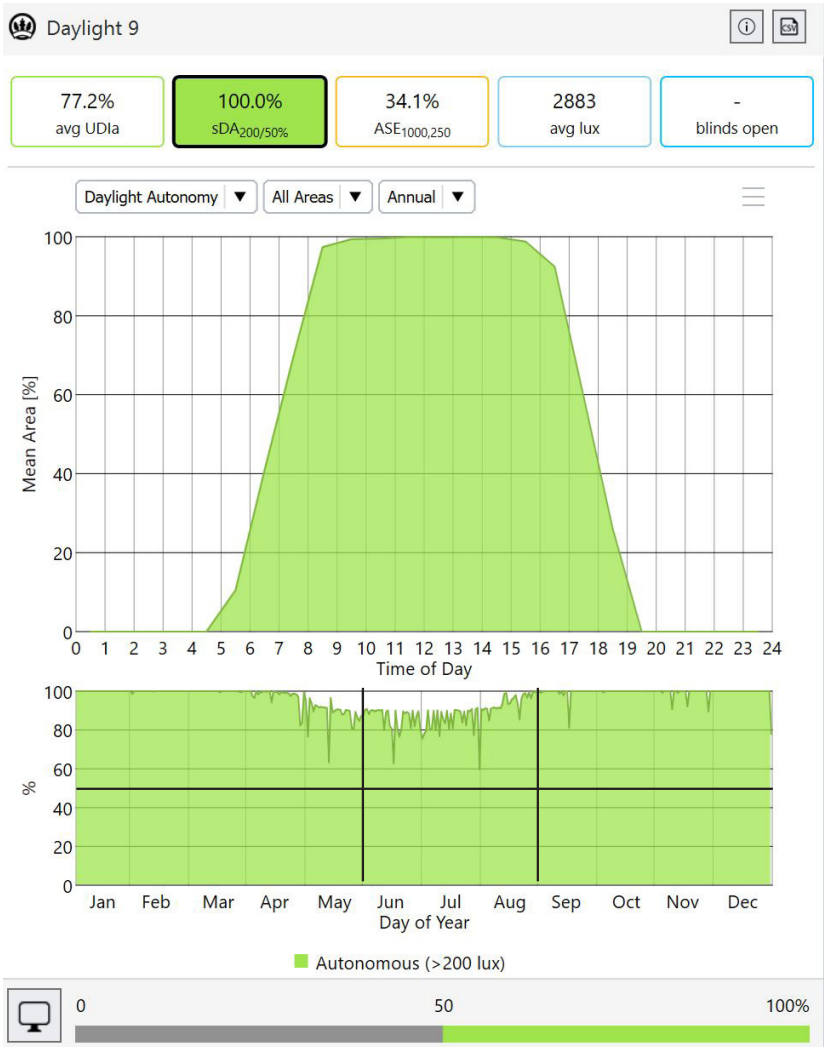


Original apartment layout

Spatial Daylight Autonomy

Buildings must achieve a daylight level of minimum 200 lux for at least half of daylight hours each day to at least half the area of every habitable room and regularly occupied space.

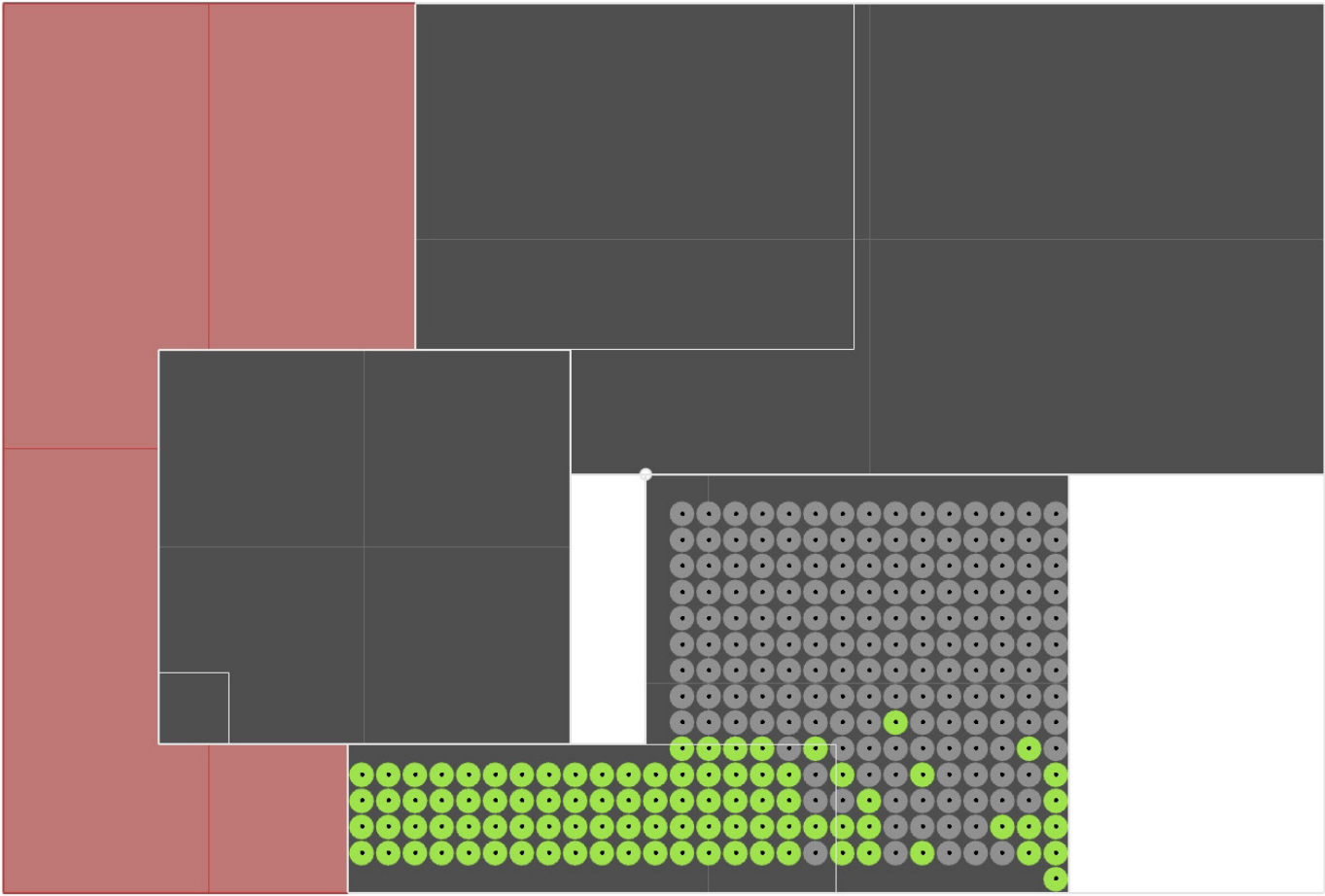
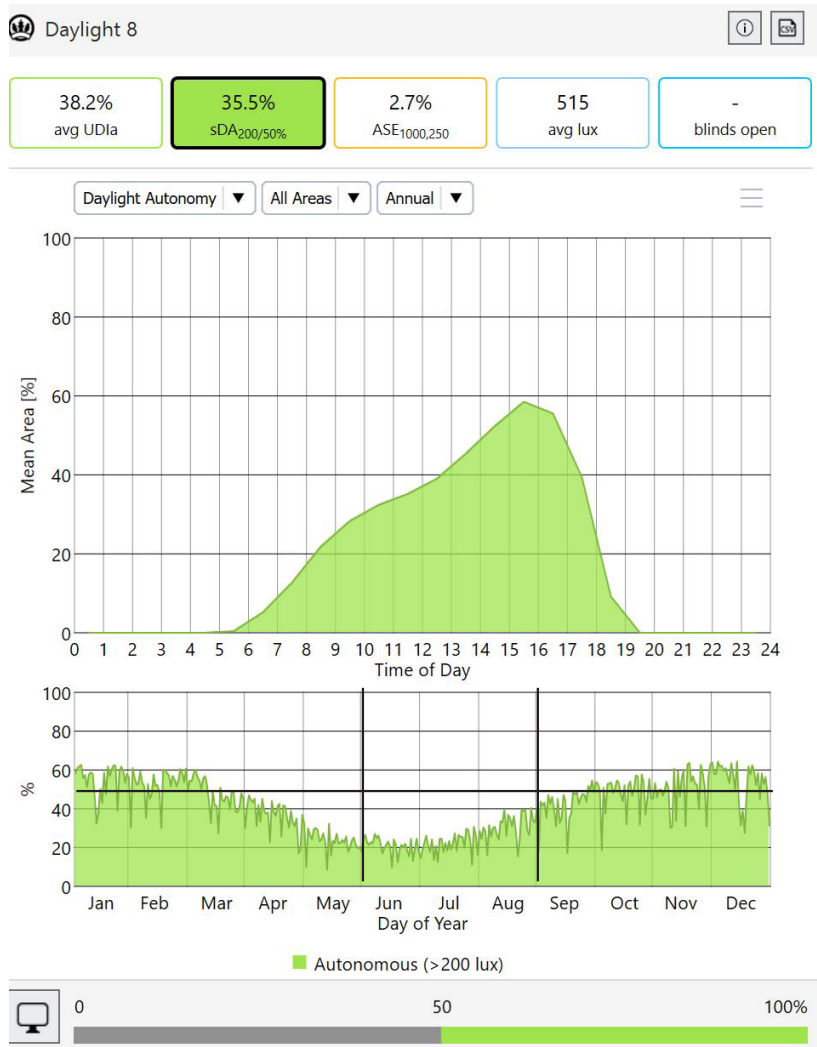
(sDA200,50%)



Original apartment layout

Spatial Daylight Autonomy

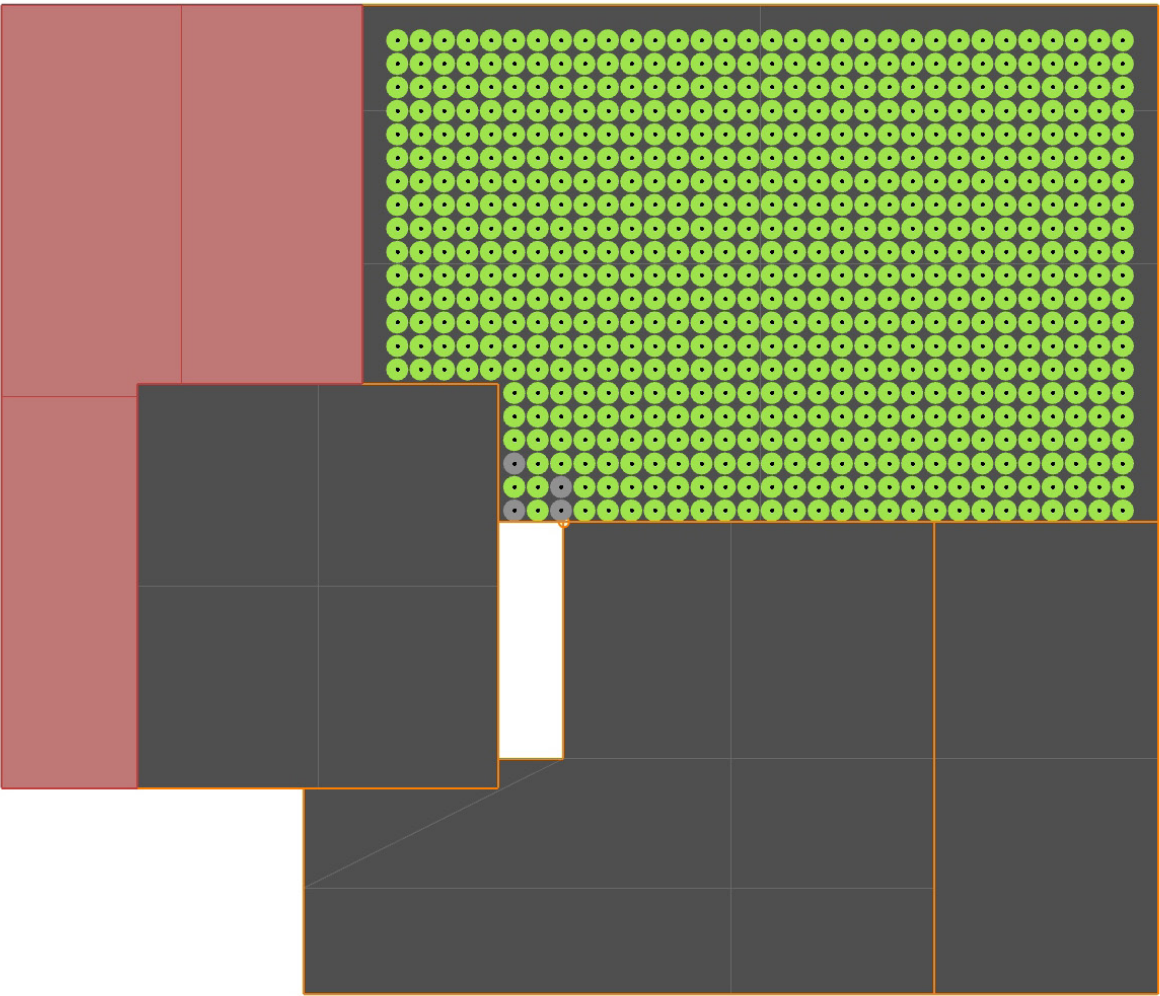
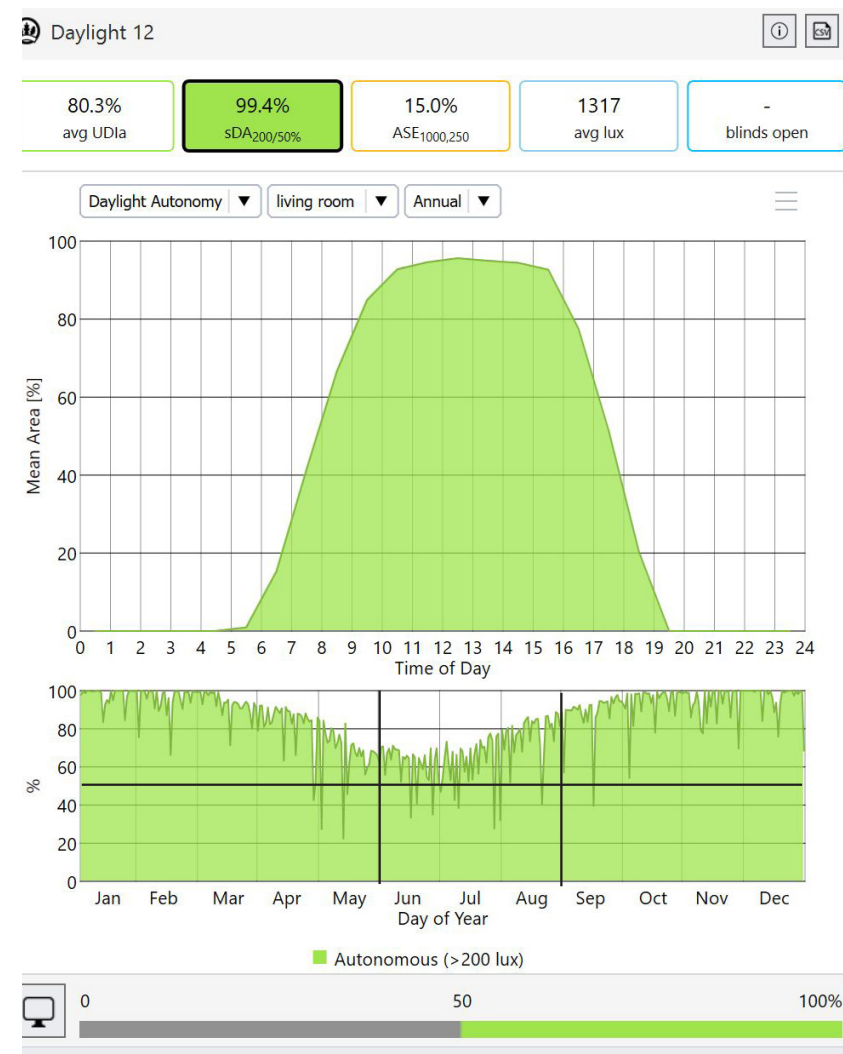
Buildings must achieve a daylight level of minimum 200 lux for at least half of daylight hours each day to at least half the area of every habitable room and regularly occupied space.
(sDA200,50%)



Original apartment layout

Spatial Daylight Autonomy

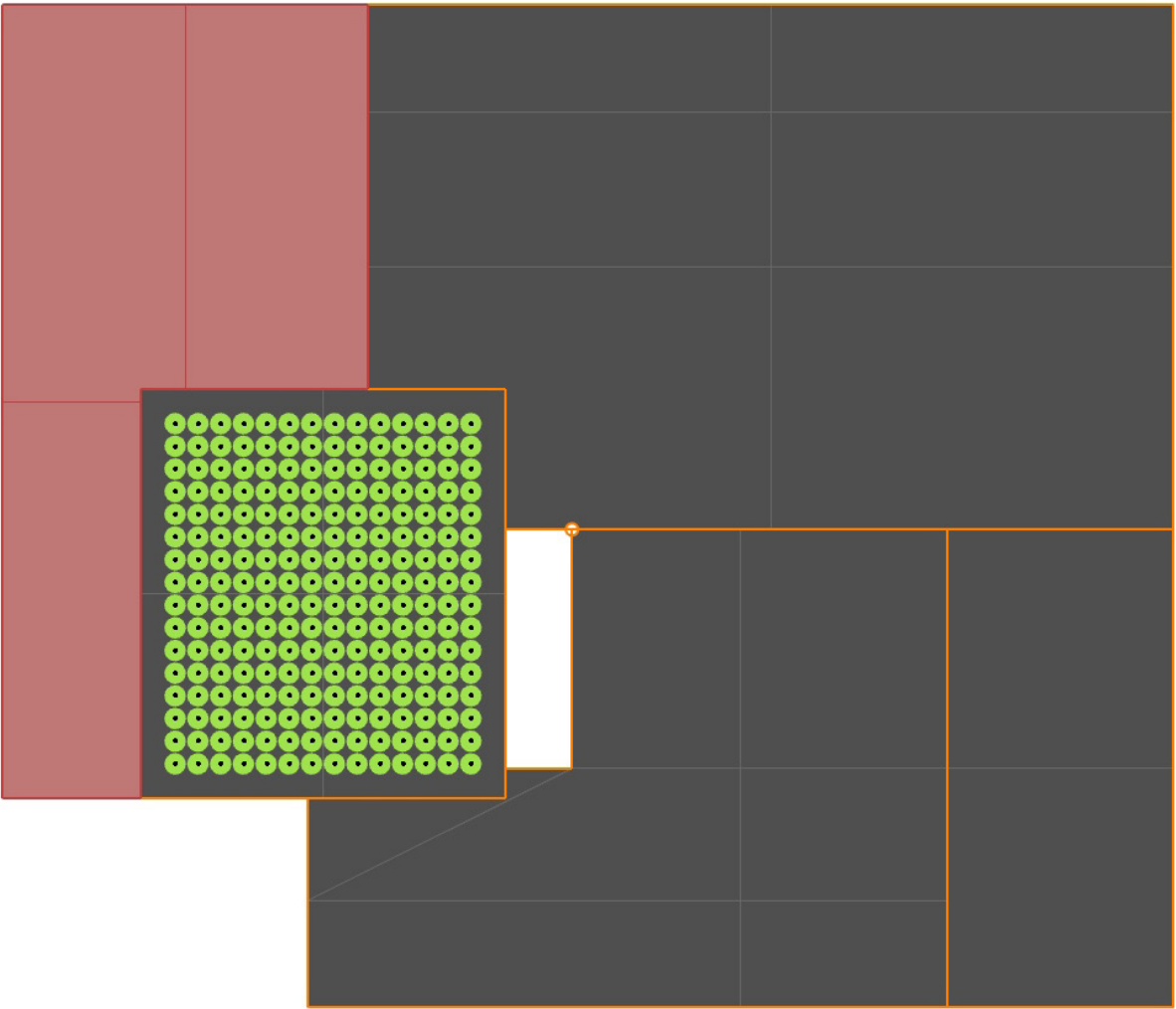
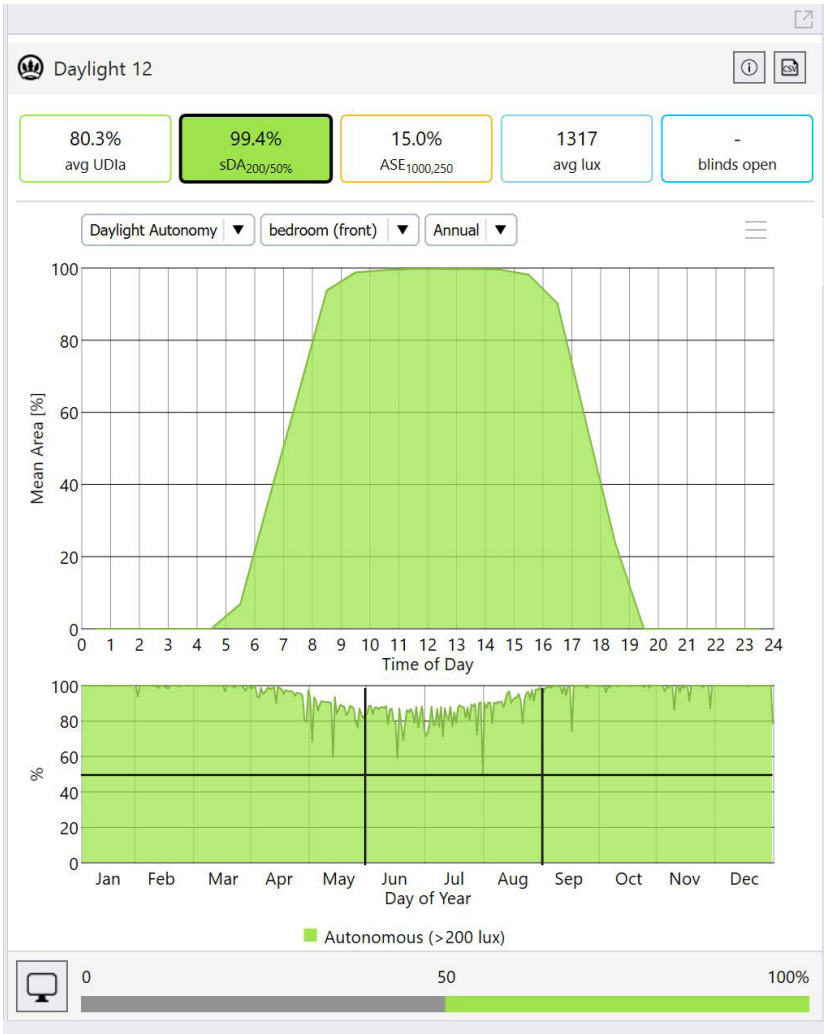
Buildings must achieve a daylight level of minimum 200 lux for at least half of daylight hours each day to at least half the area of every habitable room and regularly occupied space.
(sDA200,50%)



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to Better Apartments Design Standards (BADS))

Spatial Daylight Autonomy

Buildings must achieve a daylight level of minimum 200 lux for at least half of daylight hours each day to at least half the area of every habitable room and regularly occupied space.
(sDA200,50%)

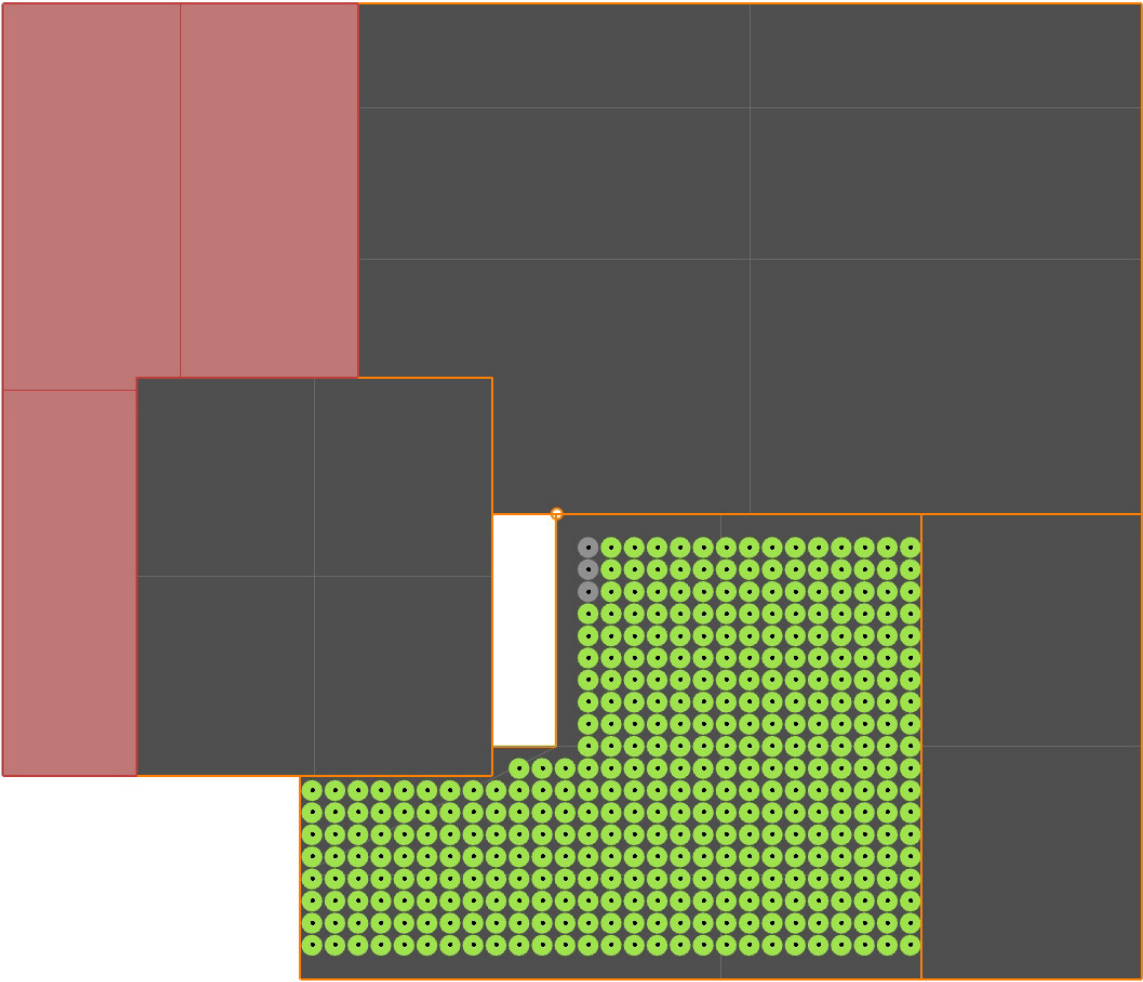
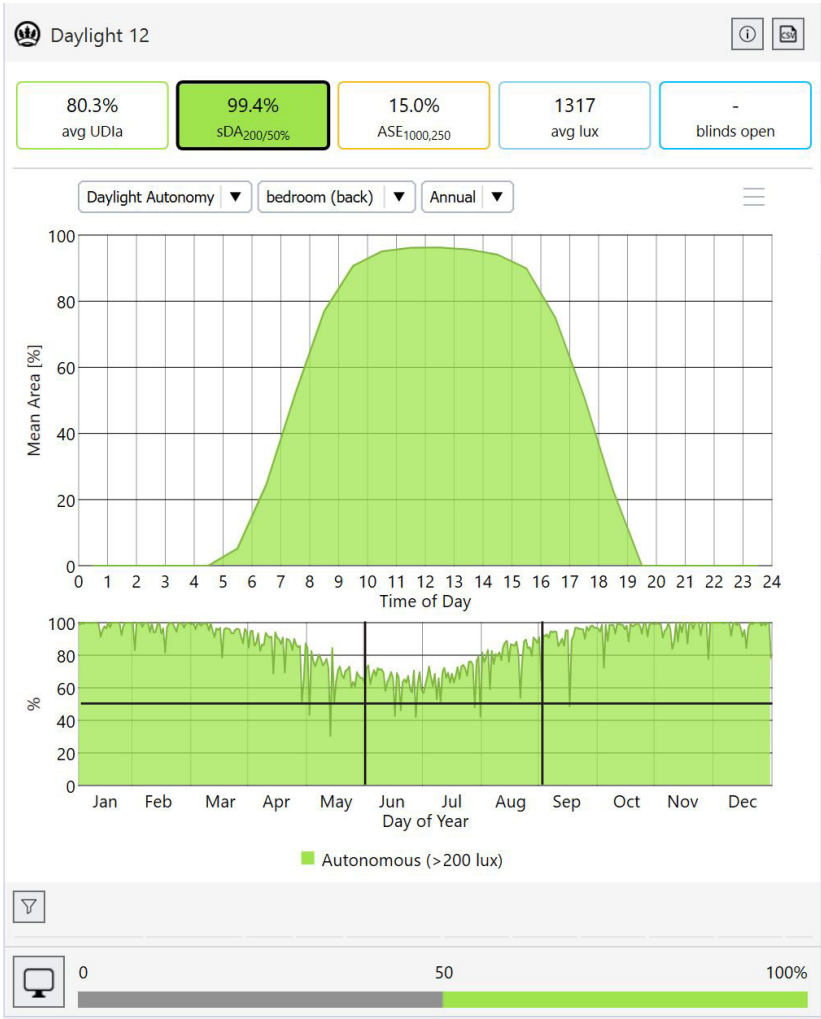


Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Spatial Daylight Autonomy

Buildings must achieve a daylight level of minimum 200 lux for at least half of daylight hours each day to at least half the area of every habitable room and regularly occupied space.

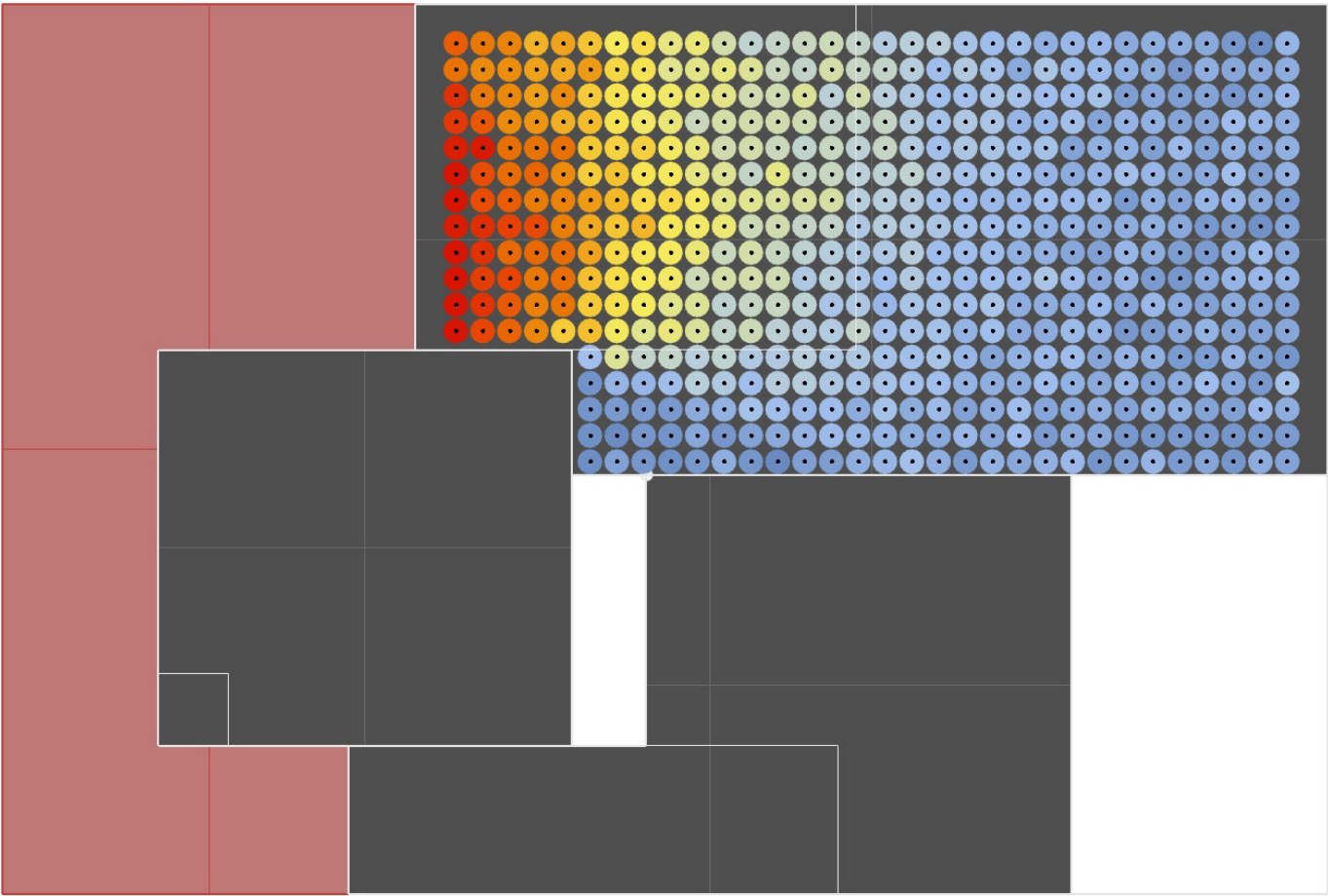
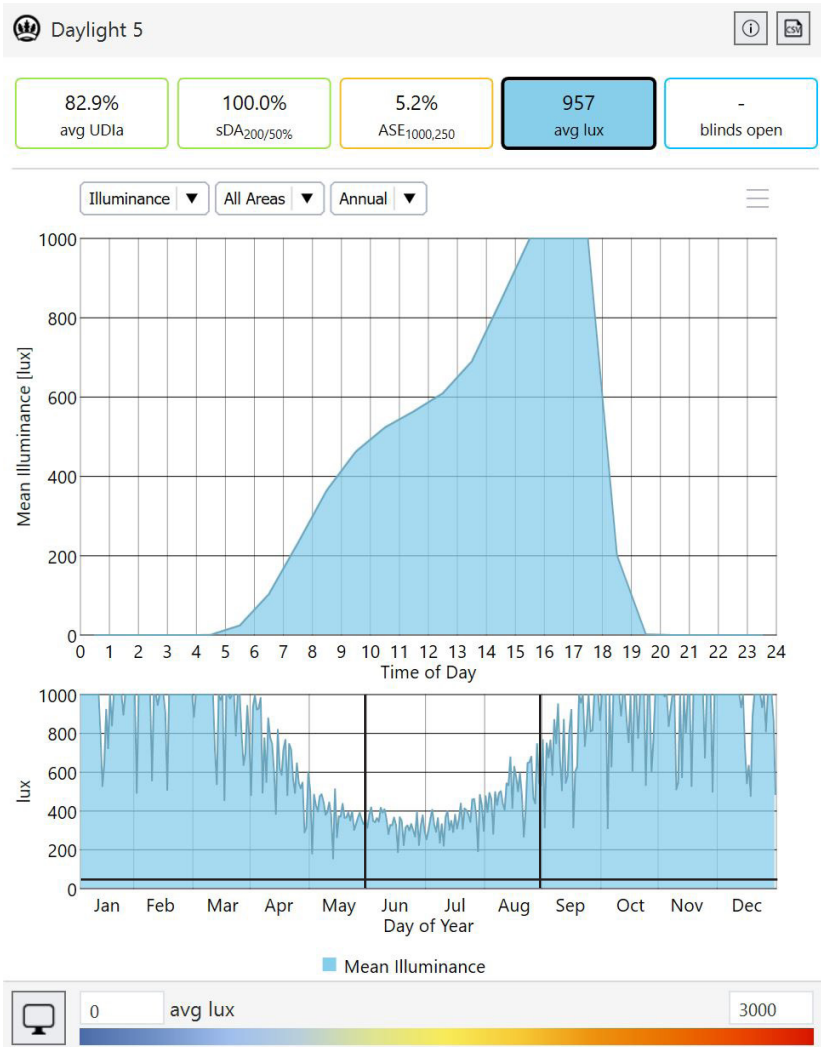
(sDA200,50%)



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Daylight Illuminance

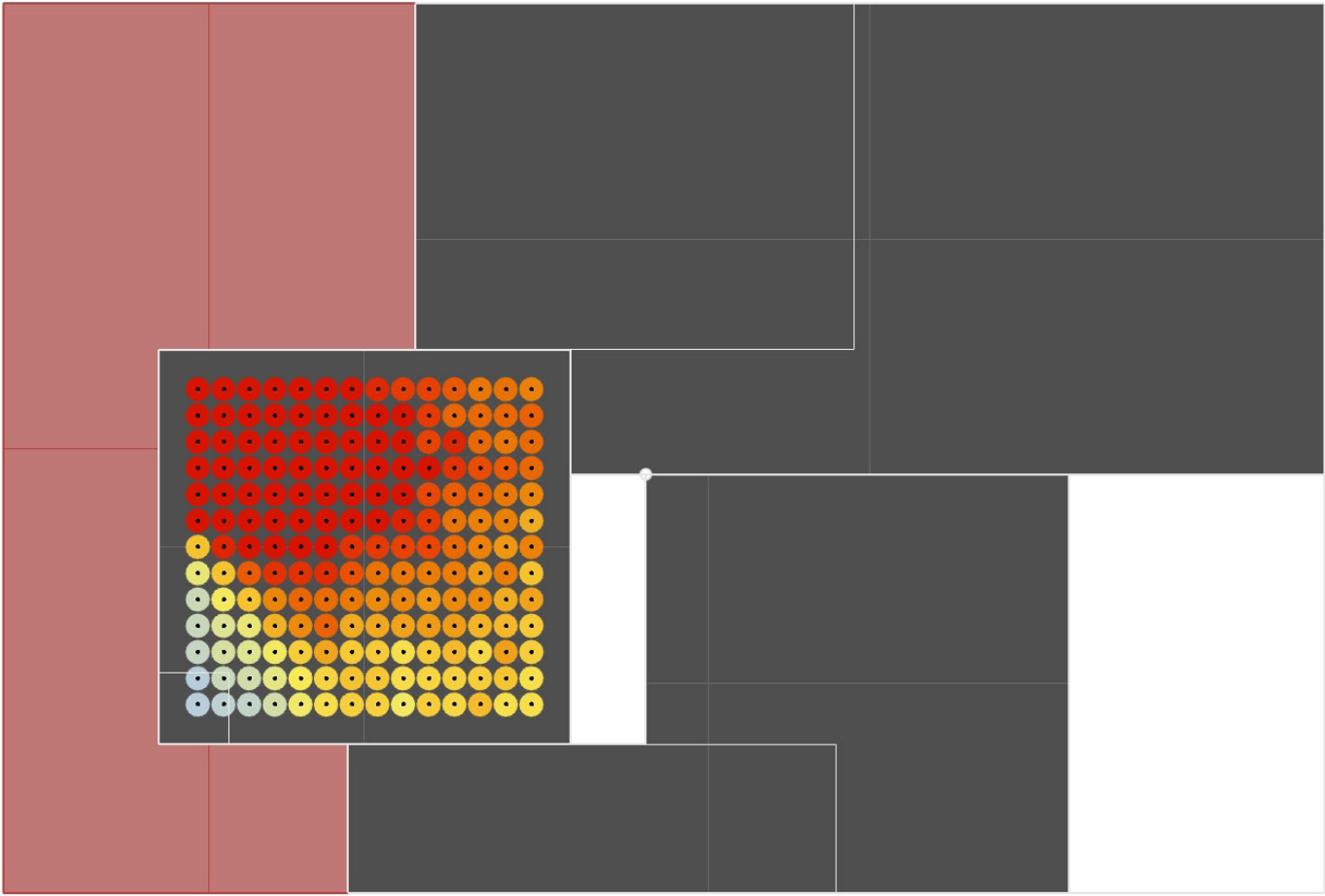
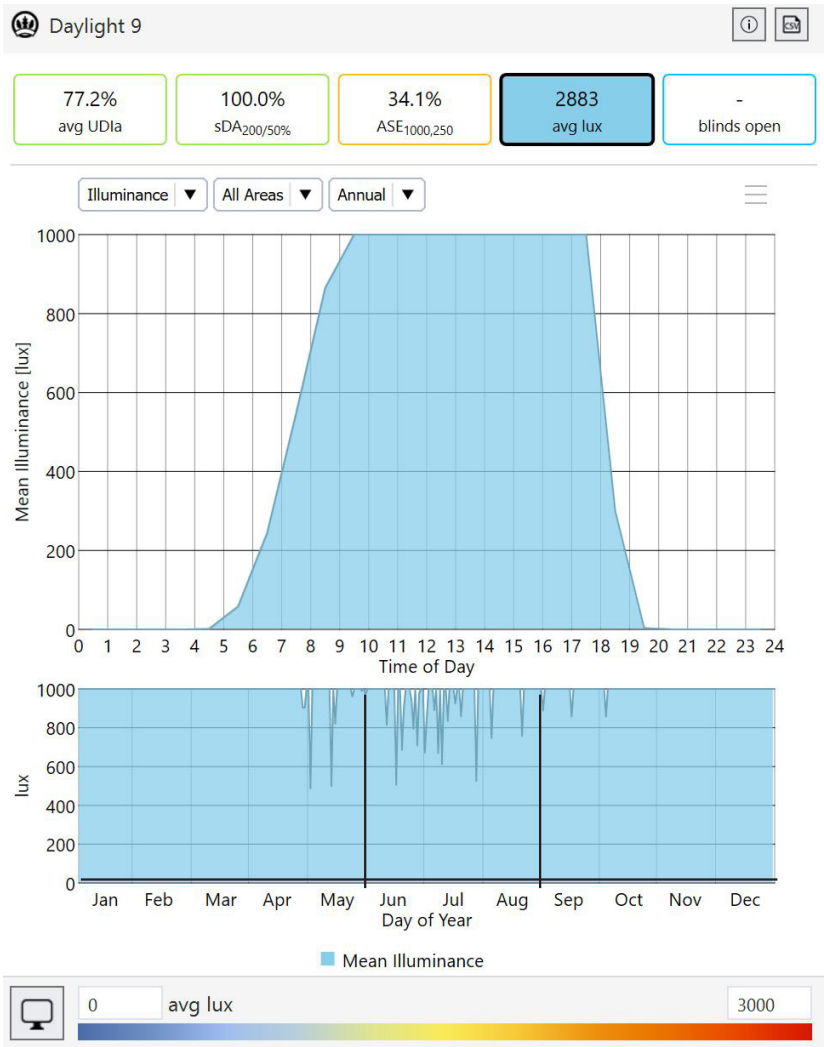
Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux.



Original apartment layout

Daylight Illuminance

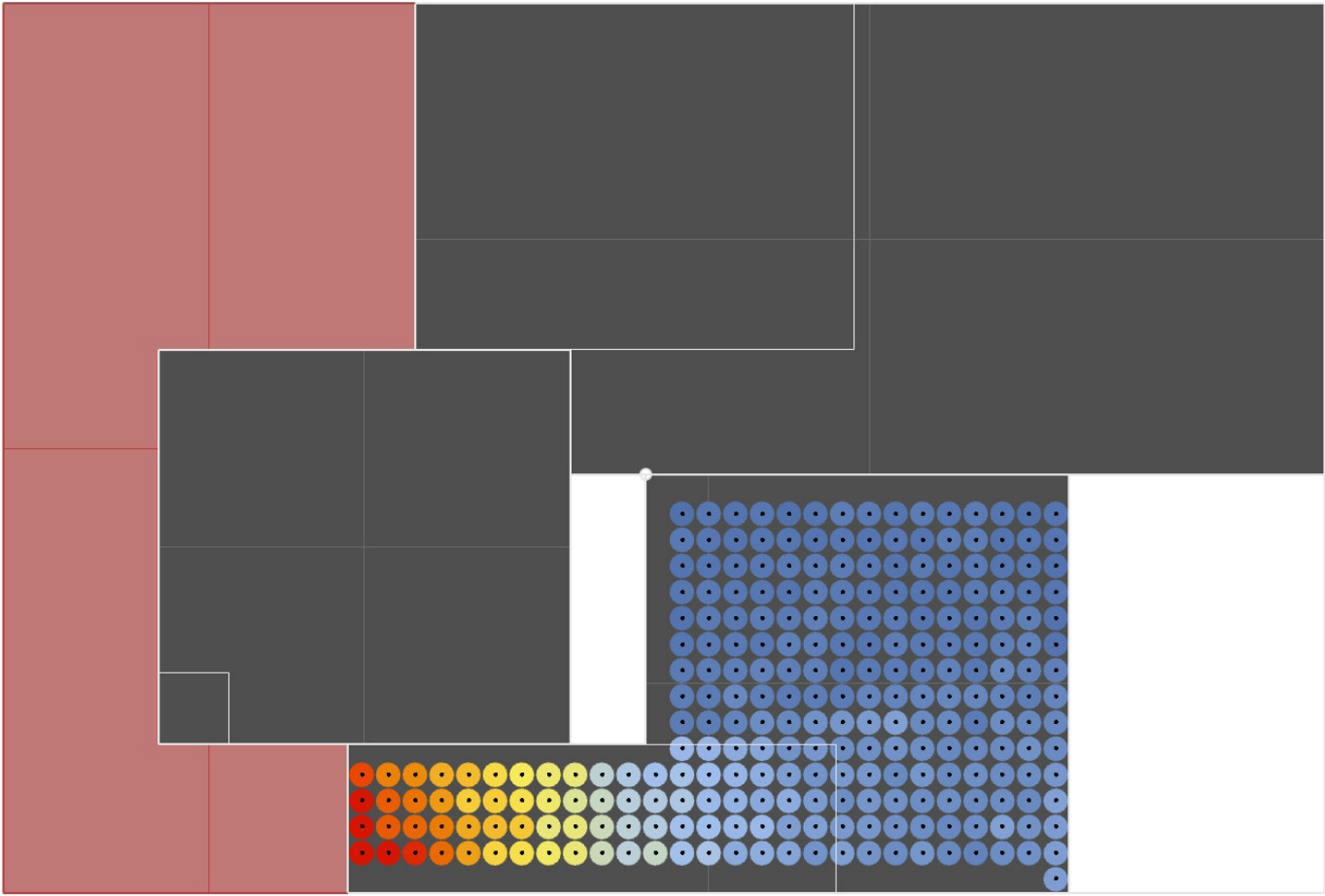
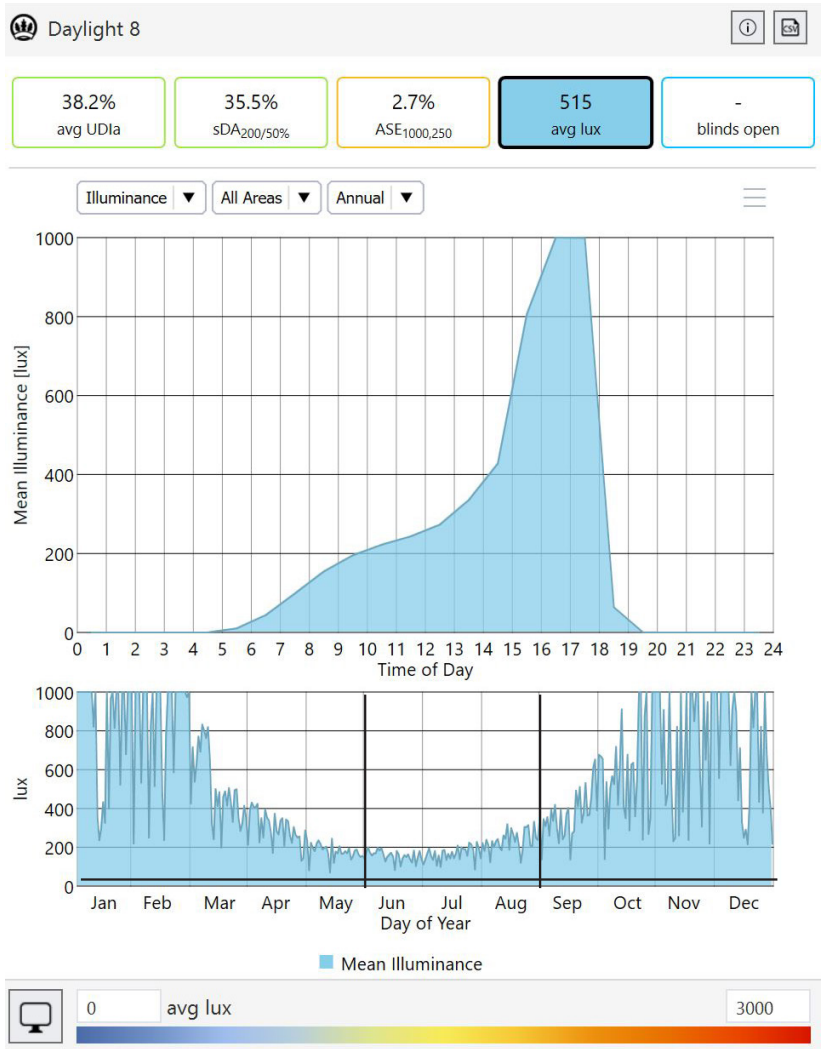
Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux.



Original apartment layout

Daylight Illuminance

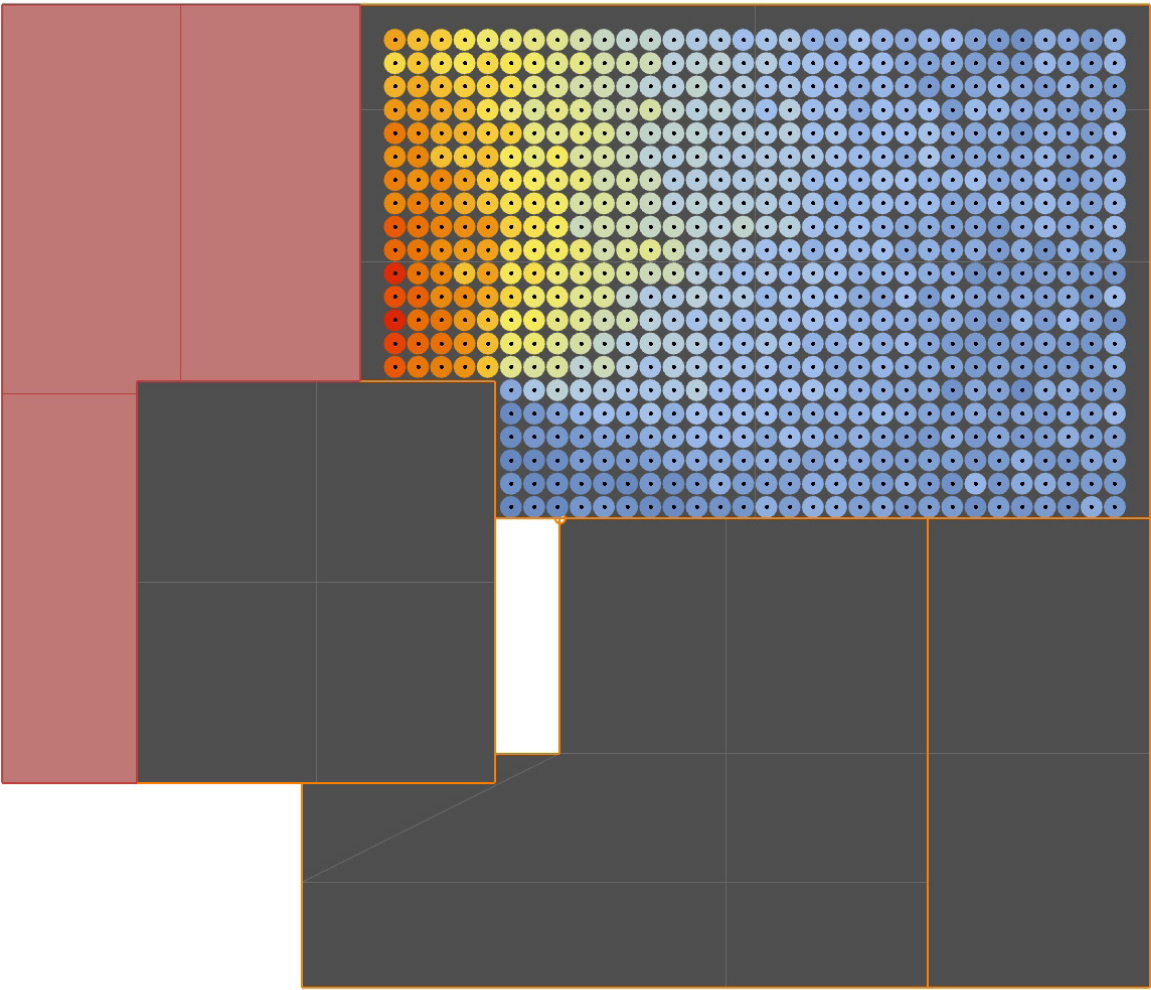
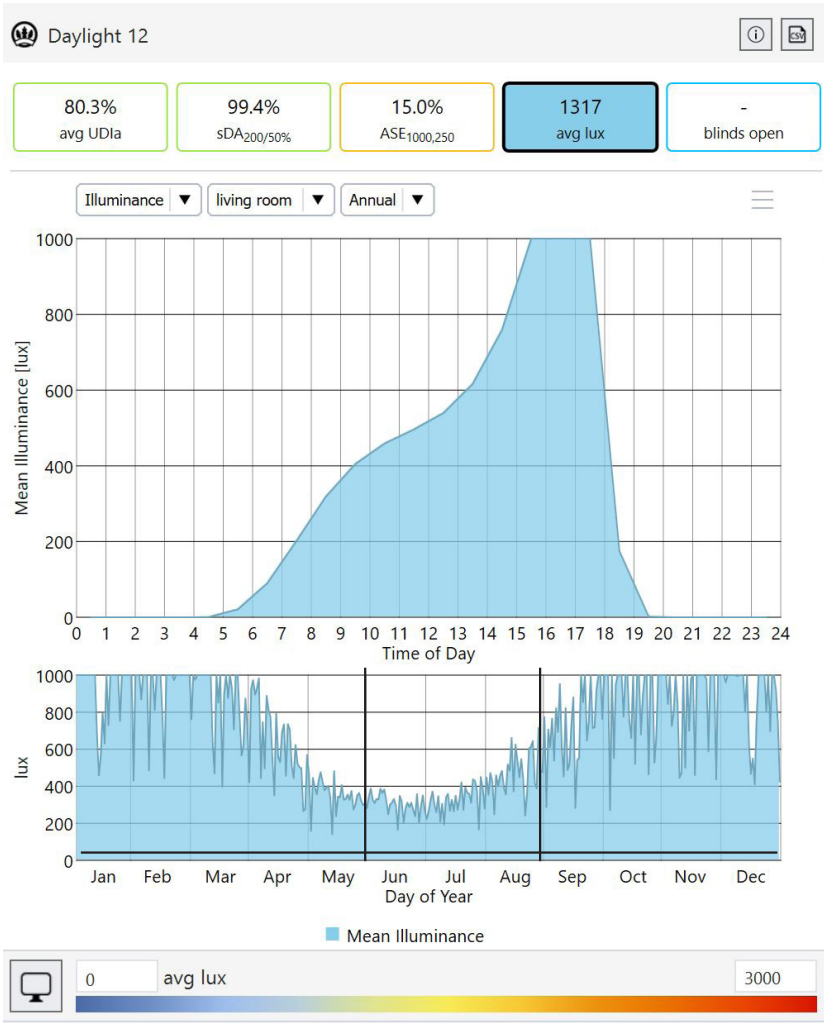
Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux.



Original apartment layout

Daylight Illuminance

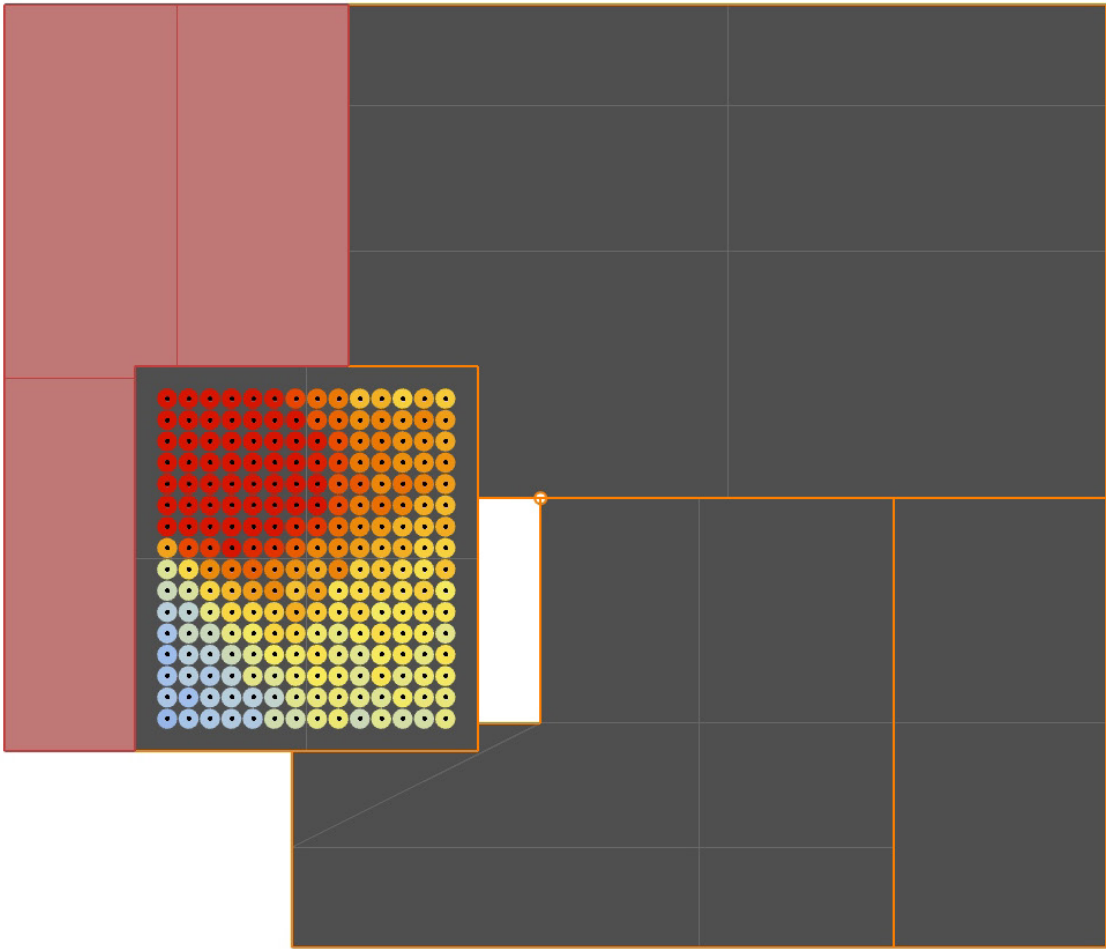
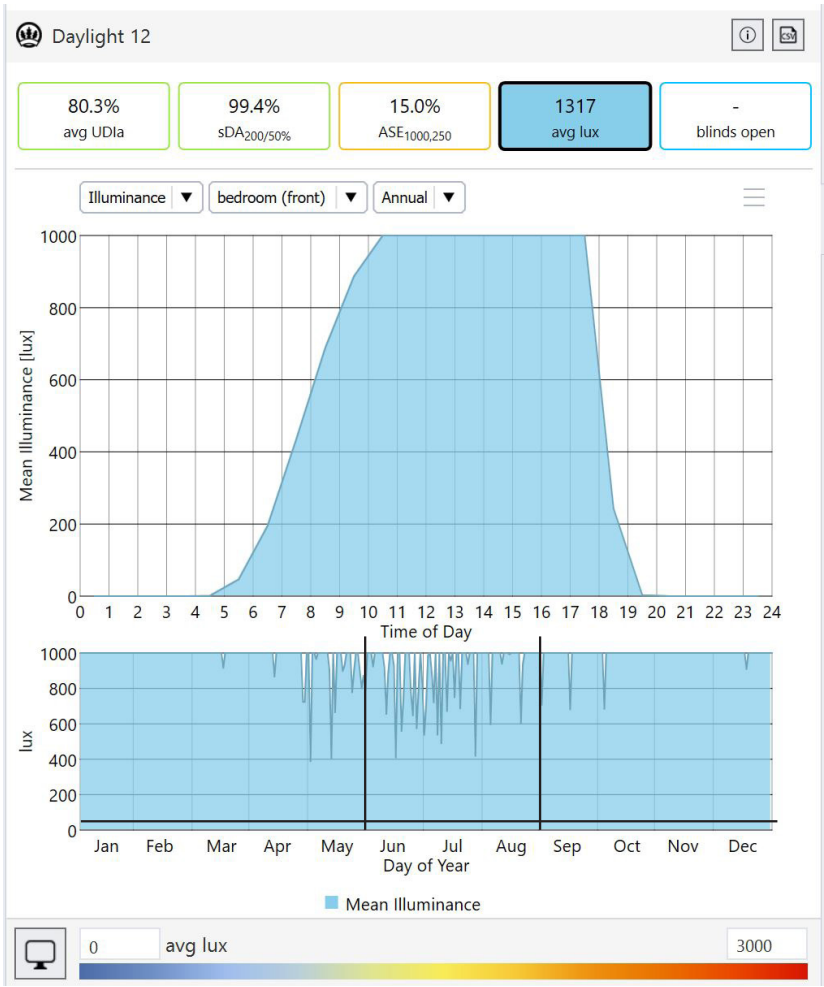
Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux.



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Daylight Illuminance

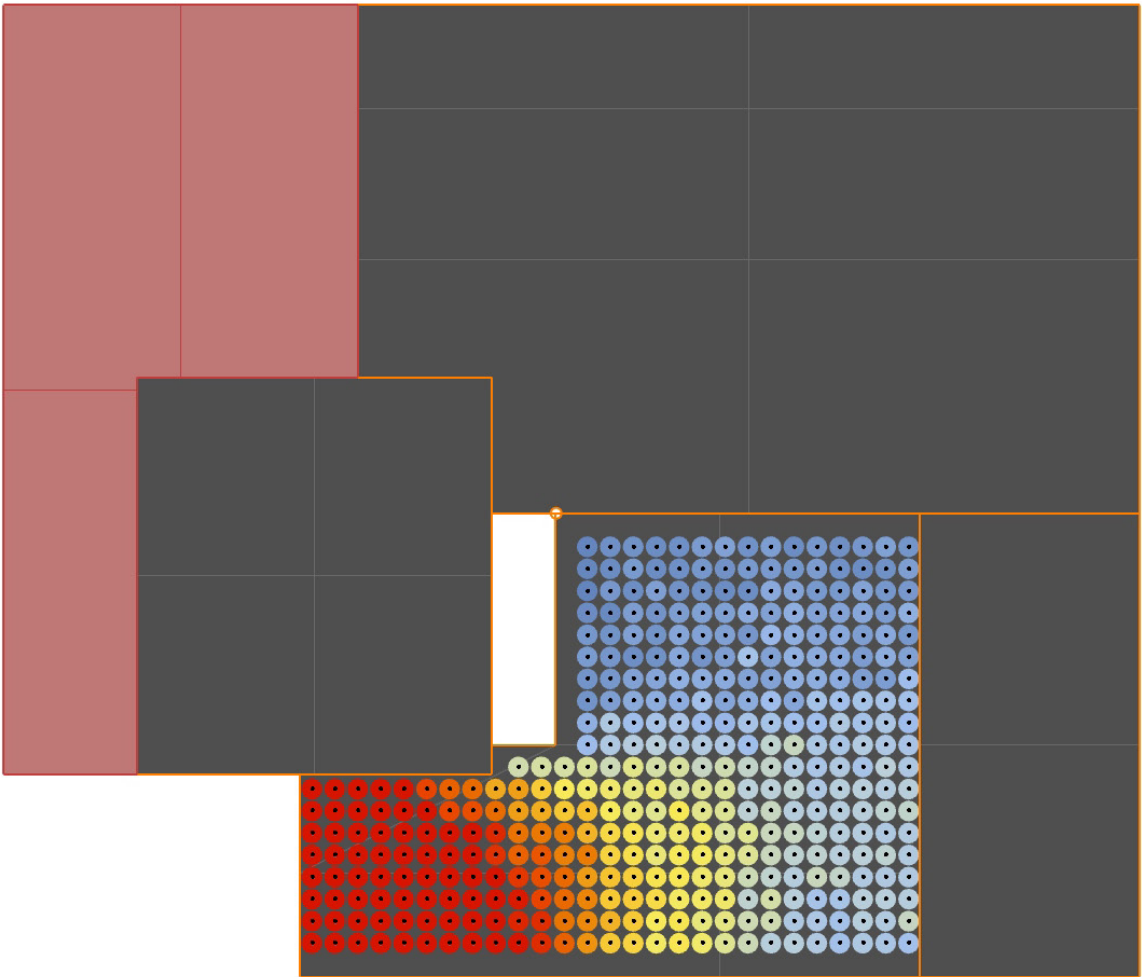
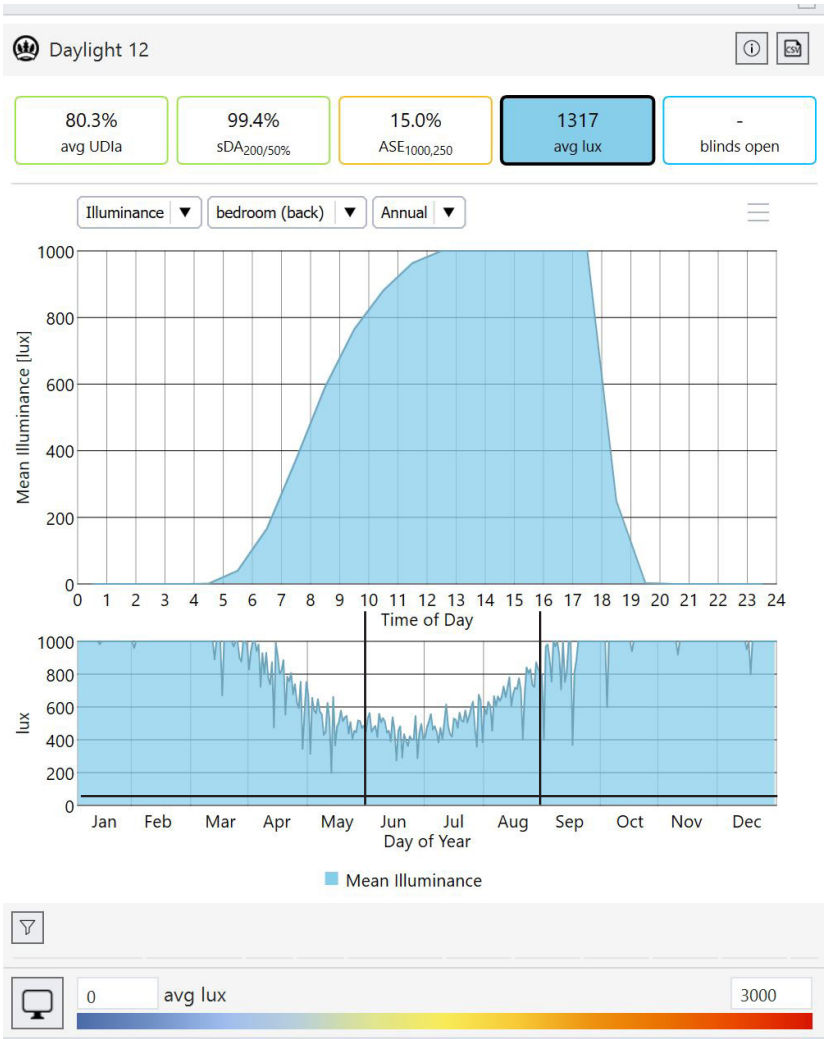
Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux.



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Daylight Illuminance

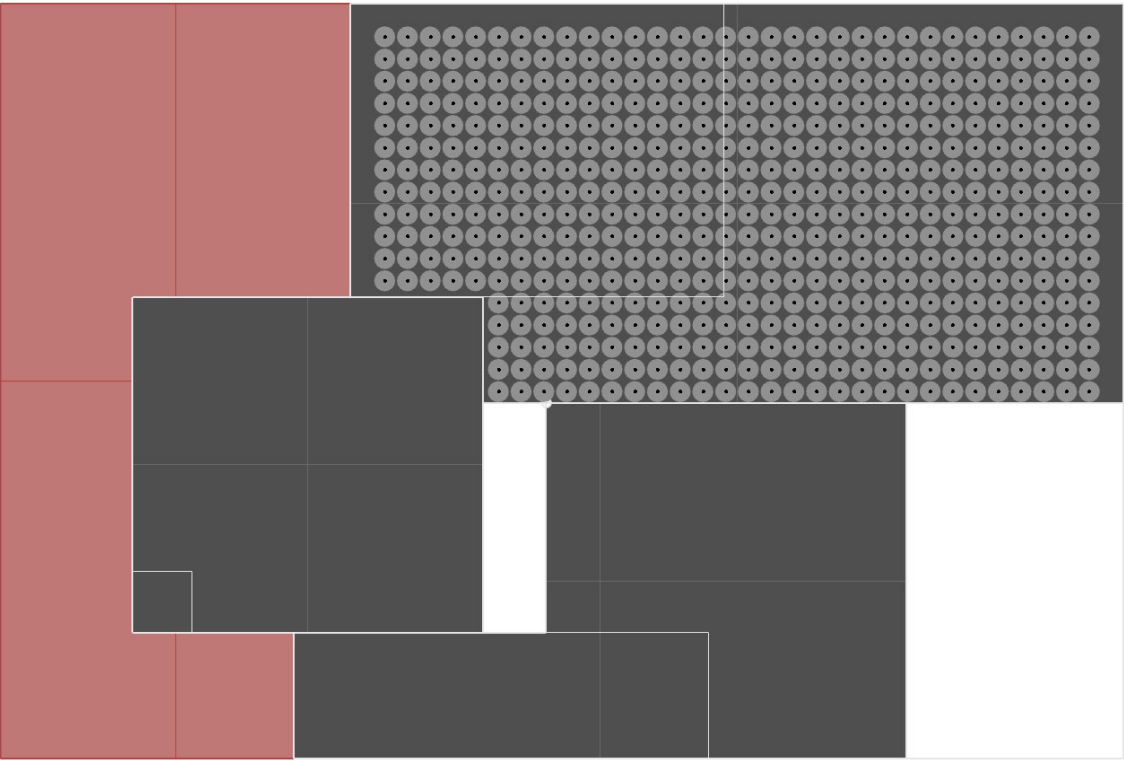
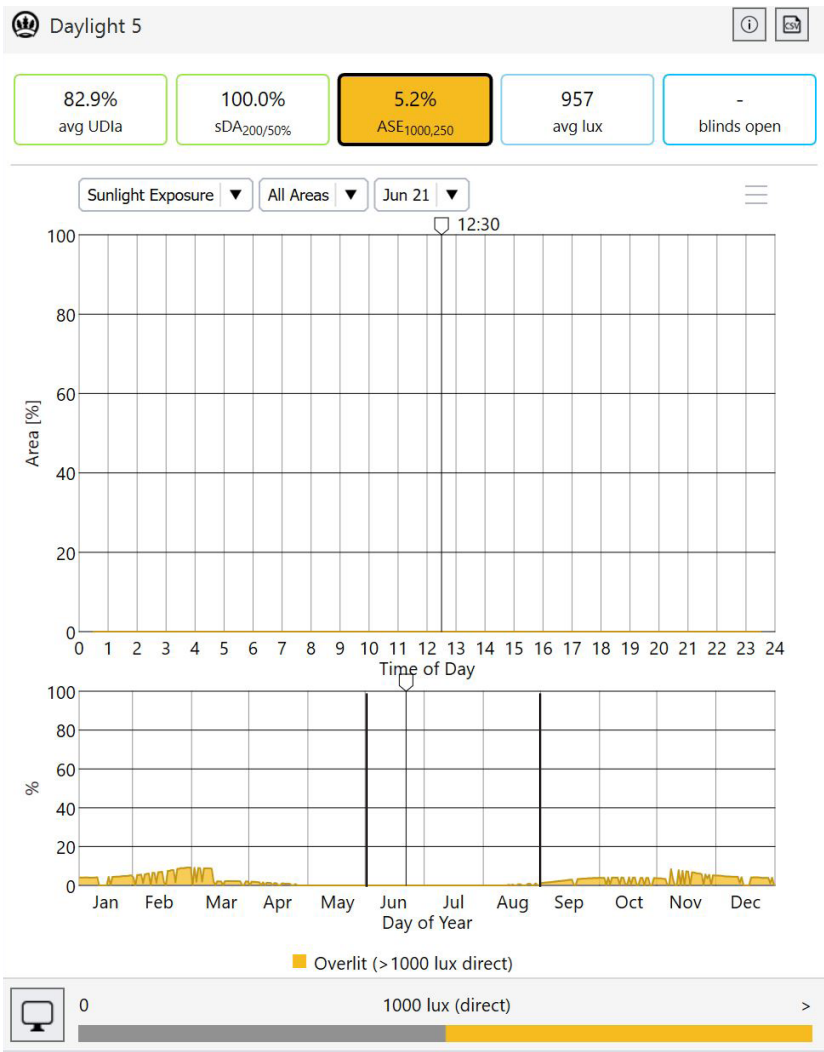
Building must achieve a daylight level across the entirety of every habitable room and regularly occupied space of minimum 50 lux.



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Daylight Access

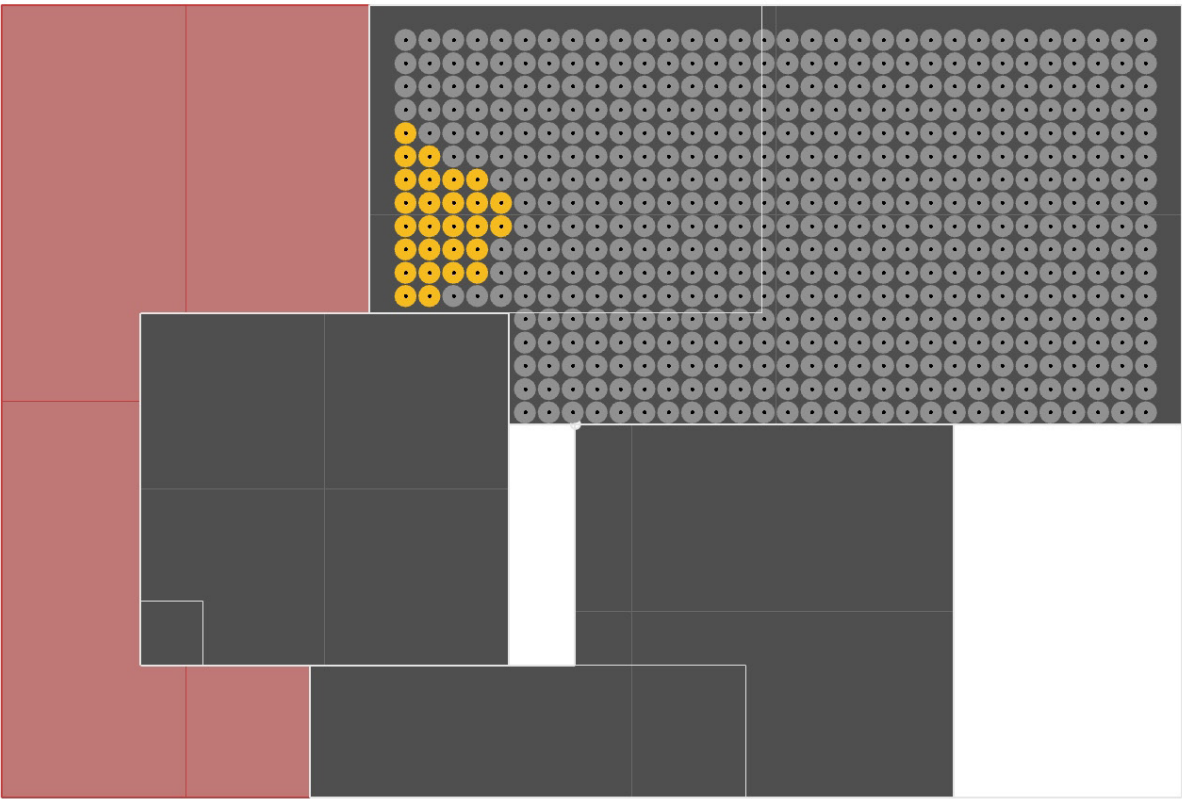
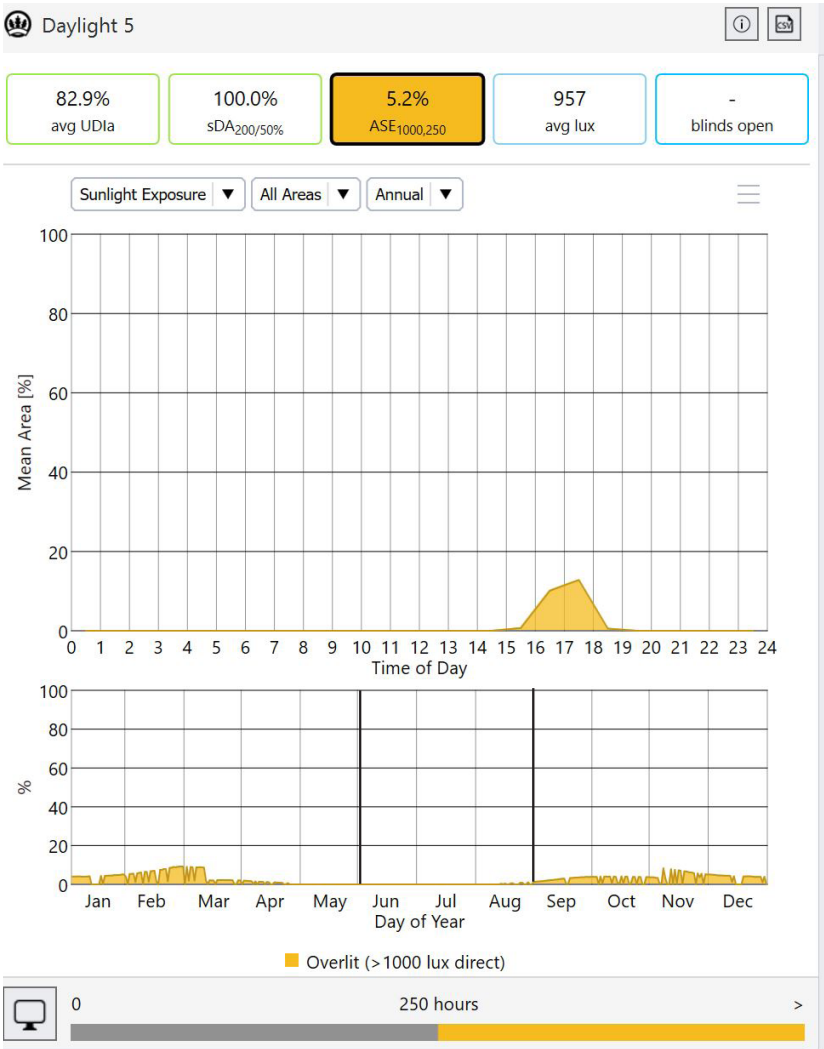
Buildings should achieve direct sunlight to all primary living areas for 2 hours on June 21 to at least 1.5 m deep into the room from glazing.



Original apartment layout

Daylight Access

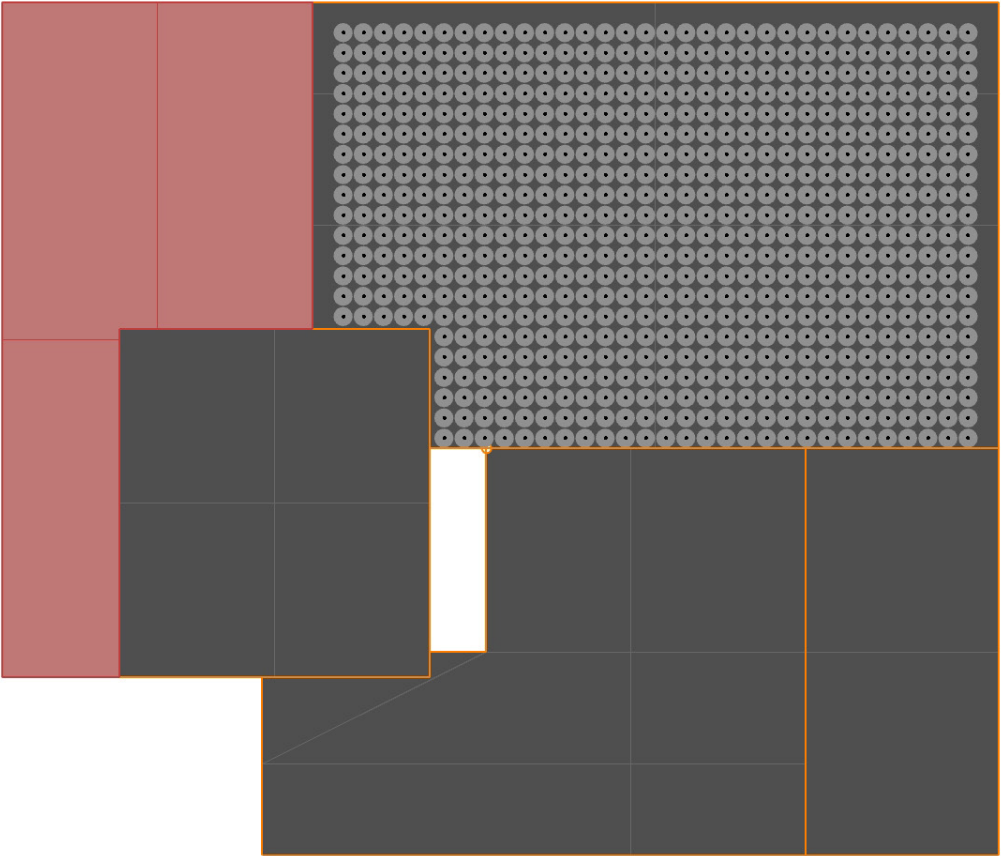
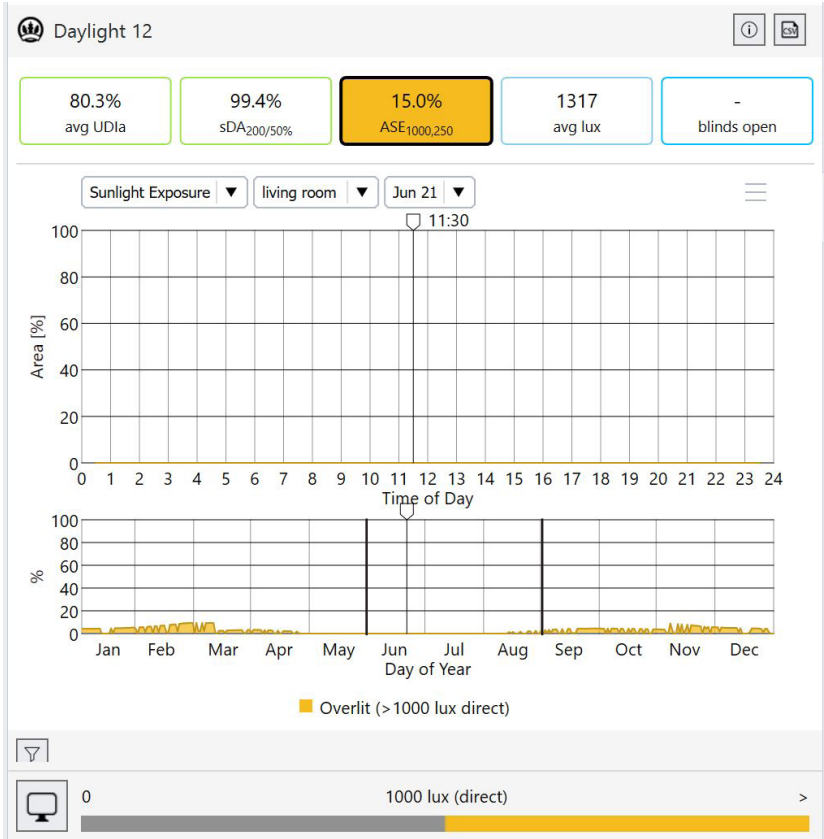
Buildings should achieve direct sunlight to all primary living areas for 2 hours to at least 1.5 m deep into the room from glazing.



Original apartment layout

Daylight Access

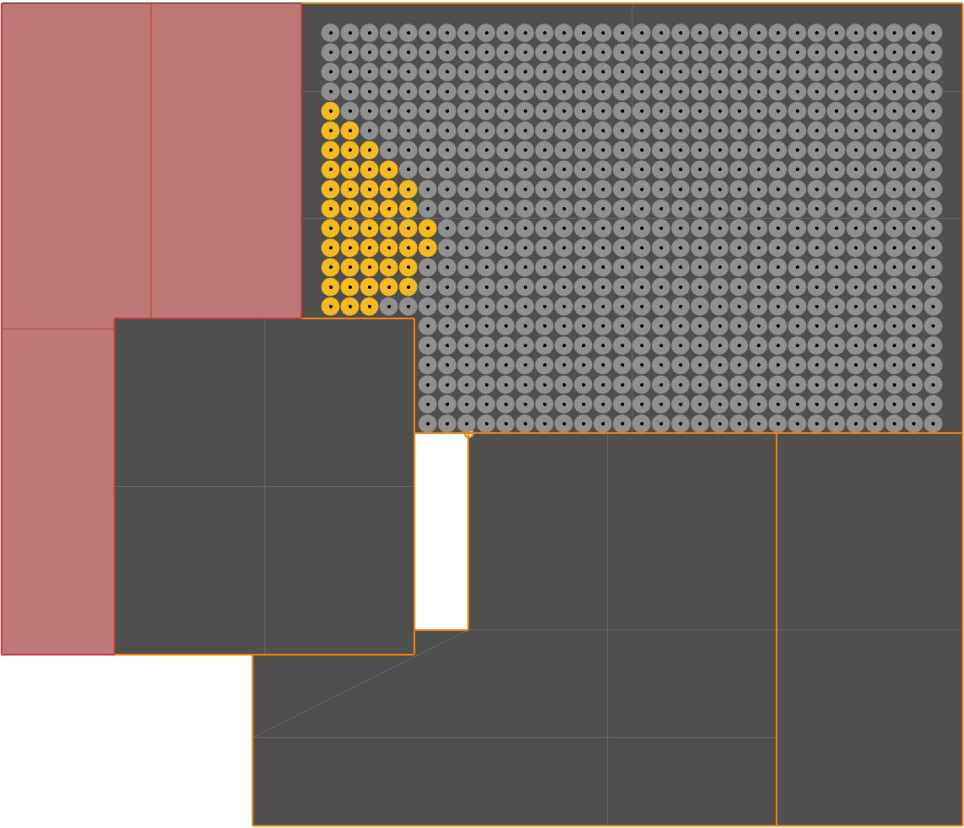
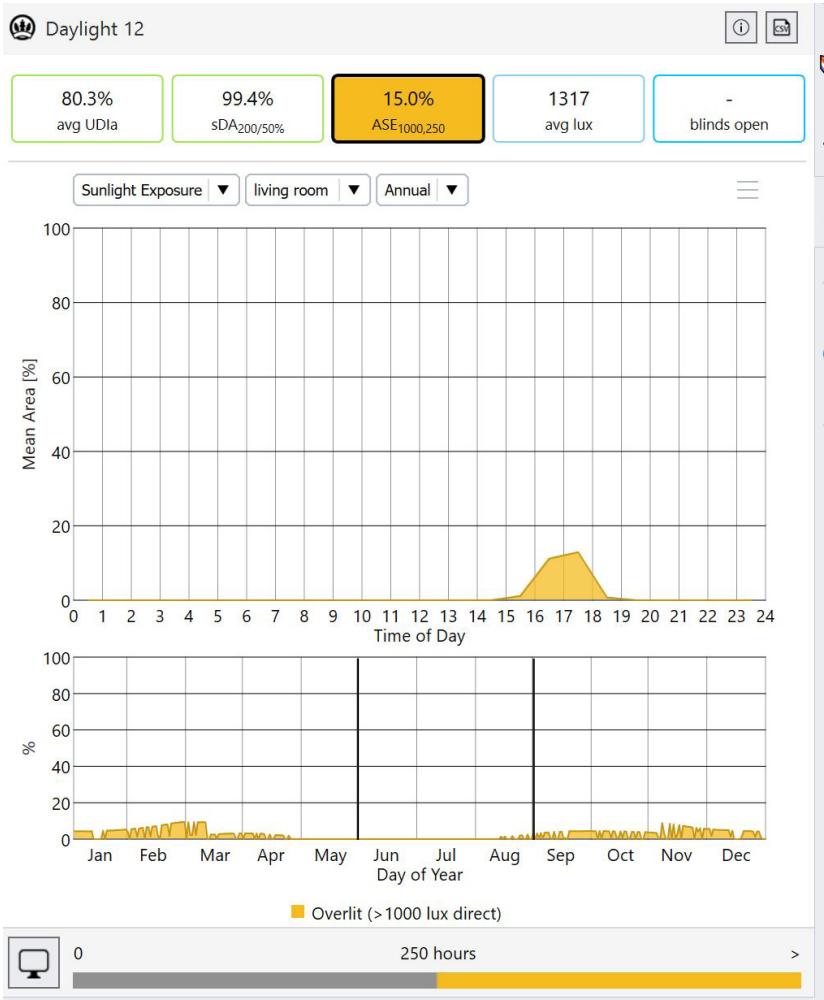
Buildings should achieve direct sunlight to all primary living areas for 2 hours on June 21 to at least 1.5 m deep into the room from glazing.



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Daylight Access

Buildings should achieve direct sunlight to all primary living areas for 2 hours on to at least 1.5 m deep into the room from glazing.



Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

Appendix D

The following seeks to highlight the evolution of category wording throughout the process of the ESD technical feasibility and the planning advice, and highlight where standards were redistributed from categories in the ESD report to different categories in the planning report.

CATEGORIES IN ESD REPORT	REVISED CATEGORIES IN PLANNING REPORT	SUMMARY OF STANDARDS REDISTRIBUTION INTO REVISED PLANNING REPORT CATEGORIES (IF APPLICABLE)
Operational Energy	Operational Energy	Standards redistributed to this category include those relating to: – External shading (from Indoor Environment Quality category)
Sustainable Transport	Sustainable Transport	
Integrated Water Management	Integrated Water Management	
Green Infrastructure	Green Infrastructure	
Indoor Environment Quality	Indoor Environment Quality	
Circular Economy	Waste and Resource Recovery Embodied Emissions	Standards redistributed between two new categories (Waste & Resource Recovery and Embodied Emissions)
	Climate Resilience	Standards redistributed to this new category include those relating to: – Urban heat reduction (from Green Infrastructure category) – Comfort of pedestrian pathways (from Green Infrastructure category) – Responding to future climate impacts (from Integrated Water Management category)

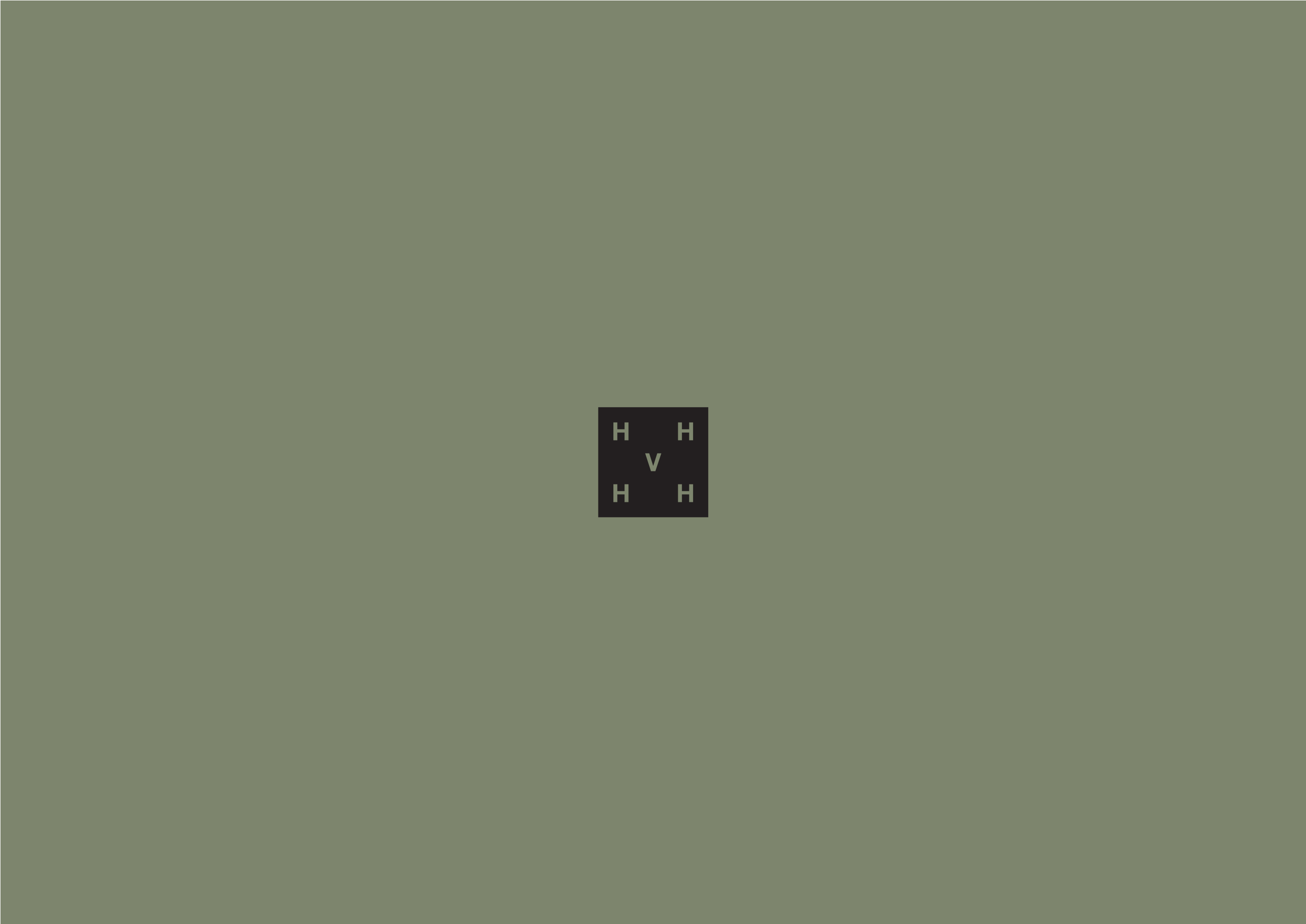
For additional information, questions unturned, collaboration opportunities and project enquiries please get in touch.

293 Barkly Street
Brunswick VIC 3056
T. (03) 8060 1252

12/7 Grevillea Street
Byron Bay NSW 2481
T. (03) 8060 1252

wedeservebetter@hipvhype.com
hipvhype.com

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XX PLANNING SCHEME

--/20--

53.XX ELEVATED ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

Purpose

--/20--

To ensure that new buildings and significant alterations and additions are planned and designed in a manner which incorporate environmentally sustainable development (ESD) principles, mitigates and adapts to climate change, protects the natural environment, reduces resource consumption and supports the health and wellbeing of future occupants.

53.xx-1

Application

--/20--

This clause applies to an application under a provision of a zone to construct a building, or construct or carry out works, other than the following applications:

- An application under a provision of the Farming Zone, Green Wedge Zone, Green Wedge A Zone, Low Density Residential Zone, Public Conservation and Resource Zone, Transport Zone 2, Transport Zone 3, Rural Activity Zone, Rural Conservation Zone, Rural Living Zone or Urban Floodway Zone.
- A VicSmart application.
- An application to construct or carry out works associated with one dwelling on a lot.
- An application for development associated with the use of land for agriculture or earth and energy resources industry.
- An application to alter, extend or make structural changes to an existing building provided the gross floor area of the building is not increased by more than 1000 square metres.
- An application to construct a building with a gross floor area not exceeding 50 square metres.
- An application to construct or carry out works with an area not exceeding 50 square metres.
- An application lodged before the approval date of Amendment XX.
- An application for an amendment of a permit under section 72 of the Act, if the original permit application was lodged before the approval date of Amendment XX.

For the purpose of this provision:

Other non-residential uses includes development associated with the following uses:

- Education Centre
- Leisure & Recreation
- Place of Assembly
- Hospital

Net zero carbon emissions means the amount of carbon emissions associated with the building's operational energy on an annual basis is zero or negative.

Operational energy use means any energy required to facilitate the day-to-day operations of the development.

Residual operational energy means any additional energy required by the development to operate which remains after accounting for energy efficiency and onsite renewable energy infrastructure.

Green Infrastructure means planned elements of building and landscape design that are designed and managed to deliver a wide range of ecosystem services, generally in the form of vegetation.

XX PLANNING SCHEME

EV enabled means development that has been constructed to include the enabling infrastructure for EV charging facilities through the installation of end point charging infrastructure to be provided at a future point in time.

Equivalent standard development means a development which shares similar characteristics to the proposed development but has only undertaken the minimum steps to meet any applicable targets or requirements of relevant regulatory controls.

53.xx-2 Operation

--/20--

The provisions of this clause contain:

- **Objectives.** An objective describes the desired outcome to be achieved in the completed development.
- **Standards.** A standard contains requirements to meet the objective. A standard should normally be met.

53.xx-3 Requirements

--/20--

An application to construct a building or construct or carry out works:

- Must meet all of the objectives of Clauses 53.XX-4 to 53.XX-11.
- Should meet all the Standards or performance measures specified in this clause. However, if the responsible authority is satisfied that an application for an alternative solution meets the objective, the alternative solution may be considered.

An application must be accompanied by details of proposed environmentally sustainable development measures, including a response to the Standards of this clause, in a Sustainability Management Plan.

53.xx-4 Operational Energy

--/20--

Objectives

To ensure new development achieves net zero carbon emissions from operational energy use.

To support the inclusion of renewable energy generation and ensure a transition to renewable energy sources.

To ensure higher levels of energy efficiency and reduce pressure on energy networks.

To support effective energy load management and storage.

To support development that demonstrates innovation in the delivery of carbon positive emission outcomes.

Standards

Standard A1

All residential developments should achieve an average 7 Star NatHERS rating.

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Standard A2

All developments should provide the following minimum requirements for onsite renewable energy generation:

DEVELOPMENT	REQUIREMENT
Single dwelling, Two or more dwellings on a lot (multi- dwellings other than apartments)	A 3kW minimum capacity solar photovoltaic (PV) system should be installed for each 1-2 bedroom dwelling and an additional 1.0kW per bedroom for each bedroom there-after.
Apartment development	Provide a solar PV system with a capacity of at least 25W per square metres of the development's site coverage, OR 1kW per dwelling.
Office, Retail, Place of Assembly.	Provide a solar PV system with a capacity of at least 25W per square metres of the development's site coverage.
Industrial & Warehouse	A solar PV system that is sized to meet the energy needs of the building(s) services (lighting, air-conditioning, industrial processes). When no industrial process is proposed, minimum 1.5kW per tenancy plus 1kW for every 150m ² of gross floor area must be provided, OR Where an energy intensive industrial process is likely, maximised based on the available unencumbered roof area.

Note: Alternative renewable energy sources where it can be established that the generation would be equal or greater than that generated by solar PV on site are acceptable.

Standard A3

All development should be designed to reflect the following hierarchy in achieving net zero carbon emissions from all operational energy use:

1. Design buildings to be all electric;
2. Design building orientation, envelope and openings to increase energy efficiency;
3. Selection of energy efficient systems, equipment and appliances;
4. Onsite generation of renewable energy;
5. Purchase of offsite renewable energy.

Standard A4

All new development should be designed to avoid consumption of natural gas or other onsite fossil fuels.

Standard A5

All developments should prioritise the use of passive design to maximise thermal comfort while minimising energy consumption for heating and cooling, including through the following:

- Optimising building siting and orientation.
- Optimising building envelope design to access winter warming sun, limit summer solar heat gain and access dominant cooling breezes.
- Managing wall to glazing ratios.
- External design which uses elements such as wingwalls, balconies, external shading devices to provide effective external shading of glazing in habitable rooms from summer solar heat loads.

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- Design which allows for containment of spaces that are artificially heated and cooled.

Standard A6

All development should be designed to minimise energy use including:

- Provision of clotheslines to allow natural drying of clothes and bedlinen, that do not impact the amenity of external secluded private open space, or internal room function.
- Provision of appropriate energy management systems (such as load management) to support use of renewable energy generated onsite and efficient energy consumption throughout the day.

Standard A7

All development should maximise potential utilisation of solar energy and where appropriate, wind, through the following measures:

- Ensuring electrical systems are designed to optimise the onsite consumption of generated electricity.
- Optimising roof form, pitch and orientation for photovoltaic arrays and/or solar air or water heating.
- Minimising shading and obstructions.
- Designing for appropriate roof structure to accommodate and access equipment.
- Consider spatial requirements for future renewable energy storage or other energy management systems.

Standard A8

All residual operational energy should be 100% renewable, purchased through government accredited off-site Green Power, power purchasing agreement or similar.

53.xx-5 Embodied Carbon

Objectives

To encourage development that considers the lifecycle impacts of resource use and supports lower carbon emissions.

Standards

Standard B1

Development should reduce the impact of embodied carbon emissions in materials used through a combination of the following measures:

- Reusing all, or part, of existing buildings.
- Use of reclaimed or repurposed materials where appropriate.
- Use of new materials with a recycled content.
- Identifying opportunities to substitute high impact materials, such as concrete or steel, with materials with lower embodied carbon.
- Selecting materials from sources which have undertaken offsetting of any carbon emissions.

Standard B2

Development should demonstrate consideration of the potential for future adaptation and / or alternate uses where relevant, in the design of buildings.

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Standard B3

Development should contribute to the reduction in future embodied carbon through careful material selection, including:

- Utilising materials that are durable, reducing need for replacement.
- Utilising materials and construction methods which facilitate future recycling of materials.
- Considering the application of 'design for disassembly' principles.

53.xx-6 Sustainable Transport

Objectives

To ensure development supports sustainable and equitable transport patterns through the provision of transport infrastructure that prioritises active transport.

To support and encourage zero emissions transport.

To support development that is designed to encourage behavioural changes to reduce transport related emissions and congestion.

To ensure that development is designed to accommodate the expected increase in use of lower emission modes of transport through the provision of infrastructure that is efficient and can adapt to meet changing needs and innovations in transport technology.

XX PLANNING SCHEME

Standards

Standard C1

All development should provide the following rates of bicycle parking:

DEVELOPMENT	REQUIREMENT
New residential development	A minimum of one secure undercover bicycle space per dwelling. Where a lesser provision of bicycle parking is proposed, development should demonstrate how additional space (i.e. car parking spaces) could be repurposed for bicycle parking should demand arise. A minimum of one visitor bicycle space per 4 dwelling.
New retail development	A minimum of one secure undercover employee bicycle parking space per 100 sqm net leasable area. Visitor bicycle spaces equal to at least 5% of the peak visitors capacity.
New development associated with a Place of Assembly	A minimum of 2 secure staff bicycle spaces per 1500 sqm of a place of assembly. A minimum of four visitor spaces for the first 1500 sqm and 2 additional spaces for every 1500 sqm thereafter.
New office development	A minimum of one secure undercover staff bicycle parking space per 100 sqm net leasable area of office. A minimum of one visitor space per 500 sqm net leasable area of office.
For all other non-residential uses	Provide bicycle parking equal to at least 10% of regular occupants.

Standard C2

All non-residential developments should provide:

- One shower for the first 5 employee bicycle spaces, plus 1 to each 10 employee bicycle spaces thereafter.
- Personal lockers are to be provided with each bicycle space required if 10 or more employee bicycle spaces are provided.
- If more than 30 bicycle spaces are required, then a change room should be provided with direct access to each shower. The change room may be a combined shower and change room.

XX PLANNING SCHEME

Standard C3

All development should be designed to support the use of electric vehicles through the provision of:

DEVELOPMENT	REQUIREMENT
Single dwellings / Two or more dwellings on a lot	Appropriate infrastructure and cabling to support at least moderate speed, efficient EV charging (with / without the EV charger unit) in each garage / carport.
Apartment development	Electrical capacity capable of supporting the provision of an appropriate moderate speed, efficient EV charging outlet to all car parking spaces. Appropriate EV infrastructure and cabling must be provided to ensure peak demand is managed for example, distribution boards, power use metering systems, scalable load management systems, and cable trays or conduit installation.
Non-residential development under 5,000 sqm gross floor area	Electrical capacity capable of supporting the provision of an appropriate moderate speed, efficient EV charging outlet to 20% of all staff car parking spaces (or a minimum of one space). Appropriate EV infrastructure and cabling must be provided to ensure peak demand is managed, for example, distribution boards, power use metering systems, scalable load management systems, and cable trays or conduit installation.
Non-residential development over 5,000 sqm gross floor area	Installed EV charging infrastructure complete with chargers and signage to 5% of all car parking spaces. Electrical capacity capable of supporting the provision of an appropriate moderate speed, efficient EV charging outlet to 20% of all staff car parking spaces (or a minimum of one space). Appropriate EV infrastructure and cabling must be provided to ensure peak demand is managed for example, distribution use metering systems, scalable load management systems, and cable trays or conduit installation.

Standard C4

All bicycle parking facilities should be designed for convenient access, including:

- Locating the majority of bicycle parking facilities for occupants at ground level, where this does not compromise other relevant objectives.
- For bicycle parking not at ground level, providing the majority within 10 metres of vertical pedestrian access ways (i.e. lifts, stairs).
- Providing safe access to bicycle parking facilities in basement car parks via a separate line of travel or by clearly signalling cycle priority through surface treatments and to facilities accessed via lanes by providing suitable lighting and surveillance.
- Ensuring any lifts used to access bicycle parking areas are at least 1800mm deep.
- Ensuring at least 20% of residential bicycle parking facilities are of a type which support equitable access through a combination of well-spaced ground level facilities to

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support ease of use and provision of parking spaces to accommodate a diverse range of bicycles (such as cargo bikes or three wheeled bikes).

Standard C2

All car parking facilities should be designed to support the charging of shared or visitor vehicles through:

- The provision of a minimum of one EV enabled shared parking space if visitor or shared parking spaces are proposed.
- Locating shared EV charging space(s) in highly visible, priority locations.
- Providing clear signage indicating that EV charging is available at the shared space(s).

Standard C3

All car parking facilities should be designed to support the charging of motorcycle, moped, electric bicycle or scooters through:

- Providing electrical capacity for appropriate charging outlets at the parking / storage area.
- Providing a general power outlet for every six vehicle parking spaces to support charging.

Standard C4

All development should be designed to support modal shift to more sustainable forms of transport through:

- Locating low and zero emission vehicles in a prominent, accessible locations within parking facilities.
- Designing car parking facilities to be adaptable to other uses.
- Adopting flexibility in the allocation of car parking spaces to facilitate adaptable uses or transfer of ownership.

53.xx-7 Integrated Water Management

Objectives

To support development that minimises total operating potable water use.

To support development that reduces the amount of stormwater runoff on site, and improves its quality of stormwater, and impacts for stormwater that leaves a development.

To ensure development considers and addresses the impact of future climate conditions in the management of water resources.

To encourage development that supports innovation in the use and reuse of water

Standards

Standard D1

All development should be designed to reduce potable water use on site by at least 30% in interior and irrigation uses, in comparison to an equivalent standard development, with use of roof harvested rainwater supply prioritised in the delivery of reductions.

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Standard D2

Design developments to use water resources efficiently through a range of measures, including;

- Collection of rainwater from above ground catchments, and appropriate filtering for on-site use for toilet flushing as a minimum, and additional uses such as laundry, irrigation, wash down facilities, etc.
- Capture of fire-test water for on-site reuse.
- Collection of stormwater for on-site reuse.
- Considering opportunities for onsite recycling of wastewater through the installation of approved greywater or blackwater systems.
- Reducing potable water use for irrigation by selection of drought tolerant landscaping, design for passive irrigation, and selection of efficient irrigation systems where needed.
- Connecting to a precinct scale Class A recycled water source if available and technically feasible (including a third pipe connection to all non-potable sources).
- Providing water efficient fixtures, fittings and equipment.

Standard D3

Reduce the volume and flow of stormwater discharging from the site by appropriate on-site detention and on-site retention strategies, consistent with catchment scale IWM objectives and targets.

Standard D4

Improve the quality of stormwater discharging from the site by meeting best practice urban stormwater standards.

53.xx-8

Green Infrastructure

Objectives

To deliver development that protects existing landscape values on and adjoining the development site, including canopy, vegetation, and habitat for biodiversity.

To deliver development that increases vegetation, particularly indigenous and native vegetation, and enhances existing landscape values, connects biodiversity corridors and increases the resilience of ecosystems.

To ensure landscaping proposed as part of development will be resilient to future climate conditions and supports integrated water management and energy efficiency outcomes.

To support development that increases amenity, improves connections to surrounding natural landscapes and supports health and wellbeing.

To encourage development that provides opportunities for on-site food production.

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Standards

Standard E1

All new development should achieve a Green Factor score of 0.55 (0.25 for industrial and warehouse uses)

OR

A minimum of at least 40% of the total site coverage area (20% for Industrial or Warehouse) must comprise green cover (external landscaping) that delivers at least one of the following:

- A minimum of 65% of the required green cover area as new or existing canopy planting and a minimum of 35% as understory planting. Canopy planting and understory planting can overlap.
- Species selection and associated planting arrangement comprising native and / or indigenous species which provides habitat for native fauna.
- Green cover which is located to provide maximum benefit in relation to the cooling of the adjoining public realm. Green walls or facades under this pathway must benefit the public realm and be on the lower levels of the building.

Standard E2

Green infrastructure should:

- Support the creation of complex and biodiverse habitat.
- Provide a layered approach, incorporating both understory and canopy planting.
- Provide either native, indigenous and/or climate change resilient exotic plants that provide resources for native fauna.
- Support the creation of vegetation links between areas of high biodiversity through planting selection and design.
- Ensure species selection is appropriate to address expected future climate conditions.

Standard E3

Siting of buildings should seek to retain existing mature canopy trees (excluding invasive species) or significant areas of other green cover which contribute to biodiversity corridors and habitat.

Standard E4

Development should ensure appropriate measures are integrated to support the establishment and ongoing maintenance of landscaping

53.xx-9 Climate Resilience

Objectives

To improve the resilience of the built environment to climate change related hazards and natural disasters.

To deliver development that reduces the urban heat island effect.

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Standards

Standard F1

Provide at least 75% of the development's total site area with a combination of the following elements to reduce the impact of the urban heat island effect:

- Green infrastructure.
- Roof and shading structures with cooling colours and finishes that have a solar reflectance index (SRI) of:
 - For roofing with less than 15 degree pitch, a SRI of at least 80.
 - For roofing with a pitch of greater than 15 degrees, a SRI of at least 40
- Water features or pools.
- Hardscaping materials with SRI of minimum 40.

Standard F2

New development should demonstrate that future climate impacts have been considered and addressed in any design response.

Standard F3

Pedestrian pathways should be designed with thermal comfort in mind. This includes incorporating landscaping (tree canopy and other vegetation), shading and covered structures.

53.xx-10 Indoor Environmental Quality

Objectives

To support development that achieves safe and healthy indoor environments, specifically addressing:

- Thermal comfort.
- Thermal safety.
- Access to clean, fresh air.
- Access to daylight and sunlight.
- Harmful indoor air pollutants.

To deliver development that considers the impact of future climate conditions on indoor environment quality.

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Standards

Standard G1

Buildings should be designed to be able to provide appropriate levels of thermal comfort without reliance on mechanical heating and cooling systems, as follows:

DEVELOPMENT	REQUIREMENT
Single dwellings	All habitable rooms should be cross ventilated.
Two or more dwellings on a lot (other than apartments)	
Apartment development	60% of all apartments should be effectively naturally ventilated, either via cross ventilation, single-sided ventilation or a combination
Residential Buildings	At least 40% of apartments on every floor to be cross ventilated.
Non-Residential development	All regular use areas of non-residential spaces should be effectively naturally ventilated; or commensurate mechanical measures provided.

Standard G2

Buildings should achieve a daylight level across the entirety of every habitable room of 100 lux and of 50 lux across the entirety of any other regularly occupied space.

Standard G3

Internal spaces in buildings should utilise natural light to minimise the use of artificial lighting during daylight hours, unless the proposed use of the room is contrary to the provision of glazing.

Standard G4

Primary living areas of at least 70% of all dwellings in a development should achieve direct sunlight for 2 hours on the 21st day of June to at least 1.5m deep into the room through glazing.

Standard G5

Development should include openable external windows to circulation corridors and lift lobbies to facilitate natural ventilation for residential development below six storeys.

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Standard G6

Development should use materials which are low toxicity in manufacture and use, and that do not cause harm to people or ecosystems.

53.xx-11 Waste and Resource Recovery

Objectives

To facilitate development that supports functional waste recovery and management.

To enable the continuous improvement of sustainable waste management and resource recovery.

Standards

Standard H1

Development should include:

- Adequate waste and recycling infrastructure to manage the waste demand of the development in a sustainable manner and to support recycling, such as an appropriate number of bins, waste chutes, and cleaning facilities.
- Waste and recycling infrastructure and enclosures which are:
 - Adequately ventilated.
 - Integrated into the design of the development.
 - Located and designed for convenient access by occupants and made easily accessible to people with limited mobility
 - Signposted to support recycling and reuse.
- Adequate facilities or arrangements for bin washing.

Standard H2

Development should be designed to facilitate:

- Collection, separation and storage, and where appropriate, opportunities for on-site management of food waste through composting or other waste recovery as appropriate.
- Collection, storage, and reuse of garden waste, including opportunities for on-site treatment, where appropriate, or off-site removal for reprocessing.
- Collection and storage of glass recycling
- Collection and storage of containers under any Container Deposit Scheme as appropriate for the proposed use and scale.
- The provision of adequate circulation space on site to allow waste and recycling collection vehicles to enter and leave the site without reversing.
- Waste and recycling separation, storage and collection designed and managed in accordance with an approved Waste Management Plan, if required by the responsible authority.
- For apartment development, the provision of space for communal storage of additional waste streams including E waste, hard waste and textiles.

Standard H3

An application should demonstrate through the provision of a Construction / Demolition Waste Management Plan, if required by the Responsible Authority, that all practical and feasible practices and activities to minimise waste and increase resource recovery will be implemented.

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53.xx-12 Decision guidelines

—1—/20—

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider:

- *The extent to which the development meets the objectives and requirements of this policy from the design stage through to construction and operation.*
- *Whether alternative design responses to the identified Standards would achieve greater alignment with precinct specific objectives related to environmental sustainability.*
- *Whether the proposed environmentally sustainable development initiatives are reasonable having regard to the type and scale of the development and any site constraints.*
- *The response to any other matters relating to environmentally sustainable development outlined in this planning scheme.*
- *Any relevant water and stormwater management objective, policy or statement set out in this planning scheme.*
- *The contribution the development makes to mitigation of the urban heat island effect and adaptation to changing climatic conditions.*
- *The feasibility and approach to maintenance of proposed green infrastructure.*
- *The quality of the integrated water management approach proposed for the development.*
- *The impact of the removal of any mature canopy trees or vegetation which contributes to natural ecosystems and the measures proposed to mitigate these impacts.*

By email:

richard.wynne@parliament.vic.gov.au

lily.dambrosio@parliament.vic.gov.au

shaun.leanne@parliament.vic.gov.au

May 2022

The Hon Richard Wynne
Minister for Planning and Housing
Level 16
8 Nicholson Street East
Melbourne VIC 3002

The Hon Lily D'Ambrosio
Minister for Energy, Environment and Climate Change and Solar Homes
Level 16
8 Nicholson Street East
Melbourne VIC 3002

The Hon Shaun Leane
Minister for Local Government and Suburban Development
Level 16, 121 Exhibition Street
Melbourne, VIC 3000

Dear Ministers Wynne, D'Ambrosio, and Leane,

RE: Councils to Pursue Improving Environmentally Sustainable Design (ESD) and Zero Carbon Built Environment Outcomes via a Planning Scheme Amendment

We write on behalf of several Councils that are a part of a joint project to improve ESD outcomes and facilitate zero carbon development within a Council's Planning Scheme and support Victoria's Planning System.

We are seeking the Minister for Planning to introduce a Particular Provision in the Victoria Planning Provisions that will enable 31 ambitious Councils to elevate ESD built form requirements into their respective Planning Scheme.

1. Background

Since 2018, Councils throughout the State have sought to improve the current ESD outcomes and requirements detailed in their relevant Planning Scheme. This particularly includes incorporating measures which transition our built environment to address zero carbon development outcomes at the planning stage of development.

The initiative is strongly supported by the Council Alliance for a Sustainable Built Environment (CABSE); that serve under the auspice of the Municipal Association of Victoria (MAV).

The initiative has grown considerably in magnitude over the past four years.

2. Local Governments across the State Working as a Collective

31 Councils throughout the State signed a Memorandum of Understanding to undertake work to elevate ESD targets in their respective Planning Scheme, with an ultimate intention to pursue a joint Planning Scheme Amendment in 2022.

The Planning Scheme Amendment will seek to pursue embedding the necessary changes to improve ESD outcomes and progress zero carbon development within the built environment.

The initiative is framed under the project banner '[Elevating ESD Targets Planning Policy Amendment](#)'.

3. The Planning Scheme Amendment Delivers upon Councils' Obligations and Requirements

The outcomes from this project are closely aligned with a multitude of Council and CASBE deliverables and community expectations that have been endorsed by Councils, most notably:

- Climate Emergency Declarations;
- Municipal Zero Emission Targets that must be met, at or prior to, 2050;
- Statutory Climate Change Pledges, with the particular initiative having been committed to, under the *Climate Change Act 2017* (Vic); and
- Council Climate Change Strategies, Frameworks, Action Plans and the CASBE Strategic Plan.

4. Key Works and Advocacy Undertaken

Significant work, investigation and resources have been invested by Councils and CASBE, including relevant officers, to pursue and support this project. This includes:

- Commissioning evidentiary and justification works with the aid of leading consultancies to support the measures being pursued via a Planning Scheme Amendment (in excess of \$250,000 expended as a collective, to date, including officer time and resources);
- Liaising and working with relevant officers within the Department of Environment, Land, Water and Planning (DELWP's) Energy and Planning divisions on concurrent projects and initiatives;
- Advocating and providing input to the State Government's ESD Roadmap, as well as, serving key Working Groups a part of the ESD Roadmap agenda; and
- Providing numerous submissions to advocate for necessary changes that are required to the built environment through forums such as the Australian Building Codes Board (ABCB) National Construction Code (NCC) 2022, State Gas Substitution Roadmap, Zero Emission Vehicles Advisory Group, and Parliamentary Inquiries.

5. What is being sought by the Planning Scheme Amendment?

The measures and changes being pursued by the collective 31 Councils via a Planning Scheme Amendment contain a level of detail in order to address an absence of, and for those that have an ESD Policy, improved ESD outcomes which will enable transitioning development to achieve zero carbon.

Since reforms to the Victoria Planning Provisions in 2018 (via Amendment VC148), a Council is unable to provide a level of clear detail and direction for development to address certain requirements and expectations, within the Local Planning Policy component of a Council's Planning Scheme.

The point of concern is where such prescriptive requirements and details may reside within a Council's Planning Scheme. This is to ensure robust and necessary outcomes to achieve Councils' obligations and requirements.

The work commissioned by the project group has identified the Particular Provisions, within the Victoria Planning Provisions, as the most appropriate planning tool to set the relevant measures, metrics and changes for improved ESD outcomes.

As such, the project's success rests upon the Minister for Planning, given that the Minister can only authorise a municipal Council to prepare an amendment to the Victoria Planning Provisions.

The application of a Particular Provision would facilitate efficiency and expediency with respect to development approvals undertaken by Councils given that a consistent set of requirements are detailed within several Councils' Planning Schemes.

6. Our Request

The collective group, consisting of 31 Councils, have collaborated to prepare a State-based ESD framework for integration within a Council's Planning Scheme.

Prior to the State election, the collective group of Councils request that the Minister for Planning use their power to authorise the formal introduction of the attached provision into the Victoria Planning Provisions of a Council's Planning Scheme.

7. Opportunity to Deliver State Government Requirements and Resolve Regulatory Gaps

The collective work and approach, demonstrated with the support of 31 Councils, provides an exceptional, well-tailored and documented solution for the State to address its ESD Roadmap commitments and deliver upon Action 80 of Plan Melbourne 2050 which entails the delivery of a State ESD Policy in a timely manner. As per the Plan Melbourne 2050 Five-Year Implementation Plan, the State ESD Policy was anticipated for delivery by the end of 2018 (a 3 year delay).

Our project offers a solution to deliver upon such requirement given that 31 Councils are supporting this project which constitutes 39% of all Councils throughout the State – mostly metropolitan, where a significant amount of the Victorian populous resides.

Furthermore the outcomes from this project will also deliver upon the State Government's Climate Change Strategy and sectoral Pledges, as well as, the Built Environment Adaptation Action Plans committed to, as a statutory requirement, under the *Climate Change Act 2017* (Vic).

Moreover, in Victoria, it is well established at planning panels and at the Victorian Civil and Administrative Tribunal (VCAT) that the broad notion of ESD, including energy efficiency, is supported within the Planning framework. This is in contrast to the Building framework with

relevant details, pertaining mostly to energy efficiency, included in the National Construction Code (NCC).

The benefit of the measures and changes pursued via this project will address relevant gaps where the current NCC 2022 proposed set of technical changes remain silent. The exclusions of relevant components of the proposed changes outlined within the NCC 2022 undermine both State and Local Government emissions reduction commitments and programs with respect to the built environment. This is particularly evidenced by the NCC 2022 continuing to remain solely focussed on holistic energy efficiency outcomes as opposed to applying and integrating the broader remit of ESD, as well as, downplaying the role of renewable energy and zero emission vehicle infrastructure on standard housing development.

The deliverables and overall outcome offered via the collective group of 31 Councils involved in this project will assist Victoria's Planning System to deliver upon Plan Melbourne 2050 requirements, aligns with the State Government's legislated emission reduction targets which also supports climate resilient communities, as well as, addresses relevant shortfalls identified within the national building framework that undermines broader emission reductions from key industry sectors.

We would appreciate the opportunity to discuss the project and relevant outcomes with you directly and to continue to support the State Government with its ESD Roadmap commitments and the delivery of a State ESD Policy, prior to the election.

Sincerely, and with the imprimatur of each Mayor, serving their Council, a part of this project,



Planning Assessment Report

Section 72 Amendment Application Details:

Application is for:	Amend the existing red line area plan to extend the area into the recently added building area of the Hotel.
Applicant's/Owner's Name:	S J Beaumont Investments Pty Ltd C/- BSP Lawyers Pty Ltd Suite 1 Level 15 200 Queen St MELBOURNE VIC 3000
Application Number:	PP2011-0077.03
Land/Address:	Lot 1 TP 162493D PSH WAN TSH WARR 1143-1153 Raglan Pde WARRNAMBOOL VIC 3280
Zoning:	Industrial 3 Zone (IN3Z) Road Zone 1 (RDZ1) – (Not applicable to the areas proposed to be added to the licensed area)
Overlays:	None
Under what clause(s) is a permit required?	52.27 – Licensed Premises (increased licenced area)
Restrictive covenants on the title?	None
Current use and development:	Food and Drink Premises (Hotel)

Proposal

The proposal is to extend the existing red line area to include the recently approved building area of the Hotel. The overall red line area will generally follow the building foot print except the children's play areas. The additional areas to be included are as follows;

- Extended area at eastern side of the building which includes gaming lounge, covered smoking and outdoor area.
- The new main entrance area at south side

No change is proposed to the existing trading hours, or number of patrons permitted at the site.

Further, applicant suggests that a condition is added to existing planning permit to allow secondary consent approvals. No other changes are proposed within the permit.

Subject site & locality

An inspection of the site and the surrounding area has been undertaken.

The site has a total area of 5632 square metres and currently contains a building used for a hotel comprises a bistro, public bar and gaming lounge, function room and drive-through bottle shop known as Rafferty's tavern.

The immediate area has a mixed industrial/commercial character with the built form of the area comprising mostly single storey steel sheds, surrounded by sealed car parking areas. Residential properties are located diagonally across Raglan Parade.

Permit/Site History

Several planning permits have been issued for the site since 1988. Relevant and most recent planning permits including the subject planning permit to be amended are as follows;

- Permit No. 8493 was issued on 27/7/1988 to use and development for a tavern and drive-in bottle shop.
- Permit No.738-90 was issued on 4/6/1990 to provide live music in the Bistro Lunge.
- PP2011-0077 (subject permit to be amended) – was issued on 11 April 2013 for building and works to an existing tavern, the installation and use of 19 electronic gaming machines, variation to the general (liquor) licence and associated red line plan and partial waiver of bicycle parking requirements.
- PP2015-0001 – was issued on 5/3/2015, for Alterations and additions to existing hotel, associated car parking and the display of business identification signage.
This permit allows providing associated car parking spaces on another site at 60 Walsh Road.
- Planning Permit PP2021-0230 was issued on 26/8/2021 to construct alterations and extensions to the existing building.

Public Notification

The application has been advertised pursuant to Section 52 of the *Planning and Environment Act 1987*, by:

- Sending notices to the owners and occupiers of surrounding area;
- and
- One notice on site.

The notification has been carried out correctly.

Council has received five (5) objections to date. The concerns/issues raised are summarised as follows;

- Retractable wall and outdoor area open up for patrons and amplified music. Further these area could be projected in to the semi-permanent marquees.
- The current marquees can adopted to premises and live music inside the venue disturbs the residents.
- Excessive noise from the Marquees located in the car parking area including live amplified music causes many issues such as sleep deprivation, anxiety, mental health etc.
- Concern on Marquees to be integrated to the hotel in the future and the noise disruptions to continue.
- Layout gives ability to set up semi-permanent stages extending the outdoor area and impose temporary liquor licence under Covid provisions and possibly increase patron numbers, allows live music, will aggravate the noise issues to the nearby residential properties.
- The potential venue hire for events and cater to 500 patrons at a time with the Marquees without acoustic deadening will affect adversely to the adjacent dwellings.

- Excessive late night noise. Music constantly at higher levels and cause health issues.
- Very loud noise from the Marquees.
- Anti-social behaviour and vandalism caused by the patrons leaving the site.
- Loud music levels
- Anti-social behaviour and vandalism caused by the patrons leaving the site.
- Continues excessive noise level.
- Accommodate larger patron numbers.
- Little provision for additional car parking.
- Anti-social behaviour and vandalism caused by the patrons leaving the site

Consultation

Consultation was not undertaken.

Referrals

Section 55 Referrals:

Commission for Gambling and Liquor Regulation

No objection/comment was made.

Section 52 Referrals:

Victoria Police

No objection was made.

Internal Referrals:

None required

Assessment

Zoning:

Industrial 3 Zone (IN3Z)

Planning permit is not required for the proposed additional licensed areas under the zoning.

Clause 52.27 Licence Premises

Purpose:

- *To ensure that licensed premises are situated in appropriate locations.*
- *To ensure that the impact of the licensed premises on the amenity of the surrounding area is considered.*

Decision guidelines

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- *The Municipal Planning Strategy and the Planning Policy Framework.*
- *The impact of the sale or consumption of liquor permitted by the liquor licence on the amenity of the surrounding area.*
- *The impact of the hours of operation on the amenity of the surrounding area.*
- *The impact of the number of patrons on the amenity of the surrounding area.*
- *The cumulative impact of any existing licensed premises and the proposed licensed premises on the amenity of the surrounding area.*

In accordance with the requirements of this clause, a permit is required to increase the area that liquor is allowed to be consumed or supplied. The applicant has sought approval to extend the red line area into the extended building area predominantly at the eastern side of the building.

The application was referred to VCGLR and Police and no objections were made.

The existing hotel is being operating as a licensed premises and the existing liquor serving hours allowed until 3am. The maximum patron numbers allowed from VCGLR liquor licence is 578 and no changes are proposed to the operating hours or the patron numbers. However, it is noted that there is no condition related to the maximum patron numbers in the present planning permit. Thus, it is considered a new condition to be inserted to stipulate the allowed maximum patron numbers within the premises at any one time.

The proposed extension of the liquor licenced area will align with the recently approved building extensions generally towards the eastern side of the building. This extension was approximately 110sqm and mainly required to accommodate proper toilet facilities within the building.

It is required to consider the impact of the increase of the liquor consumption area on the amenity of the surrounding area. It is noted that the site is located within Industrial zoned area and residential area is located across Raglan Parade approximately 70m away from the site. The proposed increase of the red line area is relatively a minor change in the context of the overall premises.

The site recently has accommodated relatively large marquees within the site towards the eastern side of the existing building. This has been carried out under the Clause 52.18 – Coronavirus (covid-19) pandemic and Recovery Exemptions. Since then Council has received number of complaints from the surrounding residents mainly regarding the noise/music generated from the site and anti-social behaviours. There has been investigations by the Council regarding these complaints. However, these marquees have now been removed from the site (as observed during consultation meeting on 5/4/2022).

It is noted that previous planning permit PP8493 was issued in 1988 which has conditions to prohibit amplified music and planning permit P738-90 was issued in 1990 allowing live music only in the bistro lounge and have several conditions to mitigate any nuisance to the surrounding properties. This controls are applicable at present and the premises must abide with these permit conditions.

Considering that the premises is allowed to continue until 3am, and the residential properties are located relatively closer to the site, it is expected that the premises must manage in an appropriate manner to limit any nuisance or adverse impact on the amenity of the surrounding properties. Thus, a new condition is recommended to be included on any amended permit issue to ensure a Venue/patron Management plan to be submitted and should include measures to mitigate any adverse impact from the noise generation, lighting, waste generation, patron management, venue shut down procedures, use of signage to avoid anti-social behaviour, encourage responsible off site patron behaviour etc.

The proposed red line area extension is considered as a minor extension and with the above additional conditions/mitigation measures, the proposal is considered acceptable.

Cumulative Impact

The State Government has prepared Practice Note 61 ('Licensed premises: Assessing cumulative impact') which provides guidance for assessing the cumulative impact of licensed premises as part of a planning permit application under Clause 52.27 of the planning scheme. According to the practice note, 'Cumulative Impact' refers to both the positive and negative impacts that can result from the clustering of licensed premises. It is a product of the number and type of venues present, the way they are managed, and the capacity of the local area to accommodate these venues.

The Practice Note states that it should be used for new or expanded licensed premises that will trade past 11 pm and are located in a 'cluster' of licensed premises, i.e. where there are three or more licensed premises within a radius of 100m from the subject land; or, 15 or more licensed premises within a radius of 500m from the subject land.

Given that the only one licenced premises is located within 100m of the subject land, and 2 premises within 500m, the assessment of the cumulative impact of the proposal is not required.

Insertion of the Secondary consent condition on the planning permit

The applicant has requested to consider inserting a condition allowing the permit holder to do minor alterations under secondary consent.

Usually this condition will added to any planning permit and it will allow applicant to request minor alterations generally to the endorsed plans under this condition.

The tests for deciding whether a use or development may be altered under a secondary consent provision are set down in *Westpoint Corporation PL v Moreland CC (Red Dot)* [2005] VCAT 1049 when it was held that the following requirements must be met:

- It does not result in a transformation of the proposal.
- It does not authorise something for which primary consent is required under the Planning Scheme.
- It is of no consequence having regard to the purpose of the planning control under which the permit was granted.
- It is not contrary to a specific requirement (as distinct from an authorisation) within the permit, which itself cannot be altered by consent.

Thus, it is considered that addition of this condition in the amended planning permit is acceptable.

Response to the objections -

The majority of concerns are regarding the excessive noise from the premises and anti-social behaviour of the patrons. Further, objectors were referring to the marquees constructed within the site. As mentioned previously, these marquees have now been removed from the site.

The concerns regarding the excessive noise will be addressed by several new conditions including patron management plan and an acoustic report confirming the venue complies with the State Environment Protection Policy and complies with the existing planning permit conditions.

Objections raised some concerns regarding increase of patron numbers and potential extension of the building. It is noted that this application only related to increase of red line area and has not been sought approvals for increase of patron numbers or extensions to the building.

Further, there were concerns regarding lack of car parking and potential venue hire. These concerns also out of the scope this planning application. The car parking requirements have been considered under different planning permits for this premises and considered acceptable.

The Planning Policy Framework (PPF)

13.05-1S Noise abatement

Objective

- *To assist the control of noise effects on sensitive land uses.*

Policy Guidelines

- *The noise requirements in accordance with the Environment Protection Regulations under the Environment Protection Act 2017.*

17.02-1S Business

Objective

- *To encourage development that meets the community's needs for retail, entertainment, office and other commercial services*

Assessment

The proposed additional licensed area is considered to be appropriate and no changes are proposed to the existing approved licensed hours, and maximum licensed patronage number.

The existing premises is considered as a food and drink premises which provides entertainment facility as well and contributing to provide essential services to the community. However, as previously discussed, the premises should not adversely impact the amenity of the surrounding residential properties. The existing planning permits issued to the site has several controls to mitigate potential adverse impact on the properties and additional condition is recommended on any amended permit issue to further mitigate any adverse impact. Overall, it is considered that the proposed minor extension to the red line area would be generally in accordance with the Planning policy framework objectives.

General Provisions:

Clause 65.01 – Approval of an application or plan

Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:

- *The matters set out in Section 60 of the Act.*
- *The State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *The purpose of the zone, overlay or other provision.*
- *Any matter required to be considered in the zone, overlay or other provision.*
- *The orderly planning of the area.*
- *The effect on the amenity of the area.*
- *The proximity of the land to any public land.*
-

The proposal is considered to be generally in accordance with the appropriate decision guidelines abovementioned.

Recommendation

That Council:

- having caused notice of Planning Application No. PP2011-0077.03 to be given under Section 52 of the *Planning and Environment Act 1987* and or the planning scheme and having considered all the matters required under Section 60 of the *Planning and Environment Act 1987* decides to issue a **Notice of Decision to Grant Amended Planning Permit** under the provisions of the Warrnambool Planning Scheme in respect of the land known and described as Lot 1 TP 162493D PSH WAN TSH WARR, 1143-1153 Raglan Pde WARRNAMBOOL VIC 3280, to allow extension to the red line area plan in accordance with the endorsed plans, subject to the following conditions;
-
1. Before any works commence, amended plans must be submitted to the responsible authority for assessment. Once approved the plans will be endorsed and will form part of the permit. The plans must be generally in accordance with the plans supplied with the application but modified to show:
 - (a) a total of 91 car-parking spaces depicted on the land.
 - (b) the extent of licensed areas. The licensed areas are limited to the publicly accessible areas within the premises, and may include the outdoor bar and smoking area.
 - (c) provision of bicycle parking facilities to cater for a minimum of 8 bikes to the satisfaction of the responsible authority.
 - (d) a pedestrian crossing, line marked on the road surface across the Walsh Road slip road onto Raglan Parade, to the satisfaction of VicRoads.
 - (e) a frosted glass door between the foyer and the gaming lounge.
 - (f) deletion of the doors between the lounge and the gaming lounge.
 2. **Inserted on (date)**
The development and use as shown on the endorsed plans must not be altered without the prior written consent of the Responsible Authority.
- Patron/Venue Management Plan (Inserted on-date)**
3. Prior to the commencement of use of the extended licenced area, a Patron/Venue Management plan for the entire premises, must be submitted for approval and plan must be to the satisfaction of the responsible authority. When approved, the plan will be endorsed and will then form part of the permit. All activities forming part of the use

must be generally in accordance with the Patron/Venue Management Plan including details as follows:

- a) Hours of Operation (on the premises and off the premises);
- b) Venue shut down procedures to encourage the patrons to leave the premises sporadically.
- c) The number of patrons admitted on site at any one time;
- d) Signage to be used to encourage responsible off-site patron behaviour;
- e) The training of staff and the management of patron behaviour;
- f) Measures to control noise emissions from the premises and amenity control;
- g) Measures to prevent vandalism and antisocial behaviour;
- h) Details to address waste including bottles, rubbish and reduce generated by the use;

to the satisfaction of the Responsible Authority.

4. Inserted on (date)

Within three (3) months of the commencement of the use of the extended building area for consumption of liquor, a suitably qualified acoustic consultant must provide Council with a report confirming that the whole venue complies with the protocol 1826.4- Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues under Environment Protection Regulations 2021. The report must acknowledge the conditions stipulated regarding music on the previous planning permits issued for the site and recommend suitable mitigation measures and/or acoustic treatments to ensure on-going compliance.

5. Inserted on (date)

No more than 578 patrons may be present on the premises at any one time.

- 6. Before any works commence, plans relating to stormwater management must be submitted to and approved by the responsible authority. The plans must be drawn to scale with dimensions. The plans must include approved outlet or onsite retention facilities for the development. The drainage works must be designed in accordance with the Warrnambool City Council Guidelines for Subdivision and Development of Land.
- 7. The use of any gaming machines permitted by this permit on the land must not commence until all the buildings and works permitted by this permit (and which are detailed on the plans endorsed under this permit) have been completed to the satisfaction of the responsible authority.
- 8. Before works on the development commence, plans must be prepared by an appropriately qualified Civil Engineer, submitted to and approved by the responsible authority showing:
 - (a) construction of 1.5 metre wide concrete footpaths along the Raglan Parade service road frontage of the site to link into the existing footpath network and the development site.
 - (b) widening of the western vehicle crossing to the Raglan Parade Service Road to cater for entering vehicles.

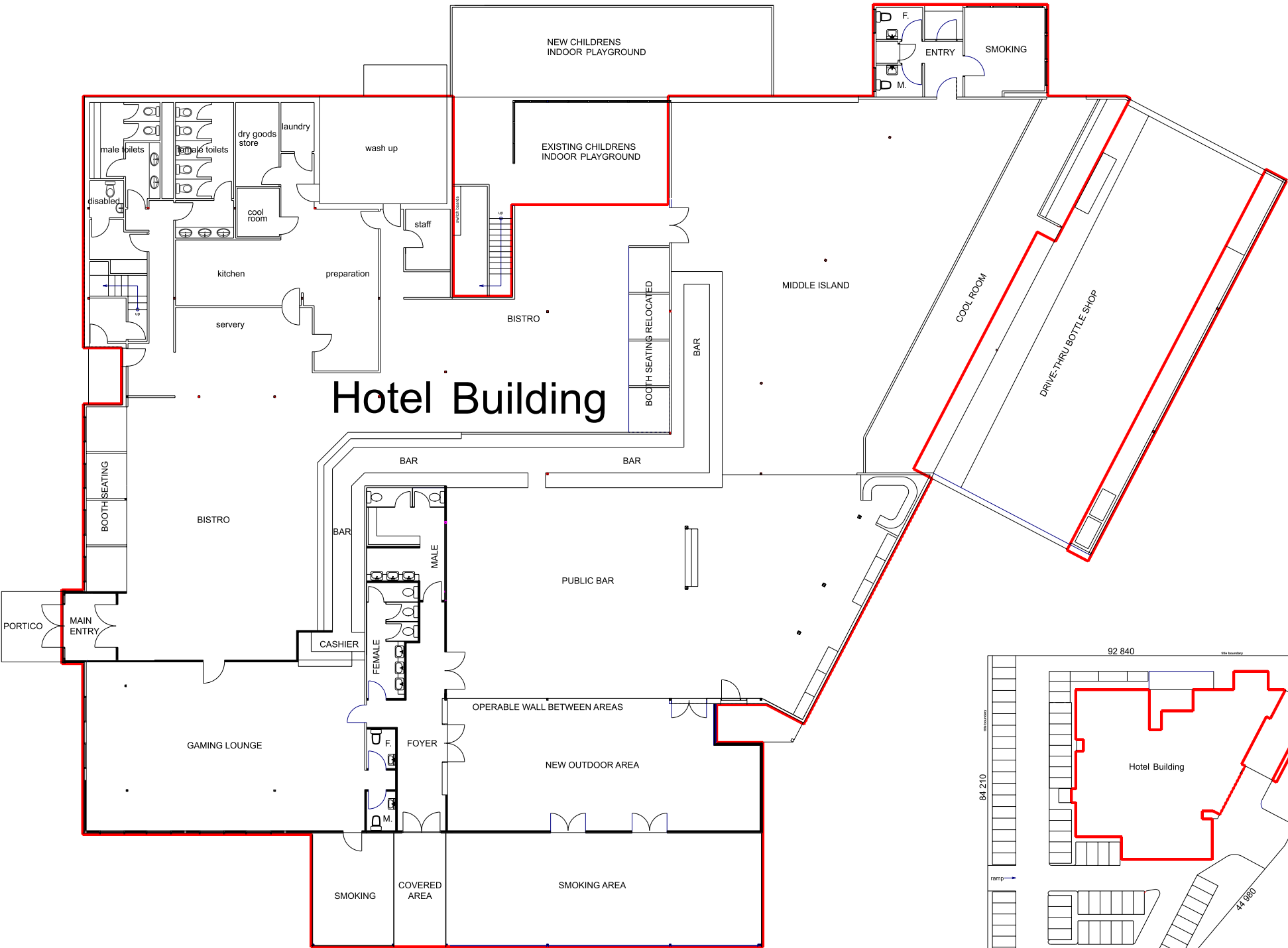
All works must be designed in accordance with the Warrnambool City Council Guidelines for Subdivision and Development of Land and shall be carried out at the Developer's cost and must be completed prior to use or occupation of the development.

9. Prior to the use or occupation of the development, car park lighting shall be modified as necessary to meet Australian Standards to the satisfaction of the responsible authority.
10. Prior to the use occupation of the development, bicycle parking facilities must be provided in close proximity to the main entrance of the building to the satisfaction of the responsible authority.
11. Prior to the use or occupation of the development, a suitable fence shall be erected along the top of the retaining wall along the south side of the site to the satisfaction of the responsible authority.
12. All works associated with this permit must be undertaken at full cost to the developer and must be maintained at all times to the satisfaction of the responsible authority.
13. No more than 19 gaming machines are permitted to be installed or used at the premises.
14. **Amended 13/2/2020**
The use of the gaming room is only permitted during the following hours:
 - (a) Sunday between 10 am and 1am the following morning;
 - (b) Good Friday and Anzac Day between 12 noon and 3am the following morning;
 - (c) on any other day between 7am and 3am the following morning.
15. **Amended 13/2/2020**
The supply and consumption of liquor is permitted between the following hours:
 - (a) For consumption in the gaming room:
 - (i) Sunday between 10 am and 1am the following morning;
 - (ii) Good Friday and Anzac Day between 12 noon and 3am the following morning;
 - (iii) on any other day between 7am and 3am the following morning.
 - (b) For consumption in all other areas as shown on the endorsed plans:
 - (i) Sunday between 10am and 1am the following morning;
 - (ii) Good Friday and Anzac Day between 12 noon and 3am the following morning;
 - (iii) on any other day between 7am and 3am the following morning.
 - (c) For consumption off the premises:
 - (i) Sunday between 10 am and 11 pm;
 - (ii) Good Friday and Anzac Day between 12 noon and 11 pm;
 - (iii) On any other day between 7 am and 11 pm.

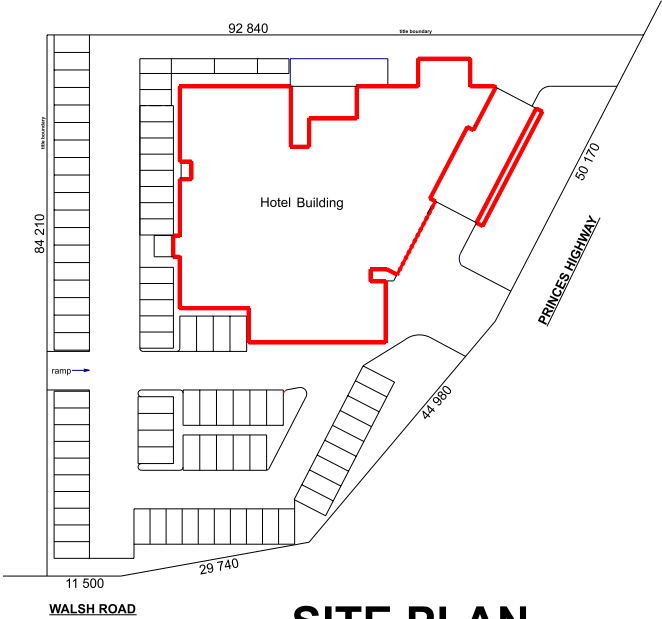
16. The development and use hereby permitted must be managed so that the amenity of the area is not detrimentally affected, to the satisfaction of the responsible authority, through the:
- (a) transport of materials, goods or commodities to or from the land;
 - (b) appearance of any buildings, works or materials;
 - (c) emissions of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil;
 - (d) presence of vermin.
 - (e) management of car parking by patrons so as not to cause any disruption to the amenity of the area and inconvenience to other nearby landowners.

Permit Notes

- This permit should be read in conjunction with other permits and associated conditions that apply to the land including #8493 for the *use and development of land for a tavern (bar) and drive-through* and #738-90 to provide live music in the bistro lounge.
- The use must at all times comply with the EPA protocol 1826.4- Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues under Environment Protection Regulations 2021.



GROUND FLOOR PLAN
1:200



SITE PLAN
1:1000

GRAEME SCHULTZ
DPAD - 1391



19 TROTTERS LANE, CUDGEE, 3265
M: 0418 524 735
E: graeme@design2build.net.au

CLIENT: STARPRO P.L.

PROJECT: RAFFERTY'S HOTEL
PRINCES HIGHWAY
WARRNAMBOOL

DRAWING: LICENCE PLAN

SCALE: As noted

REVISION: August 2021

JOB REFERENCE: 14 - 076

DRAWING NUMBER:
Sheet 01 of 01



Objection to Grant Planning Permit – Part B

Please be aware that this page and any attachments of your objection/submission may be made available to any person for the purpose of consideration as part of the planning process.

What application do you object to?

Planning Application Number **PP2011-0077.03**

What is the address of the land that is proposed to be used or developed?
1143 – 1153 Raglan Parade, Warrnambool Vic 3280

What is proposed? **Amend the exiting red line area plan to extend the area into the recently approved building extensions of the Hotel**

What are the reasons for your objection? (If there is not enough room, attach a separate page.)

1. Rafferty's management have clearly demonstrated a blatant disregard for local and state regulations.
2. Their history has shown that they ignore local resident complaints.
3. Their history has shown that police intervention means nothing to them since existing sanctions clearly do not act as a deterrent.
4. This is evidenced by, for example, continued excessive noise levels and ongoing breaches of the recent Covid restrictions ie. no scrutiny or enforcement of the wearing of masks and social distancing by patrons.
5. When police have exited the premises after issuing warnings the music volume is ramped up as if to thumb their nose at police and regulators.
6. There is a lack of acknowledgement or respect that they must function as a responsible community member in the very community in which they operate.
7. Rafferty's have never regarded police actions such as closures and fines as a deterrent.
8. The purpose of amending the red line plan is to accommodate a larger patronage.
9. Consequently the history of behaviour and attitude is likely to continue further exacerbating the effects as listed below.
10. At the time of the police interventions the main carpark was full as was the overflow carpark across the road. Even the (Walsh Street) CFA carpark is frequently filled with Rafferty's patrons vehicles excluding local resident access from early afternoon onwards on a weekend.
11. Hence there is little realistic provision for additional car parking without disrupting local resident access to facilities.
12. Rafferty's management display the attitude that their responsibilities stop at the exit doors and licensing hours.

How will you be affected by the grant of a permit? (If there is not enough room, attach a separate page.)

13. The grant of a permit will attract larger numbers of patrons. In turn this will:-
 - increase the music volume levels desired to please increased numbers of patrons.
 - increase the number of street altercations.
 - increase the quantity of broken bottles and discarded alcohol cans on footpaths, front lawns and gardens and in the gutters of neighbouring residents.
 - increase the level of, as witnessed, drunken (and often criminal) behaviour of patrons in the neighbourhood in the early hours of the morning.
14. Friday nights, Saturday nights and Sunday nights mean that local residents have no respite from the music noise levels through the early hours of the morning and unacceptable patronage behaviour over the weekend when trying to wind down before heading to work on Monday morning.
15. Shift workers in the area have little respite from the music noise.
16. My family can not enjoy a reasonable night's sleep over the weekend leaving us to commence the week sleep deprived.
17. This is an ageing well established suburb with many elderly who likewise cannot sleep with the level of noise from the hotel and frequent screaming arguments in the streets in the early hours of the morning, often hours after the hotel closes.



2

Objection to Grant Planning Permit – Part B

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What is the address of the land that is proposed to be used or developed?

1143 – 1153 Raglan Parade, Warrnambool VIC 3280

What is proposed?

Amend the existing red line area plan to extend the area into the recently approved building extensions of the Hotel

What are the reasons for your objection? (If there is not enough room, attach a separate page.)

the new plan has a "retractable" wall and "out door" area - this proposal lets the venue open up and transmit Patron and amplified music in to West Warrnambool Dwellings.

also allows for "creative" thinking - The current marquees can be adapted to the Premise keeping live music inside the venue which would bypass current restrictions - again more noise disturbing residents.

How will you be affected by the grant of a permit? (If there is not enough room, attach a separate page.)

Sleep deprivation - increased anxiety due to noise disturbance - mental health related stress as noise enters Dwelling and keeps kids awake, noise from last 13 months has severely impacted family time in our dwelling due to noise ingress.

Propose outside area has restrictions preventing live music being set up - also retractable walls are managed in a way that can not adapt to marquees.


Warrnambool

I'm writing to object to a planning application relating to 1143-1153 Raglan Parade Warrnambool in relation to a request to extend the "Redline area" of the venue

Over the Last 13 months West Warrnambool residents have had to endure what many residents call excessive noise from the venue in question every Friday and Saturday night along with Sunday afternoons. This noise is made up of Live, amplified and patron noise that is due to "Covid" Marquees located in the carpark area of the lot, the noise from these Marquees has been heavily documented via complaints to the VCGLR, EPA and Local Authorities with testing of noise conducted on several occasions

While this noise was not in breach of defined laws, locals have argued that the Nature of the housing built in this area is an easy target for noise to penetrate dwellings due to lack of insulation and non-laminated windows

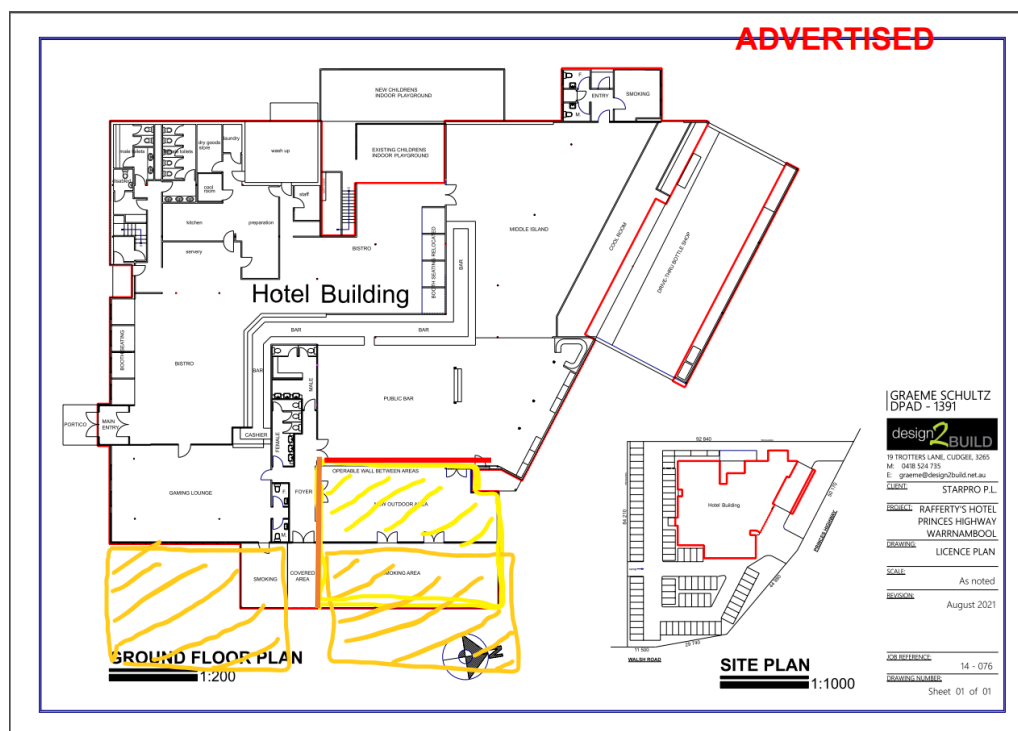
After looking over the Application there are several areas that appear somewhat vague, given the venues disregard for West Warrnambool residents over the last 12 months. I find the application allows for too much "creative thinking" that can see the side of the venue open (mention of retractable walls in plan) and transmit amplified music and patron noise out of the venue and in to adjacent housing, this also allows for future Marquees to be built and become integrated in to the structure, again with no noise deadening this sees the possibility for ongoing noise disturbance to West Warrnambool residents.

Looking at the Building Plan attached to the application it is my concern that the layout gives the ability to set up semi-permanent stages in the outdoor area, this would be a way for the venue to negate restrictions like those recently imposed on the temp liquor license for the current Covid marquees, coupled with the request for more patrons under the license cap, along with the new found desires for corporate event hire (Raglan Presents)I have to request objection should at the very least pay close attention to restrictions posed in the outdoor area to reduce noise penetration in to the adjacent dwellings

Additionally, after the Venue explored event hire in the early parts of 2021, the site has also shown its desire to house local artists, DJs and celebrate events like Oktoberfest, one could also believe that the May Race carnival could become a week long affair post Covid restrictions, the before mentioned allows performers/events to cater 500 patrons at a time, again with these marquees having no acoustic deadening the noise is projected in to the adjacent dwellings

This venue has certainly not showed any efforts to work with Residents over the last 13 months rather offer them weekends in local accommodation to shut them up, this current format needs to highlight what the venue is capable of

Outdoor area highlighted in yellow, poses a concern as it allows for live music to be set up and projected externally of the venue



Additionally, current Marquees have been added (orange areas) showing how live music set up inside the venue could be projected in to a semi-permanent marquee and out in to adjacent dwellings

Whilst the attached plan only shows two double reveal doors on to the smoking area, the above-mentioned concerts and event hire gives me concern that plans could be modified after the fact to allow for installation of additional bi-folding walls to open the exterior building even further

Objection Notes

- Yellow area restricted to prevent live music being projected outside and in to local resident's dwellings
- Time slot to minimize Patron noise being projected out to local resident's dwellings, IE no alcohol in outdoor area after 11pm?
- Parking and road safety due to patrons parking in a non-sealed carpark, Mud / clay is transferred on to the main roadway which is also a main braking area leading up to traffic lights and highway intersection
- In the event of Marque installations, the unsealed carpark is the only area for patrons to park before they flow out on to adjacent roadways, nature strips and industrial estate premises'



Objection to Grant Planning Permit – Part B

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What application do you object to?

Planning Application Number **PP2011-0077.03**

What is the address of the land that is proposed to be used or developed?

1143 – 1153 Raglan Parade, Warrnambool VIC 3280

What is proposed?

Amend the existing red line area plan to extend the area into the recently approved building extensions of the Hotel

What are the reasons for your objection? (If there is not enough room, attach a separate page.)

Since the venue opened it's marquee, the noise produced from venue has been very loud waking my child on multiple nights.

ALSO the amount of broken glasses smashed on our property ~~from~~ patrons going to leaving ^{from} the venue, most weekends would surely be in breach of their amenity's section on the liquor license.

Drunkenness, noise disturbance, vandalism & disorderly behaviour of patrons & littering is what I have dealt with so far & would only get worse.

How will you be affected by the grant of a permit? (If there is not enough room, attach a separate page.)

As said above, I have dealt with a fair bit since the venue opened up it's marquee, & I believe if given the permit it would only get worse.

The screaming & abusive people walking past vandalising my property is a huge problem that the venue ~~can~~ needs to stop.

I have also had to install camera's on my property to ensure my ~~the~~ property is safe as well as my family.



Objection to Grant Planning Permit – Part B

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What is proposed?

Amend the existing red line area plan to extend the area into the recently approved building extensions of the Hotel

What are the reasons for your objection? (If there is not enough room, attach a separate page.)

Excessive and late noise levels in a residential area. During Summer of 2020 music was constantly at a high level. So high that it was louder than tv in house with doors and windows shut.

How will you be affected by the grant of a permit? (If there is not enough room, attach a separate page.)

Lack of sleep, fatigue, anxiety. We are both shift workers and when music is played till midnight we only get 2-3 hrs sleep before work.



Objection to Grant Planning Permit – Part B

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What are the reasons for your objection? (If there is not enough room, attach a separate page.)

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How will you be affected by the grant of a permit? (If there is not enough room, attach a separate page.)

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Objection to Grant Planning Permit - Part B

How will you be effected by the grant of a permit?

It effects the residents (and other residents) of 12 Caramunt road as we have a young family and it keeps our children up at night, and other young families as they are to scared to sleep as the music levels are to loud and also worried the windows will break. as its that loud. Tents are said to be sound proof but really they are not. Extra extension will cause more issues ~~with~~ as well as the music as there will be more fights, people sleeping in front yards, urinating in unopropiate spots, being loud as the walk past due to being drunk, and also the rubbish they throw on peoples @ nature strips and in drive ways.

Everyone in the residential area has had enough of the constant loud music, and nothing gets done.

What are the reasons for your objection?

We, the residents of 12 Caramut road do not object to the planning permit for the building extensions of Rafferties ~~Hotel~~.

We believe it will cause more problems to the residential area with the constant loud music and the loudness from the patrons.

The residential area is getting annoyed with the constant loud music, it can be ~~hard~~ heard clearly from up to a radius of 2 kms or more around the area. Constant noise complaints from locals in the area, and nothing gets done about it. Rafferties don't really care about the issues it is causing with the local area about the constant loud music ect. mostly every nights and don't want to compromise with things so it doesn't effect the residential areas, we think it won't sound fair that there cannot be any compromise, and Rafferties can ask for a extension of permit. if the noise level was guaranteed to be kept at a reasonable level the objection may be different



WARRNAMBOOL
CITY COUNCIL

~~Street~~ Public Tree Planting and Management Policy



POLICY TYPE: COUNCIL

APPROVAL DATE: ~~1 February 2021~~

REVIEW DATE: 1 February 20224

STREET TREE PLANTING AND MANAGEMENT POLICY



DOCUMENT CONTROL

Document Title:	<i>Street Tree Planting and Management Policy</i>
Policy Type:	<i>Council</i>
Responsible Branch:	<i>Infrastructure Services Branch</i>
Responsible Officer:	<i>Director City Infrastructure</i>
Document Status:	<i>Adopted</i>
Approved By:	Council
Approved Date:	1 February 2021
Review Date:	1 February 2022 <u>1 February 2024</u>

STREET TREE PLANTING AND MANAGEMENT POLICY



1. INTRODUCTION

- **Purpose**

The purpose of this policy is to ensure that a consistent approach is applied to the planting and ongoing management of street trees within Municipal streetscapes and the urban environment.

- **Scope**

This policy is applicable to Council Officers and Managers of Warrnambool City Council, as well as the wider community. It covers the whole lifecycle of trees, from planning and species selection, maintenance activities to removals, it also covers tree protections and unauthorized activities. This applies to all street and reserve trees on Council managed land.

- **Definitions**

Term	Definition
The City	The Municipality of Warrnambool
Council	Warrnambool City Council
Streetscape	The visual elements of a street (e.g., streets, buildings, vegetation, medians and nature strips), that combine to form the street's character.
Urban Environment	The human made surroundings that provide the setting for human activity, including, commercial and residential areas, buildings, parks and open spaces and their supporting infrastructure.
Street tree	A tree or shrub growing within the road reserve, including nature strips, separators and medians.

- **References**

- Warrnambool Planning Scheme
- Electricity Safety (Electric Line Clearance) Regulations 2015
- Councils Electric Line Clearance Management Plan
- Warrnambool City Council Community Engagement Policy.
- Municipal Road Management Plan
- Health and Wellbeing Plan
- Green Warrnambool 2018
- Naturestrip Landscaping Policy & Guidelines
- W2040 (Goal 13)
- Street Tree Planting and Management Guidelines

STREET TREE PLANTING AND MANAGEMENT POLICY



2. POLICY OBJECTIVES

- To ensure consistency in the approach to street tree planting and management.
- To define Council's responsibilities in street tree planting and management.
- To ensure that proper consideration is given to trees in the planning and design of the built environment.
- To ensure trees contribute to the values of the urban landscape, including greening for biodiversity and climate adaptation.
- To ensure that the amenity value of street trees is retained and enhanced.
- To implement the 2040 Goal of Green Warrnambool for urban areas to have 30% vegetation canopy cover.
- To implement the 2040 Goal of Adaptable Warrnambool for Environmental Sustainable Development principles to be used for all new developments and upgrades.
- To implement the 2040 Goal of Adaptable Warrnambool for all new infrastructure (including street trees) is designed for the changed and changing climate.
- To provide informed and consistent decision making in street tree matters for Council, Council staff, developers and the community.
- To select species that are appropriate for the desired location, particularly street trees. Consideration will be given to potential infrastructure damage (public & private), impact on utilities through root intrusion or canopy growth, impact on road users through site lines and canopy encroachment into traffic lanes and potential issues with allergies to adjacent residents. Refer to 2.17 of the Street Tree Planting and Management Guidelines.

3. POLICY PRINCIPLES

Council has responsibility for the planning, establishment, maintenance and removal of all street trees located within the City's streetscapes.

All decisions related to street trees will be based on the following principles:

- Street trees are valuable community assets that positively contribute to the well-being of the community, and to the built and natural environment.
- Council is committed to planting and maintaining street trees which are visually, historically, or environmentally valuable to the community.
- Council recognises that the historic Norfolk Island Pines are an iconic feature within our City and is committed to their protection.
- Council acknowledges that management and preservation of street trees will be sufficiently accounted for in the annual budget.
- Council will consult and engage the community and affected landowners where large scale plantings, significant streetscape works or tree removal works are to take place.

STREET TREE PLANTING AND MANAGEMENT POLICY



- Street tree planting programs will prioritise areas of high vacancy rates and where walkability is deemed lower than average for Warrnambool.
- Where urgent tree removal works are required, Council will endeavor to notify property owners prior to removal works. If landowners cannot be contacted, public safety needs to ~~proceed~~precede consultation.
- Council will encourage the development of staff skills in arboriculture and consider recruitment of suitably qualified staff.
- Council will encourage community participation in ~~street-public~~ tree planting and ongoing maintenance where appropriate.
- Council will refer to the preferred tree species list published on Councils website to determine species selection. A mix of Indigenous and exotic species will be selected appropriate to the area and conditions.
- Street trees that provide habitat and environmental benefits will be encouraged.
- Council will undertake proper species selection, placement and planting of trees to reduce long term risks.
- Council will consider the potential damage to infrastructure, maintenance requirements, and legislation in species selection.
- Council will only remove street ~~and public open space~~ trees that are in poor health, or which Council believes pose an unacceptable risk to the community, or as part of a broader streetscape renewal. Street trees are not removed or trimmed to facilitate development or to enhance vistas for property owners.
- Council will prosecute persons who prune, damage, kill or remove street trees without approval.
- Urban design treatments and streetscape renewal will incorporate measures to protect the health of proposed and existing trees.

4. GOVERNANCE

4.1. Owner

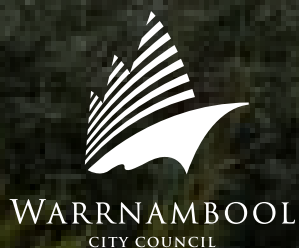
Director City Infrastructure

4.2. Review

The Manager Infrastructure Services will review the policy for any necessary amendments no later than ~~one-two~~ (12) year after its formulation or the last review.

4.3. Charter of Human Rights Compliance

It is considered that this policy does not impact negatively on any rights identified in the Charter of Human Rights Act (2006).



Warrnambool Principal Pedestrian Network Report



1. INTRODUCTION

The first chapter of this report outlines an overview of the project and identifies the project objectives and study area.



Warrnambool PPN Draft Report

1.1 OVERVIEW

Walking is one of the most beneficial modes of transportation. Walking in this document is defined as travel on foot or with a mobility aid. A form of active transport, walking offers a broad range of health, environmental, economic and social benefits. Best suited for shorter trips, many people walk to local destinations such as shops, cafés, parks or schools. Many public transport journeys include walking to a bus stop or train station and then walking to the final destination.

Warrnambool City Council is working with the local community to become less reliant on private motor vehicle transport and shifting towards utilising more modes of active transport. This is highlighted in the 'Vision of the City, Sustainable Transport Strategy'.

The Strategy encourages safe, well connected and environmentally responsible travel throughout the city.

One of the key objectives identified in Warrnambool's Sustainable Transport Strategy is to strengthen the pedestrian network by identifying missing gaps in paths and pedestrian infrastructure. To encourage more walking trips within the municipality, it is imperative that walking links are safe, convenient and attractive, and that guidance for walkers is clear. Acknowledging the importance of walking Warrnambool City Council wishes to build on the work of the Strategy by developing a Principal Pedestrian Network (PPN) across the city to facilitate increased rates of walking, particularly as a mode of transport.

The PPN will be used by Council to prioritise its future investigations and infrastructure upgrades to those links that are key connections across the municipality.

1.2 PROJECT OBJECTIVES

The overarching objective of developing a PPN is to increase the amount of local trips undertaken on foot or with a mobility aid.

This can be achieved by making the shortest walking route the highest quality route. The development and implementation of the PPN also aims to:

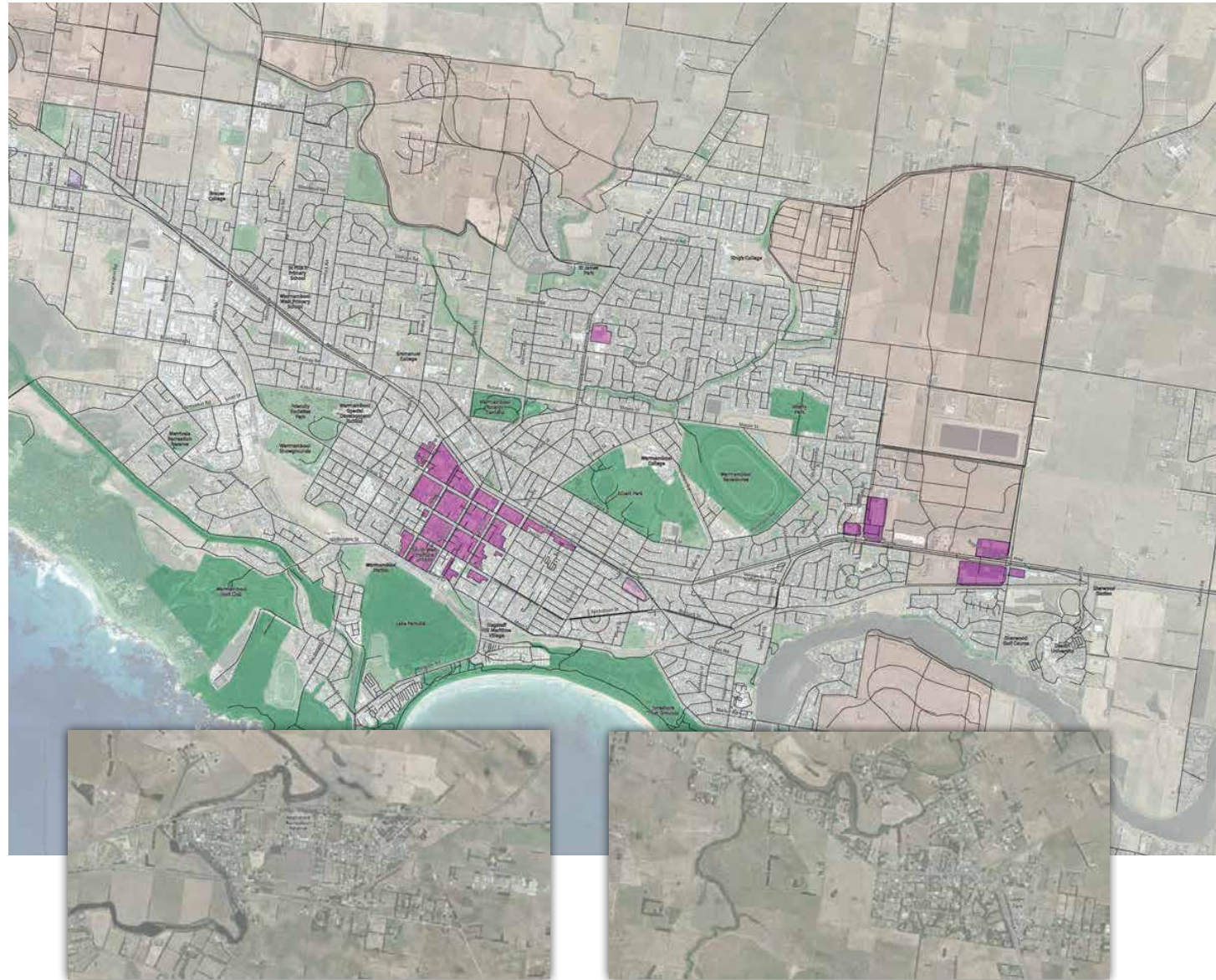
- Promote forms of transport with the lowest impact on the environment, health and well-being,
- Reduce the use of private motor vehicles transport for short, local trips, and
- Facilitate better access to, and greater mobility within local communities.



Warrnambool PPN Draft Report

1.3 STUDY AREA

The project focuses on delineating a PPN across the Warrnambool City Council municipality, including the townships of Allansford and Woodford.



Warrnambool PPN Draft Report

1.4 WHAT IS A PRINCIPAL PEDESTRIAN NETWORK?

A Principal Pedestrian Network (PPN) is a strategic network of pedestrian routes to promote walking for transport. A walking route within the PPN will provide the highest level of service for pedestrians.

Characteristics such as generous footpaths, shade and weather protection, seating and priority over other transport modes at intersections are all ways of providing a comfortable and enjoyable walking environment.

The State Government approved methodology has been used to guide this project. The PPN will provide Warrnambool City Council with a tool to develop a framework and evidence base for the inclusion of pedestrian needs in transport and planning by:

- Mapping pedestrian movements in the municipality and identifying priority routes; and,
- Planning for and prioritising infrastructure improvement to encourage and support increased levels of walking.

The PPN will identify pedestrian routes that have the potential to connect a higher number of people to key destinations. Once key routes are identified, Warrnambool Council will have the ability to prioritise and plan for capital works improvements to the areas that are subject to high levels of pedestrian traffic. The implementation plan assists in the delivery of safe and accessible pedestrian facilities for the local community, and ultimately supports Council's vision to provide high quality, safe and accessible pedestrian facilities across the municipality.



Figure 1 - An existing pedestrian route (Source: PPN Guidelines)



Figure 2 - A Principal Pedestrian Route (Source: PPN Guidelines)



2. STRATEGIC CONTEXT

The chapter summarises the key strategic work that has been undertaken by Warrnambool City Council that supports the development of the Principal Pedestrian Network.



2.1 EXISTING STRATEGIES & REPORTS

2.1.1 WARRNAMBOOL - A HEALTHY CITY, 2021 - 2025

The Warrnambool Health and Wellbeing Plan provides guidance on strategies to improve the health and well being of the Warrnambool community.

The Plan supports improvements in local health and well being through policy, community partnerships, cultural change and creating safe, convenient, inclusive and accessible places which encourage physical activity. The Plan outlines the priority issues to be addressed including supporting healthy lifestyles and increasing active living.

Development of a PPN will support the objectives of Warrnambool, A Healthy City by:

- Identifying key pedestrian routes to enable Council to prioritise the delivery of paths and supporting infrastructure on these key walking routes. This will increase the amount of people likely to walk to work, school, the local shops and parks, as well as walking for recreation.
- Providing a tool for promotion of active transport
- Supporting the most equitable mode of transport that has the greatest benefit for community health and well being.

2.1.2 WARRNAMBOOL SUSTAINABLE TRANSPORT STRATEGY, 2010 - 2020

Warrnambool City Council is working with the local community to be a city that is less reliant on private motor vehicles and more reliant on active transport modes.

There are numerous benefits to increasing a community's use of sustainable transport, including improved health, financial and environmental outcomes for individuals and society more broadly.

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Consultation conducted as part of the development of the Strategy indicated that members of the Warrnambool community would utilise sustainable transport modes more frequently if improvements were made to the existing infrastructure to enhance quality, connectedness and safety.

The Development of a PPN will support the objectives of this Strategy by:

- Addressing gaps in the footpath and shared path system,
- Identifying missing pedestrian infrastructure and amenities,
- Improving connectivity between key destinations, mapping verification & validation, and;
- Raising awareness of the benefits of walking and promotion of the walking network and infrastructure.

2.1.3 WARRNAMBOOL OPEN SPACE STRATEGY - 2014

Warrnambool has a large network of parks and reserves that are key attractions for locals and visitors. They play a significant role in contributing to

Warrnambool's coastal character and outdoor lifestyle. The purpose of the Warrnambool Open Space Strategy is to provide an overarching framework to direct open space planning and management to 2026, ensuring the network is preserved and enhanced for current and future residents.

The overarching vision for open space in Warrnambool is having a high quality, diverse, accessible open space network that reflects community needs and enhances social connection, environmental protection and economic benefit. It is intended that Warrnambool's open space network will be: accessible, adaptable, connected, efficient, diverse, equitable, sustainable and protective of the environment.

The most significant issue at the municipal level appears to be the connectivity between open spaces, including along some waterways.

The Development of a PPN will support the objectives of this Strategy by:

- Improving connectivity issues between homes and parks, reserves and waterways, and
- Contributing to the activation of open space by making the journey to the local park easy, safe and enjoyable.

2.1.4 WARRNAMBOOL CITY WIDE HOUSING STRATEGY, 2013

Warrnambool is forecast to grow at 1.4% per annum over the next 20 years. By 2031, the City is expected to be home to over 43,000 people. Based on forecast growth and household sizes, 225 new dwellings need to be constructed per year to meet demand, and most of these dwellings are projected to be constructed within growth areas. The combination of growth areas and infill opportunities will enhance the diversity of housing choices available to new and existing residents.

The significant growth anticipated for Warrnambool will require adequate levels of infrastructure and social services and will result in additional demand for water, energy, transport and utility infrastructure.

The Development of a PPN will support the objectives of this Strategy by:

- Planning for the transport needs of future communities, by ensuring that walking is integrated into the transport network, and
- Assisting Council with prioritising for future pedestrian infrastructure.

2.1.5. GREEN WARRNAMBOOL PLAN, 2018

The vision for Green Warrnambool is for Warrnambool to be the most environmentally sustainable regional city in Australia.

The Plan aims to have zero net greenhouse gas emissions and aims for Warrnambool to be an active and sustainable transport leader in Australia.

The Plan advocates increased use of walking and bicycle paths and identifies the PPN as an action to deliver this outcome.

2.1.6 ACTIVE WARRNAMBOOL STRATEGY, 2019-2030

The purpose of the Strategy is to increase regular participation in sport, active recreation and physical activity by everyone in the community, in order to take advantage of the benefits of sport and recreation such as physical fitness, reduced risk of chronic illnesses and improved mental health.

The Warrnambool 2040 Community Survey found walking continues to be the most popular physical activity for local residents.

Review of the current facility provision and sports participation revealed a need for planning and investment in paths and trails to support continued high levels of participation in walking.



3. DEVELOPING THE PPN

This chapter outlines the key steps taken in developing the Warrnambool PPN. It is structured according to these key stages:

1. Developing the Pedestrian Network
2. Identifying the Residential Origin Points
3. Identifying the Key Destinations within the Study Area
4. Map the Shortest Route Analysis
5. Delinating the Draft PPN



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3.1 THE MAPPING METHODOLOGY

3.1.1 KEY STEPS

There were seven key stages undertaken in the development of the Warrnambool PPN.

These seven stages were:

- Stage 1 - Defining the pedestrian network
- Stage 2 - Identifying the residential origins
- Stage 3 - Identifying the primary destinations
- Stage 4 - Undertaking the Shortest Route Analysis between the identified residential origins and key destinations
- Stage 5 - Combine and weight the shortest routes-mapping in order to delineate the Draft PPN.
- Stage 6 - Verification of the modelling and data
- Stage 7 - Delineation of the Draft PPN

This chapter outlines the preliminary stages of analysis, the pedestrian access mapping in stages 1 -5.

3.1.2 LIMITATIONS OF THE PEDESTRIAN ACCESS MAPPING

SHORTEST ROUTE ANALYSIS

A key focus for the PPN is to encourage a shift from transport trips that would typically be undertaken in a car to walking, i.e. travelling to the train station, to the shops or school.

In order to do this, the PPN needs to focus on the shortest possible route so that travelling from origins to destinations is as quick and as comfortable as possible. Once this route is identified, the highest level of service is provided to make walking an attractive, safe and logical option.

The pedestrian access mapping analysis therefore determines the shortest route between origins and

destinations - it does not determine the most desirable or scenic route.

In addition, the mapping analysis identifies the shortest route to destination points i.e. park entry points, shopping strip entry points. It does not identify recreational routes i.e. walking along shopping strips or walking through a park.

MULTIPLE-TRIPS

The analysis only determines the shortest routes to the nearest destination. As a result, the mapping does not account for multi-destination origins i.e. from home (origin) to retail shops and then to school (destinations).

3.2 STEP 1 - DEFINE THE PEDESTRIAN NETWORK

The first step in pedestrian analysis mapping is to define the pedestrian network. An existing street network was used as the basis and this was updated to more accurately reflect pedestrian access. This involved ensuring that all streets with footpaths, off-street trails and pedestrian crossings over major roads that can be accessed by foot were included.

3.3 STEP 2 - IDENTIFY THE RESIDENTIAL ORIGINS

The second step in the pedestrian analysis is to create residential origin points and household population values for each residential address within the study area. 2016 Census Mesh Block data was used as the basis for assigning a population value to each residential address. Mesh blocks are the smallest geographic region in the Australian Statistical Geography Standard and contain information about how many people live within a small geographical area. A population value was apportioned to each household based on the mesh block.



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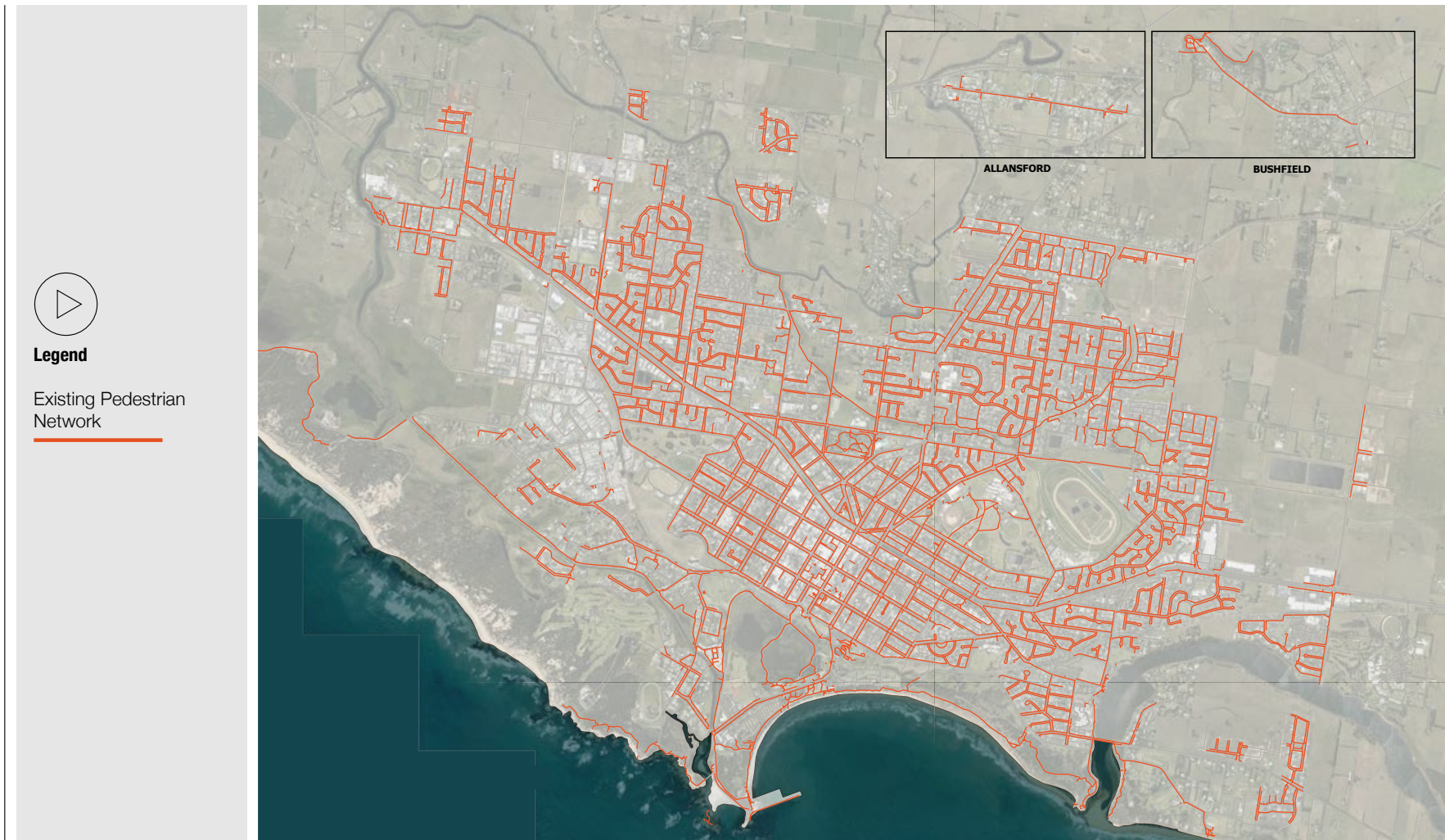


Figure 3 - Pedestrian Network Map



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Legend

Study Area

Residential Origins



Figure 4 - Residential Origins Plan



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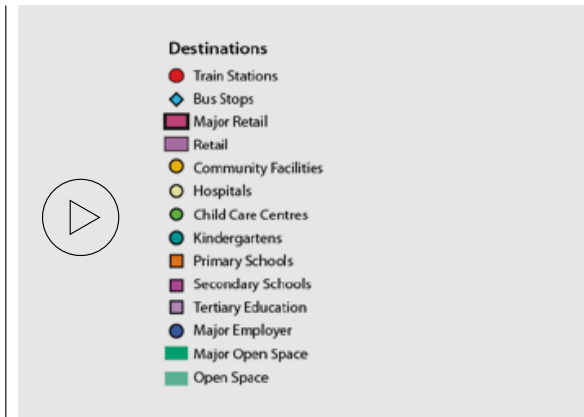
3.4 STEP 3 - IDENTIFY THE KEY DESTINATIONS

Key destinations were delineated across the study area under the following categories;

- Train Stations
- Bus Stops
- Retail (Major)
- Retail (Minor)
- Kindergartens
- Primary Schools
- Secondary Schools
- Tertiary Institutions
- Childcare facilities
- Community Facilities
- Health Facilities
- Major Open Space
- All Open Space
- Major Employment.

A walking catchment was determined for each destination category reflecting the maximum distance people are likely to walk to access the destination.

These walking catchments are identified in the discussion of each of the shortest route maps.



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3.5 STEP 4 - THE SHORTEST ROUTE ANALYSIS

Shortest route analysis of potential pedestrian trips between residential origins and key destinations was undertaken for the City of Warrnambool. This analysis models the potential trips that will be undertaken between residential origin points (houses) and the nearest identified key destination, such as a bus stop or school.

The total potential trips are calculated to the 14 destinations listed below, and combined into a plan that shows the total potential pedestrian trip across all each destinations.

A walkable catchment was identified for each of the primary destination categories. This reflects the likely distance a user would walk to a specific destination.

The catchment applied to the destination categories were:

- Train Stations - 1km
- Bus Stops - 400m
- Retail (Major) - 1km
- Retail (Minor) - 1km
- Kindergartens - 1km
- Primary Schools - 1km
- Secondary Schools - 1km
- Tertiary Institutions - 1.5km
- Childcare facilities - 1km
- Community Facilities - 1km
- Health Facilities - 1km
- Major Open Space - 1km
- All Open Space - 1km
- Major Employment - 1km

The following pages outline the results of the shortest route mapping for each destination category.

3.5.1 ACCESS TO TRAIN STATION

There is one train line and two train stations, Warrnambool Station is located in the CBD and Sherwood Train Station is located to the north of Deakin University, servicing Warrnambool. A 1km walking catchment was applied when assessing the shortest routes for the two train stations. Whilst a 1km catchment was applied walking is not limited to this catchment because in some cases people may be prepared to walk further to reach the train service.

The results show a concentration of potential walking trips radiating out from both train stations, however there are much larger volumes of potential pedestrians using Warrnambool Station. Being the more centrally located station this is not surprising, most people would be required to drive to Sherwood Station because of its relative distance from town and housing.



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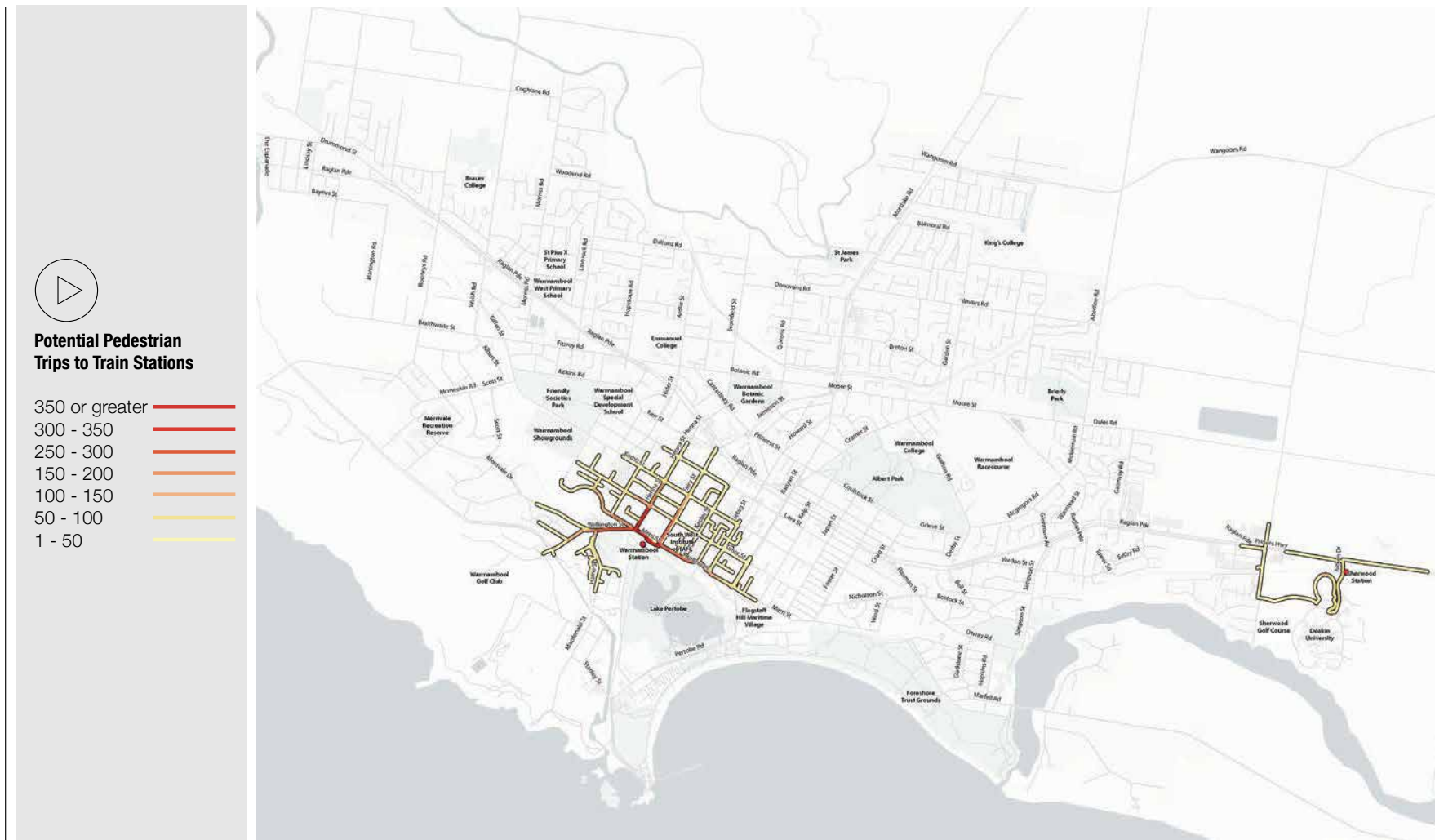


Figure 5 - Potential Walking Trips to Train Stations

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3.5.2 ACCESS TO BUS STOPS

A walking catchment of 400m from all bus stops in Warrnambool was analysed. This distance is based on the acknowledged standard that residents are less likely to walk beyond 400m to access bus stops. 400m equates to a average 5 minute walk for most people. Given the even coverage of bus stops across the municipality, pedestrian access appears to be evenly dispersed across the pedestrian network. There is one bus stop located in Allansford and no bus services in in Woodford.



Figure 6 - Potential Walking Trips to Bus Stops

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3.5.3 ACCESS TO MAJOR RETAIL AREAS

There are four major retail centres in Warrnambool. The CBD is the largest, followed by Gateway Plaza, Northpoint and the large formal retail centre located on the Princes Highway. A walking catchment of 1km from major retail centres was analysed. The results clearly reveal the potential walking routes to the CBD, Gateway Plaza and Northpoint radiate out from the retail centre along all major roads. The amount of pedestrian activity potentially occurring at the retail centre located out of town is low, possibly due to its location and the type of retail shopping provided.



Potential Pedestrian Trips to Major Retail

350 or greater	Dark Red
300 - 350	Red
250 - 300	Orange
150 - 200	Light Orange
100 - 150	Yellow
50 - 100	Light Yellow
1 - 50	White



Figure 7 - Potential Walking Trips to Major Retail Areas



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3.5.4 ACCESS TO ALL RETAIL AREAS

In addition to the four major retail centres, there are a number of smaller retail offerings throughout Warrnambool, and one convenience store in Allansford.

A walking catchment of 1km from all retail centres was analysed. In line with the results of the major retail centres, potential walking routes to all centres radiate out from the centre along major and local roads demonstrating that the smaller centres are attractive destinations per pedestrians.



Potential Pedestrian Trips to Retail

350 or greater	Dark Red Line
300 - 350	Red Line
250 - 300	Orange Line
150 - 200	Light Orange Line
100 - 150	Yellow Line
50 - 100	Light Yellow Line
1 - 50	White Line

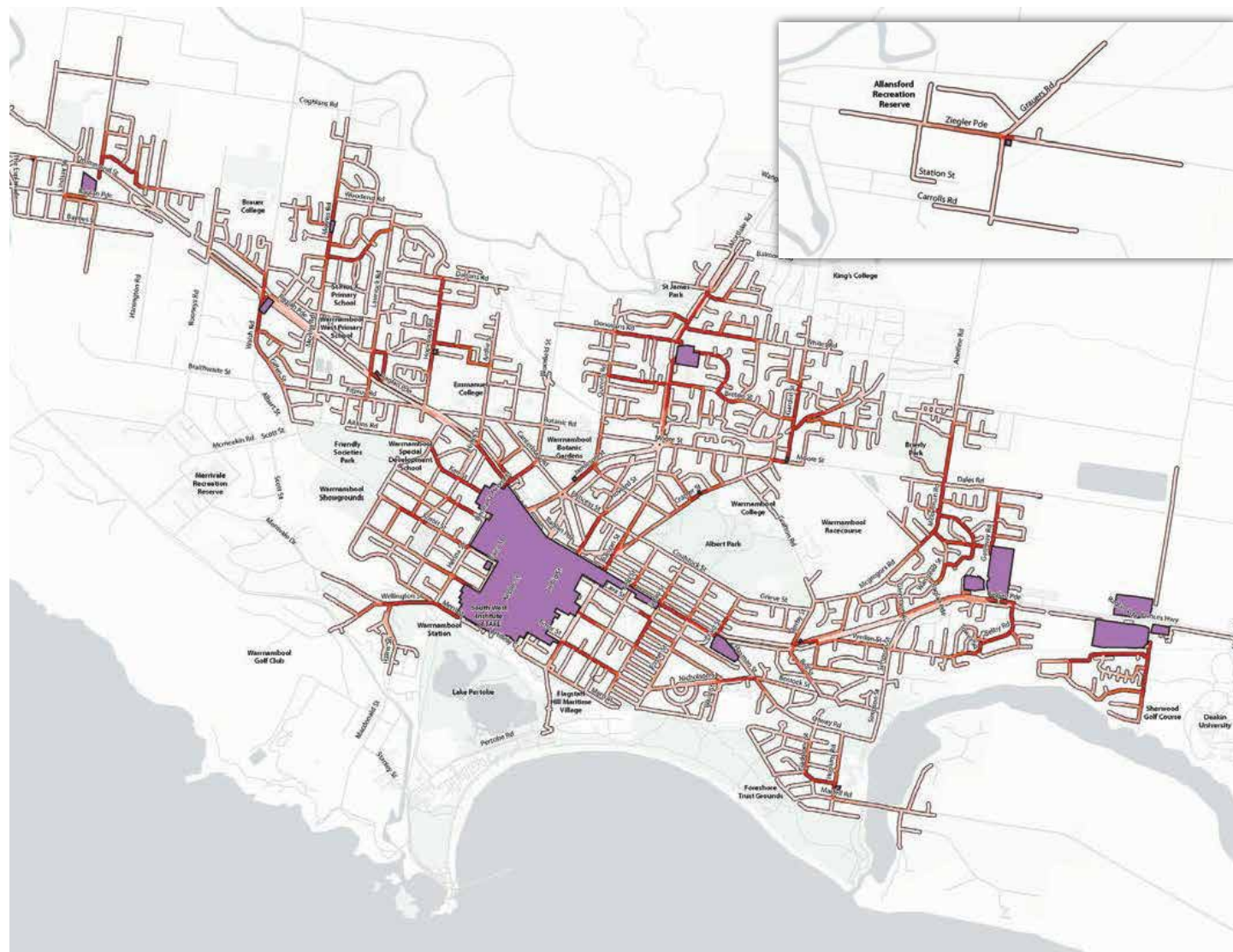


Figure 8 - Potential Walking Trips to All Retail Areas



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3.5.5 ACCESS TO COMMUNITY FACILITIES

There are 53 community facilities located throughout Warrnambool. Both Allansford and Woodford have community facilities. Whilst there is an even distribution throughout the municipality, there is a higher concentration in the CBD.

Potential pedestrian trips to the community centres is low in comparison to retail centres, however the mapping reveals even access across the municipality.

The facilities with the lowest pedestrian access are the two that are located south of the CBD, close to the waterfront.



Potential Pedestrian Trips to Community Centres

350 or greater	—
300 - 350	—
250 - 300	—
150 - 200	—
100 - 150	—
50 - 100	—
1 - 50	—



Figure 9 - Potential Walking Trips to Community Facilities



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3.5.6 ACCESS TO HEALTH FACILITIES

South West Healthcare and St John of God are the two major hospitals located in Warrnambool. A walking catchment of 1km from the two hospitals was analysed. The results of the shortest route analysis reveal a clear walking catchment around the hospitals, which potentially reflects the potential for local employees to walk to work.



Potential Pedestrian Trips to Hospitals

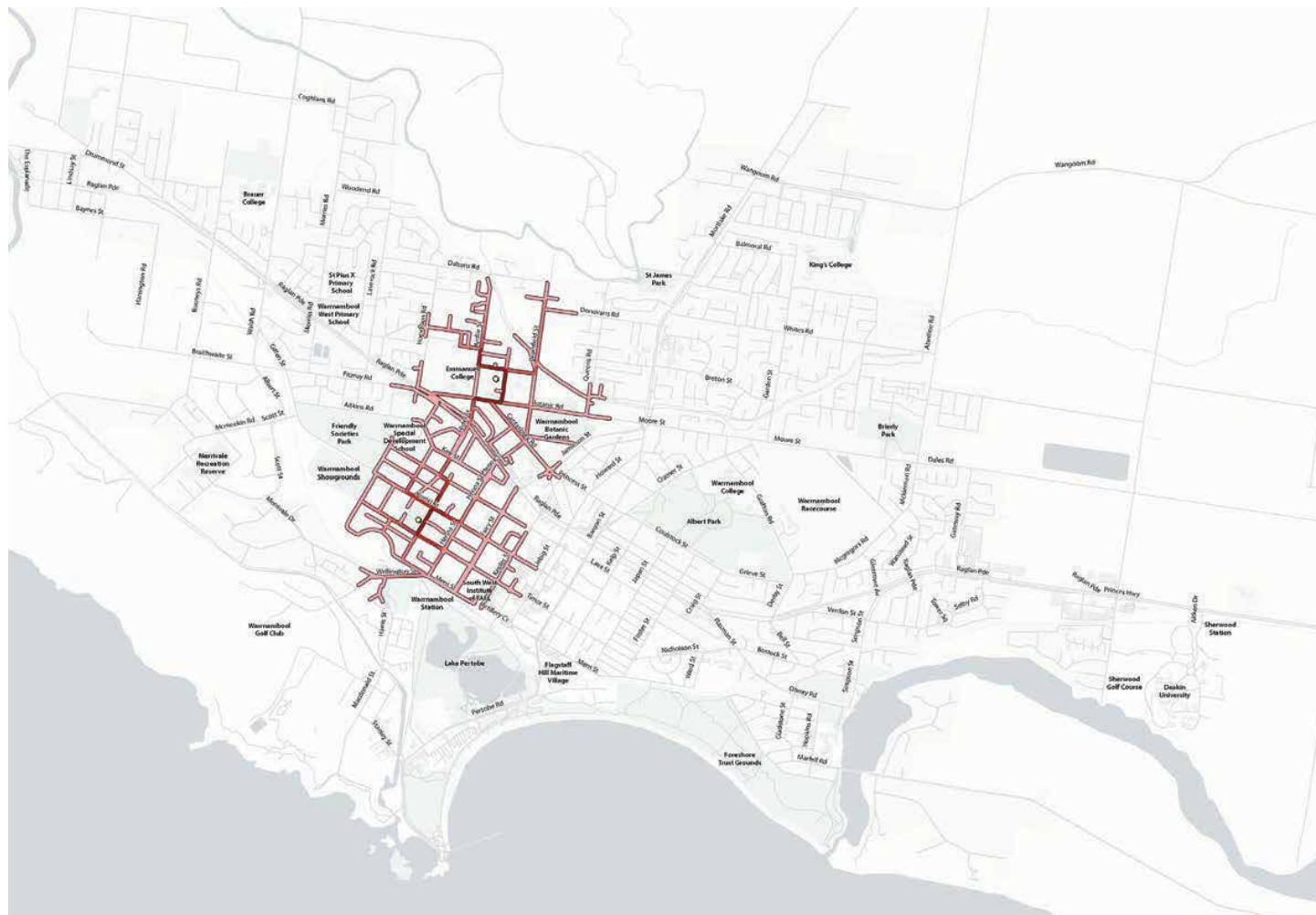
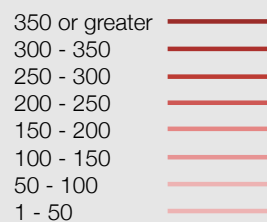


Figure 10 - Potential Walking Trips to Major Hospitals

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3.5.7 ACCESS TO CHILD CARE FACILITIES

There are ten child care facilities operating throughout Warrnambool, the majority of which are located along the central spine being the Princes Highway and Raglan Parade.

A walking catchment of 1km was used in the analysis and the results reveal an even distribution of potentially high pedestrian activity occurring along the major roads radiating out from each facility.



Potential Pedestrian Trips to Child Care Centres



Figure 11 - Potential Walking Trips to Child Care Facilities

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3.5.8 ACCESS TO KINDERGARTENS

Analysing the 1km walking catchment the results of the shortest route analysis reveal, like access to child care, low potential walking activity to and from kindergartens.

The kindergarten in Allansford, is located close to the Recreation Reserve on Ziegler Parade. The modelling reveals the potential for pedestrian trips from home to the kindergarten.



Potential Pedestrian Trips to Kindergartens

200 or greater	Thick dark green line
150 - 200	Medium dark green line
100 - 150	Medium light green line
50 - 100	Thin light green line
1 - 50	Very thin light green line



Figure 12 - Potential Walking Trips to Kindergartens

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3.5.9 ACCESS TO PRIMARY SCHOOLS

A walking catchment of 1km was used for the 18 primary schools located within Warrnambool. Interestingly the majority of primary schools are located to the north of Princes Highway/Raglan Parade. With the exception of Warrnambool East Primary School and Our Lady Help of Christians Primary School, no school are located in Warrnambool south. There is a primary school located in both Allansford and Woodford.

The results reveals a lot more pedestrian activity when compared to pedestrian access levels to kindergartens. There are greater levels of access along more streets reflecting the likelihood of school age children walking to school with their parents.



Potential Pedestrian Trips to Primary School

350 or greater	Dark Orange
300 - 350	Orange
250 - 300	Light Orange
200 - 250	Yellow-Orange
150 - 200	Yellow
100 - 150	Light Yellow
50 - 100	Very Light Yellow
1 - 50	White



Figure 13 - Potential Walking Trips to Primary Schools



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3.5.10 ACCESS TO SECONDARY SCHOOLS

Like primary schools, a walking catchment of 1km was applied to the 5 secondary schools located within Warrnambool. In comparison to primary schools, there are significant gaps in the secondary school network, with no secondary schools being located in the south and south east.

The analysis reveals high amounts of pedestrian activity along major roads. This is influenced by the older student population being able to walk to school unsupervised, as well as the school bus routes (where students may take the bus part way and walk part way).



Potential Pedestrian Trips to Secondary School

350 or greater	Dark purple line
300 - 350	Medium purple line
250 - 300	Light purple line
200 - 250	Very light purple line
150 - 200	Lightest purple line
100 - 150	Very lightest purple line
50 - 100	Lightest purple line
1 - 50	Lightest purple line



Figure 14 - Potential Walking Trips to Secondary Schools

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3.5.11 ACCESS TO TERTIARY EDUCATION

A walking catchment of 1.5km was used for the two tertiary institutions located in Warrnambool. There is a major difference in the locations of the institutions, making them difficult to compare. South West Tafe is located in the CBD and as a result the potential for pedestrian access is high, whilst the Deakin University Warrnambool campus is located out of town, to the south east of Warrnambool. The student catchment for the university is wide so the majority of students would be required to own a car, and typically drive to uni. Pedestrian access throughout the campus is important, as is connections to local shops and facilities.

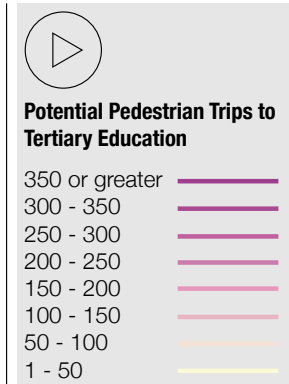


Figure 15 - Potential Walking Trips to Tertiary Institutions

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3.5.12 ACCESS TO MAJOR EMPLOYMENT

In addition to the CBD, six major employers were identified as key destinations in the pedestrian network. These destinations were included to ensure that potential pedestrian activity, travelling to and from work, is considered. This was particularly important for the industrial area located on McMeekin Road, and although there is a bus route running along McMeekin Road there are no other key destinations in close proximity. As a result the modelling reveals the potential for high pedestrian activity along the key roads leading into this area. We also see the potential for high levels of walking to and from Wannon Water (close to the Gateway Shopping Centre) in Warrnambool east.



Potential Pedestrian Trips to Major Employer

200 or greater	Thick dark blue line
150 - 200	Medium dark blue line
100 - 150	Medium light blue line
50 - 100	Thin light blue line
1 - 50	Very thin light blue line



Figure 16 - Potential Walking Trips to Major Employment Destinations

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3.5.13 ACCESS TO MAJOR OPEN SPACE

Major open space was separated out for analysis to reflect their importance as a key destination. The larger parks and reserves in Warrnambool are primarily located to the south, along the foreshore. Given the close proximity to the CBD and the existing trails some of the parkland is easily accessible by foot and the modelling results reflect this.

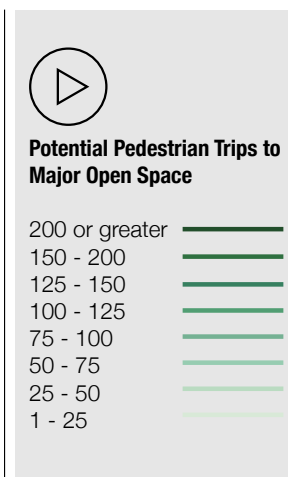


Figure 17 - Potential Walking Trips to Major Open Space Destinations

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3.5.14 ACCESS TO ALL OPEN SPACE FACILITIES

Open space includes parks and reserves in Warrnambool. The plan reveals there is an even spread of open space facilities throughout Warrnambool with the exception of the CBD. The modelling reveals the potential for trips to local open space facilities is as likely as to major parks.



Figure 18 - Potential Walking Trips to Open Space Destinations

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3.5.15 ACCESS TO ALL DESTINATIONS

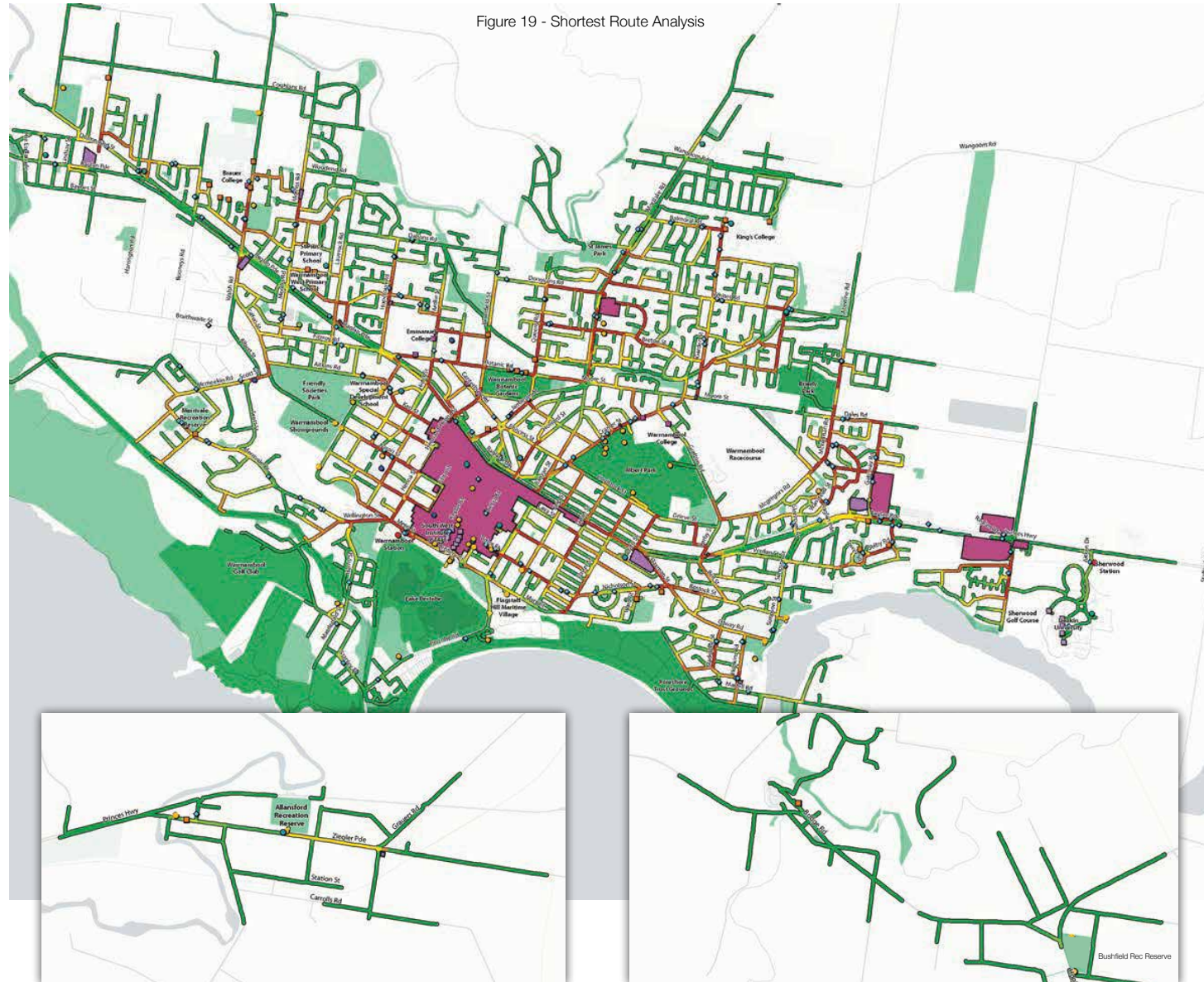
To reveal the level of pedestrian accessibility within Warrnambool, the shortest route analysis for the 14 destination types was combined into one map (see Figure 19 opposite). A weighting to each of the destination types was applied to reflect the relative proportion of residents likely to travel to each destination type.

The weighting applied to the destination categories were:

- Train Stations - 100%
- Bus Stops - 33%
- Retail (Major) - 100%
- Retail (All) - 66%
- Primary Schools - 33%
- Secondary Schools - 33%
- Tertiary Institutions - 66%
- Kindergartens - 33%
- Childcare Facilities
- Community Facilities - 33%
- Health Facilities - 16.5%
- Major Employment - 66%

This map reveals where potential trips made by Warrnambool's residential population are likely to be the highest. A Draft Principal Pedestrian Network is created from the shortest route analysis which delineates the routes likely to carry the greatest amount of pedestrian trips.

Figure 19 - Shortest Route Analysis



4. MAPPING VALIDATION & VERIFICATION



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4.1 PEDESTRIAN COUNTS

Pedestrian counts are an important part of the verification process of the shortest route analysis. The primary goal of undertaking pedestrian counts is to validate the results of the shortest route analysis as outlined in the state government guidelines for developing principal pedestrian networks. Counts are undertaken primarily to compare the shortest route mapping with actual usage of Warrnambool's pedestrian routes.

Counts were undertaken at 23 key intersections across the municipality, however an emphasis was placed on intersections where it was considered that the predictions of the shortest route analysis may have been too high or low. These locations provided a broad sample across the geographic area of the municipality.

The data captured the direction in which pedestrians

were travelling at each count location, enabling a fine-grain analysis of movement at key intersections. Pedestrian counts are usually undertaken mid week and during good weather conditions to ensure results are representative of a typical day. While this produces some insight to the movement of pedestrians along pedestrian count locations, additional counts across different days of the week would result in a more accurate understanding of pedestrian movement. The pedestrian counts for this project were undertaken on Wednesday 14th March, 2018, from 7am to 7pm.

4.1.1 PEDESTRIAN COUNT RESULTS

Figure 20 shows the locations where the pedestrian counts were undertaken and the count results, overlaid on the shortest route analysis. The arrows show the direction in which pedestrians were travelling, and are coloured according to the proportion of pedestrians

recorded. Where the colours of the shortest route mapping are similar to those of the pedestrian counts, the results of the counts align with the prediction of the shortest route analysis.

The majority of pedestrian counts aligned with the shortest route analysis, however there were some areas of difference. The areas of difference were usually in areas of higher predicted pedestrian numbers than actual usage. This is often a result of site specific conditions along these routes not being pedestrian friendly. The results also reveal the further from the CBD, there is less pedestrian activity (with the exception of the activity recorded around the Gateway Plaza). People are more likely to drive for when further away from the CBD because the distances between key destinations are often greater.

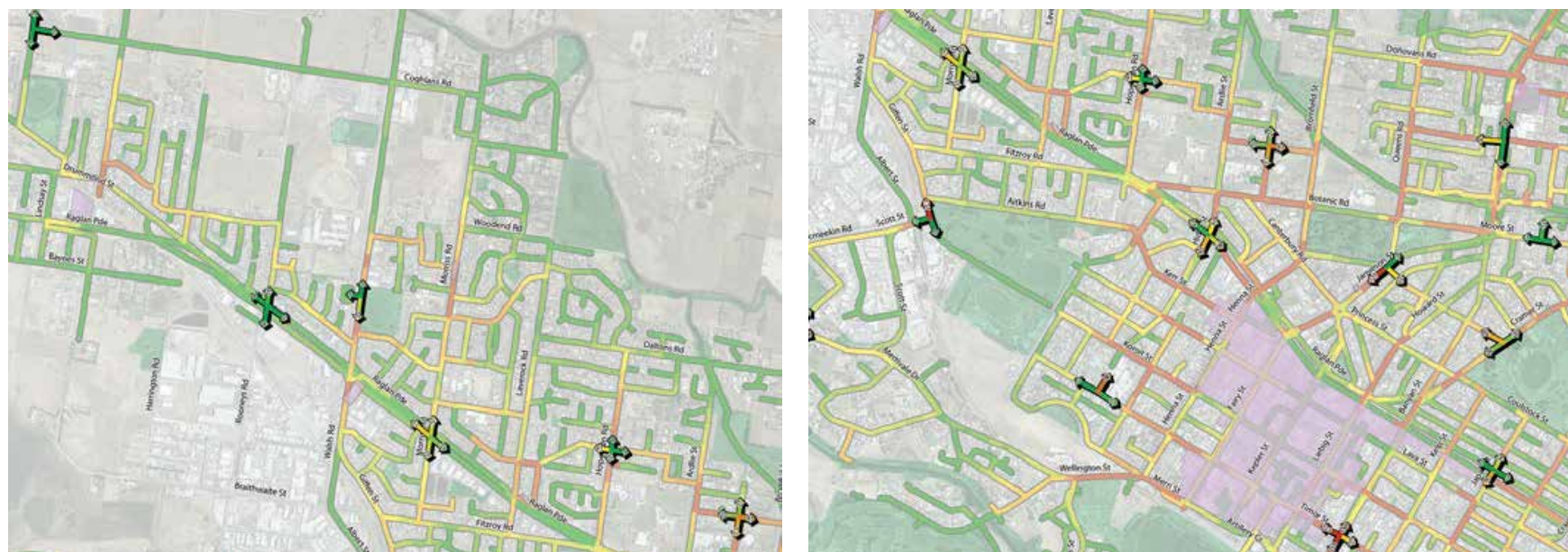


Figure 20 - Comparison of Pedestrian Count Results and Combined Shortest Route Analysis



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4.1.2 PEDESTRIAN COUNT FINDINGS

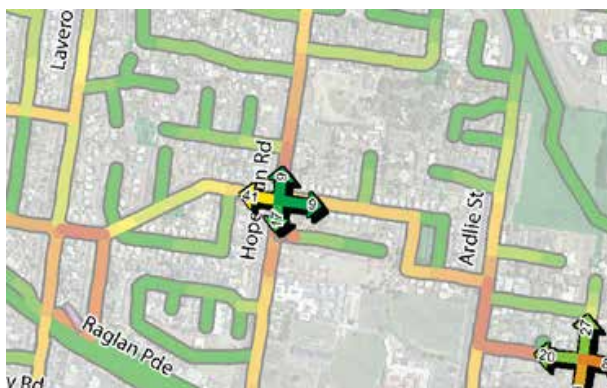
Inset 1 - Intersection of Langley Street and Caramut Road.

At the intersection of Langley Street and Caramut Roads lower pedestrian counts were recorded, than what the modelling predicted. This possibility reflects the two closet key destinations are a school and a recreation reserve, and that potentially locals tend to drive to these locations.



Inset 2 - Intersection of Hopetoun Road and Crawley Street

Low pedestrian counts were recorded at the intersection of Hopetoun Road and Crawley Street where there is a difference in the north/south bound traffic along Hopetoun Road. Hopetoun Road is a key north south connection that has bus stops and the small retail located along the route. Being located north of the CBD, the typical behaviour along this street is probably to drive to the local shop and be dropped off at the bus stop.



Inset 3 - Cramer Street

Heading eastbound along Cramer Street there are a range of recreational and entertainment destinations. These destinations will influence the shortest route predictions yet the reality is these are probably destinations that people prefer to drive to the Football Club, Table Tennis Association, Hockey Association and the Bowls Club.



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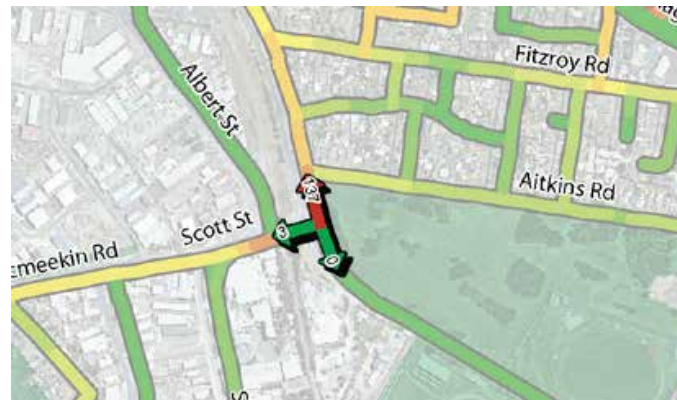
Inset 4 - Gateway Road

The pedestrian counts recorded southbound along Gateway Road were higher than what the shortest route modelling predicted. This is possibly due to the amount of residential housing, and the primary school located south of Raglan Parade.



Inset 5 - Intersection of Giffen Street and McMeekin Road

The pedestrian counts recorded northbound along Giffen Street were slightly higher than the modelling predicted and the counts recorded westbound along McMeekin Road were slightly lower. Whilst there is a park located on this intersection, the closet key destination to this intersection is the major employment area.



4.1.3 SUMMARY OF KEY FINDINGS

The results of the pedestrian counts provide a robust means of validating the shortest route modelling. The majority of pedestrian counts were in alignment with the shortest route analysis, however there were some intersection locations where the modelling and count data provided different results (as outlined on the previous pages). Investigation of these differences reveals local conditions that are influencing factors in these differences. Each of these locations has been considered when delineating the final PPN network.



5. THE PRINCIPAL PEDESTRIAN NETWORK



5.1 THE PRINCIPAL PEDESTRIAN NETWORK

The Pedestrian Access Mapping Analysis and validation undertaken in provided the major input for delineating the PPN.

The shortest route mapping provided an estimate of the potential volumes of pedestrian trips along key streets in the municipality. The pedestrian counts provided validation of the shortest route mapping. Local knowledge from Council officers also provided another level of validation and identification of additional routes.

The following principles provided the key considerations for delineating the PPN:

- Links that were shown to carry a significant number of potential pedestrian trips in the shortest route mapping were included,
- Links that recorded significant numbers of pedestrians through the pedestrian counts were included,
- Key shopping areas, regardless of size, were included as these are a focus for pedestrian activity and therefore, should be incorporated as part of the PPN,
- Links between key related destinations were included. Connections between a shopping strip and a major nearby park, or the link between a shopping strip and a major transport node are examples of related destinations.
- Existing off-street links or trails that provide readymade priority pedestrian infrastructure and will form an important part the PPN,
- Ensuring a connected network of streets. The PPN should provide continuous pedestrian priority between key origins and destinations therefore all streets within the PPN should be connected.

This may mean that some streets are included in the PPN even when the mapping shows that they have a low number of potential pedestrian trips.

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The PPN is delineated in three categories:

- Primary Routes - These routes form the foundation of the PPN where a high level of pedestrian priority is assigned. These routes will be a major focus for the implementation of future walking infrastructure improvements.
- Secondary Routes - These routes will provide a secondary role to the primary routes and will be assigned a high level of pedestrian priority. A secondary focus for future infrastructure works will be assigned to secondary routes.
- Existing Trails - Existing trails provide a high level of priority for pedestrians

The PPN identified in the plan opposite is the result of a process of testing and refining key routes against pedestrian counts, future projections and local knowledge.

The PPN includes a network of primary and secondary routes throughout the study area.

These routes have been identified as the key pedestrian routes that connect people to transport, shops, education, community and health facilities and local open space facilities.

Existing trails have also been identified as part of the PPN and provide important connections between activity centres. This report recommends to investigate the opportunity to connect south Dennington with rail trail, while preparing structure plan for south Dennington.

A number of workshops were held to provide Council officers the opportunity to provide feedback on the draft PPN. This step was important in validating the PPN routes given the limitations of the shortest route mapping, and utilised local knowledge and their understanding of the municipality.



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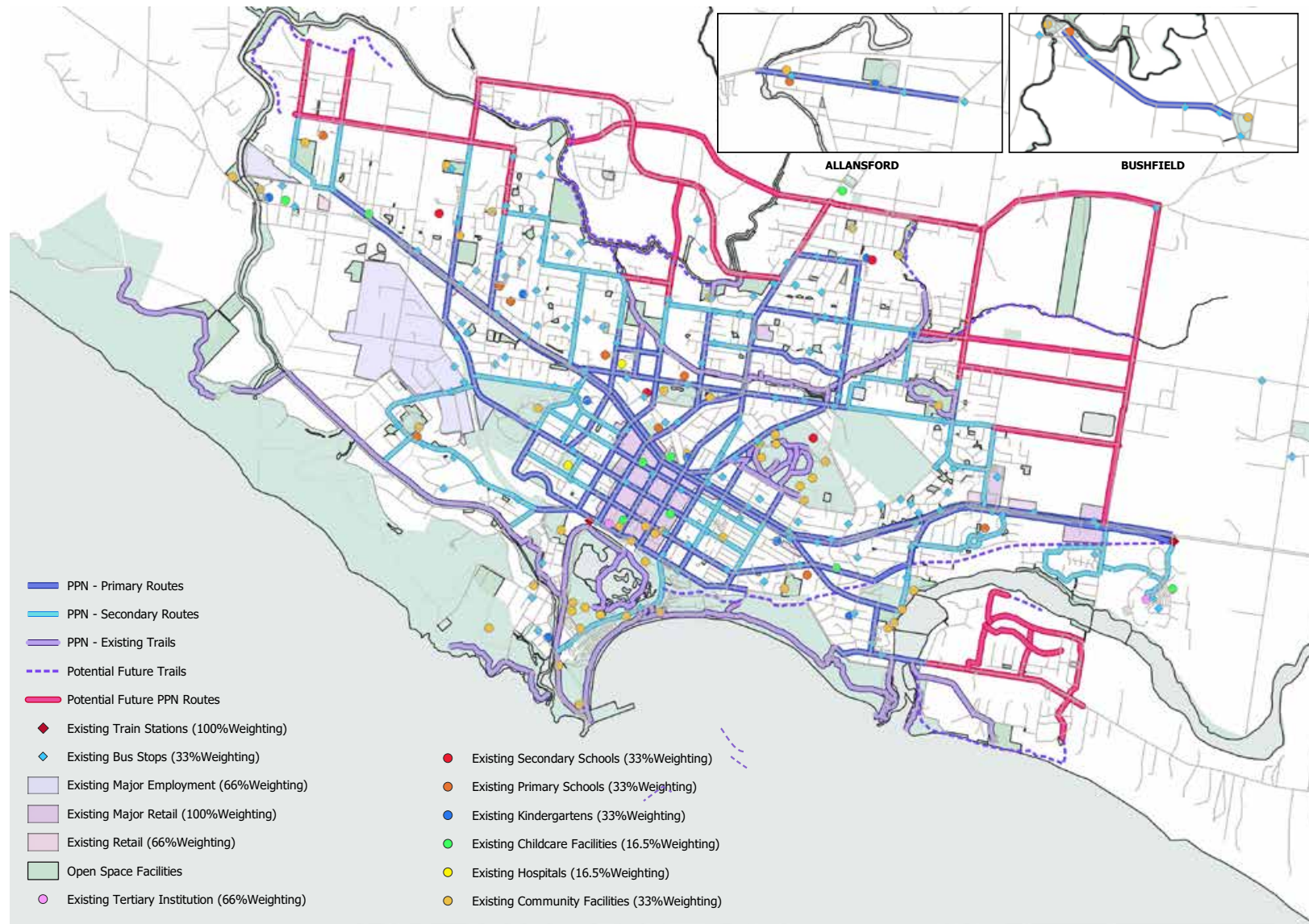


Figure 21 - Principal Pedestrian Network (PPN)



5.1.1 DESIRED LEVEL OF SERVICE TABLE

Warrnambool City Council has developed a desired level of service for those routes identified as primary and secondary PPN routes. The desired level of service establishes an agreed standard of provision for the pedestrian environment.

The key considerations are; minimum footpath width, standard for a number of safe crossing points, pedestrian priority at key intersections (Tactile Ground Surface Indicators), street tree planting standard, shade, shelter and seating, signage and wayfinding, street lighting and vehicle speed environment.

The agreed minimum and desired level of service for the Warrnambool PPN is outlined below.



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FACTOR

MINIMUM LEVEL OF SERVICE

DESIRED LEVEL OF SERVICE

Pathway Characteristics

Primary Pedestrian Route

- Footpath on both sides of the street.
- 1.5m minimum width.
- Concrete surface for footpath.
- Safe level of spacing between pathway and through vehicles.

- Footpath on both sides of the street.
- 2.5m wide footpaths on both sides.(n)
- Concrete surface for footpath.
- Physical separation of pathway from through traffic, via raised kerb, median, parking bays ect. (n)

Secondary Pedestrian Route

- Footpath on at least one side of the street.
- 1.5m minimum width.
- Asphalt surface for less intensive pedestrian areas.

- Footpath on both sides of the street.
- 1.5m minimum width in streets, 2.5m minimum width in parks
- Concrete surface for footpath.

Trails

- 2.5m minimum width.
- Stabilised Gravel, and compacted gravel surface for less used trails

- 2.5m minimum width.
- Concrete path or sealed path.

Pedestrian Crossings

Primary Pedestrian Route

- Ensure safe crossings with minimum waiting time for pedestrians.
- Pedestrian priority crossings near all the access points to the PPN. (Near to new estates, residential areas, all the destinations as in shortest route analysis etc.)
- Design – As per Aust Road Standards and Vic Roads Accessibility (DDA) Guidelines.
- Tactile at intersections.

- Ensure safe crossings with minimum waiting time for pedestrians.
- Pedestrian friendly crossings at all the access points, Street crossings.
- Design – As per Aust Road Standards and Vic Roads Accessibility (DDA) Guidelines.
- Tactile at intersections.

Secondary Pedestrian Route

- Ensure safe intersections with minimum waiting time for pedestrians.
- Pedestrian priority crossings near main access roads.
- Min- Pram ramp with line marking.

- Ensure safe intersections with minimum waiting time for pedestrians.
- Pedestrian priority crossings near main access roads.
- Design – As per Aust Road Standards.

Trails

- Ensure pedestrian priority at intersections.
- Ensure clear sight-lines from key intersection view points,escape access and egress points.

- Ensure pedestrian priority at all crossings.
- Ensure clear sight-lines from all intersection view points,escape access and egress points.

(n) Width of the footpath may also vary with the available road reserve



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FACTOR

MINIMUM LEVEL OF SERVICE

DESIRED LEVEL OF SERVICE

Streetscapes

Primary Pedestrian Route

- Street trees- At least one tree in front of each property.
- Street furniture- One rest place (seating) every 500m. Seating Type: Aluminium seating.

- Street trees- At least one tree every 10 meters.
- Street furniture- One rest place (seating) every 250m. Seating Type: Aluminium seating - all seating types to specify arm rests to support accessibility.

Secondary Pedestrian Route

- Street trees- At least one tree in front of property.
- Street furniture- One rest place (seating) every 500m. Seating Type: Aluminium seating.

- Street trees- At least one tree in front of property.
- Street furniture- One rest place (seating) every 500m. Seating Type: Aluminium seating - all seating types to specify arm rests to support accessibility.

Trails

- Street furniture- One rest place (seating) Near to the lookout points. Seating Type: Basic park seating.

- Street furniture- One rest place (seating) every 500m and near to the lookout points. Seating Type: Basic park seating - all seating types to specify arm rests to support accessibility.

Street Lights

Primary Pedestrian Route

- Lighting as per Australian standards, Min- Typical road lighting, considered in all new design.

- All new lighting as per Australian standards. Dual lighting for streets and footpath. (in areas with dense vegetation)

Secondary Pedestrian Route

- Lighting as per Australian standards, typical road lighting, considered in all new design.

- All new lighting as per Australian standards, typical road lighting.

Trails

- Lighting at trail and road intersections and identified high risk potential, considered in all new design.

- All new lighting at trail and road intersections, lighting on all trails identified as transport routes. (not just recreational)

Signage

Primary Pedestrian Route

- Map based sign- Major destinations, and directional signs at major intersections.

- Map based sign- All major decision points like (Train Stations, Hospitals, Major recreational hubs, Major retail hubs, Near to industrial estate), and directional signs at all intersections.

Secondary Pedestrian Route

- Directional signs at major intersections.

- Directional signs at all intersections.

Trails

- Map based sign should be along major off road trails totally detached to CBD like Foreshore trails (positioned to the decision points like start, main decision making points and end). And directional signs should be along other trails. (at major intersections)

- Map based sign should be along major Foreshore trails. And directional signs should be along other trails.



6. IMPLEMENTATION

The final stage in the PPN project is implementing the network. This section of the report provides a guiding framework for the implementation of the PPN.

This chapter outlines the:

1. Proposed Traffic & Intersection Improvements to support the PPN Network
2. Proposed Streetscaping Improvements to Support the PPN Network
3. Missing Links in the PPN Network, and
4. Recommendations for Further Work



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6.1 PEDESTRIAN IMPROVEMENT PROJECTS

The key components of a pedestrian network can be broadly categorised into the pedestrian links - footpaths and the supporting pedestrian infrastructure, seating, shelter, signage, lighting and traffic calming measures. For the purposes of developing a PPN it is recommended that both the missing links and the missing pedestrian infrastructure are identified in order to plan for their implementation to support the PPN network.

This chapter outlines the identified missing links and infrastructure and provides justification for their delivery.

6.1.1 MISSING LINKS IN THE PEDESTRIAN NETWORK

The key missing pedestrian links in the existing

pedestrian network were identified in a round workshop with Council. The missing links are shared use paths, footpaths, and in some cases upgrades to an existing path. These links are seen as important in creating a connected pedestrian network throughout Warrnambool.

Over 100 missing links have been identified, which poses the question of how the identified paths can be delivered. A set of assessment criteria was developed to evaluate the priority of each path. In order to allocate a delivery priority to each of the identified missing pedestrian links, each link was assessed according to a set of assessment criteria. The criteria included rating the link according to its connectivity, community interest, SEIFA. Index, mobility user requirements and significant biodiversity values. This resulted in a ranking of priority for each path. The plan opposite shows the results and the details of each path is identified in an Implementation Table in Appendix 2.

Estimated Cost:

Types of Footpath	Estimated rate/m2
Concrete	140
Asphaltic concrete footpath	90
Bituminous Sealed Footpath	75
Gravel Footpath	50

Notes:
These are only indicative rates. The rate would vary depending on the nature of works and would require detailed cost estimation for individual project.



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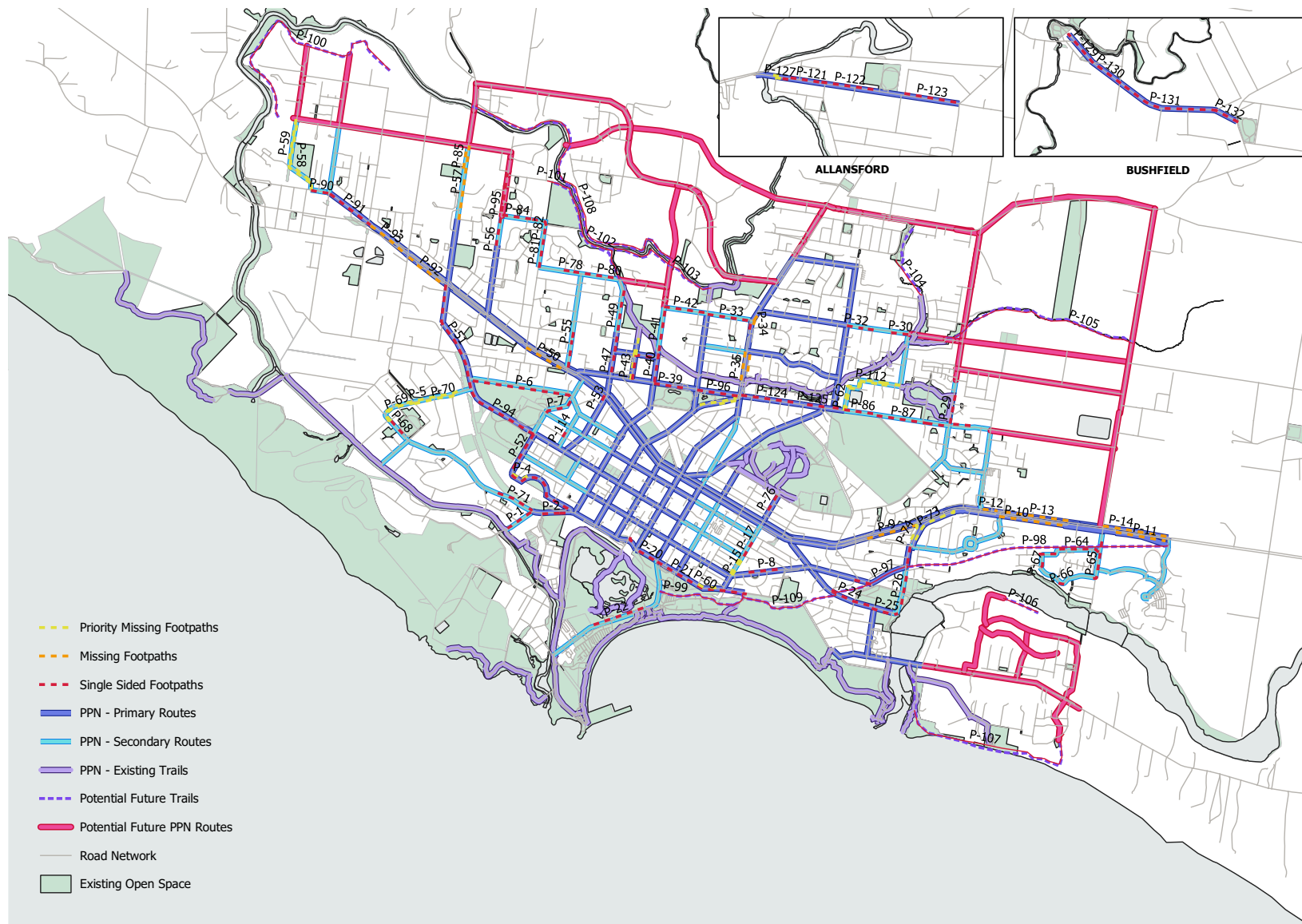


Figure 22- Missing links in the Pedestrian Network



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Link Id	Link Name	Link Type	On or OFF road	Length (m)
Priority Missing Footpaths				
P-73	Simpson Street connection from Raglan service Road to Verdon Street (East side)	Footpath	On-road	645.256
P-5	McMeekin Road- Merrivale Drive to Koroit Street (west side)	Footpath	On-road	1037.851
P-43	Wentworth Street -Botanic Road to Barbers lane(West side)	Footpath	On-road	232.489
P-15	Foster Street - Nicholson Street to Holbrook Street (West side)	Footpath	On-road	223.422
P-38	Jamieson Street - Queen Street to Banyan Street (South side side)	Footpath	On-road	218.072
P-77	Taits Road (South connection)	Footpath	On-road	35.169
P-113	Taits Road North connection to Russells Creek	Footpath	On-road	479.086
P-58	Station Road- Drummond Road to Coghlands Road(east)	Footpath	On-road	810.629
P-127	Ziegler Parade- In front of 3- 5 Ziegler Parade (South)	Footpath	On-road	53.213
P-4	Hyland Street - connection to Merri crescent (North side)	Footpath	On-road	172.744
P-62	Taits Road - Moore Street to Russells Creek Connection(West side)	Footpath	On-road	434.825
P-44	Wentworth Street - Barbers lane to Conns lane(West side)	Footpath	On-road	83.861
P-124	Moore st- Mortlake rd to Oak Court (North side)	Footpath	On-road	550.375
P-126	Taits rd- Wares rd to Renoir Dr (North side)	Footpath	On-road	143.703
P-128	Zeiglar Parade- Alice st to 12 Zeigler parade (North)	Footpath	On-road	89.052
P-132	Bridge Road - Hopkins Hway to Reddie Road (South side)	Footpath	On-road	264.296
Missing Footpaths (not possible to cross road/highway)				
P-12	Raglan Parade- Bescott Street to Gateway Road (North side)	Footpath	On-road	147.938
P-89	Mortlake Road- Hayley drive to Service Road connection (east side)	Footpath	On-road	47.79
P-34	Mortlake Road - Hayley drive to Service Road connection (east side)	Footpath	On-road	73.418
P-35	Mortlake Road - Russells Creek Trail to Allan Street (West side)	Footpath	On-road	285.456
P-10	Raglan Parade- South connection to Selby Road	Footpath	On-road	766.62
P-11	In front of Sherwood Park Train Station	Shared path	On-road	588.563
P-9	Raglan Parade- Simpson Street to Verdon Street (South side)	Footpath	On-road	638.845
P-50	Raglan Parade- Fitzroy Road to Laverock Grove (South side)	Footpath	On-road	472.93
P-92	Raglan Parade-Walsh Road to Rooneys rd	Footpath	On-road	484.56



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P-36	Mortlake service Road to Russel creek	Footpath	On-road	171.551
P-93	Raglan Parade-Rooneys Road to Drummond Street	Footpath	On-road	448.773
P-14	Raglan parade- North side connection to Horne Road	Footpath	On-road	791.145
P-57	Caramut Road - Fotheringham Street to Coghlan's Road	Footpath	On-road	706.239
P-13	Raglan parade- Horne Road to Bescott Street (north side)	Footpath	On-road	864.326
P-85	Caramut Road - Stadium entrance to Coghlan's Road	Footpath	On-road	204.863
Single Sided Footpaths				
P-51	Walsh Road/Giffen Street- McMeekin Road to Raglan Parade	Footpath	On-road	1100.018
P-2	Wellington Street- Rail to Harris Street(south side)	Footpath	On-road	191.599
P-3	Wellington Street-Merri Street to Rail(south side)	Footpath	On-road	102.456
P-33	Donovans Road- Queen Street to Mortlake Road(South side)	Footpath	On-road	647.014
P-8	Nicholson Street- Barkley Street to Foster Street via service Road	Footpath	On-road	428.1
P-40	Bromfield Street-Botanic Road to Russells creek path (East side)	Footpath	On-road	310.755
P-20	Merri Street - Pertobe Road to Liebig Street (South side)	Footpath	On-road	199.125
P-21	Merri Street- Flume carpark to Flagstaff hill (South side)	Footpath	On-road	1138.566
P-54	Hopetoun Road- Raglan parade to Mercy Place Aged Care Facility (East side)	Footpath	On-road	242.297
P-45	Wentworth St (Botanic Rd to Barbers Lane) - Barbers Lane (Wentworth St to Bromfield St)	Footpath	On-road	481.893
P-72	Merri Street- Gillies Street to Liebig Street (North side)	Footpath	On-road	126.43
P-96	Botanic Road- Banyan st to Queen Street (South side)	Footpath	On-road	468.764
P-55	Hopetoun Road- Mercy Place Aged Care Facility to Crawley Street (East side)	Footpath	On-road	81.136
P-39	Botanic Road- Bromfield Street to Queen Street (south side)	Footpath	On-road	340.101
P-52	Merri Crescent/Hyland Street- Merri Street to Koroit Street	Footpath	On-road	1363.449
P-53	Hider Street- Panorama Ave to Raglan Parade (west side)	Footpath	On-road	90.445
P-65	Mahoney Road- Princess highway to Dobson way (East side)	Footpath	On-road	381.491
P-91	Drummond Street- Raglan Parade to Russel Street	Footpath	On-road	555.673
P-111	Moore Street - Garden Street to Taits Road (North side)	Footpath	On-road	121.909
P-27	Simpson Street- Verdon Street to Rail trail (East side)	Footpath	On-road	191.803



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P-28	Dales Road- Moore Street to Gateway Road (North side)	Footpath	On-road	233.636
P-29	Aberline Road- in front of Brierly Rec Reserve (East side)	Footpath	On-road	261.979
P-42	Donovans Road - Bromfield Street to Queen Street(North side)	Footpath	On-road	473.155
P-47	Ardile Street- Botanic Road to Barbers lane	Footpath	On-road	190.51
P-76	Foster Street- Coulstock Street to Skene Street (west side)	Footpath	On-road	162.703
P-83	Woodend Road- Laverock Road to Mountain Ash Drive (North side)	Footpath	On-road	195.522
P-84	Woodend Road- Morris Road to Mountain Ash Drive	Footpath	On-road	329.188
P-95	Morris Road- Vickers drive to Thomas place	Footpath	On-road	580.563
P-64	Huntingfield Drive- Mahoney Road to O'Sullivan Drive(North side)	Footpath	On-road	749.004
P-1	Wellington Street- Merrivale drive to Wellington Street bridge (west side)	Footpath	On-road	297.193
P-24	Otway Road- Ilex Avenue to Simpson Street (North side)	Footpath	On-road	541.709
P-25	Otway Road- Hopkins rd to Simpsons Road (South side)	Footpath	On-road	299.425
P-32	Whites Road- Garden Street to Carlyle dt (south side)	Footpath	On-road	166.502
P-48	Ardile Street- Barbers lane to Conns lane	Footpath	On-road	80.778
P-71	Merrivale drive- Wellington Street to Merrivale connection (north side)	Footpath	On-road	433.119
P-90	Drummond Street- Russell Street to Station Street	Footpath	On-road	197.569
P-94	Koroit Street- Hyland Street to McMeekin Road	Footpath	On-road	868.049
P-6	Atkins Road - Hyland Street to Giffen Street(south side)	Footpath	On-road	1217.536
P-7	Hyland Street- Lava Street to Kerr Street (east side)	Footpath	On-road	351.128
P-19	Japan Street- Hotham Street to Koroit Street (East side)	Footpath	On-road	74.812
P-26	Simpsons Street- Otway Road to Railtrail (east side)	Footpath	On-road	323.693
P-30	Whites Road- Wares Road to Cherlin drive(south side)	Footpath	On-road	177.469
P-41	Bromfield Street- Russells creek path to Dovovans Road (East side)	Footpath	On-road	408.399
P-56	Morris Road- Kermond ct to vickers drive	Footpath	On-road	87.09
P-68	McMeekin Road- Merrivale Oval entrance to McCullagh Ct	Footpath	On-road	174.858
P-75	Bostock Road- Ilex Avenue to Deakin rail trail (South side)	Footpath	On-road	176.058
P-49	Ardlie Street - Conns Lane to Russells Creek Walking path(East side)	Footpath	On-road	487.912
P-81	Laverock Road- Daltons Road to Membery way (east side)	Footpath	On-road	317.074
P-16	Foster Street- Holbrook St to Barkley Street(East side)	Footpath	On-road	90.889



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P-17	Foster Street- Lava Street to Barkly Street (East side)	Footpath	On-road	106.724
P-22	Pertobe Road- In front of Lake Pertobe (West side)	Footpath	On-road	602.186
P-87	Moore Street (In front of Racecourse- South side)	Footpath	On-road	594.783
P-88	Moore Street In front of Racecourse to McKiernan Road(South side)	Footpath	On-road	214.196
P-114	Murray Street- Kruger Street to Lava Street	Footpath	On-road	98.054
P-31	Whites Road - Vidler Street to Carlyle ct (south side)	Footpath	On-road	115.021
P-66	Dobsons way- in front of 34, Dobsons way	Footpath	On-road	102.026
P-67	O'Sullivan Drive- in front of 53 Dobsons way	Footpath	On-road	39.323
P-78	Daltons Road - Membrely way to Kagoola Ave(north side)	Footpath	On-road	105.205
P-79	Daltons Road- Grosvenor to Membrely Way (North side)	Footpath	On-road	272.43
P-80	Daltons Road- Russells creek to Grovenor Road	Footpath	On-road	265.329
P-125	Moore st- Oak Court to Russells Creek Trail(North side)	Footpath	On-road	221.879
P-130	Bridge Road- Brodies Lane to Albert Street(South side)	Footpath	On-road	378.273
P-131	Bridge Road - Reddie Road to Brodies Lane (South side)	Footpath	On-road	1146.372
Future Trails				
P-97	Deakin Link- Railtrail from Jukes Street to Bostock Street	Shared path	Off-Road	442.702
P-110	Deakin Rail trail from Bostock Street to Flaxman Street	Shared path	Off-Road	430.362
P-109	Deakin Rail trail-Flaxman Street to Flume Car park (via Foreshore trail)	Shared path	Off-Road	1304.594
P-98	Deakin Link- Railtrail from Deakin to Simpson Street	Shared path	Off-Road	3282.054
P-104	Missing connection of Russels Creek Walking Path behind Kings College	Shared path	Off-Road	472.445
P-99	Deakin Link- Railtrail from Flume car park to Lake Pertobe	Shared path	Off-road	1091.657
P-102	South merri (Tarhook Road)to Russel Creek trail	Shared path	Off-Road	1415.702
P-103	South Merri ,from Queens Road to Russells creek trail	Shared path	Off-Road	1359.065
P-101	Tarhook Road to South Merri trail	Shared path	Off-Road	61.783
P-100	Dennington - Merri trail (Growth area)	Shared path	Off-Road	2906.002
P-107	Foreshore Trail from Hopkin point to Southern Ocean Boulevard (Growth area)	Shared path	Off-Road	2267.746
P-106	North Hopkins Trail (Growth area)	Shared path	Off-Road	439.579
P-108	North of Merri Trail (Growth area)	Shared path	Off-Road	3673.208



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6.1.2 PROPOSED PEDESTRIAN IMPROVEMENTS PROJECTS

The plan opposite identifies missing traffic interventions have been identified as and are recommended to support the proposed PPN. These are traffic calming interventions that impact on pedestrian comfort and safety. They are categorised according to:

- Pedestrian crossing improvements,
- Traffic and or pedestrian s improvements or adjustments,
- Pedestrian refuge island improvements, or
- Intersection or roundabout improvements.

The location of the recommendation and data source in listed in Table 6.1.3 on the next page.

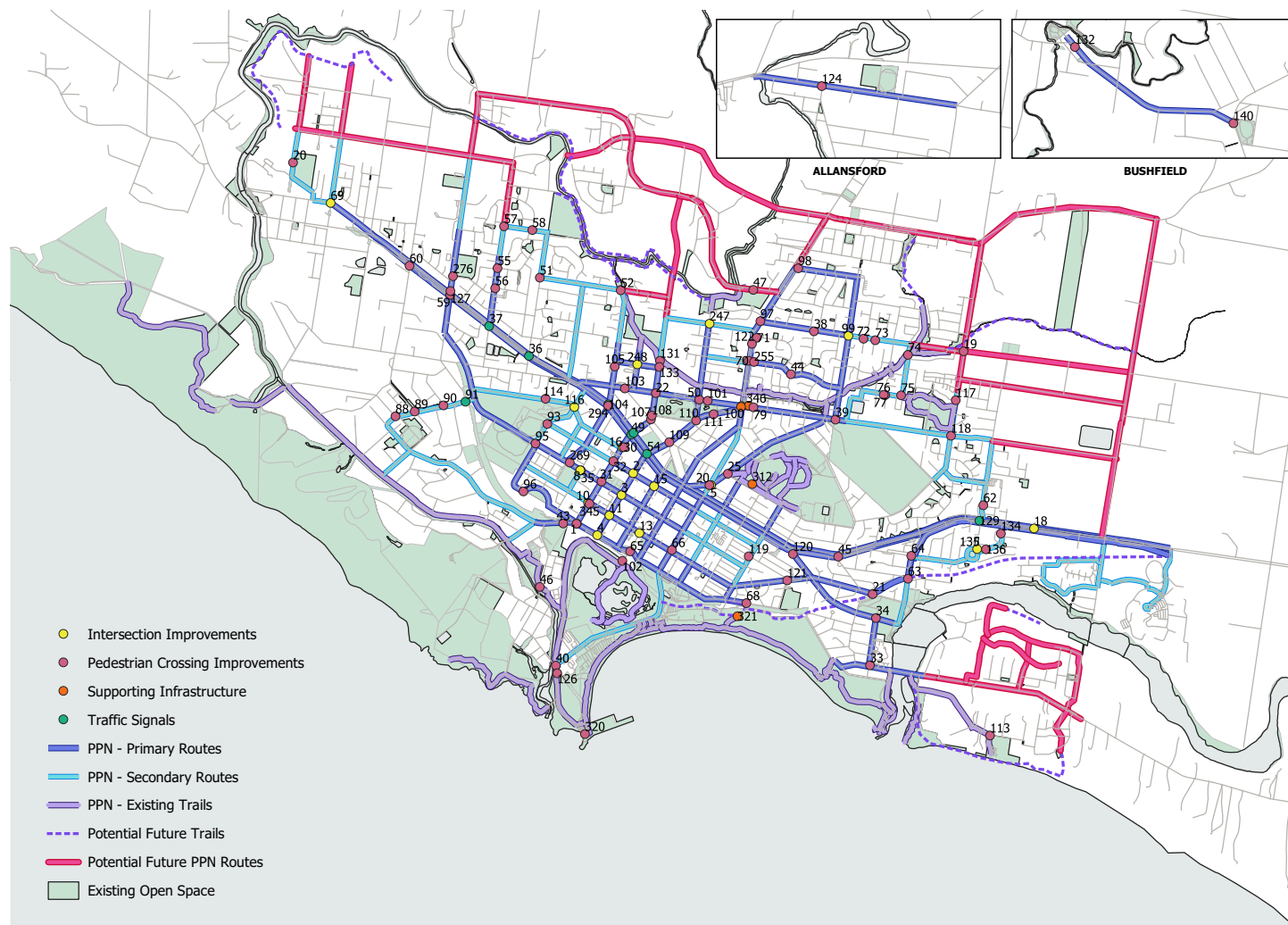


Figure 23 - Proposed Pedestrian Improvements Plan

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Estimated Cost:

Types of work	Estimated Cost	Notes
Intersection improvement	\$40,000 to \$60,000 for Median refuge	These are only indicative costs. Depending on the nature of works on individual intersection, the cost would vary and would require detailed cost estimation.
	\$13,000 to \$20,000 for Kerb extension	
Pedestrian Crossing	\$120-\$150k	These are only indicative costs. Depending on the nature of works on individual intersection, the cost would vary and would require detailed cost estimation.
Traffic Signal improvements	\$200-\$300K for Traffic Signals Installation	These are only indicative costs. Depending on the nature of works on individual intersection, the cost would vary and would require detailed cost estimation.
	\$20,000-\$30,000 for Traffic Signal Optimization	



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6.1.3 PEDESTRIAN IMPROVEMENTS TABLE

ID	Project	Address
8	Intersection Improvement	Koroit Street / Ryot Street
1	Intersection Improvement	Merri Street / Henna Street
2	Intersection Improvement	Fairy Street / Lava Street
3	Intersection Improvement	Fairy Street / Koroit Street
4	Intersection Improvement	Merri Street / Fairy Street
5	Intersection Improvement	Banyan Street/Cramer Street/Skene Street
7	Pedestrian crossing	Bromfield Street exit on to north of Merri (Ped bridge)
10	Intersection improvement	Henna Street / Timor Street
11	Intersection improvement	Fairy Street / Timor Street
13	Intersection improvement	Gilles Street / Timor Street
15	Intersection improvement	Kepler Street / Lava Street
16	Intersection Improvement	Henna Street / Kerr Street
100	Intersection improvement	Jamieson Street / Botanic Road/ Mortlake Road
118	Intersection Improvement	Raglan Parade / Glynbudy Street
19	Pedestrian crossing	Whites rd/ Aberline Rd
20	Pedestrian crossing	Banyan Street/Cramer Street/Skene Street
21	Pedestrian crossing	Bostock Rail overbridge
22	Pedestrian crossing	Bromfield Street/ Botanic Rd
50	Pedestrian crossing	Botanic Rd/ Queens rd
107	Pedestrian crossing	Canterbury Rd/King Street
25	Pedestrian crossing	Cramer Street/Coulstock Street
30	Pedestrian crossing	Henna woolworth's Intersection
31	Pedestrian crossing	Koroit Street/ Henna Street
32	Pedestrian crossing	Lava Street/Henna Street
33	Pedestrian crossing	Hopkins/ Marfell Road
34	Pedestrian crossing	Otway rd/ Hopkins Road
35	Pedestrian crossing	Koroit Street / Ryot Street
36	Traffic signals Improvements	Raglan/Laverock Road
37	Traffic signals Improvements	Raglan/Morris Road
38	Pedestrian crossing	Whites Road/ Minerva drive
39	Pedestrian crossing	Moore Street/ Garden Street
40	Pedestrian crossing	Pertobe Road/ Stanley Street
43	Pedestrian crossing	Wellington Street / railway crossing
44	Pedestrian crossing	Evelyn Cr / Breton Street
45	Pedestrian crossing	Raglan/Bell Street/ Derby Street
46	Pedestrian crossing	Harris Street- Merri bridge
344	Pedestrian crossing	Merri Street/ Henna Street
49	Traffic signals Improvements	Raglan/Henna
47	Pedestrian crossing	St James Park trail/ Woolaston Road
51	Pedestrian crossing	Laverock Road/ Daltons Road
52	Pedestrian crossing	Daltons Road/Ardile Street/Russell creek trail
345	Pedestrian crossing	Henna Street / Timor Street
54	Traffic signals Improvements	Raglan/Jamieson Street
55	Pedestrian crossing	Morris Road/ Pecten Avenue
56	Pedestrian crossing	Morris Road/ Ross Street
57	Pedestrian crossing	Morris Road/ Woodend Road
58	Pedestrian crossing	Woodend Road/ Mountain Ash drive
59	Pedestrian crossing	Raglan/Walsh Road
60	Pedestrian crossing	Raglan Parade/ Rooney's Road
18	Pedestrian crossing	Aberline Road/ Dales Road
62	Pedestrian crossing	Gateway Road/ Gateway Plaza entrance
63	Pedestrian crossing	Simpson Road/Railway trail
64	Pedestrian crossing	Simpson Street/ Verdon Street
65	Pedestrian crossing	Carpark to Liebig ped crossing
66	Pedestrian crossing	Banyan Street Ped crossing



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68	Pedestrian crossing	Flume carpark entrance	108	Pedestrian crossing	Emmanual college access, Bromfield Street
69	Intersection Improvement	Drummond street/ Russell Street	109	Pedestrian crossing	Jamieson Street/ Princess Street
70	Pedestrian crossing	Mortlake Road/Breton Street	110	Pedestrian crossing	Jamieson Street/ Queens Road
71	Pedestrian crossing	Hayley Drive entrance from Mortlake road	111	Pedestrian crossing	Access pathway Aquazone,Carpark,- Jamieson Street
72	Pedestrian crossing	Whites Road/ Zammit Drvie	113	Pedestrian crossing	Banyan Street/ Cramer Street/ Skene Street
73	Pedestrian crossing	Whites Road/ Vidler ct	114	Pedestrian crossing	McKnight Street entrance to Aitkins Road
74	Pedestrian crossing	Wares Road/ Russell Creek Trail	116	Intersection Improvement	Kerr Street/Hyland Street
75	Pedestrian crossing	Taits Road/ Wares Road	117	Pedestrian crossing	Aberline Road/ Mitchell Street
76	Supporting infrastructure	Taits Road/ Nearhfield Ct	118	Pedestrian crossing	Aberline/ Dales Road
77	Pedestrian crossing	Taits Road/ Nearhfield Ct	119	Pedestrian crossing	Foster Street/ Barkley Street
346	Supporting infrastructure	near to 2 Mortlake Road	120	Pedestrian crossing	Raglan/ Flaxmann Street
347	Supporting infrastructure	Mortlake Road/ Botanic Road/ Jamieson St	121	Pedestrian crossing	Nicholson Street/ Ward Street
79	Pedestrian crossing	Moore St- Kiama Av	122	Pedestrian crossing	Mortlake/ Northpoint entrance
88	Pedestrian crossing	Gay Street, Entrance to McMeekin Road	124	Pedestrian crossing	Tooram Road/ Zeiglar Parade
89	Pedestrian crossing	Granter Street, Entrance to McMeekin Road	126	Pedestrian crossing	Viaduct Road
90	Pedestrian crossing	Cooper Street, Entrance to McMeekin Road	127	Pedestrian crossing	Raglan/ Caramut
91	Traffic signals Improvements	Midfield, McMeekin Rd/ Albert St intersection	128	Traffic signals Improvements	Raglan/King
93	Pedestrian crossing	Hyland Street to Lava Street	129	Traffic signals Improvements	Raglan/ Gateway Road
95	Pedestrian crossing	Koroit Street/ Hyland Street	131	Pedestrian crossing	Bromfield/ Russells creek trail
96	Pedestrian crossing	Merri Cr	132	Pedestrian crossing	Bridge Road, near to Woodford primary School
97	Pedestrian crossing	Whites rd entrance, Mortlake Road	133	Pedestrian crossing	Bromfield/ St.Joseph Primary school access
98	Pedestrian crossing	Balmoral Road/ Mortlake Road	134	Pedestrian crossing	Selby Road/ Auty Street/ East Warrnambool Primary school access
99	Intersection Improvement	Whites rd/ Garden Street	135	Intersection Improvement	Selby Road/ East Warrnambool Primary school entrance
101	Pedestrian crossing	Aquazone access, Botanic Road	136	Pedestrian crossing	Selby Road/ East Warrnambool Primary school entrance
103	Pedestrian crossing	Botanic Road/ Canterbury Road	140	Pedestrian crossing	Hopkins Hwy-Bridge Rd
104	Traffic signals Improvements	Ardile Street/ Hider Street			
105	Pedestrian crossing	Emmanual college entrance from Ardile st			
107	Pedestrian crossing	Canterbury Road/King Street			

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247	Pedestrian Crossing	Queens Rd-Donovans Rd intersection
248	Pedestrian Crossing	Wentworth St-Barbers Lane
255	Pedestrian Crossing	Breton St-School
269	Pedestrian Crossing	Koroit St-Hptal Community Bldg
276	Pedestrian Crossing	Corner fairfax avenue - caramut road
294	Pedestrian Crossing	Raglan Parade- Hider street - Ardlie street intersection
320	Pedestrian Crossing	Breakwater path
312	Supporting Infrastructure	Albert Park
321	Supporting Infrastructure	Flume carpark



Warrnambool PPN Draft Report

6.1.4 PROPOSED STREETSCAPE IMPROVEMENTS

A high level audit of the existing streetscape conditions was undertaken to identify any major missing pieces of pedestrian infrastructure in the pedestrian network throughout the CBD. The walking audit undertaken by Council also identified infrastructure that would significantly improve levels of walkability throughout Warrnambool.

The key considerations were in identifying where the streetscape conditions need to be improved to be able to provide the required level of service for primary and secondary PPN routes. The audit did not detailed luminous intensity distribution analysis of street lighting.

There were some general conditions that were common across the study area, most intersections do not have tactile (excluding the recently constructed footpaths in the CBD). The plan opposite shows the areas of missing tree canopy rest stop buffer and missing ambient street lighting.

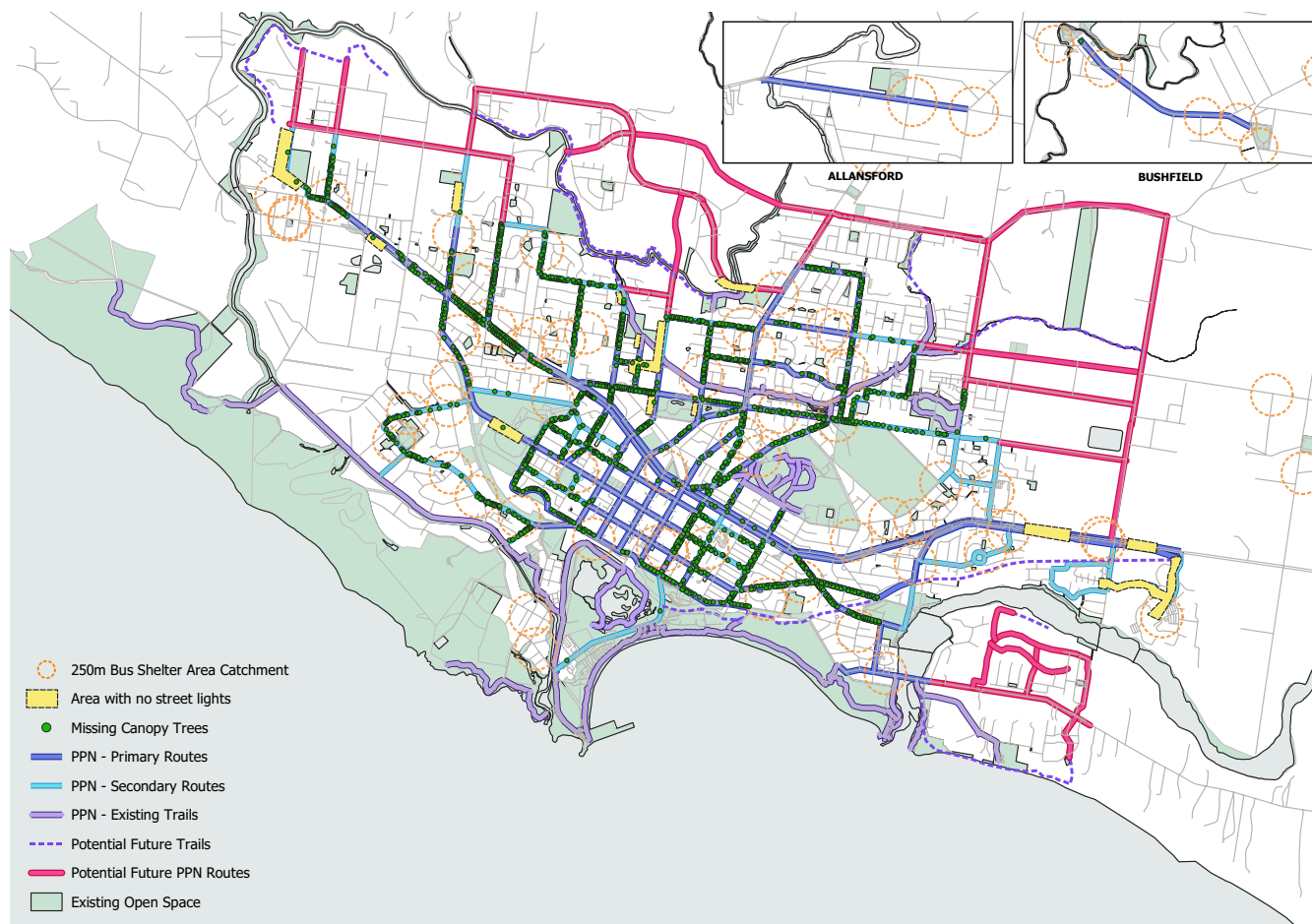


Figure 24 - Proposed Streetscaping Improvements to support the PPN Network

Warrnambool PPN Draft Report

6.1.4.1 STREET LIGHTS

The high level analysis of street lighting along the principal pedestrian network was done to identify the dark stretches, which needs street lighting to meet the desired level of service. The audit did not consider the detailed luminous intensity distribution analysis of existing street lights. The plan above shows the missing ambient street lighting stretches and the table names the dark stretch which require street lighting.

Type of works	Estimated cost	Notes
Install pole, light and power	\$10,000-\$12,000	These are only indicative rates. The rate would vary depending on the nature of works and would require detailed cost estimation for individual project.
Upgrade/replace existing lights	\$1600-\$2200	The cost would depend on the type of light.

6.1.4.2 STREET TREES

The street tree audit conducted by Council has identified the vacant sites for new street trees. As the service level along the PPN mentions the requirement of shades to facilitate comfortable walking. This report recommends a Street Tree Planting Program along the Principal pedestrian network.

Type of works	Estimated cost	Notes
Planting a tree	\$150 per tree	This is the initial cost for planting a tree. The maintenance cost of the tree during its lifetime is not included.

6.1.4.3 STREET FURNITURE

In regards to the provision of rest stops, the plan shows the location of bus shelters, which also function as rest areas, with a 250m catchment. It is recommended that a street furniture audit be undertaken to identify where there are missing pieces of street furniture such as seating.

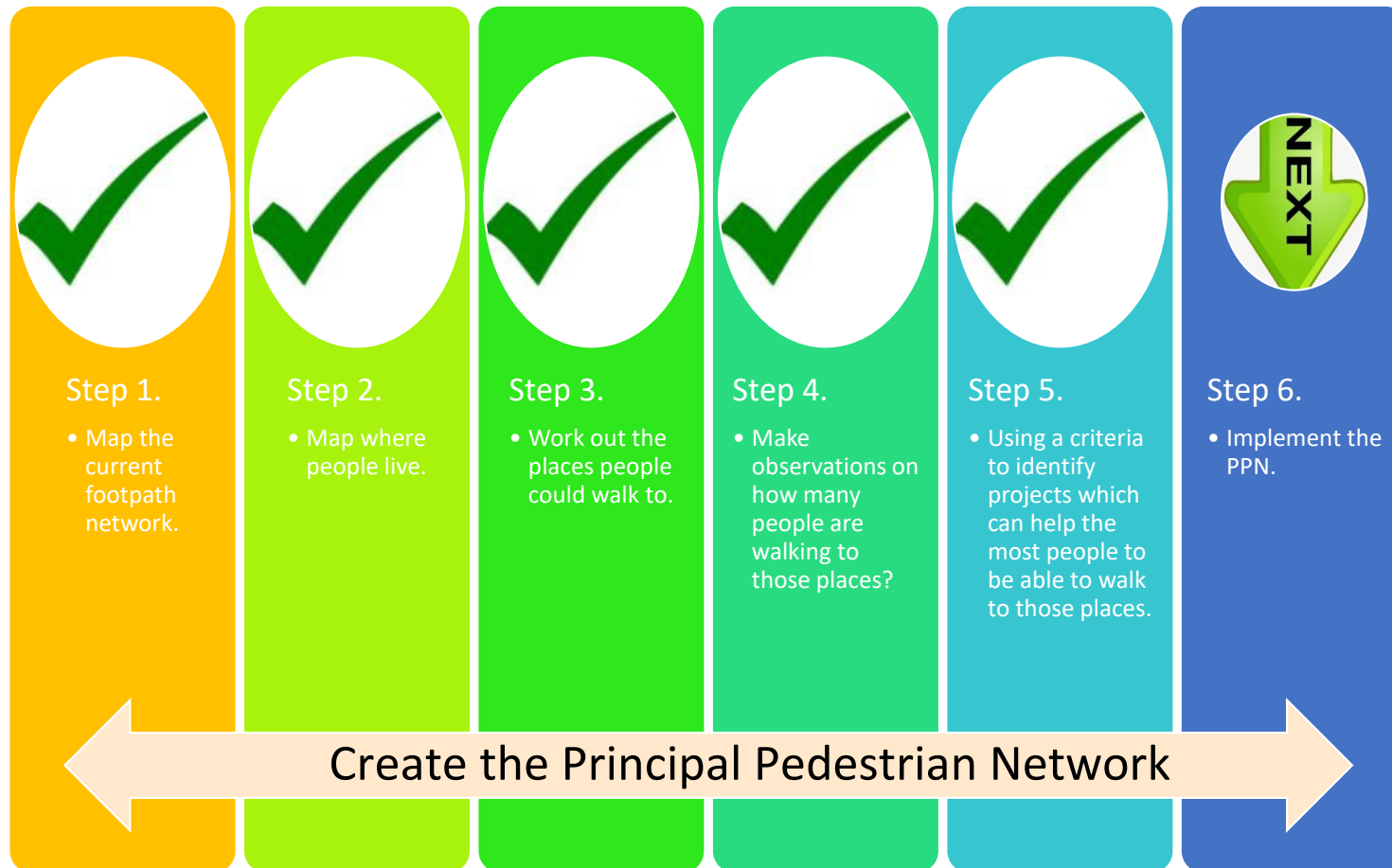
Prioritised Dark Stretches for Street lighting

ID	Segment name	Length (m)
20	Station Street (Preston street to Coghlan's Road)	656
264	Bromfield Street (New Life Christian Church entrance to Donovan's Road)	555
179	Caramut Road (Along industrial area)	450
265	Raglan Parade (in front of 53-83 Raglan Parade)	434
17	Koroit Street (showground entrance to Hyland Street)	340
256	Caramut Road (Brauer College to Warrnambool Stadium)	300
23	Wollaston Road (Bridge)	290
24	Barbers Lane (Wentworth Street to Bromfield Street)	272
26	Raglan Parade (in front of 10671 - 10699 Raglan Parade)	252
42	Morris Street (Woodend Road to Mountain Ash Drive)	224
53	Aberline Road (Boiling Down Road to Whites Road)	182
257	Raglan Parade (Grevilla Ct to Drummond Street)	176
61	Wentworth Street (St. John of God hospital carpark to Conns Street)	172
81	Bromfield Street (Cockman Street to Botanic Road)	157
85	Mahoneys Road (Gillin Park Retirement Village entrance to Dobson Way)	134
180	Queens Street (Jamieson Street to Botanic Road)	128
94	Ardle Road (Spring Garden to Daltons Road)	112
106	Wentworth Street (Conns Street to Russells Creek Trail)	100
290	Brierly Street, Pencoed Ave, Taits Road to Wares Road	790
317	Foster Street	1057
281	Wollaston Road (Summerville Bvd to the bridge)	2055
271	Coghlan's Road (Dennington to Caramut Road)	474



Principal Pedestrian Network – Community Feedback

March 2022





Person	Feedback	Response
1.	<p>The area of North Merri, Wollaston Road on either side ...is at stage 13 Wollaston Way estate...Stages at Oakwood Riverside and further down at Riverland are exploding and Yallambee estate is already announced. Grange Road will be extended and another estate off Mortlake road is also sought after...</p> <p>Why the plan does not incorporate a foot bridge or better or a walkway towards the historic Wollaston bridge which is admired by soo many visitors to Warrnambool (according to conversations at the VIC) is beyind my comrehension.</p> <p>I understand completely that the CBD has priority.... But basic paths should be faur and available to all.</p>	<p>The link from North of the Merri to South of the Merri has been identified as a future project as part of the North of the Merri Structure plan. Footbridge is proposed as part of the PPN.</p>
2.	<p>I have a query regarding link ID P-124 for the north side of Moore Street. Several of these house are already situated well below the current road height making vehicle access to some properties difficult due to the angles involved. If a new path is placed along the roadside this would further increase the angles and for my property I would say make it impossible to have vehicle access. Or will this path be planned to follow the gradient of the boundary lines of each property off the roadside and have rises and falls as it proceeds along Moore street (north side) as it does on the south side (where it is less of an issue as most properties only slightly vary from the road height and therefore make it more difficult for some residents to use due to mobility difficulties?</p> <p>I would say most residents already either use the south side path if their destination is south or the Russells creek trail if heading anywhere north so I'm not sure if there is even a need. Has there been consultation with the north side residents about this priority path? Because if so, I haven't seen anything.</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p>
3.	<p>I live in Mortlake Road. I am physically disabled and use a mobility scooter to go to the local supermarket, chemist etc.</p> <p>On my way I cross over BRIDGEWATER COURT, where there are high gutter edges both sides and no pedestrian crossing. The first time I went over this, my scooter tipped over, so now I am forced to go out on the roadway on a driveway crossing and then rejoin the path further down on another driveway crossing. I have spoken to the council about this twice, but received no positive answer. In the meantime, last year sections of the footpath both in Mortlake road and Bridgewater Court were replaced. In fact the only piece not replaced at the corner was the one right on the corner with the gutter as part of it.</p> <p>My other concern is at the service station on Mortlake road, where the footpath stops and one is forced, whether walking or on a scooter, to dodge the vehicles going in and out of the service station to keep going to the shopping centre.</p> <p>I would appreciate receiving comments on both of my concerns.</p>	<p>Travel Smart officer to have discussions about the issues with the respondent.</p> <p>*Gutter edges are a operational issue</p> <p>*There is a footpath being constructed in the near future near the BP.</p>

Person	Feedback	Response
	<p>I see in the draft plan many features missing from the area such as adequate lighting and connections to healthcare or retail.</p> <p>Particularly I was perplexed by the lack of attention to this area as a primary route for school children who currently walk on the service road to get to school from Huntingfield Estate. Also dog walkers, pram walkers, young cyclists, exercise enthusiasts and I could go on. It's simply not safe and traffic, all traffic, is increasing in the area. Homemaker Center is for the very first time fully leased since it was built. Also as Warrnambool grows so does the traffic on Raglan Pde increasing the safety issue, as this is the major road in and out.</p> <p>An alternative would be a pedestrian link between the Huntingfield estate and Clifton st but this would require another train crossing. This would also provide safe pram route to Gateway Retail precinct and the closest play park for residents of Huntingfield estates. Unless a playground was established at Deakin.</p> <p>You are looking solely at networks but safety should be a higher concern. The east exit or the homemaker centre is unsafe for pedestrians to cross. There is no centre line, no stop sign road markings and no centre safety zone for pedestrians. The blind corner created by the back of the Pet Store is hazardous. The vehicles entering from raglan Pde/Mahoneys road cut the corner.</p> <p>There is no pedestrian entry or exit to the homemaker centre, only a gap peds have formed between some bushes. No good for a pram which requires artful weaving between vehicles through the vehicle entry/exit.</p> <p>I believe if Sherwood Park train station was more accessible via Raglan Pde it would see an increase in use. At the moment it is hard to find and walk to/from with luggage. A footpath linking to BP is required and perhaps even a pick up/drop off car park.</p> <p>One taxi driver asked how to get to the station when I was walking somewhere around the Deakin Roundabout and it was truly hard to explain. This station will be vital in the future!</p> <p>As an addition that is probably for a different study or department - The entrance to the McDonalds/BP/Flying horse is awkward. Cars regularly jutting out, and needs a dedicated left hand turn lane. Unfortunate that you probably don't have any control over the fact there is no ped access to the back of the flying horse or maccas. I regular pram the kids through the carpark to the ped crossing that leads no where to make it to the flying horse entrance path with poor visibility around vegetation and hoping for vehicles not to run into us.</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p>
	<p>CUSTOMER REQUEST for a new footpath in front of 26-46 Mortlake Rd. Future footpath has been proposed as part of PPN. Looking at the prioritisation spreadsheet this project (288) is going to be considered in 22-23 financial year(Highlighted below). Could you please confirm if this footpath has been planned to be implemented next year.</p>	<p>Customer Request: Asset Officer has addressed</p>

Person	Feedback	Response
	<p>As a local occupational therapist in Warrnambool, providing services to over 140 disabled and aged clients each year, it is essential our community improves pedestrian access to increase safety, promote physical activity and allow community participation without restrictions due to the environment in which council owns. Pedestrian access was once intended to mean "by foot" however, given our dynamic and more inclusive population this should now stipulate that it includes those using mobility aids (sticks, walkers, wheelchairs and scooters).</p> <p>I have reviewed your draft with much positivity and am humbled to see so many suggestions for change. i have encouraged my clients to read the draft and provide their own feedback relevant to the areas they reside and utilise (Warrnambool is getting so big now, I'm not even familiar with aot of the suggested improvement areas).</p> <p>The feedback I would like to make are;</p> <p>74- Pedestrian Crossing Wares Rd/Russell's creek. I think this is essential for connection of the much used track walking track including school children, daycare access and general use. My main concern is how do people then cross Whites Rd? I feel this is much more of a safety risk than Wares Rd. Whites Rd (directly outside Goodstart Daycare) has bus stops on either side and often I see people needing to run across the road given the high density of traffic and a 60 zone. I'd also like to raise that 2 x disability accommodation exists along the east end of Whites Rd. Both of these houses have a combination of extremity disabled clients who grossly rely on using the buses and the walking tracks. At present clients and their carers are required to cross whites Rd dangerously in order to get to the other side, including in their wheelchairs and using mobility aids.</p> <p>I propose a pedestrian crossing on Whites Rd, near or in the vicinity of Goodstart Daycare.</p> <p>97- Pedestrian Crossing- Whites Rd/Mortlake Rd I am concerned at how this would work. Vehicles turning off Mortlake Rd into Whites Rd would be required to give way to pedestrians meaning they would be blocking traffic on a heavy arterial road. Better suited would be traffic lights at the congested intersection which incorporate a pedestrian crossing. I urge council staff to attempt to use this corner from 8.15-9.15am in the morning.</p> <p>P-30 Whites Rd- Wares Rd to Cherlin Drive This piece of missing footpath is forcing 4 of my clients to cross Whites Rd, walk 4-5 houses and then cross back over Whites Rd purely because there is a small stretch without footpaths and the grasses area there is on a slope and is unsuitable for mobility devices.I strongly encourage for this plan to be executed.</p> <p>One aspect I notice missing off the draft is the inability to use the Russell's creek track during winter due to the creek crossing going down rather than up and over. This greatly impacts residents' ability to be a pedestrian given the route is not viable for many months of the year.</p> <p>I thank you for your consideration and wish to thank you for the opportunity to provide feedback on such an important plan for Warrnambool. As a rate payer and a local health professional, I think this will be beneficial to so many.</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p> <p>Changes have been made to the document to include more inclusive language.</p>

Person	Feedback	Response
	<p>FROM A CUSTOMER OVER THE COUNTER:</p> <p>The priority pedestrian crossings are absolutely vital for a safe CBD. Particularly for the elderly and the very young children, and parents with young children. The CBD is for shopping and Business and it needs to be pointed out that it's not a highway, and cars can drive through other adjacent streets without the need to wait at pedestrian crossings if they prefer.</p> <p>Two people have been killed before trying to cross the road trying to cross Liebig Street. Some elderly people had been too scared to go from one side of the street to the other just to get to the bank, that they had to call taxi's, prior to these new crossings. We waited so long to get these, and we cannot understand why anyone would want to take them away. The impatience of some people is disappointing. Drivers need to learn patience. A little patience goes a long way for everybody. Please keep the CBD safe for pedestrians as a priority.</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p> <p>These comments were also added to the City Centre Evaluation</p>
	<p>I was very pleased to read the sustainable transport plan for Warrnambool. I own a car, but my main form of transport is cycling, and I have been pleased with the amount of bike infrastructure present in Warrnambool compared to other cities like Geelong.</p> <p>I would like to flag one public area that I see as extremely problematic and dangerous that I commute through everyday. I often see school children on bikes and walking have close calls in this area as well. The intersection of Flaxman Street, Bostock Street and Nicholson Street, right out from of Warrnambool East Primary school, really needs some permanent traffic control of traffic calming infrastructure built. Whether something is put in place to permanently slow cars through this intersection, or whether there is a need for traffic lights or a round about, I am not sure. All I know is that it is incredibly dangerous, with on street parking making it difficult for traffic (travelling at a rather fast speed for the area) to see children, and with one street traffic posing a great risk to cyclists around school start and finish, as many cars parked open their doors near constatly without looking, forcing cyclists out of the bike lane. This is of extra concern as many students and parents bike to and from school. This intersection is also frequented by large trucks on a regular basis, adding to the danger for pedestrians and cyclists.</p> <p>I would love to hear if this area is considered in the pedestrian network plan, as it really is quite concerning.</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p> <p>This information will be added to the scope of the East Warrnambool Local Area Traffic Management business plan.</p>

Person	Feedback	Response
	<p>MERRIVALE COMMUNITY ASSOCIATION: I came across the "Warrnambool Principal Pedestrian Network Report" on the Warrnambool City Council website. Under section 5.1 it states: "Local knowledge from Council officers also provided another level of validation and identification of additional routes." Given the email below dated 30 April 2019 and Nicole Wood's consultation with the Merrivale community over the last few years why is there no mention of a 'Missing footpath' in Davis Street? Davis Street has pre-school, primary, secondary and tertiary aged students commuting to and from school. There are also families, workers and those undertaking recreational pursuits that require access to a footpath to access Merrivale Drive, the Rail Trail or the new estate on the south side of the Merri River. Davis Street needs to be acknowledged in some way or form.</p> <p>If the PPN Draft Report does indicate Davis Street as an important connected network and I've overlooked this please point me to where this is stated in the report. N.B. Figure 21 - existing bus stop in Davis Street is incorrect. That bus stop is no longer in use since the bus routes were changed years ago.</p> <p>RE: Figure 24 - there is a '250m Bus Shelter Area Catchment' indicated on the western part of Davis Street/Merrivale Drive. Again this is a disused bus shelter and no official bus stop in this vicinity. However the secondary school bus does stop to drop off students after school at this intersection - making the area quite busy with foot traffic (mix of primary and secondary school students and their carers) and vehicle movement. Can you please explain why this area is marked on Figure 24?</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p> <p>Merrivale Bus Stops not correct: not used. Figure 21 - Figure 24 – need to clarify from PTV if, it needs to be removed from our internal mapping?</p>
	<p>I am writing this letter as a concerned parent and member of the Merrivale Primary School Council. Thank you for your time during recent calls regarding Landmann St. As we discussed there is a need to improve safety for the Merrivale Community and access to Merrivale PS on Landmann st, this area needs to have focus in the Principal Pedestrian Network report. The priority is a crossing on Landmann st between Merrivale PS and Merrivale Recreation Reserve. Pedestrian safety is managed with teachers during pickup times, but a permanent crossing is required. With future developments at the school, there is an expectation that the Reserve will service more extensive parking, increasing the pedestrian traffic and risk in this area. Parking in the Reserve is also a concern, loose uneven gravel with no marked parking spaces means the area can be very hazardous with vehicles and pedestrians being in close contact. This should be in the Network, to improve safety for all pedestrians in the area.</p> <p>There is also a requirement to extend footpaths North along Landmann st towards the recent development on Ashlee Drive and South to connect to the Rail Trail allowing access to recent and future developments on Younger st. Currently pedestrians will walk on the road to avoid any natural hazards that frequent the long grass near the Merri River. There is a requirement for more footpaths in the Merrivale community however I believe Landmann st needs to be a high priority in the Principal Pedestrian Network to ensure safety for all pedestrians in the area. A safer crossing would increase active transport to school both in-line with W2040 Community Plan and The Active Warrnambool Strategy 2019-2030 with better footpaths this would increase more active transport and physical activity of the Merrivale community to connect them to Merrivale Primary School and Sporting Precinct</p>	<p>The PPN is a Strategic document. The PPN implementation plan will work with the local community to explore the routes in more detail.</p> <p>Council applied to Department of Transport School Crossing supervisor funding in March 2022 for a new crossing in that location. There is strict criteria to meet the conditions of a funded school crossing.</p>

Changes to PPN based on the final community consultation

Page 3

1.1 OVERVIEW

Walking is one of the most beneficial modes of transportation. Walking in this document is defined as travel on foot or with a mobility aid. A form of active transport, walking offers a broad range of health, environmental, economic and social benefits. Best suited for shorter trips, many people walk to local destinations such as shops, cafés, parks or schools. Many public transport journeys include walking to a bus stop or train station and then walking to the final destination. Warrnambool City Council is working with the local community to become less reliant on private motor vehicle transport and shifting towards utilising more modes of active transport. This is highlighted in the 'Vision of the City, Sustainable Transport Strategy'. The Strategy encourages safe, well connected and environmentally responsible travel throughout the city. One of the key objectives identified in Warrnambool's Sustainable Transport Strategy is to strengthen the pedestrian network by identifying missing gaps in paths and pedestrian infrastructure. To encourage more walking trips within the municipality, it is imperative that walking links are safe, convenient and attractive, and that guidance for walkers is clear. Acknowledging the importance of walking Warrnambool City Council wishes to build on the work of the Strategy by developing a Principal Pedestrian Network (PPN) across the city to facilitate increased rates of walking, particularly as a mode of transport. The PPN will be used by Council to prioritise its future investigations and infrastructure upgrades to those links that are key connections across the municipality. 1.2 PROJECT OBJECTIVES The overarching objective of developing a PPN is to increase the amount of local trips undertaken on foot or with a mobility aid. This can be achieved by making the shortest walking route the highest quality route. The development and implementation of the PPN also aims to:

- Promote forms of transport with the lowest impact on the environment, health and well-being,
- Reduce the use of private motor vehicles transport for short, local trips, and
- Facilitate better access to, and greater mobility within local communities.

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Desired Level of service

Specifications for seating - all seating types to specify arm rests to support accessibility

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2.1 EXISTING STRATEGIES & REPORTS

Active Warrnambool Strategy, 2019-2030 added as one of the Council Plans.

2.1.6. Active Warrnambool Strategy, 2019-2030

The purpose of the Strategy is to increase regular participation in sport, active recreation and physical activity by everyone in the community, in order to take advantage of the benefits of sport and recreation such as physical fitness, reduced risk of chronic illnesses and improved mental health.

The Warrnambool 2040 Community Survey found walking continues to be the most popular physical activity for local residents.

Review of the current facility provision and sports participation revealed a need for planning and investment in paths and trails to support continued high levels of participation in walking.



Waste Management Facts

Council provides domestic kerbside collection and disposal / processing services for Warrnambool, Allansford, Woodford, Bushfield, Yangery, Illowa and Dennington, with a total number of 15,978 customers.



**Rubbish bins
in size of 140L
and 80L**

**Glass bins in
size of 80L**

**Recycling bins
in size of 240L
and 80L**

**FOGO in size of
240L and 80L**

Council has 64,000 collection bins with the total value of \$2,5M under its management, does not include public place bins which are included in Open Space AMP.

The collection transport, disposal and processing operations are undertaken by contractors. Council also manages the Licensed Closed landfill site at Braithwaite St, Warrnambool which is monitored by contractors to meet EPA regulations at the cost of \$80,000 annually.

A combination of activities include, purchasing bins to

new properties, collecting/emptying of household waste fortnightly, repairing and replacing collection bins are required to deliver the customer value and desired level of service over this asset lifecycle with the total cost of \$66.3M over the next 15 years financial planning period.

Waste Management Asset Management Plan

A Waste Management Asset Management Plan has been drafted in accordance with the Council Plan, Asset Management Policy and Resource Recovery and Waste Minimisation Strategy 2017-2021 to ensure that Council provides infrastructure that meets the community's needs while also being financially sustainable in the long-term.





ASSET MANAGEMENT PLAN

Warrnambool City Council
Waste Management



Document Control		AMP			
Document ID :					
Rev No	Date	Revision Details	Author	Reviewer	Approver
1.0	June 2021	Draft plan using IPWEA template and new quantities and values using asset register	M. Mousavi	J. Finnerty	EMT
1.1	Jan 2022	Edits made from EMT	M. Mousavi	B. McDonald	

This AMP may be used as a supporting document to inform an overarching Strategic AMP.

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The Institute of Public Works Engineering Australasia

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AMP) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 15 year planning period. The AMP will link to a Long-Term Financial Plan which typically considers a 10 year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that are used in waste management.

This plan comprises:

- Closed Landfill Site (Warrnambool City Council does not have any operating landfill)
 - Monitoring equipment
- Kerbside collection bins:
 - Recycling
 - Rubbish
 - FOGO
 - Glass

The above kerbside collection bins have total renewal value estimated at \$3,942,000.

Other assets used to manage waste that are not included in this plan:

- Kerbside collection trucks (leased and costs built into service contract)
- Council's public place collection truck (Fleet AMP)
- Public place bins (Open space AMP)
- Sheds (Buildings AMP)
- Property fences (Open Space AMP)

Only costs directly related to the management of these assets are included in this plan. Operational costs related to the delivery of the waste management *service*, ie kerbside bin collection, sorting/processing costs and landfill fees are not included in this Plan.

1.3 Levels of Service

Our present funding levels are sufficient to continue to provide existing services at current service levels over the term of this Plan.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth;
- Land development;
- Changing community expectations;
- Changing regulatory requirements and government policy;
- Identification of ongoing operational and maintenance costs to be aware of where these assets are in their life cycle.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AMP includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AMP may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AMP is the forecast of 15 year total outlays, which for Waste Management is estimated as \$6.9M, or \$430k on average per year.

1.6 Financial Summary

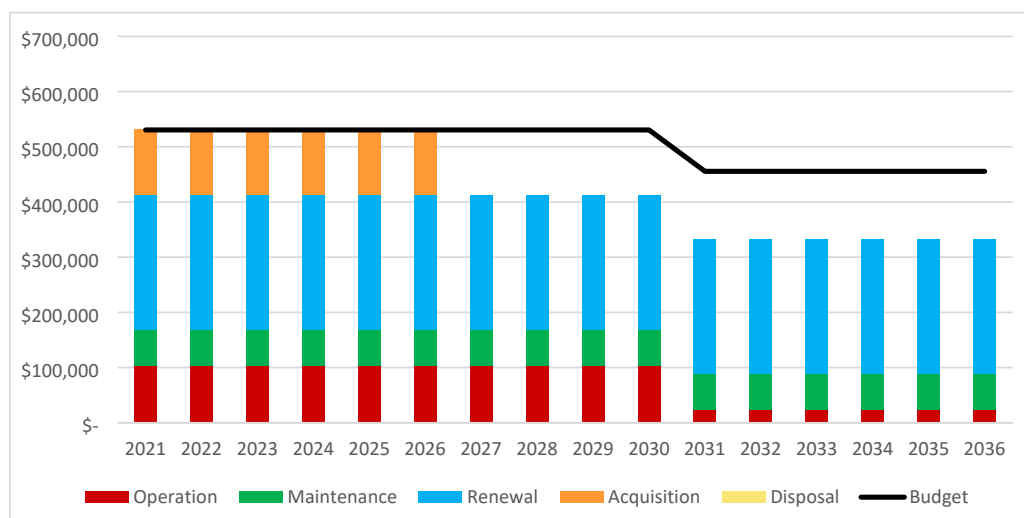
1.6.1 What we will do

Estimated available funding for the 15 year period is \$8M or \$502K on average per year as per the Long-Term Financial Plan. The cost to sustain the current level of service is fully funded over the planning period. Its recommended to look at the finer level of detail to understand how costs are apportioned.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. Informed decision making depends on the AMP emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for Waste leaves no shortfall of the forecast lifecycle costs required to provide services in the AMP compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Forecast Lifecycle Costs and Planned Budgets



All figure values are in current dollars.

We plan to provide waste management services for the following:

- Operation, maintenance, renewal and acquisition of kerbside collection bins and operation and maintenance of closed landfill site to meet service levels set in annual budgets.

1.6.2 What we cannot do

We currently allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought in the long term. The reduction in 2031 is due to the end of the requirement to maintain the closed of landfill site (Braithwaite St).

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the long term.

The main risk consequences are:

- Increased asset maintenance and replacement costs due to climate change impacts
- Environmental contamination if monitoring of closed landfill site ceases

We will endeavour to manage these risks within available funding by:

- Continuing regular inspection and monitoring of closed landfill to comply with EPA requirements

1.7 Asset Management Planning Practices

Our systems to manage assets include:

- Finance System: TechnologyOne
- Asset Management System: Conquest

Assets requiring renewal/replacement are identified from either the asset register or an alternative method. These methods are part of the Lifecycle Model.

- If Asset Register data is used to forecast the renewal costs this is done using the acquisition year and the useful life;
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems (such as Pavement Management Systems) and may be supplemented with, or based on, expert knowledge.

The Asset Register was used to forecast the renewal life cycle costs for this AMP.

1.8 Monitoring and Improvement Program

The next steps resulting from this AMP to improve asset management practices are:

- Determine the final costs to fully remediate and remove monitoring infrastructure from the closed landfill site
- Further investigate opportunities for climate change resilience
- Ensure register of kerbside collection bins is complete and maintained

2.0 Introduction

2.1 Background

Council provides domestic kerbside collection and disposal / processing services for Warrnambool, Allansford, Woodford, Bushfield, Yangery, Illowa and Dennington, for nearly 16,000 customers. The collection transport, disposal and processing operations are undertaken by contractors. Council also manages the licensed closed landfill site at Braithwaite St, Warrnambool. This site also contains a number of structures and other components including landfill cap, fencing, sheds, groundwater and leachate bores, landfill gas bores and vents, biofilters, leachate sump and solar leachate pumps, leachate irrigation areas, remote sump depth sensor. The environmental monitoring at the closed landfill site is undertaken by contractors.

This AMP communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

The AMP is to be read with the Warrnambool City Council planning documents. This should include the Asset Management Policy and Asset Management Strategy, along with other key planning documents:

- Council Plan 2021-2025
- Growth Area Structure and Development Plans
- Warrnambool 2040
- Green Warrnambool 2018
- Resource Recovery and Waste Minimisation Strategy 2017-2021

Council has over \$830 million across all asset classes under its management. These assets are predominately used to provide services and amenity to the Warrnambool community and visitors. The standard to which these assets are maintained, and the extent of expansion and improvement, are key considerations in setting and delivering our Council Plan.

The assets covered by this AMP include the closed landfill site and kerbside collection bins in the Warrnambool City Council area. Table 2.1.1 shows a detailed summary of the assets covered in this AMP. These assets are used in waste management services.

The infrastructure assets included in this plan have a total replacement value of \$3,942,000.

Table 2.1.1: Assets covered by this plan

Functional Type	Asset Components
Landfill	Landfill cap
	Groundwater and leachate bores
	Leachate irrigation area
	Bio filters
	Leachate sump and solar leachate pumps
	Remote sump depth sensor
Kerbside collection bins	Recycling

Functional Type	Asset Components
	Rubbish
	FOGO
	Glass

Assets not included in this plan:

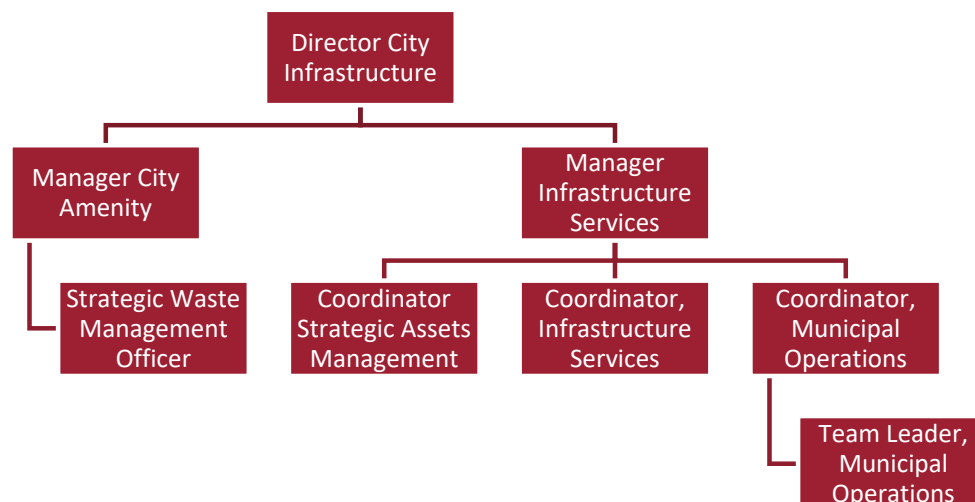
- Kerbside collection trucks (outsourced)
- Council's public place collection truck (Fleet AMP)
- Public place bins (Open space AMP)
- Sheds (Buildings AMP)
- Fences (Open Space AMP)

Key stakeholders in the preparation and implementation of this AMP are shown in Table 2.1.2.

Table 2.1.2: Key Stakeholders in the AMP

Key Stakeholder	Role in AMP
Strategic Waste Management Officer	Demand management, asset register, management of closed landfill site (Braithwaite St)
Strategic Asset Management	Development of the waste management AMP
Manager Financial Services	Development of long term financial plan informed by AMP
Executive Management Team	Corporate review, resourcing and ensuring implementation of the Waste Management AMP.
Councillors	Adoption of the Waste Management AMP and associated levels of service. Approval of annual budgets
Coordinator Municipal Operations	Internal service delivery for public place bin collection
The general community	Inform desired level of service. Service level recipients.
Contractors and suppliers	Interested party regarding supply of goods and resources to provide services
Council's Insurer	Interested party to ensure auditing, maintenance and reporting are undertaken

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Goals and Objectives of Asset Ownership

Our goal for managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are:

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 6th Edition (2020)
- ISO 55000 Overview, principles and terminology

The process for developing an AMP:



(IIMM 2020 figure 3.6.2.1)

3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

This AMP is prepared to facilitate consultation prior to adoption of levels of service by the Warrnambool City Council. Future revisions of the AMP will incorporate customer consultation on service levels and costs of providing the service. This will assist the Warrnambool City Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

Table 3.1 summarises the results from our Customer Satisfaction Survey.

Table 3.1: Customer Satisfaction Survey 2020

	Importance Level						Performance					
	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
Warrnambool City Council	78	77	77	80	81	79	74	70	70	67	68	66
Regional Average	80	79	79	81	80	82	71	69	69	70	68	66
State Average	79	80	79	81	81	82	72	70	71	70	68	65

The 2020 Community Consultation survey identified that among the more influential service areas (high importance score), waste management had a relatively high performance index (66) and one of the few service areas which didn't see a significant decline in performance. Improving this positive result should remain a focus of Council.

Although Council performs in line with the Regional Centres group and State-wide averages in this service area, there is a disparity between perceived importance and performance (-13 points), which suggests there is room for improving the delivery of this service.

3.2 Strategic and Corporate Goals

This AMP is prepared under the direction of the Warrnambool City Council's vision, mission, goals and objectives.

Council's vision is:

A thriving city at the heart of coast and country

Council's goals are:

- Warrnambool will be a city where all people thrive
- Warrnambool will be Australia's most resilient and thriving regional economy
- Warrnambool will be Australia's most liveable regional city
- Warrnambool will be Australia's most sustainable city

Strategic goals have been set in Warrnambool City Council Plan. The relevant goals and objectives and how these are addressed in this AMP are summarised in Table 3.2.

Table 3.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AMP
A sustainable environment	Council will encourage innovation and initiatives that minimise Warrnambool's environmental impact	Improving management of waste streams including food organics, garden organics (FOGO) and glass collection across the whole municipality to reduce reliance on landfill
	Council will pursue programs to minimise waste throughout the community, industry and promote the benefits of reduction, reuse and recycling of materials.	This Plan outlines the community expectations and costs to provide various service levels (ie, waste streams)
An effective Council	Council will ensure ongoing community engagement to identify changing needs and priorities when developing and delivering services and programs	The AMP is reviewed annually and updated with any changes in investment or service level decisions made.
	Council will continue to develop a program of Council services that are delivered to the community's satisfaction	This AMP results from other strategic planning which undergoes thorough community consultation.
	Council will ensure organisational and financial sustainability through the effective and efficient use of Council's resources and assets.	Identify and regularly monitor condition of asset classes Review and update the Long Term Financial Plan to ensure Council remains financially sustainable into the future

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the waste management service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Description
Local Government Act 2020	Sets out the role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by infrastructure and AMPs for sustainable service delivery.
Environment Protection Act 1970	Relates to the discharge, emissions, or deposits especially within drainage systems and at the point of discharge to water ways.

Environment Protection (Industrial Waste Resource) Regulations 2009	Prescribes requirements for assessing, categorising and classifying industrial waste and prescribed industrial waste for the purposes of the Environment Protection Act 1970.
Recycling Victoria Policy 2020	Represents the Victorian government's action plan of reform to establish a recycling system that Victorians can rely on. It transforms how the economy uses materials and how the state reuses, repairs and recycles- setting up a more sustainable future for the state.
Sustainability Victoria Act 2005	Promotes throughout Victoria waste avoidance, waste reduction and recovery, re-use, recycling of resources and best practices in waste management.
Waste Authority Act	Oversees the performance of the waste and recycling sector. Also ensures that waste and recycling services are reliable and meet community expectations, and contribute to Victoria's waste and recycling goals.
Waste Management Policy (E-Waste)	Ensures the appropriate management of e-waste in Victoria, to complement the diversion of e-waste from landfill as set out in the Waste Management Policy (Siting, Design and Management of Landfills) No. S264 2004), to eliminate or reduce, so far as reasonably practicable, the risk to the environment and human health from e-waste, to maximise the recovery of materials from e-waste and to ensure records are kept and made available to assess compliance with this policy.
Closed Landfill Guidelines 2018	Ensures that the environmental risks posed by closed landfill sites are appropriately quantified and managed by issuing owners of closed landfill sites with pollution abatement notices that require the gathering of necessary information and data, the development of rehabilitation plans and aftercare management and monitoring programs.
PCPAN for Braithwaite St Closed Landfill	Issued by EPA for rehabilitation and aftercare management of the site to prevent or remedy actual or likely pollution, environmental hazards and a range of non-compliances with the EP Act.
Barwon South West Waste and Resource Recovery Group Regional Implementation Plan 2017 –	Plans for future waste and resource recovery infrastructure and service needs for the region. How much waste and what type of material are currently managed, which material go to landfill and what waste and recycling infrastructure will be needed in the future?

3.4 Customer Values

Service levels are defined in three ways: customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and,
- the likely trend over time based on the current budget provision.

Table 3.4: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Access to waste services for domestic properties	Provision of kerbside collection bins	All residential properties have the bins	No change
Zero recoverable waste to landfill.	Diversion from landfill	64% of recoverable waste include glass, FOGO and recycling is being diverted from landfill	Increase in diversion from landfill to 80-90% due to recycling system available and increased use of the FOGO system.
No littering or pollution to our environment	Provision (Quantity) of bins in open spaces	Bins are provided in all requested areas	Very low number of requests for new public place bins
Regular kerbside collection	Frequency of collection of FOGO, rubbish, recycling and glass	Fortnightly collection	No change
Sustain, enhance and protect the natural environment	Compliance to closed landfill site (Braithwaite St) PAN	Compliant	Compliant
Warrnambool has developed a framework for a closed loop economy	Diversion of recyclable products from landfill	Glass collection implemented	All glass is diverted from landfill
Responsiveness to customer requests	Requests and complaints are responded to timely	20/21 responses provided within Customer Charter timeframe 60% of the time	No change

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition How good the service is ... what is the quality of the service?

Function Is it suitable for its intended purpose? Is it the right service?

Capacity/Use Is the service over or under used? Do we need more or less of these assets?

The current and expected customer service levels are detailed in Tables 3.4 and 3.5.

Table 3.5: Customer Level of Service Measures

Type of Measure	Service Demands	Level of Service	Performance Measure	Current Performance	Target Performance
Condition	Amenity of kerbside collection bins	Kerbside bins are not unsightly or terribly damaged	Bins replaced at the end of their useful life and when damaged	Bins replaced every 15 years	Bins replaced every 15 years
	Confidence levels			High	Medium
Function	Environmental Standards	Closed Landfill is monitored and managed appropriately to reduce risks to the environment	Contamination levels of groundwater leachate and gas extraction	All gas and groundwater levels within EPA tolerance	Compliance with EPA guidelines
	Confidence levels			High	High
Capacity	Bin sizes or collection frequencies meet users requirements	Bin sizes and collection frequencies meet users requirements	Size of bins provided Frequency of bin collections	240L FOGO & recycling 140L rubbish 80L glass Fortnightly collection	Existing bin capacities Fortnightly collection
	Confidence levels			High	High

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Acquisition** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).
- **Operation** – the regular activities to provide services (e.g. opening hours, cleaning, mowing grass, energy, inspections, etc).
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.

Table 3.6 shows the activities expected to be provided under the current 15 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AMP.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
Acquisition	Providing bins to new properties	Number of bins provided over life of contract	Covered by contract (operational cost)	Per the contract life- (2019-2026)
	Providing a new collection stream	Number of new streams implemented	Glass collection	Glass collection (legislated)
		Budget	\$118k annually	\$118k annually
Operation	EPA Requirement	Compliance to PAN	Compliant	Compliant
	Customer request responses	Compliance to customer charter timeframes	60% compliance with customer charter	100% compliance with customer charter
		Budget	\$86k annually	\$103k annually
Maintenance	Bin Repair & Replacement	Customer request	Not measured	Not measured
		Budget	\$83k annually	\$66k annually
Renewal	Replacement of kerbside collection bins	Renewal of collection bins: rubbish and recycling	Rollout completed June 2021	Rollout completed June 2021
		Renewal of collection bins: FOGO & glass	Not yet required	Not yet required
		Budget	\$244k	\$244k
Disposal	Closed Landfill Site Restoration	Budget Allocation	None	To be determined
		Budget	\$0	\$0

Note: * Current activities related to Planned Budget.

** Forecast required performance related to forecast lifecycle costs.

Improvement Action 1: Determine the future use of the closed landfill site, and potential remediation costs to remove monitoring infrastructure

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

4.0 FUTURE DEMAND

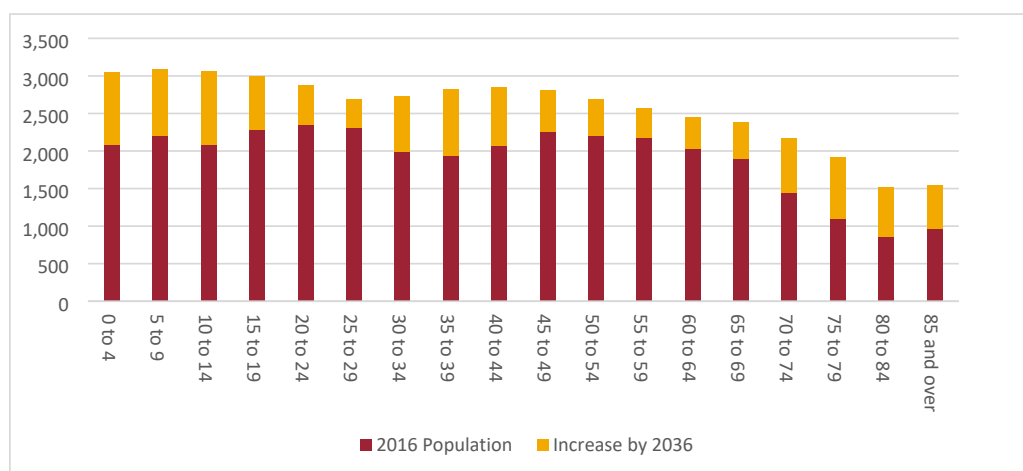
4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

Figure 4.2: Population Growth between 2016 and 2036



4.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this AMP.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Land Use	Dwelling density increasing	The Warrnambool City-Wide Housing Strategy recommends that housing densities should be expected to increase in many parts of Warrnambool.	Areas of increased housing density increase the demand of collection bins and also operation costs	Ensure all developments provided with collection bins and operated as per collecting schedule. As handover of assets occurs, this AMP, alongside Council's asset management system and processes becomes the primary means of management.

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population growth	Warrnambool's population is growing annually by 1%	This growth trend is likely to continue into the future	This will require a greater number of bins, and management of collection services	To be monitored
Changes to Community Expectations	The community want to see a greater diversion of recoverable waste from landfill with a goal Zero recoverable waste to landfill.	The aspirational target of 0% recoverable waste to landfill is likely to remain	This may require additional waste collection streams, additional auditing and oversight, and management of contamination	To be monitored
Technology	Technology Improvement and Utilisation	Increases in available technology in recycling and using reusable waste in construction industry	Using recycled glass as a replacement for quarried materials in construction activities like road construction and general paving works.	Continue to monitor developments in this space such that Council may adopt available new and improved technology in a timely manner with the vision of improving this operating environment
Climate change	The extreme climate change causes flooding, damages infrastructure and increases global emissions.	Greenhouse gasses from waste are a key contributor to climate change and global emissions generated from solid waste management is increasing.	Moving toward sustainable waste management that requires lasting efforts and a significant cost	Continue to improve waste management practices including operating FOGO, collecting glass and achieving a reasonable percentage of recycling and reuse rate that leads to a sustainable and healthy city and community.

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit Warrnambool City Council to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the asset management planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts. As a minimum, we consider how to manage our existing assets given potential climate change impacts for our region.

Opportunities identified to date for management of climate change impacts on existing assets are shown in Table 4.5.1

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Increased Rainfall	More severe storms	The increased frequency of heavy rain directly affects leaching behaviours of constituents in landfill, causing more fluctuation in leachate concentrations and level.	Continue to control the landfill to comply with the requirements in the PCPAN. Appropriate actions may need to be taken to account for these effects in aftercare leachate monitoring program to prevent or remedy an actual or likely non-compliance
Flooding	As above		
Severe winds	Stronger winds and more severe storm events	Bins blown over are currently managed by contractors, these may become variations resulting in additional costs if they become prevalent.	Bin clips as a resistance to opening and dispersion.
Temperature	Increasing average temperatures and greater extremes	Leads to significantly more landfill gas, an increase in odours and leachate volumes	Controlling all sources of offensive odours, managing leachate level and taking all practicable measures to prevent contaminants from being discharged beyond the boundary of the site.

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

Table 4.5.2 summarises some asset climate change resilience opportunities.

Table 4.5.2 Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets?	Build Resilience in New Works
New Bin	UV degradation of plastic bins	Source bins made from UV resistant materials

Improvement Action 2: Further investigate opportunities for climate change resilience

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this AMP.

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the council plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AMP are shown in Table 5.1.1. These includes the closed landfill site and kerbside collection bins in the Warrnambool City Council area.

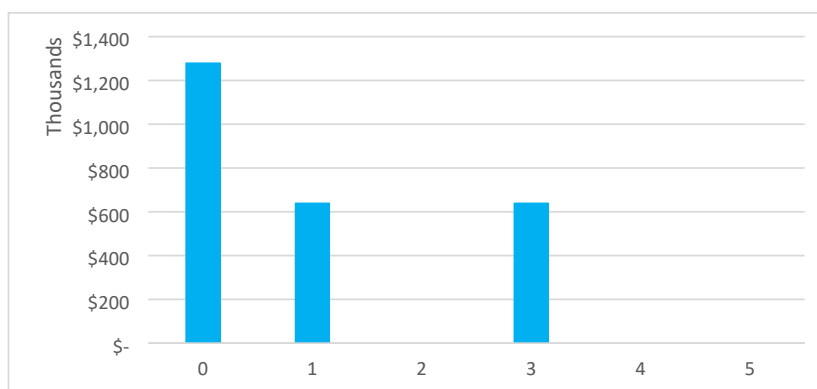
The age profile of the assets included in this AMP are shown in Figure 5.1.1.

Table 5.1.1: Assets covered by this Plan

Asset Category	Quantity	Replacement Value
Closed landfill site	1	\$0 *
Rubbish bins	16,000	\$640k
Recycling bins	16,000	\$640k
FOGO bins	16,000	\$640k
Glass bins	16,000	\$560k
Total	64,000	\$2,480,000

* While the closed landfill does not have a replacement value it does have ongoing operations and maintenance costs, these are included in the budget.

Figure 5.1.1: Asset Age Profile



All figure values are shown in current day dollars.

Bins are a significantly shorter lived asset than other classes such as roads or drainage. They are also replaced as cohorts. The entire portfolio of bins has been replaced over the last couple of years, therefore there are no bins older than 3 and they should not exceed 15 years age in future. The graph above provides an illustration of the age of the kerbside collection bins aligning with the rollouts. Rubbish and glass bins are still less than one year old. FOGO were done from 2018 and recycling bins between Nov 2020 to Mar 2021.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there have been no deficiencies identified in this asset class. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Nil	

Requests for larger bins to meet household demands are managed per customer request.

5.1.3 Asset condition

Condition is measured using a 1 – 5 grading system as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AMP results are translated to a 1 – 5 grading scale for ease of communication.

Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
1	Very Good: free of defects, only planned and/or routine maintenance required
2	Good: minor defects, increasing maintenance required plus planned maintenance
3	Fair: defects requiring regular and/or significant maintenance to reinstate service
4	Poor: significant defects, higher order cost intervention likely
5	Very Poor: physically unsound and/or beyond rehabilitation, immediate action required

Condition is not currently monitored in a formal way. Kerbside collection bins are replaced at a standard life of 15 years or due to sustaining significant damage before this time.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include waste disposal and complying with EPA requirements (Braithwaite St).

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include collection bins repair and replacement, monitoring infrastructure repair and maintenance.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget
2019-20	\$47,000
2020-21	\$82,500
2021-22	\$82,500

Maintenance budget levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. The increase in maintenance budget coincides with older assets having more failures, prior to their renewal/ rollout of replacement bins. Where maintenance budget allocations are

such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AMP and service risks considered in the Infrastructure Risk Management Plan.

Reactive maintenance is carried out in accordance with response levels of service detailed in Appendix C.

Asset hierarchy

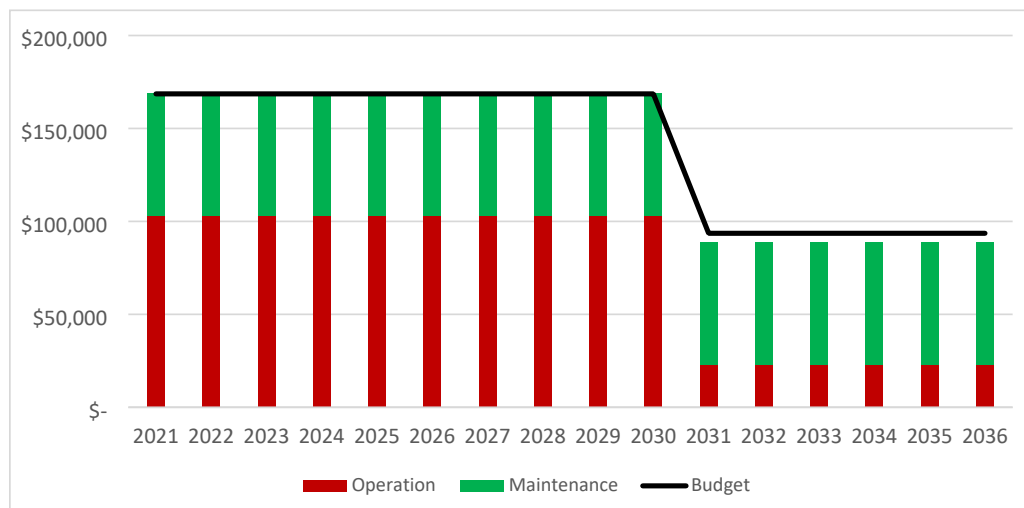
An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

Most of the assets included in this plan are kerbside collection bins and do not require an asset hierarchy.

Summary of forecast operations and maintenance costs

If additional assets are acquired at a greater rate than the contract allows, the future operations and maintenance costs may increase through contract variations. Both the operations and maintenance costs are covered by contracts, this includes the leasing of required fleet however all fleet management responsibility sits with the contractor. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

Operational costs are estimated to decrease in 2031 due to the end of the requirement to maintain and monitor the closed of landfill site (Braithwaite St).

Maintenance activities are undertaken to a standard that attempts to retain or returns the asset to a safe condition. Maintenance cost including bin repair and replacement slightly decreased or expected no significant increase due to new bins rollout.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Typically, work over and above restoring an asset to original service potential is an upgrade. New bins at new properties are considered to be an acquisition resulting in additional future operations and maintenance costs.

Asset renewal generally involves the replacement of an asset at the end of its life. For collection bins it includes replacement around 15-20 years from their installation date. These replacements are covered by the service contract and amortised over the life of the contract, therefore no capital outlay is required for their replacement.

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3.

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Kerbside Collection Bins	15 – 20 years

The estimates for renewals in this AMP were based on the Asset Register information.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate
 - e.g. replacing a bridge that has a 5t load limit
 - e.g. rehabilitate a road that is extremely cracked and potholed.
- To ensure the infrastructure is of sufficient quality to meet the service requirements
 - e.g. condition of a playground.

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.3.1.

Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
End of useful life	100%
Total	100%

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1a. The actual demand has been amortised over the term of the contract rather than requiring Council to fund the entire portfolio replacement within one budget cycle. A breakdown by waste stream is provided in Figure 5.4.1b. A detailed summary of the forecast renewal costs is shown in Appendix D.

Figure 5.4.1a: Forecast Renewal Requirement and Budget

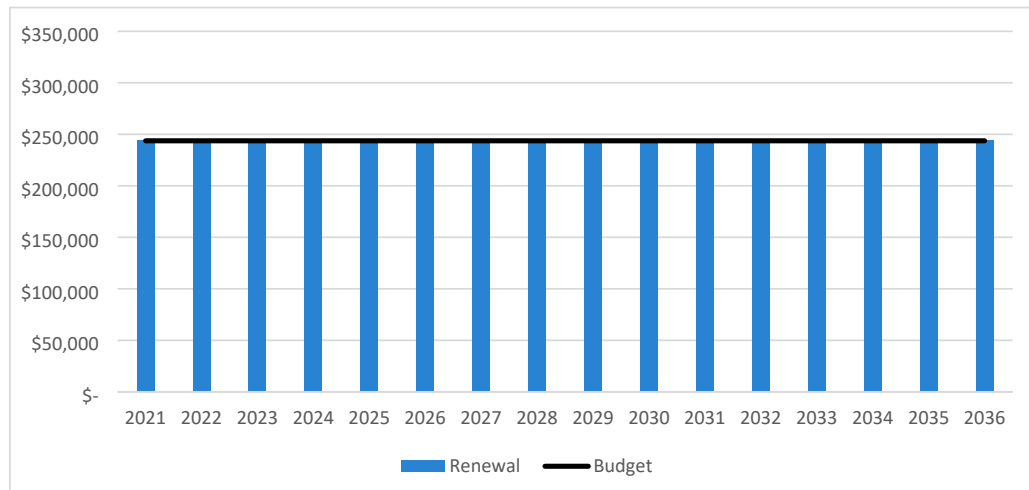
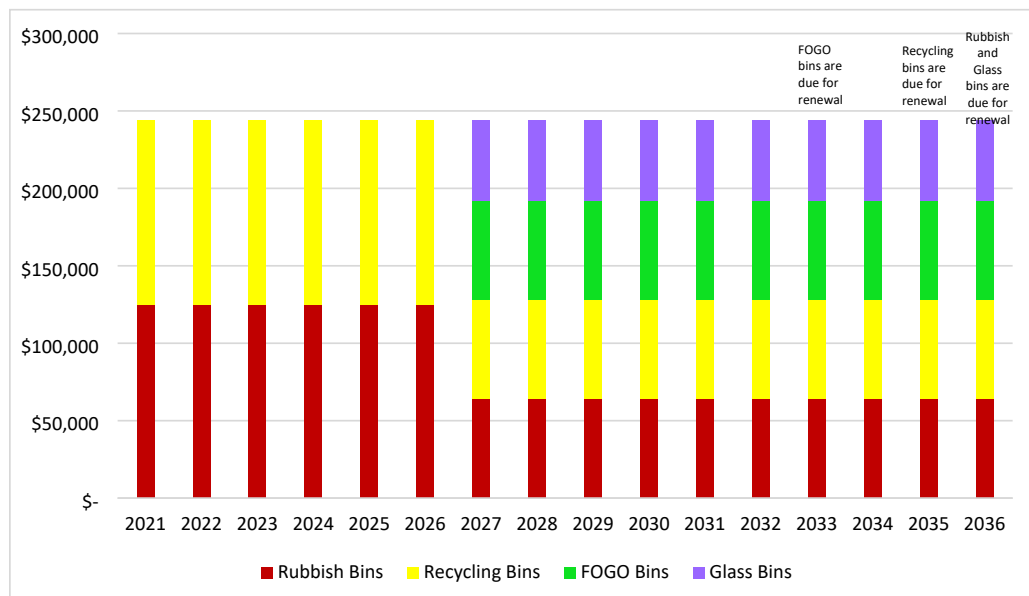


Figure 5.4.1a: Forecast Renewal Requirements by waste stream



All figure values are shown in current day dollars.

A bin replacement program occurs waste stream-by-waste stream at the end of the cohorts' life and typically takes 12 months to complete. These costs are amortised over the contract, typically of 7 years, as to avoid peaks in the renewal requirement. In 2036, rubbish and glass bins will be due for replacement again. It is assumed that the costs will remain similar for future contracts over the planning period. Consideration should be made for budget allocation according to this approach.

5.5 Acquisition Plan

Acquisition reflects are new assets that did not previously exist (or works which will upgrade or improve an existing asset beyond its existing capacity). They may result from growth, demand, social or environmental needs. Assets may also be donated or gifted to the Council, however this is rare for waste management assets.

5.5.1 Selection criteria

Proposed acquisition of new assets are identified from various sources such as community requests, proposals identified by strategic plans, partnerships with others, or more recently a change to recycling legislation. Potential new works should be reviewed to verify that they are essential to Council's needs. A works direction hierarchy is used in place of weighted criteria, this is detailed in Table 5.4.1.

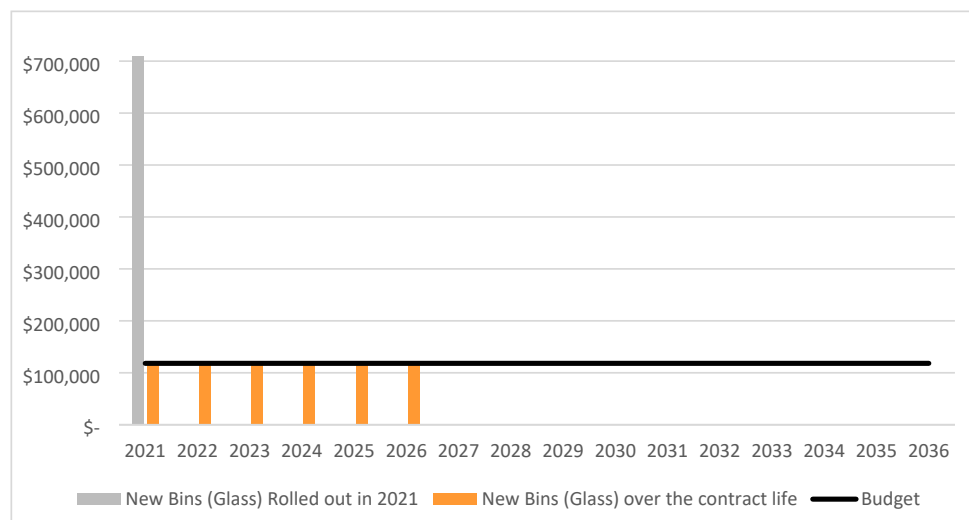
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Works Direction	Priority
Legislated	1
Customer Request	2

Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised in Figure 5.5.1 and shown relative to the proposed acquisition budget. Currently, these capital costs are spread (amortised) over the life of the contract ending 2026 (orange) as to reduce the impact on Council's cash flow, however the assets are all received upfront (grey). The forecast acquisition capital works program is shown in Appendix A.

Figure 5.5.1: Acquisition (Purchase) Summary



All figure values are shown in current day dollars.

When Council commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. Acquisitions arising from new properties is absorbed by the contract arrangements and shown under operations. Only significant acquisitions, such as a new waste stream (e.g. glass) is shown. Glass bins have been rolled out in April 2021. However, these capital costs are spread over the life of the contract.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan.

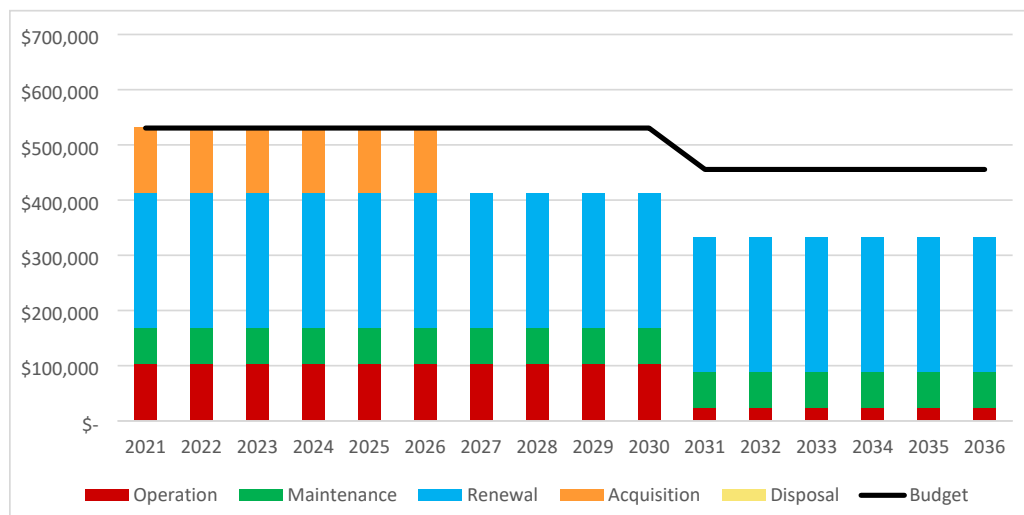
Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. Forecast acquisitions fully meet the community's required level of service.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.5.3. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.5.3: Lifecycle Summary



All figure values are shown in current day dollars.

The long-term level of service can be managed within the proposed budget.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in Table 5.6. Any costs or revenue gained from asset disposals is included in the long-term financial plan.

Table 5.6: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
Landfill	Closure	2031	Not yet determined, refer to Improvement Action 1	\$80,000

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and Guidelines.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are typically defined as those which have a high consequence of failure causing significant loss or reduction of service. Failure modes may include physical failure, collapse or essential service interruption. Under Council's Risk Management Framework, no critical assets have been identified which would cause significant impact on service delivery.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Nil		

By identifying critical assets and failure modes, an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

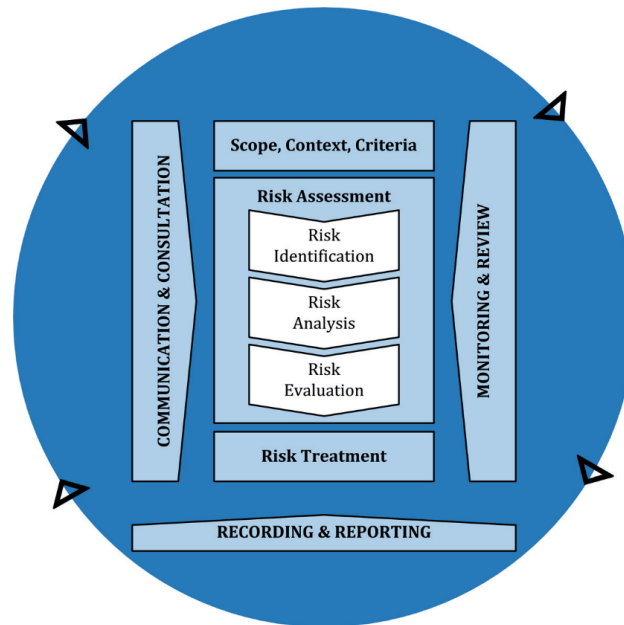


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management and the Council.

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Likelihood	Consequence	Risk Rating (VH, H)	Risk Treatment Plan	Likelihood	Consequence	Residual Risk *	Treatment Costs
Closed Landfill site	Flood waters at Braithwaite St infiltrate sump and risk of leachate contamination	Possible	Moderate	Medium	Construction of bund wall. Installation of Fire Pump	Rare	Moderate	Low	\$1,000
	Leachate and run off could enter groundwater or waterways	Likely	Major	High	Groundwater monitoring at site	Unlikely	Major	Medium	\$80,000
	Release of GHG (methane, carbon dioxide, nitrogen, sulphur) from anaerobic decomposition of organic matter	Possible	Major	High	Gas monitoring at site	Rare	Major	Medium	Included in \$80k above
	Flood waters damage infrastructure at Braithwaite St.	Possible	Moderate	Medium	Construction of bund wall	Rare	Moderate	Low	\$0 (asset built), only maintenance inspections required
	Automatic pump under capacity for flood events	Likely	Moderate	Medium	Installation of Fire Pump	Unlikely	Insignificant	Low	\$1,000
Kerbside Collection Bins	Strong winds blow open/over kerbside collection bins	Likely	Minor	Medium	Installation of clips on new recycling bins Clips for other bins can be purchased by residents	Unlikely	Insignificant	Low	\$60,000 added to recycling bin replacement contract

Service or Asset at Risk	What can Happen	Likelihood	Consequence	Risk Rating (VH, H)	Risk Treatment Plan	Likelihood	Consequence	Residual Risk *	Treatment Costs
	Improper disposal of corrosive materials which would damage bins	Unlikely	Minor	Low	Education and awareness programs	Rare	Minor	Low	\$40k Public education reduces likelihood but does not change consequences

Note * The residual risk is the risk remaining after the selected risk treatment plan is implemented.

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

Our current measure of resilience is shown in Table 6.3 which includes the type of threats and hazards and the current measures that the organisation takes to ensure service delivery resilience.

Table 6.3: Resilience Assessment

Threat / Hazard	Current Resilience Approach
Not Assessed	Not Assessed

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AMP.

Improvement Action 3: Assess infrastructure resilience of waste management assets.

6.4 Service and Risk Trade-Offs

The decisions made in adopting this AMP are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 What we cannot do

There have been no operations or maintenance activities, or capital projects that are unable to be undertaken within the next 15 years based on the planned budget.

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Dumping of household waste
- Illegal dumping where kerbside collection bins are inadequate (bin size, quantity or collection frequency)

6.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Increased asset maintenance and replacement costs due to climate change impacts
- Environmental contamination if monitoring of closed landfill site ceases

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 FINANCIAL SUMMARY

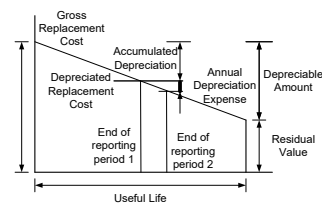
This section contains the financial requirements resulting from the information presented in the previous sections of this AMP. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial statements and Projections

7.1.1 Asset valuations

The best available estimate of the value of assets included in this AMP are shown below. These assets are valued using the Capital Replacement Method:

Current (Gross) Replacement Cost	\$606,371
Depreciable Amount	\$606,371
Depreciated Replacement Cost	\$558,169
Annual Depreciation	\$41,413



These values were taken from the AMIS (Conquest) as of 1 January 2021. It was identified that only the recently added FOGO bins are captured. All kerbside collection bins will be recognised at completion of their rollout.

Improvement Action 4: Ensure register of kerbside collection bins is complete and maintained

7.1.2 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AMP for this service area. The two indicators are the:

- Asset renewal funding ratio (proposed renewal budget for the next 15 years / forecast renewal costs for next 15 years), and;
- Medium term forecast costs/proposed budget (over 10 years of the planning period) which also includes all recurrent operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio 100%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 100% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix D.

Medium term – 10 year financial planning period

This AMP identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the 10 year period to identify any funding shortfall.

The forecast operations, maintenance and renewal requirements over the 10 year planning period is \$446K on average per year.

The proposed (budget) operations, maintenance and renewal funding is \$446K on average per year giving no shortfall. This indicates that 100% of the forecast costs needed to provide the services documented in this AMP are accommodated in the proposed budget. It should be noted that these calculations exclude acquired assets.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AMP and ideally over the 10 year life of the Long-Term Financial Plan.

7.1.3 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Forecast Acquisition	Forecast Operation	Forecast Maintenance	Forecast Renewal	Forecast Disposal
2021	\$118,195	\$103,020	\$66,091	\$243,702	\$0
2022	\$118,195	\$103,020	\$66,091	\$243,702	\$0
2023	\$118,195	\$103,020	\$66,091	\$243,702	\$0
2024	\$118,195	\$103,020	\$66,091	\$243,702	\$0
2025	\$118,195	\$103,020	\$66,091	\$243,702	\$0
2026	\$118,195	\$103,020	\$66,091	\$243,702	\$0
2027	\$0	\$103,020	\$66,091	\$243,702	\$0
2028	\$0	\$103,020	\$66,091	\$243,702	\$0
2029	\$0	\$103,020	\$66,091	\$243,702	\$0
2030	\$0	\$103,020	\$66,091	\$243,702	\$0
2031	\$0	\$23,020	\$66,091	\$243,702	\$0
2032	\$0	\$23,020	\$66,091	\$243,702	\$0
2033	\$0	\$23,020	\$66,091	\$243,702	\$0
2034	\$0	\$23,020	\$66,091	\$243,702	\$0
2035	\$0	\$23,020	\$66,091	\$243,702	\$0
2036	\$0	\$23,020	\$66,091	\$243,702	\$0

7.2 Funding Strategy

The proposed funding for assets is outlined in Warrnambool City Council's annual budget and Long-Term financial plan.

The financial strategy of Warrnambool City Council determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the service.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this AMP, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AMP and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AMP are:

- The standard useful life of 15 years was used for determining replacement timing of kerbside bins
- A cost of \$40 per bin was used in determining the replacement cost

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AMP are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B. Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C. Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D. Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E. Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AMP is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	B	Change in demographics is known, but impact of climate change is yet to be understood.
Growth projections	A	Based on census data and analysis from profile.id
Acquisition forecast	A	Determined by existing contract and legislative requirements
Operation forecast	A	Determined by existing contract and meeting service level requirements
Maintenance forecast	C	Based on trend data, however may be impacted by renewal program
Renewal forecast		Determined by existing contract which provides asset quantities and cost
- Asset values	A	
- Asset useful lives	C	Based on industry benchmark, limited local data impact of Warrnambool environment is not known
- Condition modelling	N/A	Not applicable
Disposal forecast	E	Remediation costs are to be determined (Refer to Improvement Action1)

The estimated confidence level for and reliability of data used in this AMP is considered to be 'A'. The areas of uncertainty, being the disposal cost to end the monitoring of Braithwaite St, is less critical to forecast demands.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

8.1.1 Accounting and financial data sources

This AMP utilises accounting and financial data. Cost estimates for the replacement program are provided by the Development team.

8.1.2 Asset management data sources

This AMP also utilises asset management data. The source of the data is Conquest.

8.2 Improvement Plan

The asset management improvement plan generated from this AMP is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Section	Task	Responsibility	Timeline
1	3.6	Determine the future use of the closed landfill site, and potential remediation costs to remove monitoring infrastructure	Manager City Amenity	Medium-term
2	4.5	Further investigate opportunities for climate change resilience	Manager City Amenity	Long-term
3	6.3	Assess infrastructure resilience of waste management assets	Manager Infrastructure Services	Long-term
4	7.1	Ensure register of kerbside collection bins is complete and maintained	Coordinator Strategic Asset Management	Medium-term

8.3 Monitoring and Review Procedures

This AMP will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AMP will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

The AMP has a maximum life of 4 years and is due for complete revision and updating every 4 years from the date of adoption.

8.4 Performance Measures

The effectiveness of this AMP can be measured in the following ways:

- The degree to which the required forecast costs identified in this AMP are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AMP,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 1.0).

9.0 REFERENCES

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- Council Risk Management Procedure, 2021
- Council Plan 2021-2025
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- Green Warrnambool 2018
- Warrnambool 2040
- Resource Recovery and Waste Minimisation Strategy 2017-2021
- Warrnambool City council Annual Budget

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

Kerbside collection bins acquisition arise from glass bins roll up with the cost remain the same over life of contract and not exist for next contract.

A.2 – Acquisition Project Summary

Project	Timing
New Bins (Glass)	2021-2026

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Planned Budget
2021	\$118,195	\$0	\$118,195
2022	\$118,195	\$0	\$118,195
2023	\$118,195	\$0	\$118,195
2024	\$118,195	\$0	\$118,195
2025	\$118,195	\$0	\$118,195
2026	\$118,195	\$0	\$118,195
2027	\$0	\$0	\$118,195
2028	\$0	\$0	\$118,195
2029	\$0	\$0	\$118,195
2030	\$0	\$0	\$118,195
2031	\$0	\$0	\$118,195
2032	\$0	\$0	\$118,195
2033	\$0	\$0	\$118,195
2034	\$0	\$0	\$118,195
2035	\$0	\$0	\$118,195
2036	\$0	\$0	\$118,195

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

It's assumed that the monitoring of Braithwaite Street closed landfill will end in 2031.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2021	\$103,020	\$0	\$103,020
2022	\$103,020	\$0	\$103,020
2023	\$103,020	\$0	\$103,020
2024	\$103,020	\$0	\$103,020
2025	\$103,020	\$0	\$103,020
2026	\$103,020	\$0	\$103,020
2027	\$103,020	\$0	\$103,020
2028	\$103,020	\$0	\$103,020
2029	\$103,020	\$0	\$103,020
2030	\$103,020	\$0	\$103,020
2031	\$23,020	\$0	\$23,020
2032	\$23,020	\$0	\$23,020
2033	\$23,020	\$0	\$23,020
2034	\$23,020	\$0	\$23,020
2035	\$23,020	\$0	\$23,020
2036	\$23,020	\$0	\$23,020

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

There is no change assumed for bin repair and replacement.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2021	\$66,091	\$0	\$66,091
2022	\$66,091	\$0	\$66,091
2023	\$66,091	\$0	\$66,091
2024	\$66,091	\$0	\$66,091
2025	\$66,091	\$0	\$66,091
2026	\$66,091	\$0	\$66,091
2027	\$66,091	\$0	\$66,091
2028	\$66,091	\$0	\$66,091
2029	\$66,091	\$0	\$66,091
2030	\$66,091	\$0	\$66,091
2031	\$66,091	\$0	\$66,091
2032	\$66,091	\$0	\$66,091
2033	\$66,091	\$0	\$66,091
2034	\$66,091	\$0	\$66,091
2035	\$66,091	\$0	\$66,091
2036	\$66,091	\$0	\$66,091

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Replacement cost will remain the same over life of contract.

D.2 – Renewal Project Summary

The rollout of replacement bins has recently commenced. The cost of this is built into the service contract and will be incurred by Council over the coming years.

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget	Cumulative Renewal Gap
2021	\$243,702	\$243,702	\$0
2022	\$243,702	\$243,702	\$0
2023	\$243,702	\$243,702	\$0
2024	\$243,702	\$243,702	\$0
2025	\$243,702	\$243,702	\$0
2026	\$243,702	\$243,702	\$0
2027	\$243,702	\$243,702	\$0
2028	\$243,702	\$243,702	\$0
2029	\$243,702	\$243,702	\$0
2030	\$243,702	\$243,702	\$0
2031	\$243,702	\$243,702	\$0
2032	\$243,702	\$243,702	\$0
2033	\$243,702	\$243,702	\$0
2034	\$243,702	\$243,702	\$0
2035	\$243,702	\$243,702	\$0
2036	\$243,702	\$243,702	\$0

D.4 –Renewal Plan

Refer to Council's Asset Management System for the full 15-year renewal plan.

Appendix E Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2021	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2022	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2023	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2024	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2025	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2026	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2027	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2028	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2029	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2030	\$118,195	\$86,100	\$82,500	\$243,702	\$0	\$530,497
2031	\$118,195	\$11,100	\$82,500	\$243,702	\$0	\$455,497
2032	\$118,195	\$11,100	\$82,500	\$243,702	\$0	\$455,497
2033	\$118,195	\$11,100	\$82,500	\$243,702	\$0	\$455,497
2034	\$118,195	\$11,100	\$82,500	\$243,702	\$0	\$455,497
2035	\$118,195	\$11,100	\$82,500	\$243,702	\$0	\$455,497
2036	\$118,195	\$11,100	\$82,500	\$243,702	\$0	\$455,497



WARRNAMBOOL
CITY COUNCIL

Sporting Reserves Signage Policy

SPORTING RESERVE SIGNAGE POLICY



POLICY TYPE: COUNCIL]

APPROVAL DATE: MAY 2022

REVIEW DATE: MAY 2025

DRAFT

SPORTING RESERVE SIGNAGE POLICY



DOCUMENT CONTROL

Document Title:	<i>Sporting Reserves Signage Policy</i>
Policy Type:	<i>Council</i>
Responsible Branch:	<i>Recreation and Culture</i>
Responsible Officer:	<i>Manager Recreation and Culture</i>
Document Status:	<i>Draft</i>
Approved By:	<i>Executive Management Team</i>
Adopted Date:	<i>MAY 2022</i>
Review Date:	<i>MAY 2025</i>

SPORTING RESERVE SIGNAGE POLICY



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SPORTING RESERVE SIGNAGE POLICY



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SPORTING RESERVE SIGNAGE POLICY

1. INTRODUCTION

1.1. Purpose

To establish a framework for the approval and installation of advertising, promotional and club identification signage by tenant clubs on Council Sporting Reserves to ensure;

- Signage installation is of an acceptable and safe standard.
- Consistent and equitable approach to providing approvals to sporting clubs to display sponsors advertising and signs.
- Clubs are supported to derive a reasonable income from sporting reserve signage.
- Facilities continue to be accessible and safe for use by all sectors of the community.
- The visual amenity of sporting reserves and open space is maintained.

1.2. Scope

This policy relates to all Council owned and managed sporting reserves with active playing/sporting surfaces and associated facilities and used on a formally allocated basis through a seasonal license allocation.

The zoning of these areas is Public Park and Recreation Zone (PPRZ).

This policy excludes passive recreation reserves with no active sporting facilities and all sporting reserves located on Department of Education land unless otherwise specified in the use agreement.

Only tenant clubs located within Warrnambool City Council are eligible to apply to display advertising, promotional and club signage.

This policy does not relate to Leisure Facilities or separately leased facilities located at sporting reserves.

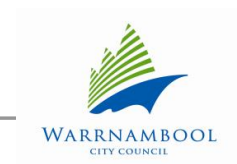
This policy applies to signage which is exempt from the need for a planning permit as per clause 52.05-10 (Signs not requiring a permit) of the Warrnambool Planning Scheme.

1.3. Definitions

Term	Definition
Advertising and promotion signage	Means all permanent, seasonal and temporary board, notice, structure, banner or similar device containing advertising and promotional information of a commercial nature
Way finding and information signage	Refers to signage that conveys location and direction to users of open space including vehicles and pedestrians into and within a reserve.
Political advertising signage	Refers to the advertisement of political parties, political candidates or political issues.
Club interior wall signage	Refers to honour boards, plaques, photos, jerseys, sponsorship signage etc.

References

SPORTING RESERVE SIGNAGE POLICY



- Warrnambool Planning Scheme – Clause 52.05-10 Signs not requiring a planning permit
- Advertising Signage Policy (April 2019)
- Australian Association of National Advertisers' (AANA) Code for Marketing and Advertising Communications to Children
- Australian Association of National Advertisers' (AANA) Food and Beverages: Advertising and Marketing Communications Code
- Healthy Warrnambool 2021-2025 (Municipal Health and Wellbeing Plan)

2. POLICY

- Warrnambool City Council has responsibility to ensure that all signage is safely installed, maintained, and does not detract from the visual amenity of the sporting reserve. Advertising and promotional signage will be permitted on Council's sporting reserves provided it conforms to the criteria set out in this policy and the Warrnambool Planning Scheme and Advertising Signage Policy (April 2019).

2.1. Policy Principles

The following principles underpin this policy;

- To allow opportunities, where appropriate, for tenant clubs to generate income that supports their club activities.
- To comply with Warrnambool Planning Scheme and Advertising Signage Policy (April 2019) by ensuring that sponsorship and promotional signage is not visible from beyond the sporting reserve sites.
- To ensure that any interior signage is coordinated and maintained in an appropriate manner.
- To ensure signs are in keeping with the character of the sporting reserve.
- To encourage a coordinated approach to advertising where there are multiple tenants of sporting reserves and facilities.
- To maintain a high level of coordination and public safety for signs on road reserves and within sporting reserves.
- Signage installation is of an acceptable and safe standard.

2.2 Types of Signs

2.2.1 Permanent

Reserve identification signs, identification of sporting club signs, sports ground identification signs and wayfinding signs permanently erected at either the entrance to the recreation reserve, or at sports grounds within the reserve, or on a main building servicing that reserve or sports ground.

2.2.2 Seasonal

Signage is to face inwards towards the playing surface. Signs may be installed on the outside of the oval boundary fencing if facing the pavilion only.

SPORTING RESERVE SIGNAGE POLICY



2.2.3 Temporary Seasonal

Sponsorship or promotional signage or club identification signage installed or displayed on competition/game days throughout the season and removed after the game/tournament including banners, A-frame signs or corflute signs.

2.2.4 Temporary Event

Advertising of community events e.g. membership drives, fundraising activities etc. in designated areas around the municipality or at the entrance to the sporting reserve.

2.2.5 Electronic Scoreboards

Advertising on electronic scoreboards is limited to promotion of club and/or community events and activities, in addition to advertising or promotion of club sponsors. Audible sound from the scoreboards is not permitted without a planning permit.

2.2.6 Electronic Signage

Advertising or promotional electronic signage (except for scoreboards) is not permitted at sporting reserves.

2.3 Criteria for Advertising and Promotional Signage

2.3.1 General Criteria

- Written permission is required from Council's Recreation Department prior to submitting an application for Statutory Planning for installation of any form of signage at a Council owned or managed sporting reserve.
- A copy of the layout (including response to 2.4 criteria) and the wording of the proposed advertising sign or club interior wall signage is to be submitted as part of the approval process.
- The signs must be appropriate for a public reserve, and not in any way be offensive or discriminate on grounds of race, gender, sexual orientation, or religion.
- Signage must not contain direct product advertisements for alcohol and tobacco products, political parties, adult entertainment, gambling.
- Signage should be considerate of harmful gender norms, roles and relations and should not contribute to the causes of gender-based health inequities, including the prevention of violence against women, girls and gender diverse people.
- Any sponsorship signage displayed must represent current paid up sponsors of the associated tenant club and evidence to be provided if requested by Council.
- Signage must adhere to the Australian Association of National Advertiser's (AANA) Code for Marketing and Advertising Communication to Children and the Australian Association of National Advertiser's (AANA) Food and Beverages: Advertising and Marketing Communications Code.
- The tenant must ensure that all signage is covered by its own insurance policy to the level prescribed in the tenant's seasonal tenancy, licence or lease agreement. The tenant must indemnify Council against any claims that may arise out of or are in any way related to the signage.

SPORTING RESERVE SIGNAGE POLICY



- Should damage to a Council asset occur as a result of the installation, maintenance or removal of any signage, the tenant will be responsible for the full cost of any rectification works carried out by the Council.
- Signage is prohibited from being attached to any other fixtures or structures within a public sporting reserve including trees, safety rails, public toilets, retaining walls, on fences sited alongside or above retaining walls, seating, bollards, coaches boxes, player shelters, ticket boxes, perimeter fencing including behind goals post netting, the roof of any facility, building or structure situated within the reserve.
- Tenants are not entitled to enter into commercial agreements to alter venue names or install signage pertaining to the naming of a reserve on a permanent basis.
- Council maintains the right to amend this Policy and this Policy overrides agreements between clubs and sponsors.

2.3.2 Permanent Signs

- **Reserve Identification Signs** – a system for reserve identification (at the entrance to reserves or on the nearest main road) has been developed and implemented by Council to ensure consistency and an appropriate quality of Council signage for open space. Approved tenant clubs are provided an opportunity to display their name on the sign. No advertising/promotion of club contact details will be permitted on these signs. These signs are provided and maintained by Council.
- **Way Finding and Information Signs** – a system to direct vehicles and pedestrians to various locations within a sporting reserve is implemented by Council to ensure consistency and an appropriate quality of Council signage for reserves and open space. No advertising/promotion of club contact details will be permitted on these signs. These signs are provided and maintained by Council.
- **Fenced Court Facilities Signs** – signage should face inwards towards the playing area to ensure it cannot be seen from outside of the fenced facility. For netball courts, signage is to be installed at ground level and no more than 1.2m in height. For cricket practice nets, signage is limited to two (2) signs no greater than 1m x 1m per net. Fence signage must take into consideration fence condition, footings, as signage increases the wind loading on the fencing.
- **Social Club Building Signs** – where multiple tenants are located at the same pavilion, agreement needs to be made to the location and quantity of signage prior to application. In these cases, the available space is to be split evenly with tenant clubs either year round or for duration of their seasonal tenancy and to be removed within 7 days of season completion.

2.3.3 Seasonal Signs

2.3.3.1 Local Level Sporting Reserves is subject to the following;

- For sports ovals, signage is permitted on the oval boundary fence and must not cover more than 50% of the internal circumference. There must be three (3) metre gap every twenty (20) metres to allow access to the

SPORTING RESERVE SIGNAGE POLICY



oval by passive users of the reserve. Signage on the external side of the oval boundary fence will only be allowed directly in front of the pavilion and must not be visible beyond the sporting reserve. Advertising signage space should be shared between seasonal tenant clubs.

- Permanent signage on change rooms, coaches' boxes or player shelters is not permitted.
- Signs must not be painted directly onto walls or the roof of any facility, building or structure at the sporting reserve.
- Signage on scoreboards will be permitted provided it does not detract from the main purpose of the structure nor cover more than 25% of the surface of the structure and must not be visible beyond the sporting reserve.

2.3.3.2 Regional Level Sporting Reserve (Reid Oval) is subject to the following;

- Temporary/removable signs can be displayed on the oval boundary fence but cannot be permanently affixed to the fence. Designated home team club can display up to four (4) temporary sponsorship signs. Signs are to be no more than 3m in length each and no higher than the top of the boundary fence. Signs are to be removed at the end of seasonal tenancy or upon request.
- Permanent signage on pavilion, coaches' boxes, player/umpire/spectator shelters, and cricket practice nets is not permitted.
- Signs must not be painted directly onto any sports surface, walls or the roof of any facility, building or structure on the reserve.
- Signage affixed to scoreboards is not permitted. A permanent structure, either side of the existing oval scoreboard, will be provided for each seasonal tenant to display major club sponsors.
- Display of club sponsors through electronic scoreboards is permitted during game days, training sessions and club events up to one (1) hour prior and one (1) hour post event.
- Tenants must be able to remove all signs on request to deliver a clean venue for Council managed or controlled events if required.

2.3.4 Temporary Signs

Tenants may install advertising signage at sporting reserves subject to the following;

- Club identification, advertising and promotional signage may be installed or displayed on game days, training sessions and club events throughout the home and away season and removed within two (2) hours of the event or session ending. This includes banners, A-Frame signs, corflute signs and goal post/ring padding.
- When installing temporary signage;
 - The location of the signage should be considered to ensure that it is not blocking egress/access for the public.
 - The weather conditions should be considered for public safety i.e. high winds.

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2.3.5 Temporary Club Event Signs

Temporary signs promoting an upcoming, one-off sporting event or activity relating to the tenant at the home venue only (i.e. registration day, come and try day, players wanted etc.) run by the tenant will be permitted in accordance with the following;

- One temporary sign, per tenant per season, can be installed at the entrance to the sporting reserve at one time.
- The sign must not be an animated or internally illuminated.
- Signs must not exceed five metres square (5m²) (2.5m wide x 2.5m high).
- Approval for all temporary signage must be sought from Council prior to installation. Approval can be sought from Council's Recreation Department.
- Signage must not be displayed for longer than thirty (30) days prior to the event and removed immediately following the event.
- A minimum of three (3) weeks' notice is required for approval by Council.
- The sign must not refer to a commercial event.

2.4 Installation, Materials and Construction Criteria

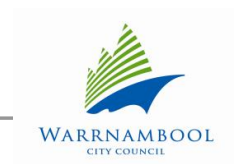
- Advertising and promotional signage must not be principally aimed at people beyond the reserve, namely passing traffic.
- All signage must be securely fixed or displayed to ensure the possibility of injury to any person or damage to any Council asset is avoided.
- The finishes and materials used in the construction of all signage must have no sharp or exposed edges and all fixing (i.e. nails and screws) are to be recessed or countersunk.
- It is preferred that all signage be made out of light weight, appropriate material, like corflute, as the material is more forgiving if hit.
- To ensure the proposed signage does not have adverse impacts in relation to the overall amenity of the reserve, all signage must be professional produced to a high standard.
- To ensure structural integrity of the signage during extreme weather events, an engineering assessment may be required for freestanding signage and signage attached to court fencing and practice nets. Where required, the full cost of any assessment is the responsibility of the tenant.
- Freestanding signs must be installed by a qualified contractor.

2.5 Maintenance

- Signs are considered assets of the tenant and must be maintained and inspected by the tenant on a regular basis to ensure that they are fit for a public reserve and represent no danger to the public.
- Tenants are expected to maintain all advertising, promotional and signage in an acceptable and safe condition at all times and at their cost. This includes the immediate removal of graffiti, damaged and broken signs. If a tenant fails to meet this requirement, Council will remove the sign at the tenants cost.

2.6 Existing Advertising Signage

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- Tenants are expected to meet the conditions outlined in this policy for all signage installed post the date of the policy adoption.
- Following the date of adoption, Council will conduct a signage audit of all sporting reserves and advise tenants where examples of non-conforming signage exists.
- Tenants will be provided with a period of one (1) year from receiving this notice, unless the sign is unsafe, to ensure all existing advertising signage complies with the conditions outlined in the this policy. Council will then commence removing any existing signage that does not comply.
- Existing signage may be removed immediately by Council where the signage is deemed to be dangerous or a planning permit is required and not obtained.
- Any costs associated with the removal or reinstallation of existing advertising signage will be the responsibility of the tenant.

3 GOVERNANCE

3.2 Owner

3.2.1 Manager Recreation and Culture

3.3 Review

- 3.3.1 The Manager Recreation and Culture will review the policy for any necessary amendments no later than three (3) years after its formulation or after the last review.

3.4 Compliance Responsibility

3.4.1 Management Executive Group (Chief Executive and Directors)

3.4.2 Managers and Supervisors

3.4.3 All Employees

3.5 Charter of Human Rights Compliance

- 3.5.1 It is considered that this policy does not impact negatively on any rights identified in the Charter of Human Rights Act (2007).
- 3.5.2 Warrnambool City Council is committed to consultation and cooperation between management and employees. The Council will formally involve elected employee health and safety representatives in any workplace change that may affect the health and safety of any of its employees.
- 3.5.3 A Gender Impact Assessment has been completed to prevent unintended negative consequences where the policy might inadvertently reinforce or contribute to inequality or the harmful gender attitudes and social norms that underpin drivers of violence against women, girls and gender diverse people.

SPORTING RESERVE SIGNAGE POLICY



4 APPENDICES

4.2.1 [Insert Appendix if applicable.]

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MINUTES

PLANNING ADVISORY COMMITTEE			
Date:	16 March 2022	Time:	4PM
		Location:	Committee Room 1, Warrnambool Civic Centre
Committee Members In Attendance	Cr. Angie Paspaliaris, Chair Fiona Golding Jeff Moreland-Hunt John McNeill William Welsh Leanne Williams		
Council Officers Attendance	Andrew Paton – Director of City Growth Luke Coughlan - Acting Manager City Strategy & Development Julie McLean – Coordinator City Strategy		
No.	What	Actions	
1.	Welcome and Apologies Apologies: Leanne Williams, Fiona Golding & Jeff Moreland-Hunt		
2.	Conflicts of Interest Declaration No conflicts of interest declared		
3.	Minutes – 17 November 2021 Move and accepted LC outlined that there was some feedback on the previous minutes and a lack of detail. WCC officers took this on board and committed to distributing draft minutes to committee members prior to acceptance by the chair and forwarding on to Council meeting for acknowledgement.	Action: Draft minutes to be circulated after each meeting	
4.	Warrnambool Blueprint Project Update Julie McLean gave an overview of the project.		

	<p>Warrnambool Blueprint project is a major project for Warrnambool for the next 20 years. Discussing strategic long term plans to guide major land use for the Council area.</p> <p>Council has contributed \$400,000 towards this project over the next two financial years.</p> <p>BW – Emphasized the importance of enabling Infrastructure for growth areas. The lack of this will limit how quickly growth areas can progress and this is seen in the progress growth fronts in current growth areas limiting how quickly areas behind the front can progress. Also commented on planning for other areas such as Hopkins Point Rd and the transport infrastructure that would be required to facilitate areas like this.</p>	
5.	<p>Strategic Planning Update</p> <ul style="list-style-type: none"> • East Aberline Precinct Structure Plan <p>BW – asked if drainage would be focused on with this development, important for enabling development</p> <ul style="list-style-type: none"> • North Warrnambool Flood Amendment • Bushfield – Woodford Strategic Framework Plan • Foreshore Precinct Plan • Allansford Strategic Framework Plan Implementation • South Warrnambool Flood Investigation 	
6.	<p>General Business</p> <p>Discussions around the proposed Fairy Street Development at the old Callaghan’s site, around parking opportunities for the City. Possibilities of developing a car park fund or policy to address future parking issues in the future with large scale developments.</p>	
	<p>Meeting Closed at 5.02PM</p> <p>Next Meeting – 15 June 2022</p>	

Warrnambool City Council Cycling Reference Group: Minutes
Wednesday 16 MARCH 2022 5.00-6.30 Pavilion

AGENDA ITEM	DISCUSSION	ACTION ARISING
1. Invited	PRESENT: Ellen Troitzsh (zoom), Richard Adams, , Geraldine Rabie; Brendan Donhoo (zoom), Nicole Wood(WCC), , Angie Paspaliaris (Councillor), Ashish Sitoula (WCC)	APOLOGIES: Paul Cugley(WCC); Ian Bodycoat; Carla Mills; Micheal Dean; Helen Ryan, Jason Dart,; Luke Coughlan (WCC)
2. Progress on Works Plan	Discussion about Progress with Plan (5 min) NW 1. Update promotion over Summer 2. "People who Cycle" campaign for May- part of TAC and VicRoads Funding	Outcomes of Review of Action Plan: Survey to Group as to their feelings about how the group is going and is it meeting expectations. 1. ASSIST COUNCIL IN RESPONDING TO NEEDS OF CYCLISTS- IN PROGRESS Keep going with low cost social media campaigns- *Lights/Helmets- <i>NW to schedule</i> *Share the Path- <i>NW/AS organised additional footpath signage supported by W2040 and will be implemented in the next month.</i> Deliver the People who Ride Bikes Campaign funded by DOT and TAC *"People who Ride Bikes" Campaign- see communication plan how the group would like to be involved. <i>NW to manage and implement</i> 2. ENGAGE WITH COUNCIL TO IDENTIFY ANY NEW AND EMERGING ISSUES- IN PROGRESS *Work with the infrastructure team to develop mutual understanding about operations ie. Sweeping bike lanes.- NOT STARTED *Work with the Events Team to promote cycling in Warrnambool- IN PROGRESS 3. PROVIDE FEEDBACK TO COUNCIL ON PROPOSED ACTIONS AND INITIATIVES RELATED TO CYCLING- IN PROGRESS *Finalise the Principal Bicycle Network to be developed as part of the Sustainable Transport Strategy Update. *Present infrastructure projects for review- note: the group feels that they have not been involved early enough in 2020/21 to give input for projects. <i>NW- to send concept designs for 2022/23 projects for the group to review now.</i>

AGENDA ITEM	DISCUSSION	ACTION ARISING
3. Feedback on Council Projects	<p>Bike Lanes Merri St-NW ACTION Stanley St Bridge being constructed- NW COMPLETE Merrivale Drive- application for a reduction in speed PC HOLD OVER Travel in the City Centre- traffic counts completed and the consultant completing the analysis -COMPLETE DRAFT Capital Works Projects 2022/23 NW ACTION Garden St- Richard-gradient not sufficient. 50km speed limit still need to slow people. COMPLETE Botanic Precinct Local Area Traffic Management ACTION https://www.yoursaywarrnambool.com.au/botanic-local-area-traffic-management-plan</p>	<p>Bike Lane Merri St- Cycling needs to be considered in small infrastructure projects. Ie. Merri St line marking where has been reinstated. ACTION: develop a checklist for the design team to consider cyclists when designing roads. Draft Capital Works Plan ACTION: designs will be sent to the group for review. Botanic Precinct Local Area Traffic Management ACTION: link sent to group for review</p>
4. Upcoming Events	<p>Upcoming “people who cycle” Campaign As per Works plan Share the Path https://www.facebook.com/connectwarrnambool/posts/232693412374683 Lights and Helmets- https://www.facebook.com/connectwarrnambool/posts/183175083993183</p>	<p>DOT and TAC campaign- Live, Drive, Ride like a local- “people who ride bikes campaign” APRIL TBC: Pop up event to get peoples feedback about messaging for “people who ride bikes” campaign APRIL 26 and 27: Bike Ed instructors course SUNDAY MAY 15: Cycling Sessions from Safe Cycle. Key Audiences: <ol style="list-style-type: none"> 1. New arrivals to the city- Deakin Students, workers ect. TBC 2. LTS 2- Interested by Concerned- assistance to feel more confident to cycle on the road and how to plan your cycling trip 3. Possible partnership with Cycling Club- Womens skills session for those who are cycling road bikes and would like to consolidate their skills, to feel more confident. TBC ACTION: Communication plan developed and distributed to group.</p>

AGENDA ITEM	DISCUSSION	ACTION ARISING
5. Progress on Issues/Challenges	<p>Access/Safety: Dennington Bridge on Princes Hwy: 1. Status with VicRoads- PC ACTION Investigate how to do a speed review of city- NW ACTION Lane condition and maintenance- Richard/PC HOLD OVER. Rail Trail nears Levys point- Nic/Ian</p>	<p>Dennington Bridge Works: https://regionalroads.vic.gov.au/search?q=merri+bridge+works ACTION: NW Contacted Regional Road Vic and Spoke to representative about getting more details about the works- will be in contact- Ref number: 502461534. 21/03</p> <p>Speed Review: Botanic LATM has identified some speed review locations. ACTION: Complete as part of the Sustainable Transport Strategy update- the Principal Bicycle Network may provide a list of streets.</p> <p>Rail Trail: Signage has been placed at the Knackery letting people know it is shared space however there are many blind corners. ACTION 1. Is anyone in the group interested in cycling from Merrivale along the rail trail- to check the signage as many people are somehow missing the Mill site and ending up at Thunderpoint? ACTION 2. How is the Warrnambool end of the rail trail maintained?</p>
6. Progress on Grants	<p>TAC Community Road Safety Grants- for cycling education booked session for cyclists who want to feel more confident using the road network (for LTS 2 for those who are “interested but concerned”)</p> <p>TAC Local Government Small Infrastructure Grants (Mortlake Road Project)= Successful Brenton St Platform</p>	<p>As per Events</p> <p>As per designs for group to review</p>
7. Upcoming Grants	<p>Opens April 2022 TAC Community Road Safety Grant- Sustainable Transport Strategy Update.</p>	<p>APPLIED FOR AWAITING OUTCOMES Dot Community Road Safety Grant- for education <ul style="list-style-type: none"> - Safe to School, Bike Ed, Bike Ed instructors training - Cycling Innovation- funding to work with older cyclists to develop messaging around “people who cycle” and “Two Way Street” <p>BlackSpot- targeted at Larger Infrastructure at crash sites- Lava/Kepler</p> <p>VicRoads- targeted to small infrastructure at crash areas <ul style="list-style-type: none"> - Caramut Road upgrade Ped Refuges and Bike Lanes - Skene and Foster St Ped Refuges </p> </p>

AGENDA ITEM	DISCUSSION	ACTION ARISING
8. Strategic Planning	Principal Bicycle Network- final look at map.	Complete ACTION: Map to be given to Assets team and developed for consultation.
9. New Business		ACTION: Investigate removal of Plastic yellow pieces at the pedestrian crossovers at Allansford and Merrivale- possible accident could occur when riding two abreast. NW Bike Lane- Mortlake Rd= Balmoral Road (not wide enough on a highway. No-where to move right near where bunch rides occur- discuss with planning about what developers are required to provide- how prescriptive. ACTION: Investigate what developers are required to provide for cyclists and how prescriptive it is. NW
10. Next Meeting		Wednesday May 11?



Warrnambool Cycling Reference Group Work Plan REVIEW 2021/23

Vision:

We aspire to a network of cycling routes connecting people to all places in Warrnambool and surrounds. Cycling will be a fun, healthy and safe way for people of all ages and abilities to travel and recreate.

Terms of Reference:

Members of the Cycling Reference Group:

- Provide feedback to Council on proposed actions and initiatives related to cycling.
- Assist Council in responding to the needs of cyclists.
- Engage with Council on new and emerging issues involving cycling.

Objectives:

1. To provide a forum where experience, specialist knowledge and skills in the area of cycling can be utilised.
2. To consider, in conjunction with the concerns of other stakeholders and road users, any issues related to cycling.
3. Identify and support external funding opportunities (grants) that benefit cycling in Warrnambool.
4. Assist in the development of Policies, Strategies and Plans, through active engagement during the development and preparation of such documents

OBJECTIVE	ACTIVITY (FROM GROUP)	ACTIONS	OUTCOMES 2021	Status	SUCCESS CRITERIA	TIMING
Assist Council in Responding to the needs of Cyclists Aligns with OBJECTIVE 2, 3	1.Raise Awareness about Road Safety for all road users using the Two Way Street materials: Awareness messages on CoastFM, in Brochures and Social Media	Review current literature and messaging.	Review messaging: Deakin Map to Shops ON ROAD- messaging Lights and reflectors at night or in reduced visibility. Lights must be visible from at least 200m away. This includes: (RAN AS SPRING CAMPAIGN) https://www.facebook.com/connectwarrnambool/posts/183175083993183	Complete 2021 Continue 2022	Cyclists Directory A point of reference for all kinds of cyclists in Warrnambool which includes road safety information, cycling groups, etiquette, tips, sustainable transport information.	2021/22
		Member to bring information to create a cyclists directory. Link with cycling groups/clubs to gain support for directory.	Link with Councils Whats On https://whatson.warrnambool.vic.gov.au/register-your-event	In Progress		
		Update Two Way Street and Share the Road literature and utilise in the Cyclists Directory.	Merrivale Drive-Two Way Street signage	In progress		

OBJECTIVE	ACTIVITY (FROM GROUP)	ACTIONS	OUTCOMES 2021	Status	SUCCESS CRITERIA	TIMING
		Develop and Implement a Campaign based around Two Way Street.	Live, Ride, Drive like a local = "People who Ride Bikes" campaign in May (TAC and Vicroads Funded)	In progress	Updated Road Safety Information. Utilising the VicRoads Community Road Share grant for Safer Cyclists update the brochures to reflect local conditions and the Two Way Street campaign.	
		Determine how to store and update information.	Google Drive?			
Assist Council in Responding to the needs of Cyclists Aligns with OBJECTIVE 2	2.Work with Community to develop Shared Path Etiquette	Scope project-resources, cost, outcomes.	Cyclist Message- PROMENADE Must have bell (RAN AS SUMMER CAMPAIGN) https://www.facebook.com/connectwarrnambool/posts/232693412374683 Creative Ways to remind people to use bells. Work with Bike Shops.	COMPLETE 2021 CONTINUE 2022	Footpath Decals reminding people to ring their bells to be implemented April 2022	2022/23
Engage with Council to identify any new and emerging issues	3.Work with the Infrastructure team to develop mutual understanding about operational issues	Provide examples of current conditions- road lanes linemarking and road cleaning issues	Review what is/can being done to improve visibility of the on road lanes?	NOT STARTED	An understanding of the operations of Council and possible opportunities.	2021/22
Align with OBJECTIVE 2		Identify constraints	Review the status of the cleaning and maintenance with debris, gravel, glass of roads?	NOT STARTED		2021/22
		Review constraints				2022/23

OBJECTIVE	ACTIVITY (FROM GROUP)	ACTIONS	OUTCOMES 2021	Status	SUCCESS CRITERIA	TIMING
<p>Assist Council in responding to the needs of cyclists</p> <p>Align with OBJECTIVE 4</p>	4.Work with the Events team to identify opportunities to promote cycling in Warrnambool.	<p>Intial meeting with Events team:</p> <p>Develop a scope of what can be achieved.</p>	<p>List of new ideas and events which occur in Warrnambool on google drive</p> <p>Sharing events from clubs and community groups- can be done by registering event (link above). If your club or group would like to share an event on FB you can make Connect Warrnambool a co-host for our admin to pick up and share. https://www.facebook.com/connectwarrnambool</p> <p>1. Opportunity to have a “cycling in Warrnambool” information and tile on Visit Warrnambool https://visitwarrnambool.com.au/active-adventure/</p>	IN PROGRESS	<p>Promotion of cycling in Warrnambool Investigate opportunities to promote Warrnambool as a cycling destination- holidays ect. Promoting all forms of cycling.</p> <p>Information about suggested cycle destinations with road safety messages with a map at the info centre</p>	2022/23
		Investigate reviewing current cycling maps		NOT STARTED		
		Investigate opportunities to utilise already closed roads for events to promote to cyclists.		NOT STARTED		

OBJECTIVE	ACTIVITY (FROM GROUP)	ACTIONS	OUTCOMES 2021	Status	SUCCESS CRITERIA	TIMING
Provide feedback to Council on proposed actions and initiatives related to cycling Align with OBJECTIVE 4	5.Link Promenade, Russells Creek and the proposed Merri paths		Strategic Planning (Sustainable Transport Strategy update and the Principle Bicycle Network development	IN PROGRESS	Groups input into Strategic and long term Plans	2021/22

Informal Meeting of Council Record	
Name of Committee or Group (if applicable):	Informal Meeting of Council (Councillor Briefing)
Date of Meeting:	11 April 2022
Time Meeting Commenced:	3.00pm
Councillors in Attendance:	Cr. V. Jellie, AM, Mayor/Chair Cr. O. Akoch Cr. D. Arnott Cr. B. Blain Cr. A. Paspaliaris Cr. M. Taylor Cr. R. Ziegeler
Council Officers in Attendance:	Peter Schneider, Chief Executive Officer (Zoom) Peter Utri, Director Corporate Strategies Andrew Paton, Director City Growth (Zoom) David Leahy, Director City Infrastructure Jodie McNamara, Acting Director Community Development Julie Anderson, Manager Governance, Property, Projects & Legal
Other persons present:	Helen Taylor, Chair, WRAD (3:03pm – 3:41pm) Geoff Soma, Director, WRAD (3:03pm - 3:41pm) Glenys Phillpot, Chair, Lookout Steering Committee & Board (3:03pm - 3:41pm) Juan Donis (3:45pm – 4:18pm) David Harrington (3:59pm – 5:57pm)
Apologies	Nil.
Matters Considered:	<ul style="list-style-type: none"> Lookout Rehabilitation Project Presentation (3:03pm – 3:41pm) Land Purchase Request – Dunner Place Road Reserve (3:44pm – 3:57pm) Cycling Reference Group Minutes of Meeting 16/3/2022 (3:58pm – 4:03pm) Smart Buildings Program Update (4:03pm – 4:18pm) 2022-2023 Budget (5:04pm – 5:57pm)
Other Matters Considered	Items Raised by Councillors and Officers (4:20pm – 5:04pm) <ul style="list-style-type: none"> Certificate of appreciation for work with Harbour Reference Group. Brierley Reserve Update Speed Limit signs on waterways – Merri River launching area only. Latest on Reid Oval opening Presentation on Events – rescheduled for next Briefing session McDonald's entrance question Saleyards Netball Court resurfacing. Spring Street Advocacy Trip Sport Reserve Signage Policy
Councillor Conflicts of interest Disclosures: <ul style="list-style-type: none"> Cr Richard Ziegeler – Lookout Rehabilitation Project Presentation – left the meeting at 3:02pm and returned to the meeting at 3:43pm Cr Richard Ziegeler – Budget, short-stay accommodation discussion – left the meeting at 5:06pm and returned to the meeting at 5:26pm 	
Councillor /officer Name: Nil	
Meeting close time:	5:57pm
Record Completed by:	Julie Anderson Manager Governance, Property, Projects & Legal.

Informal Meeting of Council Record	
Name of Committee or Group (if applicable):	Informal Meeting of Council (Councillor Briefing)
Date of Meeting:	19 April 2022
Time Meeting Commenced:	3.05pm
Councillors in Attendance:	Cr. V. Jellie, AM, Mayor/Chair Cr. O. Akoch Cr. B. Blain Cr. A. Paspaliaris (arrived at 3:35pm) Cr. M. Taylor
Council Officers in Attendance:	Peter Utri, Acting Chief Executive officer Andrew Paton, Director City Growth David Leahy, Director City Infrastructure (arrived at 3:33pm) Jodie McNamara, Acting Director Community Development Julie Anderson, Manager Governance, Property, Projects & Legal Lauren Edney, Service Manager Events & Promotion (3:00pm – 3:46pm) David Harrington, Manager Financial Services (3:30pm – 4:23pm) Abel Farrell, Coordinator Project Management Office (4:14pm – 4:37pm)
Other persons present:	
Apologies	Cr. R. Ziegeler Cr. D. Arnott
Matters Considered:	<ul style="list-style-type: none"> Events Presentation (3:06pm – 3:46pm) Small Infrastructure Fund (3:46pm – 4:23pm) <ul style="list-style-type: none"> Basketball Court at Foreshore/Lake Pertobe area Public art work at harbour Capital Projects Report Quarter 3 – 2021/2022 (4:23pm – 4:37pm) Draft Waste Management AMP Post Consultation (4:38pm - 4:39pm) Dredging Tender (4:39pm – 4:44pm)
Other Matters Considered	Items Raised by Councillors and Officers (4:44pm – 5:15pm) <ul style="list-style-type: none"> Formal meetings – General business items considerations The Standard reporting on Council regarding the Commonwealth Games WAGs Family Play day – social media advertising Country Club proposal update Renaming of the Reid Oval Pavilion Bikes at the Foreshore – speed management Friends of the Botanic Gardens Request Aboriginal Liaison Officer commenced today
Councillor Conflicts of interest Disclosures: Nil	
Councillor /officer Name: Nil	
Meeting close time:	5:15pm
Record Completed by:	Julie Anderson Manager Governance, Property, Projects & Legal.

Informal Meeting of Council Record	
Name of Committee or Group (if applicable):	Informal Meeting of Council (Councillor Briefing)
Date of Meeting:	26 April 2022
Time Meeting Commenced:	3.02pm
Councillors in Attendance:	Cr. V. Jellie, AM, Mayor/Chair Cr. O. Akoch Cr D. Arnott Cr. B. Blain Cr. A. Paspaliaris Cr. M. Taylor Cr R. Ziegeler (arrived at 3:03pm)
Council Officers in Attendance:	Peter Schneider, Chief Executive Officer Peter Utri, Director Corporate Strategies David Leahy, Director City Infrastructure Jodie McNamara, Acting Director Community Development Julie Anderson, Manager Governance, Property, Projects & Legal
Other persons present:	David Harrington, Manager Financial Services (3:05pm – 4:26pm) Ashish Sitoula, Manager Strategic Community Planning & Policy (3:45pm – 3:59pm) Luke Coughlan – Manager Planning (3:59pm – 5:52pm) Lauren Schneider, Coordinator Natural Environment (4:35pm – 4:43pm) Justin Harzmeyer, Natural Environment Officer (4:35pm – 4:43pm) Maryam Mousavi, Assets Planner (4:52pm – 5:07pm) Nicole Wood, Travel Smart Officer (4:52pm – 5:07pm)
Apologies	Andrew Paton, Director City Growth
Matters Considered:	<ul style="list-style-type: none"> Activities & Initiatives 2021-2022: January – March (Quarter 3) (3:03pm – 3:36pm) March 2022 Monthly Finance Report (3:36pm – 3:53pm) Council Plan 2021-2035 (2022 revision) (3:53pm – 3:59pm) <i>Cr Paspaliaris left the meeting at 3:57pm and returned at 4:41pm</i> Warrnambool City Council – Proposed Budget 2022-2023 (3:59pm – 4:21pm) Appointment of Independent Audit & Risk Committee Chairperson (4:22pm – 4:25pm) Elevating Environmentally Sustainable Development Targets Planning Policy Project (4:25pm – 4:31pm) Rafferty's Tavern – Amendment to Permit PP2011.0077.03 (4:31pm – 4:37pm) Draft Beach Access Strategy (4:37pm – 4:43pm) Minutes Planning Advisory Committee – 16 March 2022 (4:43pm – 4:49pm) <i>Cr Ziegeler left the meeting at 4:45pm and returned at 4:47pm</i> Public Tree Planting and Maintenance Policy (4:49pm – 4:57pm) Footpath Prioritisation – Principal Pedestrian Network Status Update (4:57pm – 5:07pm) <i>Cr Blain left the meeting at 5:02pm and returned at 5:04pm</i>

	<p><i>Cr Paspaliaris left the meeting 5:03pm and returned at 5:29pm</i></p> <ul style="list-style-type: none"> • Sporting Reserves Signage Policy (5:08pm – 5:12pm) • Grace Car Park Land Transfer and Drainage (5:12pm – 5:19pm) • Mayoral Diary Update (5:19pm – 5:19pm)
Other Matters Considered	<p>(5:20pm – 5:52pm)</p> <p>Staff shortages</p> <p>Budget process for next year – workshop with Councillors</p> <p>Local Media Advertising</p>
<p>Councillor Conflicts of interest Disclosures:</p> <ul style="list-style-type: none"> • Cr Ziegeler declared a conflict of interest with item 'Grace Car Park Land Transfer and Drainage' due to ownership of a property in the intervening area become subject to the discussion on this matter – Cr Zieleger left the meeting at 5:15pm and returned at 5:20 pm 	
Councillor /officer Name: Nil	
Meeting close time:	5:52pm
Record Completed by:	<p>Julie Anderson</p> <p>Manager Governance, Property, Projects & Legal.</p>