

COUNCIL MEETING AGENDA

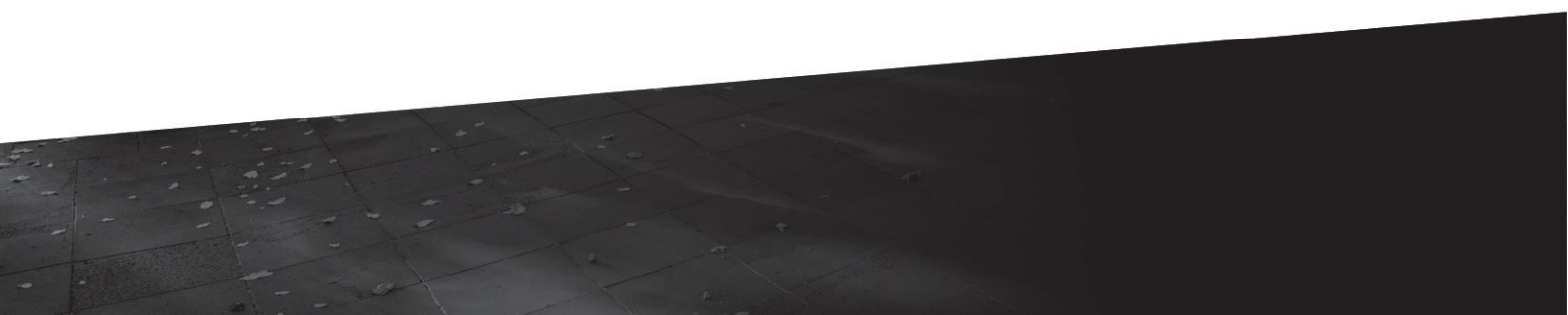
CITY OF GREATER BENDIGO

6:00 pm on Monday, June 27 2022

Livestreaming at www.bendigo.vic.gov.au/councilmeeting
Broadcast live on Phoenix FM 106.7 ***

Copies of the City of Greater Bendigo Council's Agendas & Minutes can be obtained online at www.bendigo.vic.gov.au

** Council Meetings are now open to the public. In order to maintain physical distancing the public gallery is limited to 25 persons. If you would like to attend, please register your interest through gotix online https://www.bendigoregion.com.au/arts-culture-theatres/event/city-of-greater-bendigo-council-meeting or call the box office on 5434 6100 no later than 5pm on the day of the meeting.*





COMMUNITY VISION 2021–2031

Greater Bendigo celebrates our diverse community.
We are welcoming, sustainable and prosperous.
Walking hand-in-hand with the Traditional Custodians of this land.
Building on our rich heritage for a bright and happy future.

The community vision is underpinned by five values – transparency, sustainability, inclusion, innovation and equity.

COUNCIL PLAN (MIR WIMBUL) – OUTCOMES

The Council Plan (Mir wimbul) is based on seven outcomes, which are the main focus of the Council Plan.

Each outcome has a set of goals, objectives and actions that will help to achieve the community vision, and indicators to measure achievement against each goal:

1. Lead and govern for all
2. Healthy, liveable spaces and places
3. Strong, inclusive and sustainable economy
4. Aboriginal reconciliation
5. A climate-resilient built and natural environment
6. A vibrant, creative community
7. A safe, welcoming and fair community

STAFF VALUES AND BEHAVIOURS

The City of Greater Bendigo's values and behaviours describe how Councillors and staff will work together to be the best we can for our community.

They are aligned to our strategic documents, such as the Council Plan, which ensures they are meaningful for Council and the organisation.

A shared commitment to living our values and behaviours will help us to build the type of culture we need to be able to work together and support each other to deliver the best possible outcomes for our community.



This Council Meeting is conducted in accordance with the

- Local Government Act 2020 as amended by the COVID19 Omnibus (Emergency Measures) Act 2020, and
- Governance Rules

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1. ACKNOWLEDGEMENT OF COUNTRY

2. TRADITIONAL LANGUAGE STATEMENT

3. OPENING STATEMENT

4. MOMENT OF SILENT REFLECTION

5. ATTENDANCE AND APOLOGIES

6. LEAVE OF ABSENCE

7. SUSPENSION OF STANDING ORDERS

RECOMMENDED MOTION

That Standing Orders be suspended to allow the conduct of the Community Recognition Section and Public Question Time.

8. COMMUNITY RECOGNITION

9. PUBLIC QUESTION TIME

10. RESUMPTION OF STANDING ORDERS

RECOMMENDED MOTION

That Standing Orders be resumed.

11. CR FYFFE'S REPORT

12. DECLARATIONS OF CONFLICT OF INTEREST

Section 130 of the *Local Government Act 2020* (Vic) (**the Act**) provides that a relevant person must disclose a conflict of interest in respect of a matter and exclude themselves from the decision making process in relation to that matter including any discussion or vote on the matter at any Council meeting or delegated committee meeting and any action in relation to that matter.

The procedure for declaring a conflict of interest at a Council Meeting is set out at rule 18.2.4 of the Governance Rules.

Section 126 of the Act sets out that a relevant person (Councillor, member of a delegated Committee or member of Council staff) has a conflict of interest if the relevant person has a **general conflict of interest** or a **material conflict of interest**.

A relevant person has a **general conflict of interest** in a matter if an impartial, fair minded person would consider that the person's private interests could result in that person acting in a manner that is contrary to their public duty.

A relevant person has a **material conflict of interest** in a matter if an *affected person* would gain a benefit or suffer a loss depending on the outcome of the matter.

13. CONFIRMATION OF PREVIOUS MINUTES
RECOMMENDED MOTION

That the Minutes of the Council Meeting held on May 23, 2022, as circulated, be taken as read and confirmed.

Minutes - May 23, 2022

14. BUDGET/ANNUAL REPORT

14.1. Adoption of City of Greater Bendigo Budget 2022/2023

Author:	Kate Fox, Acting Manager Financial Strategy
Responsible Director:	Nathan Morsillo, Acting Director Corporate Performance

Purpose

The purpose of this report is to present Council with the 2022/2023 Budget for consideration.

Recommended Motion

That the Greater Bendigo City Council, having considered the submissions to the 2022/2023 Proposed Budget:

Resolutions adopting the City's Budget

1. Adopt the Budget annexed to this resolution, in accordance with the Local Government Act 2020 and relevant regulations.
2. Acknowledges the contribution of the community to the budget consultation process and thank them for their contribution.
3. Authorises officers to provide a formal response to each of the community members who provided comments and/or priorities via Let's Talk Greater Bendigo.
4. Approve new loan borrowings of up to $5.1M in line with Budget and authorise the CEO, Director Corporate Performance or Manager Financial Strategy to:
    a. negotiate the loan
    b. approve the successful loan facility (any two of above officers); and
    c. execute the loan documentation (any two of above officers)

Resolutions declaring rates and charges

5. Declare an amount of $139.3M which Council intends to raise by General Rates and Annual Service Charges for the period 1 July 2022 – 30 June 2023 calculated as follows:
    a. General Rates (including estimated supplementary rates) $114.2M; and
    b. Annual Service Charges $25.3M.
6. Note that the proposed budget released in April 2022 utilised preliminary valuations. Final valuations have now been received from the Valuer General, and minor adjustments have been made to differential rates to ensure compliance with the Fair Go Rates System.
7. Declare the Rates and Charges as detailed in Council's Revenue and Rating Plan 2021-2025 as required under section 94(2)(i) of the Local Government Act 2020 and section 161(2) of the Local Government Act 1989 and note that with respect to the Revenue and Rating Plan 2021-2025, it was determined for 2022/2023 that the vacant land differential rate would remain at 125% of the general rate.
8. Implements rates and service charges in line with the budget and in accordance with recommended motion 6, as detailed in the following tables:

Type or class of land	2022/2023 cents/$CIV
General Rate	0.284099
Commercial/Industrial A (Urban/non-CBD) -(185% of General)	0.525588

Commercial/Industrial B (Rural areas) - (180% of General)	0.511379
Commercial/Industrial C (CBD) - (190% of General)	0.539789
Farm Land - (75% of General)	0.213075
Vacant Land (residential and rural residential) - (125% of General)	0.355124
Other Land - (185% of General)	0.525588
Vacant Land - Forest Edge Estate Maiden Gully properties - (125% of General)	0.355124
Residential - Forest Edge Estate Maiden Gully properties - (100% of General)	0.284099
Commercial/Industrial - Forest Edge Estate Maiden Gully properties. - (185% of General)	0.525588

Type of service charge	**Per Rateable 2022/2023 $**
Garbage Charge 120/140 Litre Bin (Within Organic collection area)	$197.00
Garbage Charge 240 Litre Bin (Within Organic collection area)	$361.00
Garbage Charge 120/140 Litre Bin (Outside Organic collection area)	$227.00
Garbage Charge 240 Litre Bin (Outside Organic collection area)	$391.00
Garbage Charge 120/140 Litre Bin (other Commercial)	$227.00
Garbage Charge 240 Litre Bin (other Commercial)	$391.00
Recycling Charge	$107.45
Organics Charge	$95.90
Garbage Charge (Business Areas) One Day per Week	$391.00
Garbage Charge (Business Areas) Two Days per Week	$782.00
Garbage Charge (Business Areas) Three Days per Week	$1,173.00
Garbage Charge (Business Areas) Five Days per Week	$1,955.00
Garbage Charge (Business Areas) Seven Days per Week	$2,737.00

9. Grants an early full rate payment discount of 1.5% on current year rates and charges, if full payment (including any arrears and interest) is received on or before 30 September 2022. Alternatively by four instalments made on or before the following dates:
    a. Instalment 1 – 30 September 2022;
    b. Instalment 2 – 30 November 2022;
    c. Instalment 3 – 28 February 2023; and
    d. Instalment 4 – 31 May 2023.
10. Adopt the User Fees and Charges Schedule as set out in Appendices A of the Budget annexed to this resolution.

Executive Summary

Council considered the 2022/2023 Proposed Budget at its meeting on 20 April 2022 and made the proposed Budget available for comment. At the conclusion of the community feedback process, 24 submissions were received. This report presents Council with the updated 2022/2023 4-year Budget in line with relevant legislation and regulations.

Background

The budget is being delivered as part of the second year of the Council Plan and Financial Plan. Both plans, together with our new Community Vision were developed through the Imagine Greater Bendigo project which involved extensive community engagement and community feedback over nine months in 2021.

Report

The budget builds on a multi-year approach to funding project delivery to deliver projects that support a sustainable, healthy and connected environment for our growing community.

For the first time, community priorities were invited early in the budget process (November 2021) to assist Councillors to make informed decisions in building the budget. Recurring themes from the feedback included the need for healthy liveable spaces and places, such as additional investment in walking and cycling infrastructure and improvements to parks and open space.

The budget is in line with the constraints identified in the City's 10-year Financial Plan, which supports the community vision and Council Plan (Mir wimbul) 2021-2025 and key strategies, including the Climate Change and Environment Strategy and Healthy Greater Bendigo 2021-2025.

The announcement of the Commonwealth Games for Bendigo and other regional cities will have an impact over the forward four years of the budget across both capital expenditure and other investments by the City and State Government. The quantum of this investment is yet to be determined in detail – but will certainly be a key part of future budgets.

Council has not applied for a variation to the rate cap, and – conscious of cost of living pressures for the community - will absorb increasing costs and lower forecast revenue within current allocations. Inflation has been reported (RBA update as at 31 March 2022) at 3.5 per cent. This is close to double the 1.75 per cent rate cap set for the City for 2022/2023. Construction costs are also likely to continue to increase significantly faster than the broader CPI – placing pressure on service delivery over the coming year.

In line with the Council Plan and priorities in the Climate Change and Environment Strategy, the budget continues to invest in resourcing a coordinated approach to environmental policies, strategies and programs. Initiatives include energy and water tracking systems for all City-run facilities, new measures to improve energy efficiency at Gurri Wanyarra Wellbeing Centre, including air and temperature management, and more energy efficient street lighting with a $420,000 investment (a Lighting the Regions project). These projects contribute towards our goal of net zero emissions from Council operations by 2030.

The City continues to support and facilitate growth. Some construction highlights in the budget include:

- $9.9M for the Bendigo Airport terminal expansion and new business park
- $1.5M towards renewing the Lake Weeroona Play Space to create junior and senior play zones, more seating and shade
- $1.8M for the next stage of the Ewing Park Precinct for a learn-to-ride park
- Stage 2 investment for the Strathfieldsaye Community Hub in Club Court to upgrade facilities

- A new $1.5M footpath program to increase accessibility and active lifestyle opportunities
- $250,000 for a car park and toilet at Longlea to support the O'Keefe Rail Trail

Renewing the City's existing infrastructure remains a strong focus with $36M to be invested in maintaining the City's $2B asset base. The 2022/2023 capital renewal expenditure will see $14M for the renewal and reconstruction of sealed and unsealed roads, including Axedale-Kimbolton Road. There will be over $2.8M in drainage projects and $660,000 for bridges. Recreation, aquatic and open space facilities receive a $6.1M investment.

Critical services will also continue to be delivered to the community. This year, the $152M operating budget will continue to fund early years services, waste collection, street cleaning, maintenance of our fantastic parks, gardens and recreation facilities, environmental health, statutory planning, road maintenance, tourism and visitor services, Bendigo Art Gallery, The Capital and Ulumbarra theatres and much more.

Adjustments to the 2022/2023 Budget from the Proposed Budget

As a result of stimulus funding, changed circumstances, including improved estimates since the Proposed Budget was exhibited (originally drafted in March/April of 2022). A range of adjustments have been made to ensure the budget is as accurate as possible. A summary of adjustments identified during advertising period include:

Adjustments due to improved estimates or changes identified since development of the Proposed Budget (net positive)	$1,124,038
Federal Assistance Grant Funding increased estimate in line with updated information (net positive)	$1,271,163
Additional Capital Works Grant income	$7,052,250
Additional Capital Works expenditure	($7,695,907)

Rates and Service Charges

An amount of $139.3M is proposed to be raised by general rates and service charges as follows:

General Rates	$112.2M
Service Charges	$25.3M
Supplementary Rates*	$2.0M (estimated to be raised during the financial year)

* Supplementary rates are a result of Supplementary Valuations. A Supplementary Valuation occurs when there is a change to a property that will affect the Valuation such as construction of a dwelling or shed, installation of a swimming pool or a demolition.

There will be a 1.75 per cent increase to the City's base average rate revenue, in line with the Victorian Government's Fair Go Rates System.

The budget includes a General Rate and nine differential rates to be declared as detailed in the following table:

Rates detail (Recommendation 6)

Type or class of land	**2022/2023 cents/$CIV**

General Rate	0.284099
Commercial/Industrial A (Urban/non-CBD) -(185% of General)	0.525588
Commercial/Industrial B (Rural areas) - (180% of General)	0.511379
Commercial/Industrial C (CBD) - (190% of General)	0.539789
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Other Land - (185% of General)	0.525588
Vacant Land - Forest Edge Estate Maiden Gully properties - (125% of General)	0.355124
Residential - Forest Edge Estate Maiden Gully properties - (100% of General)	0.284099
Commercial/Industrial - Forest Edge Estate Maiden Gully properties. - (185% of General)	0.525588

**The Revenue and Rating Plan 2021-2025 set out that the vacant land differential rate would increase to 200% of the general rate in 2022/2023. When considering the proposed vacant land differential rate increase Council took into consideration the current availability and market value of land, the delays currently impacting land development and the current managed growth strategy. As a result of this, the rate remains unchanged.

The budget includes service charges to be declared as detailed in the following table:

Type of service charge	**Per Rateable 2022/2023 $**
Garbage Charge 120/140 Litre Bin (Within Organic collection area)	$197.00
Garbage Charge 240 Litre Bin (Within Organic collection area)	$361.00
Garbage Charge 120/140 Litre Bin (Outside Organic collection area)	$227.00
Garbage Charge 240 Litre Bin (Outside Organic collection area)	$391.00
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Garbage Charge (Business Areas) Two Days per Week	$782.00
Garbage Charge (Business Areas) Three Days per Week	$1,173.00
Garbage Charge (Business Areas) Five Days per Week	$1,955.00
Garbage Charge (Business Areas) Seven Days per Week	$2,737.00

Options considered

In accordance with section 94(1) of the Local Government Act 2020, Victorian councils must prepare and adopt a budget by 30 June.

Timelines

In accordance with section 94(1) of the Local Government Act 2020, Victorian councils must prepare and adopt a budget by 30 June.

Communications/Engagement

Internal Consultation:

The budget has been prepared with input from Councillors, the Executive Management Team, Managers and Officers.

External Consultation:

The budget is being delivered as part of the second year of the Council Plan and Financial Plan. Both plans, together with our new Community Vision were developed through the Imagine Greater Bendigo project which involved extensive community engagement and community feedback over nine months in 2021.

Community priorities were invited in the early stages of the budget planning process in November 2021. Residents were invited to submit community priorities via a submission and were provided with the opportunity to present to Council. Council received 38 submissions from the community at this time, 21 of these requested a time to speak in front of Council to their submissions. This early engagement helped to inform Councillors during the budget development and ensured that, where possible, community priorities were captured in the budget.

Subsequently, via a Council decision at the 20 April 2022 Ordinary Meeting, Council resolved to advertise the 2022/2023 Proposed Budget and to invite feedback from the community. The Proposed 2022/2023 4-year Budget was made available for public feedback from Thursday April 21, 2022 to Monday May 16, 2022. Residents were invited, via the Let's Talk platform to leave feedback - 24 responses were received.

The community feedback during the Council Plan development and the Budget planning process enabled the identification of recurring themes, which included the importance of healthy liveable spaces and places, and for additional investment in walking, cycling and improvements to parks and open space.

Financial Sustainability

Council will effectively and efficiently use its resources to deliver the best outcomes for the community whilst ensuring ongoing future financial sustainability. As noted in quarterly financial updates to Council, cost increases – particularly around construction – may be particularly challenging to manage across the City's services in the coming financial year. Council will seek first to manage resources within prescribed rate caps.

Risk Assessment

The budget is a key mechanism by which the strategic risk around financial sustainability is maintained.

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 1 - Lead and govern for all

Secondary Council Plan Reference(s)

Goal 1 - Accountable, financially responsible, equitable, transparent decision making

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. CITY OF GREATER BENDIGO BUDGET 2022/2023 [**14.1.1** - 88 pages]



City of Greater Bendigo

Budget 2022/2023

Supporting a growing community to be healthy, sustainable, and connected

CITY OF GREATER BENDIGO

Acknowledgement of Country
The ancestors and descendants of the Dja Dja Wurrung and Taungurung are the traditional owners of this Country.

The City of Greater Bendigo acknowledges that they have been custodians for many centuries and continue to perform age old ceremonies of celebration, initiation and renewal.

We all acknowledge their living culture and their unique role in the life of this region.

Main cover image:
Kangaroo Flat Library

Sub images:
1. Parks and gardens
2. Dragon City Sounds
3. Outdoor dining
4. Heathcote dog park

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MAYOR AND CHIEF EXECUTIVE OFFICER'S INTRODUCTION

Supporting a growing community to be healthy, sustainable, and connected

We are pleased to introduce the City of Greater Bendigo's Budget 2022/2023. The Budget is presented in line with the City's 10-year Financial Plan, which supports the community vision and Council Plan (Mir wimbul) 2021-2025 and other key strategies, including the Climate Change and Environment Strategy and Healthy Greater Bendigo 2021-2025.

The Budget supports the seven outcomes outlined in the Council Plan.

- Outcome 1: Lead and govern for all
- Outcome 2: Healthy, liveable spaces and places
- Outcome 3: Strong, inclusive and sustainable economy
- Outcome 4: Aboriginal reconciliation
- Outcome 5: A climate resilient and healthy landscape
- Outcome 6: A vibrant, creative community
- Outcome 7: A safe, welcoming, and fair community

The Budget 2022/2023 builds on a multi-year approach to funding projects and seeks to deliver projects that support a sustainable, healthy and connected environment for our growing community.

For the first time, community priorities were invited early in the Budget process to help inform Councillors as we planned the Budget. Recurring themes from the feedback included the need for healthy liveable spaces and places, such as additional investment in walking and cycling infrastructure and improvements to parks and open space.

To further encourage walking and cycling, $1.5M has been allocated to a new footpath program to increase accessibility and active lifestyle opportunities, in addition to $1.9M toward footpath renewals. The Budget includes a car park and toilet at Longlea Lane on the O'Keefe Rail Trail and a pedestrian trail counter for the Long Gully Trail.

In line with the Council Plan and priorities in the Climate Change and Environment Strategy, the Budget continues to invest in resourcing a coordinated approach to environmental policies, strategies and programs. Initiatives include energy and water tracking systems for all City-run facilities, new measures to improve energy efficiency at Gurri Wanyarra Wellbeing Centre, including air and temperature management, and more energy efficient street lighting with a $420,000 investment (a Lighting the Regions project). These projects contribute towards our goal of net zero emissions from Council operations by 2030.

Renewing the City's existing infrastructure remains a strong focus with $36M to be invested in upgrading City assets. The 2022/2023 capital renewal expenditure will see $14M for the renewal and reconstruction of sealed and unsealed roads, including Axedale-Kimbolton Road. There will be over $2.8M in drainage projects and $660,000 for bridges. Recreation, aquatic and open space facilities receive a $6.1M investment.

The City continues to support and facilitate growth. The multi-year project to expand the Bendigo Airport terminal and wider precinct has been a Council priority for many years. Funding from all three levels of government will deliver an expanded terminal building, new administration building and the first stage of a new business park at the site. This expansion will bring new business opportunities, investment and jobs.

Growth goes hand-in-hand with enhancing community connectivity and funding is included to support the Connecting Greater Bendigo: Integrated Transport and Land Use Strategy (ITLUS). Funding has also been set aside for the design of the Heathcote Integrated Precinct and the 'Green Spine' project as part of implementing the Strathfieldsaye Town Centre Urban Design Framework, which will eventually deliver vegetated open public space between Wellesley Street and Apsley Lane.

Investment in sporting and recreational activities continues to be a priority with $1.5M to renew Lake Weeroona play space, $1.8M for the next stage of the Ewing Park precinct with construction of a learn-to-ride park adjacent to the newly constructed skate park, and funding to further progress scoping for the redevelopment of the Peter Krenz Centre. Funding has also been allocated for improvements to facilities at Brennan Park Swimming Pool in Flora Hill and the Strathfieldsaye Sports Club clubrooms.

Critical services will also continue to be delivered to the community. This year, the $152M operating Budget will continue to fund early years services, waste collection, street cleaning, maintenance of our fantastic parks, gardens and recreation facilities, environmental health, statutory planning, road maintenance, tourism and visitor services, Bendigo Art Gallery, The Capital and Ulumbarra theatres and much more.

For the second year in a row, the City will fund tourism destination marketing initiatives to support economic recovery and attract additional major events and more visitors to the region. Funding is also allocated to progress the City's technology systems, to improve efficiency, customer service and delivery of services.

Alongside the Budget, we continue to advocate for financial commitments at the Federal and State government level for our priority projects. These projects would contribute to the vibrancy, liveability, sustainability, health and economic success of our region. They include the Bendigo Art Gallery $25M redevelopment, $30M redevelopment and rebranding of the Golden Dragon Museum to become the National Chinese Museum of Australia, and $50M in funding needed for the Bendigo Regional Employment Precinct in Marong to attract new business investment and job opportunities for our growing community.

The Budget is based on a 1.75 per cent rate increase, in line with the Victorian Government's Fair Go Rates System. Around 59 per cent of Budget revenue comes from rates. As in previous years, Council has not applied for a variation to the rate cap and will absorb increasing costs and lower forecast revenue within current allocations, which limits revenue available to fund new projects and initiatives. Construction and other costs have been increasing faster than the 1.75 per cent rate cap increase. Certain construction costs have increased annually by more than 6 per cent, which will present challenges over the forward budget.

Due to landfill fees levied by the Environment Protection Authority increasing by 19 per cent, the general waste will increase in the 2022/2023 financial year by $18 (for a 140L bin). This rise reflects the costs of providing the service; Council does not make a profit from waste services.

We are pleased to present the Budget 2022/2023 for our community. These documents outline Council's commitments to shape a positive, healthy and sustainable future for our growing community.

Mayor Cr Andrea Metcalf

Chief Executive Officer Craig Niemann

BUDGET INFLUENCES

BUDGET CONTEXT

Snapshot of Greater Bendigo City Council

The City of Greater Bendigo is located in the centre of Victoria, covering almost 3,000 square kilometres. Greater Bendigo includes smaller towns and villages such as Heathcote, Axedale, Huntly, Marong, Elmore, Goornong, Neilborough, Sebastian, Woodvale, Raywood, Mia Mia and Redesdale. The population estimate for City of Greater Bendigo as of the June 30, 2020 was 119,980 which is a growth rate of 1.60 per cent, or 1889, since June 30, 2019.

Budget implications

As a result of the City's demographic profile there are a number of budget implications in the short and long term as follows:

- The large geographic area, which includes both urban and rural environments, means the City needs to be responsive to diverse community needs.
- The large rural area means transport costs for services are higher. This will impact on services such as garbage collection. There is also a requirement to invest in maintaining a large rural road network.
- The growing urban area means that with new subdivisions, Council takes on responsibility for an increasing number of public assets when transferred by developers. This includes public parkland which in turn requires additional staff and equipment to maintain.

Budget principles

The Local Government Act has established Overarching Principles that must be given effect through the performance of a Councils role. The Financial management principles (s 101) require councils to:

- manage finances in accordance with financial policies and strategic plans
- monitor and manage financial risks prudently
- provide stability and predictability in the financial impact of decisions
- explain the financial operations and financial position by keeping appropriate records

Along with the overarching principles established in The Act the following Budget principles were established to support the development of the Financial Plan and the Budget:

Theme	Principle
Financial Sustainability	Council will effectively and efficiently use its resources to deliver the best outcomes for the community whilst ensuring ongoing future financial sustainability. Council will seek first to manage resources within prescribed rate caps.
Allocation of Financial Resources	Council will consider the financial resources required for the implementation of the endorsed Community Vision; Council Plan and other Integrated Plans of Council.
Renewal of Assets	Asset Renewal is fundamental to Council's services and financial sustainability. Asset renewal allocations are derived through formal assessments in line with Asset Management Plans; associated service levels; and condition audits.
Capital Works Prioritisation and Completion	a) Before approving the acquisition of new assets, Council will have regard to the financial and social impacts along with service needs of the community, including agreed criteria within the Capital Investment Framework. b) Budgets for capital works will incorporate an emphasis on completing existing projects and ensuring works are finalised on schedule within the portfolio.
Borrowings	Council will consider the use of borrowings to fund projects where there is a demonstrated benefit to future generations and council has the capacity to service the debt.
Service	a) Council will undertake periodic reviews of services provided to the community to ensure services are fit for purpose. b) Council will apply an equity lens to service delivery, ensuring they are accessible and good value. c) Service levels will be considered to ensure affordability and efficiency. d) Increased growth and compliance costs will initially be funded within existing budget settings.
Affordability for the Community	To achieve increased efficiency and affordability, the operations of the City will be reviewed on an ongoing basis. Council will only commit to new initiatives that deliver the essential outcomes for our community.
Fees and Charges	a) Fees and charges to be set with a view to minimising Council subsidy but will seek a balance between service delivery and a cost recovery (especially with regard to equity and capacity to pay). b) Ensure that all charges have hardship arrangements to support those that need it most: some in the community are struggling more than others.

BUDGET PRINCIPLES DEVELOPED IN RESPONSE TO COVID-19

In addition to the above Budget Principles, the City recognises that the City continues to be impacted by the COVID-19 pandemic – and has also taken into account the following specific COVID-19 Recovery principles:

Item	Framework / base assumption
Hardship	Support those that need it most – some in the community are affected more than others.
Social and Economic Support	Address and advocate on key social and economic needs of our community, focus on people, communities and business
Long term community sustainability	There are short-term issues that require a long-term response – our response will be across multiple budgets and will consider people, environment and finance.
Operational efficiency	Our operations must be efficient – only commit to new initiatives that deliver the essential outcomes for our community
Capital delivery	Deliver on our promises and commitments – we need to be ambitious and realistic



CAPITAL INVESTMENT

Introduction

Available funds for capital works are driven by the Financial Plan and guided by budget principles reviewed annually by Council.

The total capital works Budget is split between two core components:

- New, upgrade or expansion:
  - These projects are first defined in the capital project pipeline, require a Project Proposal and are then prioritised using the Capital Investment Framework (CIF).
- Renewal of existing assets:
  - The amounts allocated for renewal are guided by relevant asset renewal modelling and asset management policy and planning.

New/Upgrade/Expansion Capital Works

A Project Proposal is required for all New/Upgrade/Expansion Capital Works projects. A 10-year capital project pipeline continues to be developed which will align endorsed strategies with the Financial Plan.

The Capital Investment Framework (CIF) is the tool used to set priorities within the New/ Upgrade/ Expansion capital works program that addresses the strategic and service delivery needs of the City of Greater Bendigo and the community. To achieve this, the CIF includes the evaluation of projects against the following Capital Prioritisation Criteria as endorsed by the City's Executive Management Team (EMT) and Councillors:

Criteria	Description	Measure
Contribution to achieving Council Plan goals	The level of contribution a project has to the achievement of the Council Plan goals. (Refer to the Council Plan goal assessment)	An aggregated score for the project against the Council Plan goals
Risk	The risk to the organisation of delaying or not undertaking the project; AND How risky the project may be to undertake; such as site conditions; level of certainty for cost, design and/or approvals.	Organisational Risk Rating
Investing in our organisational strategy	Generating efficiencies in workplace practices to increase organisational productivity	A change in workplace efficiencies through Process/System/Tool/ Technology improvement
Finishing what we start	A concerted effort will be made on ensuring that projects that are 'in-flight' and have had a previous Council approval have all approved scope completed. The focus is on scope that has not been delivered where there is an expectation set, or necessity, that it is completed.	A link to the current project phase (with preference towards projects that are 'shovel ready'/ implementation phase)

New Capital Works projects are scored against each of these key criteria to provide a prioritised list of projects for Council to consider.

Each year there are significantly more proposals for New/Upgrade/ Expansion capital works projects than there are funds available in the annual Budget. To support decision making, officers highlight projects that are in progress, have an existing commitment (e.g. matching funding), or potential commitment.

Renewal

Given the significant value of Council's asset base, renewal investment forms a major component of the capital works budget. Appropriate renewal investment helps to ensure that Council's assets continue to deliver the service levels and standards expected by the community and work is continually undertaken by the organisation to check, assess and maintain the condition of these assets.

Renewal is apportioned across the various asset classes, in accordance with modelling, asset management plans and current asset conditions. Service and Asset managers prioritise individual renewal projects based on condition assessments, service levels and standards, and community feedback. Budgets have been allocated to ensure that the useful lives of Council's assets are maximised.

Throughout this process, minor upgrades may be considered within the renewal budget where there is a need to increase the asset's level of service due to demand growth or strategic direction. Conversely, major upgrades of this nature would be excluded from the renewal program but would be considered and prioritised within the new/upgrade/ expansion capital works.

The current renewal allocation of $35.8M is offset by income from the Commonwealth Government Roads to Recovery Program ($2.25M) and Local Roads and Community Infrastructure Program ($3.4M), plant and fleet trade-ins ($980,000), and other contributions.

A detailed renewal capital works project list and associated costs are provided to Council to review as part of the budget approval process.

ANNUAL PLAN

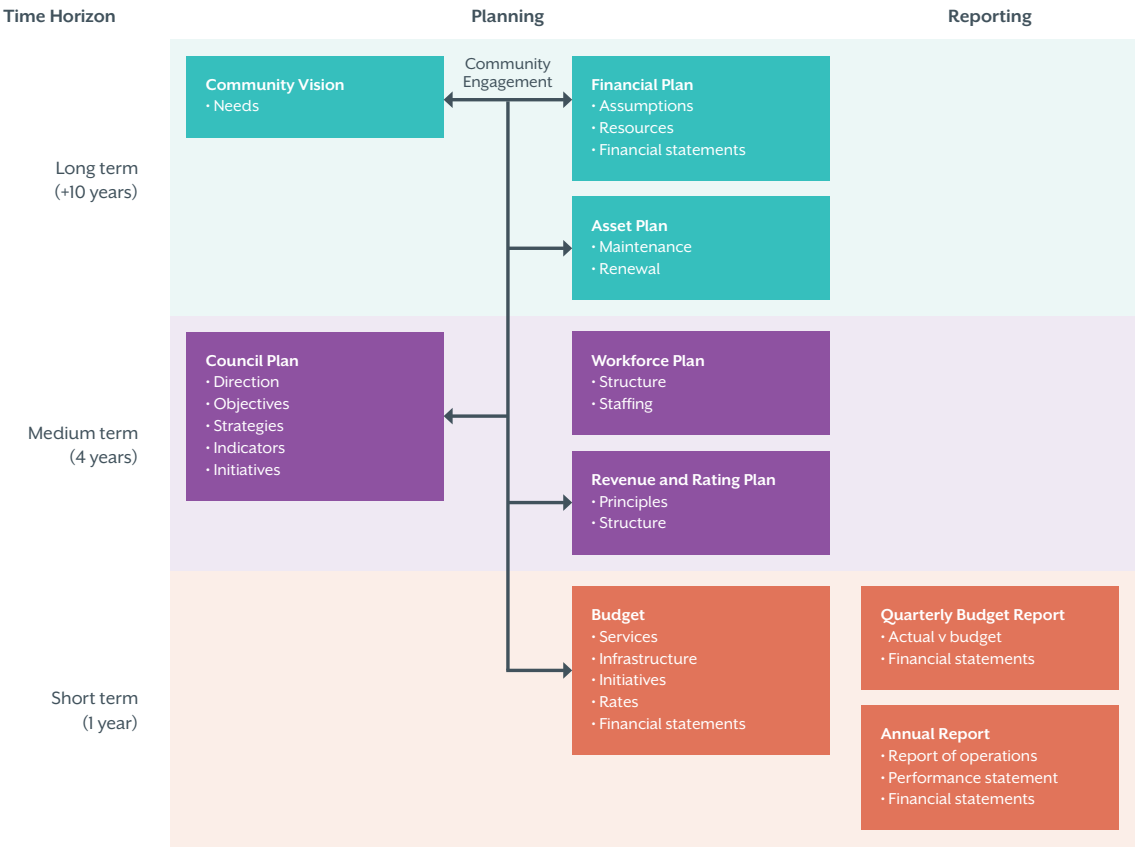
The City of Greater Bendigo in 2021 launched Imagine Greater Bendigo – a long-term planning project where residents were asked to imagine Greater Bendigo in 30 years' time. The project sought community feedback on projects and strategy development; and the online "Let's Talk" Greater Bendigo enables better communication on progress of current projects. The following Annual Plan details the major initiatives and initiatives incorporated into planning for the current financial year.

1. LINK TO THE INTEGRATED 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 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 planning and reporting framework that applies to local government in Victoria. At each stage of the integrated 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 planning and reporting framework is critical to the successful achievement of the planned outcomes.

1.1.2 KEY PLANNING CONSIDERATIONS

Although councils have a legal obligation to provide many services—such as animal management, local roads, food safety and statutory planning—a number of 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. The City has processes to support service planning and review, to ensure all services continue to provide value for money and are in line with community expectations. The City seeks to engage with the community to determine how to prioritise resources and balance service provision against other responsibilities such as asset maintenance and capital works.

Community consultation is undertaken in line with the adopted Community Engagement Policy and Public Transparency Policy.

1.2 OUR COMMUNITY VISION

Greater Bendigo celebrates our diverse community. We are welcoming, sustainable and prosperous. Walking hand-in-hand with the traditional custodians of this land. Building on our rich heritage for a bright and happy future.

Our values and behaviours outline how staff work together to be the best organisation we can be for our community:



1.3 OUTCOMES

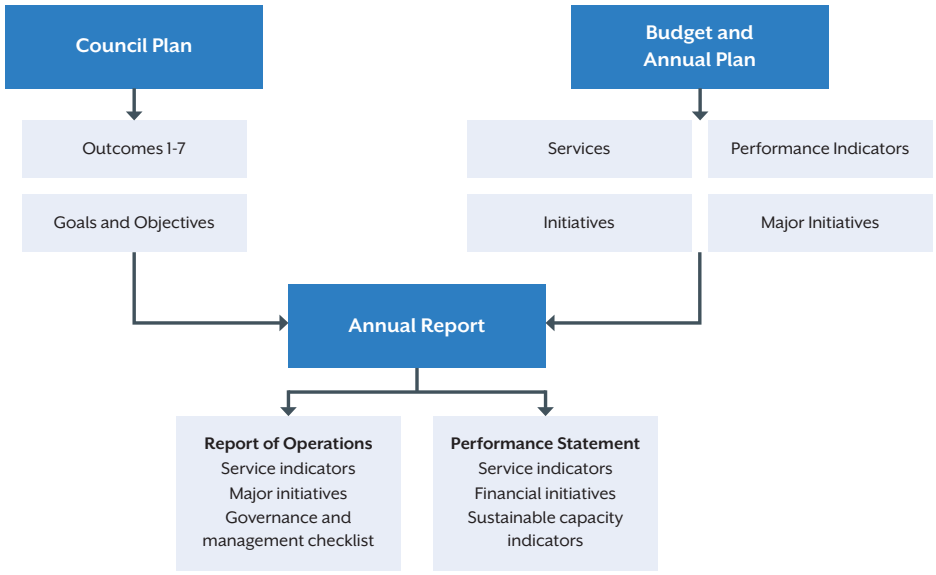
The City delivers activities and initiatives under 37 goals. Each contributes to the achievement of one of seven outcomes as set out in the Council Plan – Mir wimbul 2021 – 2025. The following table lists the seven strategic goals as described in the current Council Plan:

Outcome	Goal
1. **Lead and govern for all**	• Accountable, financially responsible, equitable, transparent decision making • Commitment to innovation, systems improvement and learning • Active community engagement and excellence in customer service • Leadership that sets a standard for good governance and integrity in action, working in partnership with regional Councils
2. **Healthy, liveable spaces and places**	• Strengthened community health and wellbeing • A healthy, equitable and sustainable food system • Everyday walking and cycling is easier for all ages and abilities • The supply and quality of affordable housing is increased • Improved active transport services • More people live in 10-minute neighbourhoods • Sustainable population growth is planned for • Targeted investment in services, facilities and programs to communities most at need
3. **Strong, inclusive and sustainable economy**	• Inclusive employment opportunities for all, sustainable jobs and investment and a diverse economy • Education and training pathways that fulfil the City's employment needs • A transformed and revitalised City Centre • Employment land available for industry expansion and attraction • A strong vibrant tourism sector • Improved safe freight networks
4. **Aboriginal reconciliation**	• Respecting and celebrating our Traditional Owners and Aboriginal and Torres Strait Islander Peoples and cultures through all levels of our organisation • Strengthening our trust, relationships and partnerships with Traditional Owners and the Aboriginal and Torres Strait Islander community • Enhanced wellbeing of our Aboriginal and Torres Strait Islander Community
5. **A climate resilient and healthy landscape**	• Zero carbon • Circular economy • Thriving landscapes and ecosystems • Water Sensitive Bendigo
6. **A vibrant, creative community**	• A culture of creativity • More activated spaces • Nurturing and supporting talent and championing inclusion and access for creatives • Build international recognition for our designation as a UNESCO Creative City – City of Gastronomy • Recognise and celebrate our significant national and international heritage
7. **A safe, welcoming and fair community**	• A community that values gender equity and is free from violence against women • A welcoming community that understands and respects cultural and religious differences and supports multiculturalism • Young people are supported to explore, engage and be empowered to shape the world they live in • A community that values and engages with people of all ages and abilities • A community who feels safe • A community that promotes equity and addresses poverty and disadvantage • Emergencies are prevented or mitigated

2. SERVICES, INITIATIVES AND SERVICE PERFORMANCE INDICATORS

This section provides a description of the services and initiatives to be funded in the Budget for 2022/2023 and how these will contribute to achieving the strategic outcomes outlined in the Council Plan. It also describes several major initiatives and service performance outcome indicators for key areas of the City's operations.

The City is required by legislation to identify initiatives and service performance indicators in the Budget and report against them in the Annual Report to support transparency and accountability. The relationship between these requirements in the Council Plan, the Budget and the Annual Report is shown below.



The City has continued to endorse a vision for improved liveability for our community. Knowing where we are making progress towards this vision requires us to set measures and benchmarks for Greater Bendigo to be compared with other municipalities and monitor our performance against these.

Further detail on services are on the following pages and summarised by outcomes – noting there are often cross-overs between delivery of outcomes. The City's organisational structure is available on its website at www.bendigo.vic.gov.au.



2.1 OUTCOME 1: LEAD AND GOVERN FOR ALL

A community that works together to achieve our shared vision.

The goals for outcome 1 are:

- Accountable, financially responsible, equitable, transparent decision making
- Commitment to innovation, systems improvement and learning
- Active community engagement and excellence in customer service
- Leadership that sets a standard for good governance and integrity in action, working in partnership with regional Councils

Outcome 1: Lead and govern for all				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Office of CEO and Communications	Exp	1,600	1,791	2,105
	Rev	(15)	(40)	-
	NET	**1,585**	**1,751**	**2,105**
The Office of the CEO and Communications provides strategic leadership to the organisation, implementation of Council decisions including the Council Plan and other key strategic directions. It provides representation and advocacy on key issues of importance to Greater Bendigo and the region. Communications ensures the community is well informed of City news and information is distributed using various communication channels available. It also promotes the City's services and events to the community.				
Corporate Performance Directorate	Exp	361	447	397
	Rev	-	-	-
	NET	**361**	**447**	**397**
The Corporate Performance Directorate leads, enables and strengthens our organisation to ensure it has the resources and capability to deliver on the Council Plan. The Directorate does this through developing our people and culture, systems and processes, good governance practices and financial stewardship to ensure the delivery of high-quality services and programs. The Directorate leads innovation and business transformation to ensure we are ready to meet the challenges and opportunities of the future in partnership with our community.				
Customer Experience and Corporate Planning	Exp	2,456	2,578	2,677
	Rev	(4)	(1)	(3)
	NET	**2,452**	**2,577**	**2,674**
The Customer Experience and Corporate Planning unit supports the organisation to continuously review and improve its service and program delivery. Operations are continually transformed and renewed, using the opportunities provided by technology, to deliver services that best meet customer needs. Customer service needs are met effectively and efficiently, including providing multiple options for customers to access council services.				
Financial Strategy	Exp	4,088	4,188	4,625
	Rev	(680)	(689)	(770)
	NET	**3,408**	**3,499**	**3,855**
The Financial Strategy unit is responsible for finance operations, rates, strategic asset management and the project management framework. The unit provides long-term financial planning to support the ongoing financial sustainability of Council's operations. This includes delivery of the annual budget, financial plan, asset plan, financial statements, performance statements and a range of other Local Government regulatory reporting.				
Governance	Exp	5,039	4,846	5,176
	Rev	(192)	(167)	(165)
	NET	**4,847**	**4,679**	**5,011**
The Governance unit is responsible for providing advice and support to the Councillors and organisation to aid decision making and ensure that the Council is compliant with legislative responsibilities and good governance practices. The unit also supports effective risk management; legal advice; and ensures procurement is undertaken in a considered and responsible way to deliver on Council's and the community's objectives.				

Outcome 1: Lead and govern for all				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Information Management	Exp	3,895	4,409	4,191
	Rev	-	-	-
	NET	**3,895**	**4,409**	**4,191**
The Information Management unit's purpose is to lead and support the efficient provision of customer-focused service delivery. The unit supplies and maintains business systems that are accurate, accessible, reliable, and secure while also benefiting from new technologies. It also aims to improve processes and service levels and make systems more efficient.				
Change and Transformation	Exp	1,763	1,839	2,274
	Rev	(1,011)	(527)	-
	NET	**752**	**1,312**	**2,274**
The Change and Transformation unit is responsible for leading the City into the new Galkangu building focusing on all aspects of change related to people, process, and technology. The unit is responsible for the end to end delivery of large digital transformation projects, which includes implementation of new technologies and major upgrades to existing systems.				
People and Culture	Exp	3,725	4,020	4,583
	Rev	(4,416)*	(82)	(224)
	NET	**(691)**	**3,938**	**4,359**
The People and Culture unit supports the organisation to recruit, develop and retain the people and skills required to deliver the best services we can for the community. The unit works across the organisation to embed our preferred culture and values to ensure our workplaces are safe and inclusive.				

** The 2020/2021 actual included $4.8M of grant revenue and offsetting expenditure relating to the Working for Victoria program.*

Major initiatives 2022/2023

- Implement Pathway and TechOne enhancements
- Purchase and install the GovHub technology and communication equipment

Initiatives 2022/2023

- Finalise approach and commence implementing an integrated data management system across Council
- Review the Community Planning model

Service performance outcome indicators

Service	Indicator	Performance Measure	Actual 2020/2021
Governance	Satisfaction	Satisfaction with council decisions	54

Refer to table at section 2.8 for information on the calculation of Service Performance Outcome Indicators

2.2 OUTCOME 2: HEALTHY, LIVEABLE SPACES AND PLACES

A community that works together to achieve our shared vision.

The goals for outcome 2 are:

- Strengthened community health and wellbeing
- A healthy, equitable and sustainable food system
- Everyday walking and cycling is easier for all ages and abilities
- The supply and quality of affordable housing is increased
- Improved active transport services
- More people live in 10-minute neighbourhoods
- Sustainable population growth is planned for
- Targeted investment in services, facilities and programs to communities most at need

Outcome 2: Healthy, liveable spaces and places				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Healthy Communities and Environments Directorate	Exp	909	744	531
	Rev	(248)	(13)	-
	NET	**661**	**731**	**531**

The Healthy Communities and Environments Directorate leads work in partnership with other units across the organisation and external stakeholder to ensure the community is:

- Healthy and well
- Safe and secure
- Able to participate
- Connected to culture and community
- Liveable and environmentally sustainable

It does this by leading research, planning, policy development, capacity building and facilitating key partnership initiatives using approaches that are evidence informed, apply an equity lens and are continuously evaluated.

Presentation and Assets Directorate	Exp	5,460	4,661	1,194
	Rev	-	-	-
	NET	**5,460**	**4,661**	**1,194**

The Presentation and Assets Directorate provides and maintains high quality assets and services that help make Greater Bendigo a great place to live, while planning and delivering new assets and services to support Bendigo's ongoing growth. Demonstrating and committing to environmentally responsible thinking and practices, and encouraging this throughout the organisation and community, is an important focus for the directorate. Business units include Engineering, Resource Recovery and Education, Works, Parks and Open Space and Property Services.

Active and Healthy Communities	Exp	6,015	7,365	6,262
	Rev	(1,104)	(1,907)	(284)
	NET	**4,911**	**5,458**	**5,978**

The Active and Healthy Communities unit delivers integrated policy, planning, programs and infrastructure that support our community by providing healthier options that are aligned with the Greater Bendigo Health and Wellbeing Plan priorities and framework.

Community Wellbeing	Exp	12,340	12,150	12,623
	Rev	(11,752)	(12,403)	(12,099)
	NET	**588**	**(253)**	**524**

The Community Wellbeing unit delivers a broad range of services to children and families across the City that aim to promote children's learning and development. It also provides community-based services to frail aged residents to promote independent living and prevent premature admission to long term residential care.

Engineering	Exp	5,082	5,695	5,381
	Rev	(720)	(997)	(618)
	NET	**4,362**	**4,698**	**4,763**

The Engineering unit develops and delivers physical infrastructure to support a broad range of services to the community. This includes the development of capital works projects to provide renewal and new assets to meet the expanding population of Bendigo and increasing community expectations. The unit is responsible for strategic planning of infrastructure through asset management and development of strategic plans for asset groups. The unit also provides support services across the organisation in areas of asset management and GIS.

Strategic Planning	Exp	3,590	2,573	3,224
	Rev	(185)	(13)	(10)
	NET	**3,405**	**2,560**	**3,214**

The Strategic Planning Unit is strategic and visionary in its outlook. It develops integrated, long term strategies and plans to guide the physical, social, environmental, heritage and cultural development of Greater Bendigo. The Unit strategically positions Greater Bendigo to plan and prepare for a population of 200,000 by the year 2050, including undertaking planning scheme amendments to implement the strategies and plans.

Outcome 2: Healthy, liveable spaces and places				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Works	Exp	12,700	13,424	13,684
	Rev	(274)	(166)	(112)
	NET	**12,426**	**13,258**	**13,572**

The Works unit is responsible for the construction of new projects and renewal maintenance of the City's existing civil infrastructure. The team undertake the construction and maintenance of the City's roads, drains and footpaths, and the civil works construction of sporting facilities, car parks and other civil projects. The unit is responsible for the organisation's plant and fleet assets, including purchase, maintenance and disposal. The unit also delivers maintenance works in accordance with the Road Management Plan.

Major initiatives 2022/2023

- Commence the development of a Community Gardens Policy and Nature Strip Guidelines
- Advocate for changes through participation with key multi-agency groups to promote healthy food environments
- Advocate to State and Federal governments for funding for the priority list of walking and cycling developments
- Build collaborations between the public and private housing sectors to support the development of quality affordable housing
- Complete the Mercy Junortoun Sports Precinct development at Catherine McAuley College
- Work with the Victorian Department of Education to deliver a new kindergarten for the Marong community

Initiatives 2022/2023

- Advocate for improved transport links for Bendigo including improved connections to the Bendigo Metro Train Network
- Advocate to State Government for a free bus service for the City centre
- Identify opportunities to promote and improve local tracks and trails across Greater Bendigo
- Progress the Maiden Gully Precinct Structure Plan and implementation of the Marong Township Structure Plan, and prepare the respective Development Contributions Plan
- Progress the strategic planning for Huntly South East (Urban Growth Zone Land)
- Implement the Design and Approval phase of the Heathcote Integrated Precinct redevelopment
- Construct the O'Keefe Rail Trail carpark and public toilets at Longlea Lane
- Deliver Stage 1 planning for the dry facilities at the Peter Krenz Centre
- Renewal/Upgrade Spring Gully Soccer Club field lighting
- Construct new training nets at Mandurang Cricket Club (subject to government funding)
- Design the Cricket Nets for the Marist College Joint Use Facility
- Complete design for new sports field training lighting at California Gully Recreation Reserve
- Demolish the McIvor Road Skate Park
- Complete the detailed design for the Strathfieldsaye Green Spine to provide vegetated open space between Wellesley Street and Apsley Lane
- Commence construction of the Lake Weeroona Playspace (Stage 2)

Service performance outcome indicators

Service	Indicator	Performance Measure	Actual 2020/2021
Aquatic Facilities	Utilisation	Utilisation of aquatic facilities	2.92
Maternal and Child Health	Participation	Participation in the Maternal and Child Health (MCH) service	77.34%
Maternal and Child Health	Participation	Participation in the MCH service by Aboriginal children	72.20%

Refer to table at section 2.8 for information on the calculation of Service Performance Outcome Indicators

2.3 OUTCOME 3: STRONG, INCLUSIVE AND SUSTAINABLE ECONOMY

An inclusive, sustainable and prosperous community where all people can thrive

The goals for outcome 3 are:

- Inclusive employment opportunities for all, sustainable jobs and investment and a diverse economy
- Education and training pathways that fulfil the City's employment needs
- A transformed and revitalised City Centre
- Employment land available for industry expansion and attraction
- A strong vibrant tourism sector
- Improved safe freight networks

Outcome 3: Strong, inclusive and sustainable economy				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Strategy and Growth Directorate	Exp	629	404	404
	Rev	(441)	(65)	-
	NET	**188**	**339**	**404**
The Strategy and Growth Directorate incorporates responsibility for Bendigo Art Gallery, Business Services, Bendigo Venues and Events, Economic Development, Strategic Planning, Statutory Planning, and Tourism and Major Events. The overarching role of the Strategy and Growth Directorate is to contribute to the economic, cultural and social prosperity of our region by identifying and supporting investment opportunities, employment generation and the integrated planning for the sustainable growth of our City and region.				
Economic Development	Exp	3,408	6,165	4,121
	Rev	(2,068)	(3,215)	(1,544)
	NET	**1,340**	**2,950**	**2,577**
The Economic Development unit looks to improve the standard of living within Greater Bendigo by facilitating the growth and diversity of local jobs, the support of innovation and development of a socially inclusive and environmentally sustainable economy that is growing and productive. The unit also incorporates the day to day operations and guides the strategic direction of the Bendigo Airport and Bendigo Livestock Exchange and leads the organisation's business partnerships and relationships with the Bendigo Stadium, Golden Dragon Museum, Bendigo Showgrounds, Discovery Science and Technology Centre and Bendigo Heritage Attractions.				
Statutory Planning	Exp	2,984	2,833	2,579
	Rev	(2,744)	(2,935)	(3,061)
	NET	**240**	**(102)**	**(482)**
The Statutory Planning unit facilitates the delivery of timely and quality planning decisions and advice and ensures compliance with relevant legislation and permit requirements. Many of the services delivered by the Statutory Planning unit are in accordance with State Government legislation and local strategies and policies adopted by Council following intensive community consultation.				
Tourism and Major Events	Exp	4,546	5,328	4,885
	Rev	(666)	(890)	(1,173)
	NET	**3,880**	**4,438**	**3,712**
The Tourism and Major Events unit promotes Greater Bendigo as an attractive destination for business, leisure and tourism to domestic and international visitors. The unit's role is to deliver key initiatives that have a positive economic and social impact for our region.				

Major initiatives 2022/2023

- Implement a governance and partnership model for a Stronger Greater Bendigo
- Develop an investment prospectus for the City (Invest Bendigo) and Loddon Mallee region
- Complete an Employment Strategy for Greater Bendigo that responds to the Macklin review
- Facilitate a planning scheme amendment for the removal of minimum car parking rates from the City of Greater Bendigo Planning Scheme
- Commence the next stage of the Bendigo Airport redevelopment project including the Business Park and Terminal Expansion

Initiatives 2022/2023

- Extend the security fence at the Bendigo Airport
- Construct a concrete helicopter stand and fuel truck parking area at the Bendigo Airport
- Complete the Bendigo Tramways Expansion Project
- Develop a transport prospectus
- Advocate for funding to redevelop the Golden Dragon Museum
- Advocate for funding for infrastructure required to support the Bendigo Regional Employment Precinct
- Continue to investigate scope and feasibility of improving shelter at the Bendigo Livestock exchange in consultation with stakeholders

Service performance outcome indicators

Service	Indicator	Performance Measure	Actual 2020/2021
Statutory Planning	Decision Making	Council planning decisions upheld by VCAT	87.5%

Refer to table at section 2.8 for information on the calculation of Service Performance Outcome Indicators

2.4 OUTCOME 4: ABORIGINAL RECONCILIATION

A community that recognises and respects Aboriginal people and culture and enables the self-determination of Traditional Owners.

The goals for outcome 4 are:

- Respecting and celebrating our Traditional Owners and Aboriginal and Torres Strait Islander Peoples and cultures through all levels of our organisation
- Strengthening our trust, relationships and partnerships with Traditional Owners and the Aboriginal and Torres Strait Islander community
- Enhanced wellbeing of our Aboriginal and Torres Strait Islander Community

The City of Greater Bendigo's Reconciliation Plan 2021- 2025 (Barpangu) provides a clear direction for the City in advancing reconciliation and supporting our local Aboriginal and Torres Strait Islander communities. It articulates how the organisation, Council and our partners will engage in reconciliation over the next four years and includes our responsibilities under the Dja Dja Wurrung and Taungurung Recognition and Settlement Agreements. This Plan aims to build on the achievements from the City's first Reconciliation Plan over 2016-2019, while also outlining new actions and aspirational strategies to further advance reconciliation both internally within the organisation and externally with our partners. A whole-of-Council approach was taken in the development of this Reconciliation Plan, which aims to:

- Continue building on the work and success of our first Reconciliation Plan 2016-2019
- Continue implementing local government commitments under the Dja Dja Wurrung and Taungurung
- Recognition and Settlement Agreements, and strengthen our partnerships with the Registered Aboriginal Parties
- Increase the inclusiveness, equity, representation and quality of life for Aboriginal and Torres Strait Islander communities in Greater Bendigo
- Enhance the acknowledgement, recognition and respect for Traditional Owner culture and history in Greater Bendigo
- Promote and facilitate respect, trust and positive relationships between Aboriginal and non-Aboriginal community members as part of reconciliation

Major initiative 2022/2023

- Identify three potential Aboriginal place naming sites across Greater Bendigo

Initiative 2022/2023

- Co-design a process to support increased self-determination of Dja Dja Wurrung and Taungurung people to heal Country

2.5 OUTCOME 5: A CLIMATE RESILIENT AND HEALTHY LANDSCAPE

A regional community that enjoys a restored and thriving natural environment.

The goals for outcome 5 are:

- Zero carbon
- Circular economy
- Thriving landscapes and ecosystems
- Water Sensitive Bendigo

Outcome 5: A climate resilient and healthy landscape				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Climate Change and Environment	Exp	275	1,200	1,473
	Rev	-	(90)	(110)
	NET	**275**	**1,110**	**1,363**
The Climate Change and Environment units provides a coordinated approach to the development and implementation of environmental policies, strategies and programs that aim to address the climate change and biodiversity breakdown. The unit works across the organisation and with the community to reduce greenhouse gas emissions, enhance biodiversity and waterway health.				
Parks and Open Space	Exp	13,830	12,235	12,086
	Rev	(360)	(351)	(339)
	NET	**13,470**	**11,884**	**11,747**
The Parks and Open Space unit is responsible for the management and design of a large portfolio of parks, gardens, reserves, sports fields and areas of open space for the City. The unit has a range of specialised park, design, horticultural and environmental management techniques and practices. The aim of the unit is to effectively and sustainably manage these assets through the efficient use of available resources and the provision of high levels of customer service whilst meeting both Council and stakeholder needs.				
Resource Recovery and Education	Exp	23,178	23,548	25,978
	Rev	(6,825)	(7,741)	(7,526)
	NET	**16,353**	**15,807**	**18,452**
The Resource Recovery and Education unit provides waste management and resource recovery services to efficiently and effectively meet our customers' expectations and in compliance with current legislation. The unit is responsible for street and footpath cleaning, weed management and the cleaning at bus stops, bus shelters and roundabouts. The rehabilitation of landfills to community expectations and EPA standards and reducing waste to landfill through achieving a circular economy.				

Major initiatives 2022/2023

- Identify priority projects to reduce emissions in the community as a part of the Greater Bendigo Climate Collaboration
- Implementation of Gurri Wanyarra Energy Efficiency Initiatives to reduce energy consumption and carbon emissions
- Progress a planning scheme amendment to implement the elevating Environmentally Sustainable Design (ESD) Targets in the Planning System project in collaboration with other councils
- Continue transitioning away from gas in Council facilities

Initiatives 2022/2023

- Deliver Street Lighting Energy Efficiency (Lighting the Regions) for year three of the program
- Scope a Gateway Study for Big Hill and Mandurang landscape preservation
- Develop a Biodiversity Strategy
- Finalise detailed designs for instream works that improve the environmental values of Bendigo Creek
- Develop a Zero Carbon Plan that sets out the pathway to achieve zero net emissions by 2030 for the organisation's operations

Service performance outcome indicators

Service	Indicator	Performance Measure	Actual 2020/2021
Waste Collection	Waste diversion	Kerbside collection waste diverted from landfill	50.19%

Refer to table at section 2.8 for information on the calculation of Service Performance Outcome Indicators

2.6 OUTCOME 6: A VIBRANT, CREATIVE COMMUNITY

A community that inspires a culture of creativity, activates its spaces, nurtures and supports talent, champions inclusion and access, and shows the world.

The goals for outcome 6 are:

- A culture of creativity
- More activated spaces
- Nurturing and supporting talent and championing inclusion and access for creatives
- Build international recognition for our designation as a UNESCO Creative City – City of Gastronomy
- Recognise and celebrate our significant national and international heritage

Outcome 6: A vibrant, creative community				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Bendigo Art Gallery	Exp	3,665	5,276	3,618
	Rev	(1,639)	(3,403)	(724)
	NET	**2,026**	**1,873**	**2,894**
Bendigo Art Gallery develops and delivers exhibitions, public programs and associated events for Bendigo Art Gallery and the Post Office Gallery that are educational and appealing to a diverse range of audiences and add to the attraction of Bendigo as a centre for arts and culture.				
Bendigo Venues and Events	Exp	3,666	5,083	6,552
	Rev	(996)	(2,569)	(4,374)
	NET	**2,670**	**2,514**	**2,178**
The Bendigo Venues and Events unit provides quality performing arts programming and activities to the central Victorian region and provides facilities and opportunities for participation in the arts.				

Major initiatives 2022/2023

- Redevelop the Municipal Baths in Rosalind Park
- Complete heritage studies for the Former Shire of Huntly (Stage 2) and Bendigo South East (Stage 2)

Initiatives 2022/2023

- Advocate for funding for the World Heritage listing of the Central Victorian goldfields
- Advocate for funding expansion of the Bendigo Art Gallery

2.7 OUTCOME 7: A SAFE, WELCOMING AND FAIR COMMUNITY

A community where people are respected, safe to participate in all aspects of community life and have equitable access to the resources they need.

The goals for outcome 7 are:

- A community that values gender equity and is free from violence against women
- A welcoming community that understands and respects cultural and religious differences and supports multiculturalism
- Young people are supported to explore, engage and be empowered to shape the world they live in
- A community that values and engages with people of all ages and abilities
- A community who feels safe
- A community that promotes equity and addresses poverty and disadvantage
- Emergencies are prevented or mitigated

Outcome 7: A safe, welcoming and fair community				
Service Unit and Description of services provided		**2020/2021 Actual $'000**	**2021/2022 Forecast $'000**	**2022/2023 Budget $'000**
Community Partnerships	Exp	5,805	5,780	6,040
	Rev	(1,717)	(1,735)	(1,529)
	NET	**4,088**	**4,045**	**4,511**
The Community Partnerships unit works closely with the community to plan and develop policy and programs that increase community safety, engagement and connection, prevent discrimination and improve access and inclusion for diverse groups across the community.				
Goldfields Library Services	Exp	3,191	3,237	3,190
	Rev	(162)	-	(95)
	NET	**3,029**	**3,237**	**3,095**
The Goldfields Library Corporation provides a public library service from six sites throughout the municipality, with branches in Bendigo, Kangaroo Flat, Eaglehawk and Heathcote, along with Library agencies at Axedale and Elmore. The Bendigo Library also includes the Bendigo Regional Archive Centre. This service is delivered under a Funding and Service Agreement in partnership with Loddon, Mount Alexander and Macedon Ranges Shires.				
Property Services	Exp	8,508	6,983	7,914
	Rev	(1,094)	(1,050)	(1,208)
	NET	**7,414**	**5,933**	**6,706**
The Property Services unit's main purpose is to ensure that community assets (buildings and properties) are developed, upgraded, maintained and utilised to ensure the greatest benefit and lifestyle for members of the community. The team is committed to ensure that council facilities are safe for public use and comply with the relevant codes and standards.				
Safe and Healthy Environments	Exp	6,406	7,369	7,450
	Rev	(6,880)	(8,372)	(8,879)
	NET	**(474)**	**(1,003)**	**(1,429)**
The Safe and Healthy Environments unit's purpose is to advocate, enable and mediate with and on behalf of the community to promote and protect health, prevent the spread of infectious disease, ensure safe development and support the protection of our environments, and operate the City's pound and animal shelter services at BARC. This is achieved by delivering integrated regulation, policy, planning and programs.				

Major initiatives 2022/2023

- Complete an Active Women and Girls Strategy
- Advocate for and support the development of the Heathcote Dementia Village
- Deliver Changing Place at a community facility

Initiatives 2022/2023

- Complete the Community Safety Strategy
- Advocate for funding of works to protect Epsom and Huntly as identified in the Epsom Ascot Huntly Flood Mitigation Study
- Expand the street lighting network to improve access and safety
- Expand the network of footpaths with the new footpath construction program

Service performance outcome indicators

Service	Indicator	Performance measure	Actual 2020/2021
Animal Management	Health and Safety	Animal management prosecutions	100%
Food Safety	Health and Safety	Critical and major non-compliance notifications	71.23%
Libraries	Participation	Active library members	10.34%
Roads	Satisfaction	Satisfaction with sealed local roads	61.00

Refer to table at section 2.8 for information on the calculation of Service Performance Outcome Indicators



2.8 SERVICE PERFORMANCE OUTCOME INDICATORS COMPUTATION METHODS

Service	Indicator	Performance measure	Computation
Animal Management	Health and Safety	Animal management prosecutions	[Number of successful animal management prosecutions / Total number of animal management prosecutions]
Aquatic Facilities	Utilisation	Utilisation of aquatic facilities	[Number of visits to aquatic facilities/Municipal population]
Food Safety	Health and Safety	Critical and major non-compliance notifications	[Number of critical non-compliance outcome notifications and major non-compliance notifications about a food premises followed up / Number of critical non- compliance outcome notifications and major non- compliance outcome notifications about a food premises] x100
Governance	Satisfaction	Satisfaction with Council decisions	Community satisfaction rating out of 100 with how Council has performed in making decisions in the interests of the community
Libraries	Participation	Active library members	[The sum of the number of active library borrowers in the last 3 financial years / The sum of the population in the last 3 financial years] x100
Maternal and Child Health	Participation	Participation in the Maternal and Child Health (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
Maternal and Child Health	Participation	Participation in 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
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
Statutory Planning	Decision making	Council planning decisions upheld by 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
Waste Collection	Waste diversion	Kerbside collection waste diverted from landfill	[Weight of recyclables and green organics collected from kerbside bins / Weight of garbage, recyclables and green organics collected from kerbside bins] x100

2.9 RECONCILIATION WITH BUDGETED OPERATING RESULT

	Attributed Revenue $'000	Expenditure $'000	Net Cost $'000
Lead and govern for all	1,162	26,028	24,866
Healthy, liveable spaces and places	13,123	42,900	29,777
Strong, inclusive and sustainable economy	5,778	11,990	6,212
Aboriginal reconciliation	-	-	-
A climate-resilient built and natural environment	7,975	39,537	31,562
A vibrant, creative community	5,097	10,168	5,071
A safe, welcoming and fair community	11,711	24,595	12,884
Total services and initiatives	**44,846**	**155,218**	**110,372**
Non-cash financial Reporting Adjustments			
Contributions - developer constructed infrastructure			(12,000)
(Gain) / loss on assets disposed			4,020
Borrowing costs			997
Finance costs - leases			350
Depreciation and amortisation			46,456
Other non-attributable revenue/expenditure			(2,145)
Total non-cash financial reporting adjustments			**37,678**
Deficit before funding sources			**148,050**
Funding sources			
Rates and charges			139,298
Victorian Grants Commission Financial Assistance Grants			19,962
Capital project income			20,220
Surplus / (deficit) for the year			**31,430**

BUDGET REPORTS

3. FINANCIAL STATEMENTS AND STATEMENT OF HUMAN RESOURCES

This section presents information regarding the Financial Statements and Statement of Human Resources. The budget information for the year 2022/2023 has been supplemented with projections to 2025/2026.

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 2021/2022 $'000	Budget 2022/2023 $'000	Projections 2023/2024 $'000	2024/2025 $'000	2025/2026 $'000
Income						
Rates and charges	**4.1.1**	133,108	139,298	144,288	149,709	154,982
Statutory fees and fines	**4.1.2**	4,681	5,101	5,203	5,320	5,426
User Fees	**4.1.3**	25,604	25,589	25,717	26,296	26,821
Grants - operating	**4.1.4**	33,018	29,315	29,901	30,574	31,186
Grants - capital	**4.1.4**	25,187	19,923	10,244	4,342	4,389
Contributions - monetary	**4.1.5**	2,305	2,707	2,761	2,823	2,880
Contributions - non-monetary	**4.1.5**	15,225	12,000	13,000	13,000	13,000
Other income	**4.1.6**	2,350	2,357	2,399	2,442	2,486
Total income		**241,478**	**236,290**	**233,513**	**234,506**	**241,170**
Expenses						
Employee costs	**4.1.7**	74,370	77,771	81,251	83,649	86,289
Materials and services	**4.1.8**	74,153	74,403	77,384	80,159	82,811
Depreciation	**4.1.9**	42,415	42,726	44,036	46,315	47,704
Amortisation - intangible assets	**4.1.9**	645	930	1,035	105	105
Amortisation - right of use assets	**4.1.9**	2,439	2,800	1,051	685	453
Bad and doubtful debts		471	261	242	248	-
Borrowing costs		1,281	999	967	959	794
Finance costs - leases		258	350	96	56	26
Net loss on disposal of property, infrastructure, plant and equipment		4,073	4,020	3,120	3,120	3,120
Other expenses		1,567	600	1,200	1,250	1,270
Total expenses		**201,672**	**204,860**	**210,382**	**216,546**	**222,572**
Surplus for the year		**39,806**	**31,430**	**23,131**	**17,960**	**18,598**
Other comprehensive income *Items that will not be reclassified to surplus or deficit in future periods*						
Net asset revaluation increment / (decrement)		61,098	56,387	42,145	64,694	44,775
Share of other comprehensive income of associates		95	95	49	46	23
Total comprehensive result		**100,999**	**87,912**	**65,325**	**82,700**	**63,396**

BALANCE SHEET

For the four years ending June 30, 2026

	NOTES	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Projections 2023/2024 $'000	2024/2025 $'000	2025/2026 $'000
Current Assets						
Cash and cash equivalents		70,992	67,983	69,489	71,050	73,753
Trade and other receivables		10,939	12,014	11,793	11,874	12,487
Inventories		150	155	160	162	165
Other assets		1,842	1,857	1,872	1,890	1,908
Total Current Assets	**4.2.1**	**83,923**	**82,009**	**83,314**	**84,976**	**88,313**
Non-Current Assets						
Trade and other receivables		31	31	31	31	31
Investments in associates		3,555	3,555	3,555	3,555	3,555
Property, infrastructure, plant and equipment		1,794,147	1,883,409	1,955,237	2,035,491	2,090,519
Right-of-use assets	**4.2.4**	6,634	2,525	1,474	789	336
Forestry plantations		105	105	105	105	105
Intangible assets		2,105	2,000	1,895	1,789	1,684
Total Non-Current Assets	**4.2.1**	**1,806,577**	**1,891,625**	**1,962,297**	**2,041,760**	**2,096,230**
TOTAL ASSETS		**1,890,500**	**1,973,634**	**2,045,611**	**2,126,736**	**2,184,543**
Current Liabilities						
Trade and other payables		12,856	15,357	16,158	16,732	17,270
Trust funds and deposits		3,284	3,317	3,350	3,384	3,417
Unearned income		6,474	6,474	6,474	6,474	6,474
Provisions		18,929	18,929	18,929	18,929	18,929
Interest Bearing Liabilities and Borrowings	**4.2.3**	4,851	5,208	6,570	6,639	4,749
Lease liabilities	**4.2.4**	2,618	1,072	697	478	317
Total Current Liabilities	**4.2.2**	**49,012**	**50,357**	**52,178**	**52,636**	**51,156**
Non-Current Liabilities						
Provisions		11,482	11,482	11,482	11,482	11,482
Interest bearing liabilities and borrowings	**4.2.3**	20,110	16,976	22,503	20,949	17,157
Lease liabilities	**4.2.4**	4,536	1,546	849	371	54
Total Non-Current Liabilities	**4.2.2**	**36,128**	**30,004**	**34,834**	**32,802**	**28,693**
TOTAL LIABILITIES		**85,140**	**80,361**	**87,012**	**85,438**	**79,849**
NET ASSETS		**1,805,360**	**1,893,273**	**1,958,599**	**2,041,298**	**2,104,694**
Equity						
Accumulated surplus		781,525	816,836	840,129	858,544	876,147
Reserves		1,023,835	1,076,437	1,118,470	1,182,754	1,228,547
TOTAL EQUITY		**1,805,360**	**1,893,273**	**1,958,599**	**2,041,298**	**2,104,694**

STATEMENT OF CHANGES IN EQUITY

For the four years ending June 30, 2026

	NOTES	Total $'000	Accumulated Surplus $'000	Revaluation Reserves $'000	Other Reserves $'000
2022 Forecast					
Balance at beginning of the financial year		**1,704,361**	740,693	930,566	33,102
Surplus for the year		**39,901**	39,901	-	-
Net asset revaluation increment		**61,098**	-	61,098	-
Transfers to/from other reserves		**0**	931	-	(931)
Balance at end of the financial year		**1,805,360**	**781,525**	**991,664**	**32,171**
2023 Budget					
Balance at beginning of the financial year		**1,805,360**	781,525	991,664	32,171
Surplus for the year		**31,525**	31,525	-	-
Net asset revaluation increment		**56,388**	-	56,388	-
Transfers to/from other reserves		**-**	3,786	-	(3,786)
Balance at end of the financial year	**4.3**	**1,893,273**	**816,836**	**1,048,052**	**28,385**
2024 Projection					
Balance at beginning of the financial year		**1,893,273**	816,836	1,048,052	28,385
Surplus for the year		**23,180**	23,180	-	-
Net asset revaluation increment		**42,145**	-	42,145	-
Transfers to/from other reserves		**(0)**	113	-	(113)
Balance at end of the financial year		**1,958,599**	**840,129**	**1,090,197**	**28,272**
2025 Projection					
Balance at beginning of the financial year		**1,958,599**	840,129	1,090,197	28,272
Surplus for the year		**18,007**	18,007	-	-
Net asset revaluation increment		**64,694**	-	64,694	-
Transfers to/from other reserves		**-**	408	-	(408)
Balance at end of the financial year		**2,041,301**	**858,544**	**1,154,891**	**27,864**
2026 Projection					
Balance at beginning of the financial year		**2,041,301**	858,544	1,154,891	27,864
Surplus for the year		**18,620**	18,620	-	-
Net asset revaluation increment		**44,775**	-	44,775	-
Transfers to/from other reserves		**-**	(1,017)	-	1,017
Balance at end of the financial year		**2,104,696**	**876,147**	**1,199,666**	**28,881**

STATEMENT OF CASH FLOWS

For the four years ending June 30, 2026

	NOTES	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Projections 2023/2024 $'000	2024/2025 $'000	2025/2026 $'000
Cash flows from operating activities						
Rates and charges		133,108	138,525	143,893	149,253	154,546
Statutory fees and fines		4,550	5,070	5,192	5,307	5,415
User fees		25,604	25,436	25,684	26,231	26,763
Grants - operating		33,018	29,140	29,839	30,499	31,117
Grants - capital		17,187	19,804	10,752	4,653	4,382
Contributions - monetary		2,305	2,707	2,761	2,823	2,880
Other receipts		2,140	1,997	2,091	2,124	2,162
Interest received		340	271	276	283	288
Trust funds and deposits taken		-	33	33	34	34
Employee costs		(74,370)	(76,495)	(80,929)	(83,391)	(86,030)
Materials and services		(73,123)	(72,379)	(78,121)	(81,109)	(83,818)
Net cash provided by/(used in) operating activities	**4.4.1**	**70,759**	**74,109**	**61,471**	**56,707**	**57,739**
Cash flows from investing activities						
Payments for property, infrastructure, plant and equipment		(75,460)	(69,531)	(65,749)	(52,974)	(49,058)
Proceeds from sale of property, infrastructure, plant and equipment		-	980	980	980	980
Proceeds from investments		95	95	49	46	23
Net cash provided by/ (used in) investing activities	**4.4.2**	**(75,365)**	**(68,456)**	**(64,720)**	**(51,948)**	**(48,055)**
Cash flows from financing activities						
Finance costs		(1,281)	(999)	(967)	(959)	(794)
Proceeds from borrowings		-	5,126	12,658	5,315	1,000
Repayment of borrowings		(15,599)	(7,903)	(5,769)	(6,800)	(6,682)
Interest paid - lease liability		(258)	(350)	(96)	(56)	(26)
Repayment of lease liabilities		(2,339)	(4,536)	(1,072)	(697)	(478)
Net cash provided by/ (used in) financing activities	**4.4.3**	**(19,477)**	**(8,662)**	**4,754**	**(3,197)**	**(6,980)**
Net increase/(decrease) in cash and cash equivalents		**(24,083)**	**(3,009)**	**1,505**	**1,562**	**2,704**
Cash and cash equivalents at the beginning of the financial year		95,075	70,992	67,983	69,488	71,050
Cash and cash equivalents at the end of the financial year		**70,992**	**67,983**	**69,488**	**71,050**	**73,754**

STATEMENT OF CAPITAL WORKS

For the four years ending June 30, 2026

	NOTES	Forecast Actual 2021/2022 $'000	Budget 2022/2023 $'000	Budget Projections 2023/2024 $'000	2024/2025 $'000	2025/2026 $'000
Property						
Building		12,317	19,550	24,781	16,594	14,895
Land		3,568	3,000	-	1,662	2,000
Total property		**15,885**	**22,550**	**24,781**	**18,256**	**16,895**
Plant and Equipment						
Fixtures, fittings and furniture		801	8,398	1,257	250	250
Plant, machinery and equipment		4,825	3,860	3,258	3,328	4,007
Total plant and equipment		**5,626**	**12,258**	**4,515**	**3,578**	**4,257**
Infrastructure						
Land improvements		8,612	7,618	8,427	4,571	3,844
Bridges		1,562	660	685	699	734
Sealed roads		11,938	11,789	15,909	14,030	11,816
Unsealed roads		3,200	3,300	2,187	2,229	2,340
Pathways		3,174	3,785	3,402	3,183	3,342
Drainage		2,609	3,072	3,053	3,990	3,270
Public furniture and fittings		1,997	4,444	2,630	2,275	2,389
Fountains, statues and monuments		55	55	160	163	171
Total infrastructure		**33,147**	**34,723**	**36,453**	**31,140**	**27,906**
Total capital works expenditure	**4.5.2**	**54,658**	**69,531**	**65,749**	**52,974**	**49,058**
Represented by:						
New asset		18,949	33,351	28,877	15,364	10,696
Renewal		35,386	35,830	36,872	37,610	38,362
Upgrade		323	350	-	-	-
Total capital works expenditure	**4.5.2**	**54,658**	**69,531**	**65,749**	**52,974**	**49,058**
Funding sources represented by:						
Grants		17,392	19,922	10,244	4,342	4,389
Contributions		2,016	1,277	980	980	980
Council Cash		35,250	43,206	41,867	42,337	42,689
Borrowings		-	5,126	12,658	5,315	1,000
Total annual capital works program	**4.5.2**	**54,658**	**69,531**	**65,749**	**52,974**	**49,058**
Carry forward projects from prior year	**4.5.3**	**12,125**	**17,900**	**6,575**	**5,297**	**4,906**
Total capital works expenditure including carry forwards		**66,783**	**87,431**	**72,324**	**58,271**	**53,964**

STATEMENT OF HUMAN RESOURCES

For the four years ending June 30, 2026

	Budget 2022/2023 $'000	Projections 2023/2024 $'000	2024/2025 $'000	2025/2026 $'000
Office of the CEO				
Permanent - Full time	1,194	1,248	1,285	1,325
Female	796	832	857	883
Male	398	416	428	442
Self-described gender	-	-	-	-
Permanent - Part time	212	222	228	236
Female	106	111	114	118
Male	106	111	114	118
Self-described gender	-	-	-	-
Total Office of the CEO	**1,406**	**1,470**	**1,513**	**1,561**
Corporate Performance				
Permanent - Full time	10,707	11,187	11,517	11,880
Female	6,031	6,301	6,486	6,691
Male	4,676	4,886	5,031	5,189
Self-described gender	-	-	-	-
Permanent - Part time	2,989	3,122	3,214	3,316
Female	2,456	2,522	2,596	2,678
Male	533	556	573	591
Self-described gender	-	44	45	47
Total Corporate Performance	**13,696**	**14,309**	**14,731**	**15,196**
Presentation and Assets				
Permanent - Full time	19,501	20,373	20,974	21,636
Female	2,905	3,034	3,123	3,222
Male	16,596	17,339	17,851	18,414
Self-described gender	-	-	-	-
Permanent - Part time	1,222	1,278	1,315	1,357
Female	611	595	612	632
Male	611	639	658	678
Self-described gender	-	44	45	47
Total Presentation and Assets	**20,723**	**21,651**	**22,289**	**22,993**
Health and Wellbeing				
Permanent - Full time	10,927	11,416	11,753	12,124
Female	7,462	7,796	8,026	8,280
Male	3,465	3,620	3,727	3,844
Self-described gender	-	-	-	-
Permanent - Part time	11,049	11,543	11,884	12,259
Female	9,466	9,845	10,136	10,456
Male	1,583	1,654	1,703	1,756
Self-described gender	-	44	45	47
Total Health and Wellbeing	**21,976**	**22,959**	**23,637**	**24,383**

	Budget 2022/2023 $'000	Projections 2023/2024 $'000	2024/2025 $'000	2025/2026 $'000
Strategy and Growth				
Permanent - Full time	7,831	8,181	8,422	8,689
Female	4,786	5,000	5,147	5,310
Male	3,045	3,181	3,275	3,379
Self-described gender	-	-	-	-
Permanent - Part time	4,476	4,677	4,815	4,966
Female	3,554	3,714	3,823	3,943
Male	922	963	992	1,023
Self-described gender	-	-	-	-
Total Strategy and Growth	**12,307**	**12,858**	**13,237**	**13,655**
Casuals, temporary and other expenditure	6,413	6,698	6,898	7,114
Capitalised labour costs	1,250	1,306	1,344	1,387
Total staff expenditure	**77,771**	**81,251**	**83,649**	**86,289**

	Budget 2022/2023 FTE	Projections 2023/2024 FTE	2024/2025 FTE	2025/2026 FTE
Office of the CEO				
Permanent - Full time	9.0	9.2	9.3	9.5
Female	6.0	6.1	6.2	6.3
Male	3.0	3.1	3.1	3.2
Self-described gender	-	-	-	-
Permanent - Part time	1.6	1.6	1.7	1.7
Female	0.8	0.8	0.9	0.9
Male	0.8	0.8	0.8	0.8
Self-described gender	-	-	-	-
Total Office of the CEO	**10.6**	**10.8**	**11.0**	**11.2**
Corporate Performance				
Permanent - Full time	87.0	88.6	90.3	91.9
Female	49.0	49.9	50.9	51.8
Male	38.0	38.7	39.4	40.1
Self-described gender	-	-	-	-
Permanent - Part time	20.2	20.6	20.9	21.3
Female	16.6	16.4	16.7	17.0
Male	3.6	3.7	3.7	3.8
Self-described gender	-	0.5	0.5	0.5
Total Corporate Performance	**107.2**	**109.2**	**111.2**	**113.2**

	Budget 2022/2023 FTE	Projections 2023/2024 FTE	2024/2025 FTE	2025/2026 FTE
Presentation and Assets				
Permanent - Full time	235.0	239.3	243.7	248.1
Female	35.0	35.6	36.3	36.9
Male	200.0	203.7	207.4	211.2
Self-described gender		-	-	-
Permanent - Part time	7.6	7.8	7.9	8.0
Female	3.8	3.5	3.5	3.5
Male	3.8	3.8	3.9	4.0
Self-described gender	-	0.5	0.5	0.5
Total Presentation and Assets	**242.6**	**247.1**	**251.6**	**256.1**
Health and Wellbeing				
Permanent - Full time	123.0	125.3	127.5	129.8
Female	84.0	85.6	87.2	88.7
Male	39.0	39.7	40.3	41.1
Self-described gender	-	-	-	-
Permanent - Part time	122.4	124.6	126.9	129.2
Female	104.8	106.3	108.2	110.2
Male	17.6	17.8	18.2	18.5
Self-described gender	-	0.5	0.5	0.5
Total Health and Wellbeing	**245.4**	**249.9**	**254.4**	**259.0**
Strategy and Growth				
Permanent - Full time	108.0	110.0	112.0	114.0
Female	66.0	67.2	68.4	69.7
Male	42.0	42.8	43.6	44.3
Self-described gender	-	-	-	-
Permanent - Part time	35.8	36.5	37.1	37.8
Female	28.4	29.0	29.5	30.0
Male	7.4	7.5	7.6	7.8
Self-described gender	-	-	-	-
Total Strategy and Growth	**143.8**	**146.5**	**149.1**	**151.8**
Casuals and temporary staff	41.8	42.5	43.4	44.0
Capitalised labour	19.0	19.4	19.7	20.1
Total staff numbers	**810.4**	**825.4**	**840.4**	**855.4**

Note: where aggregate data collected is not large enough to de-identify individuals, the City has not published that data.

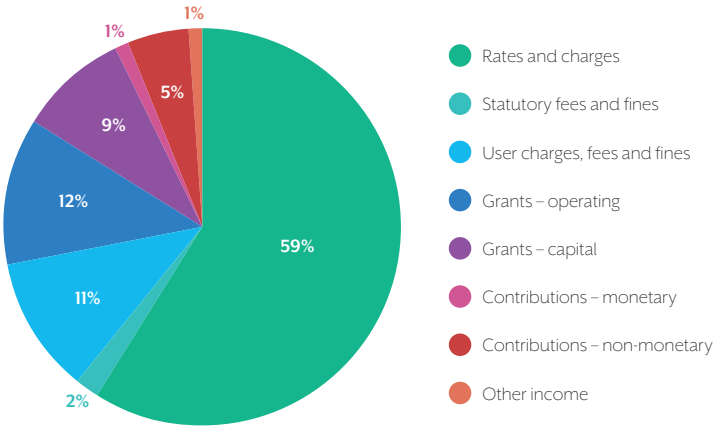
4. NOTES TO THE FINANCIAL STATEMENTS

This section presents detailed information on material components of the financial statements. The City assesses which components are material, considering the dollar amounts and nature of these components.

4.1 COMPREHENSIVE INCOME STATEMENT

INCOME

The following graph presents a snapshot of income budgeted for the 2022/2023 financial year.



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 are 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 2022/2023 the FGRS cap has been set at 1.75 per cent. The cap applies to general rates and is calculated based on 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 the Council Plan objectives while maintaining service levels and a strong capital expenditure program, the proposed budget average general rate will increase by 1.75 per cent in line with the rate cap.

Due to the additional costs associated with running the City's waste services, largely attributed to the increased landfill levy as set by the Environmental Protection Agency, effective July 1, 2022, the general waste and landfill charge will increase this financial year. General waste charges cover costs per tonne of waste for landfill; future year landfill remediation costs; and costs to ensure the ongoing responsible management of waste. These fees only recoup the costs involved in providing waste management services. The general waste and recycle bin charges have been increased by 10 per cent. For a property with a 140L bin in an organics area, this equates to an extra $18.00 per property. The organics waste charge will increase by 2 per cent.

This will raise total rates and charges for 2022/2023 of $139.3M, including an estimated $2.0M generated from supplementary rates.

The City acknowledges that circumstances may impact on some people's ability to pay rates and charges. Financial Hardship Guidelines have been developed to support anyone experiencing financial difficulties, these can be accessed on the City's website or by contacting customer service via the City's website.

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

	Adopted Budget 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
General rates*	108,307	112,168	3,861	3.6%
Waste management charge	22,981	25,279	2,298	10.0%
Supplementary rates and rate adjustments	1,600	2,000	400	25.0%
Revenue in lieu of rates	47	51	4	8.5%
Interest on rates and charges	-	267	267	100.0%
Early payment discount	-	(467)	(467)	(100.0%)
Total rates and charges	**132,935**	**139,298**	**6,363**	**4.8%**

** These items are subject to the rate cap established under the FGRS. The increase in average rates is 1.75 per cent, please refer to 4.1.1(j) for a reconciliation of compliance with the rate cap calculations as per the Essential Services Commission. The remainder of the growth is predominantly due to supplementary assessments and other growth in the number of overall assessments.*

4.1.1(b) The following table is an estimate of the rate in the dollar to be levied as general rates for each type or class of land compared with the previous financial year to comply with the rate cap. Final valuations were declared generally true and correct and certified by the Minister in May 2022.

Type or class of land	2021/2022 cents/$CIV	2022/2023 cents/$CIV	Change cents/$CIV
Local Government Act 2020			
General Rate	0.377494	0.284099	(0.093293)
A differential rate for rateable Commercial/Industrial A properties	0.698370	0.525588	(0.172593)
A differential rate for rateable Commercial/Industrial B properties	0.679490	0.511379	(0.167928)
A differential rate for rateable Commercial/Industrial C properties	0.717239	0.539789	(0.177257)
A differential rate for rateable farm properties	0.283121	0.213075	(0.069970)
A differential rate for rateable vacant Land properties	0.471868	0.355124	(0.187834)
> Residential and rural Residential			
A differential rate for rateable other land properties	0.698370	0.525588	(0.172840)
A differential rate for rateable vacant land properties	0.471868	0.355124	(0.187834)
> Forest Edge Estate Maiden Gully			
A differential rate for rateable residential properties	0.377494	0.284099	(0.093427)
> Forest Edge Estate Maiden Gully			
A differential rate for rateable Commercial/Industrial properties	0.698370	0.525588	(0.343365)
> Forest Edge Estate Maiden Gully			
Cultural and Recreational Lands Act 1963			
Rate concession for rateable CRLA properties Class 1 *	0.000000	0.000000	0.000000
Rate concession for rateable CRLA properties Class 2 *	0.000000	0.000000	0.000000
Rate concession for rateable CRLA properties Class 3 *	0.000000	0.000000	0.000000
Rate concession for rateable CRLA properties Class 4 *	0.000000	0.000000	0.000000
Rate concession for rateable CRLA properties Class 5 *	0.000000	0.000000	0.000000

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	Adopted Budget 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
General rate	77,848	83,598	5,750	7.4%
Commercial/Industrial	22,982	20,342	(2,640)	(11.5%)
Farm rate	2,646	2,833	187	7.1%
Vacant - residential and rural residential	4,790	5,360	570	11.9%
Cultural and recreational *	-	-	-	-
Rating agreements	47	51	4	8.5%
Forest Edge Estate Maiden Gully	41	35	(6)	(14.6%)
Total amount to be raised by general	**108,354**	**112,219**	**3,867**	**3.6%**

**Council has determined to levy a nil rate in the dollar for properties eligible to be rated under the provisions of the Cultural and Recreational Lands Act (1963).*

Differential rates for properties located within the Forest Edge Estate Maiden Gully are in place to recover the future cost of maintaining a fire buffer (after the completion of a 24 month maintenance period in which the property developer will pay the cost of maintaining the fire buffer, commencement date not yet determined) for the estate being vacant land, a residential and a Commercial/Industrial differential rate.

Council continues to comply with the Essential Service Commission's FGRS. The cap has been set at 1.75 per cent for the 2022/2023 financial year. Please see 4.1.1(j) for the compliance reconciliation.

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	2021/2022 Number	2022/2023 Number	Change Number
General Rate	51,118	52,100	982
Commercial/Industrial A	2,539	2,559	20
Commercial/Industrial B	270	275	5
Commercial/Industrial C	1,121	1,108	(13)
Farm rate	1,162	1,152	(10)
Vacant land - residential and rural residential	4,243	4,202	(41)
Cultural and recreational class 1	5	6	1
Cultural and recreational class 2	9	9	-
Cultural and recreational class 3	7	7	-
Cultural and recreational class 4	15	15	-
Cultural and recreational class 5	19	19	-
Rating agreements	146	146	-
Vacant land - Forest Edge Estate Maiden Gully	1	1	-
Total number of assessments	**60,655**	**61,599**	**944**

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.

Type or class of land	Adopted Budget 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
General rate	20,614,428	29,425,796	8,811,368	42.7%
Commercial/Industrial A	2,031,202	2,461,121	429,919	21.2%
Commercial/Industrial B	161,056	196,471	35,415	22.0%
Commercial/Industrial C	1,072,744	1,186,025	113,281	10.6%
Farm rate	934,819	1,329,569	394,750	42.2%
Vacant land - residential and rural residential	1,014,667	1,509,218	494,551	48.7%
Cultural and recreational and rating agreements	86,201	92,232	6,031	7.0%
Vacant - Forest Edge Estate Maiden Gully	8,600	9,775	1,175	13.7%
Total Value of land	**25,923,717**	**36,210,207**	**10,286,490**	**39.7%**

4.1.1(g) 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 2021/2022 $	Per Rateable 2022/2023 $	Change %
General waste and landfill charge - 120/140 Litre bin (property located within organic waste collection area)*	179.00	197.00	10.1%
General waste and landfill charge - 240 Litre bin (property located within organic waste Collection area)*	328.00	361.00	10.1%
General waste and landfill charge - 120/140 Litre bin (property located outside organic waste collection area)*	206.00	227.00	10.2%
General waste and landfill charge - 240 Litre bin (property located outside organic waste collection area)*	356.00	391.00	9.8%
Recyclable waste charge	98.00	107.45	1.5%
Recyclable waste charge in excess of one bin (per additional bin)	48.00	53.15	10.7%
Organic waste charge	94.00	95.90	2.0%
Organic waste charge in excess of one bin (per additional bin)	48.00	49.25	2.6%
Garbage collection and disposal - Commercial/Industrial properties as specified in Council's Garbage and Recycling Charge Policy			
General waste and landfill charge - commercial properties - 120/140 Litre bin*	206.00	227.00	10.2%
General waste and landfill charge - commercial properties - 240 Litre bin*	356.00	391.00	9.8%
Garbage collection and disposal in specific commercial areas as specified in Council's Garbage and Recycling Charge Policy			
General waste and landfill charge - 1 day per week*	356.00	391.00	9.8%
General waste and landfill charge - 2 days per week*	712.00	782.00	9.8%
General waste and landfill charge - 3 days per week*	1068.00	1,173.00	9.8%
General waste and landfill charge - 5 days per week*	1780.00	1,955.00	9.8%
General waste and landfill charge - 7 days per week*	2492.00	2,737.00	9.8%

** Increases in general waste and landfill charges is reflective of a 19 per cent increase in the EPA landfill levy, a levy payable by the City per tonne of waste disposed of via landfill and additional costs related to glass diversion/collection.*

4.1.1(h) 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	Adopted Budget 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
General waste and landfill charge - 120/140 Litre bin (property located within organic waste collection area)	5,816	6,664	848	14.6%
General waste and landfill charge - 240 Litre bin (property located within organic waste Collection area)	4,384	4,709	325	7.4%
General waste and landfill charge - 120/140 Litre bin (property located outside organic waste collection area)	798	905	107	13.4%
General waste and landfill charge - 240 Litre bin (property located outside organic waste collection area)	564	610	46	8.2%
Recyclable waste charge	5,187	5,759	572	11.0%
Organic waste charge	4,091	4,270	179	4.4%
Garbage collection and disposal - Commercial/ Industrial properties as specified in Council's Garbage and Recycling Charge Policy				
General waste and landfill charge - commercial properties - 120/140 Litre bin	145	165	20	13.8%
General waste and landfill charge - commercial properties - 240 Litre bin	1,031	1,127	96	9.3%
Garbage collection and disposal in specific commercial areas as specified in Council's Garbage and Recycling Charge Policy				
General waste and landfill charge - 1 day per week	322	355	33	10.2%
General waste and landfill charge - 2 days per week	93	98	5	5.4%
General waste and landfill charge - 3 days per week	230	257	27	11.7%
General waste and landfill charge - 5 days per week	171	190	19	11.1%
General waste and landfill charge - 7 days per week	149	170	21	14.1%
Total	**22,981**	**25,279**	**2,298**	**10.0%**

4.1.1(i) The estimated total amount to be raised by all rates and charges compared with the previous financial year.

Type or class of land	Adopted Budget 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
General Rates	108,354	112,219	3,865	3.6%
General waste and landfill, recyclable and organic waste charge	22,981	25,279	2,298	10.0%
Rates and Charges	**131,335**	**137,498**	**6,163**	**4.7%**
Supplementary rates	1,600	2,000	400	25.0%
Total rates and charges*	**132,935**	**139,498**	**6,563**	**4.9%**

** Total rates and changes after early payment discount and interest are $139.3M, as per 4.1.1(a)*

4.1.1(j) 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.

	Adopted Budget 2021/2022	Budget 2022/2023
Total rates	106,752,364	110,288,876
Number of rateable properties	60,655	61,599
Base average rates	**1,760**	**1,790**
Maximum rate increase (set by the State Government)	1.50%	1.75%
Capped average rate	1,786	1,822
Maximum general rates and municipal charges revenue	108,329,830	112,218,931
Budgeted general rates and municipal charges revenue	108,353,649	112,218,931

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

There are no known significant changes that 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:

- Supplementary valuations (2022/2023: estimated $2.0M, 2021/2022: $1.6M)
- The variation of returned levels of value (e.g. valuation appeals)
- Changes of use of land such that rateable land becomes non-rateable land or vice versa
- Changes of use of land such that residential land becomes business land or vice versa
- The impact of the COVID-19 pandemic on some people's ability to pay rates and charges

General waste charges increase to cover higher costs per tonne of waste for landfill, as levied by the Environmental Protection Agency; landfill remediation costs; and costs to ensure the ongoing responsible management of waste. These fees only recoup the costs involved in providing waste management services. As with previous years the EPA levy will increase in 2022/2023, there are three different rates depending on the method of disposal and each is set to increase by 19 per cent. For example one of the levy's will increase by $10 from $52.95 to $62.95, the total tonnage disposed of by the City is approximately 63,000 tonnes.

4.1.2 STATUTORY FEES AND FINES

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Building and Planning	2,400	2,593	193	8.0%
Regulatory Services	190	291	101	53.3%
Fines	1,526	1,515	(11)	(0.7%)
Other Fees and Charges	565	702	137	24.2%
Total statutory fees and fines	**4,681**	**5,101**	**420**	**9.0%**

Statutory fees relate mainly to fees and fines levied in accordance with legislation and include animal registrations, Public Health and Wellbeing Act 2008 registrations and parking fines. Increases in statutory fees are made in accordance with legislative requirements. Statutory fees are projected to increase compared to 2021/2022 forecast. This is largely related to the volume of fees and fines returning to previous levels as the economy recovers from the COVID-19 pandemic.

The Department of Treasury and Finance sets the value of a penalty unit annually. A detailed listing of statutory fees and fines is included in Appendix A – Fees and Charges Schedule.

4.1.3 USER FEES, CHARGES AND FINES

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Aged and health services	442	590	148	33.6%
Children's services	3,837	3,632	(205)	(5.3%)
Parking	3,110	3,233	123	4.0%
Saleyard yarding	1,183	1,083	(99)	(8.4%)
Regulatory services	1,038	1,158	120	11.6%
Ticket income	3,384	3,430	47	1.4%
Sales income	706	624	(81)	(11.5%)
Waste management services	7,416	7,241	(175)	(2.4%)
Other Fees and Charges	4,490	4,596	106	2.4%
Total user fees	**25,604**	**25,589**	**(15)**	**(0.1%)**

User fees, charges and fines relate to the recovery of costs to deliver services through the charging of fees to users of the City's services. These include separate rating schemes, use of leisure, entertainment and other community facilities, and the provision of human services such as childcare and home and community care services.

User fees income is predicted to increase slightly as the effects of the COVID-19 pandemic ease, however the revenue is not expected to return to pre-COVID levels immediately. The increase is a combination of re-instating CPI increases to fees, which were frozen for both the 2020/2021 and 2021/2022 years, as well as an anticipation of increased volumes of users. It should be noted that fee increases are not intended to make up the lost revenue, but rather reinstate an annual increase where relevant.

A detailed listing of user fees, charges and fines is included in Appendix A - Fees and Charges Schedule.



4.1.4 GRANTS

Operating grants include monies from State and Commonwealth Government sources for the purposes of funding the delivery of the City's services to residents. The level of operating grants is projected to decrease by $5M compared to the 2021/2022 forecast. This is predominately due the 2021/2022 forecast including $2.5M for COVID-19 stimulus funding which provided Outdoor Dining initiatives, Visit Victoria regional promotions. A list of operating grants by type and source, classified into recurrent and non-recurrent is included in the tables below.

Capital grants include monies from State and Commonwealth government sources which contributes to funding the capital works program. The amount of capital grants received each year can fluctuate dramatically, depending on the timing of specific projects and state and federal government programs and priorities. To date it has been forecast that the City will receive $9.1M from the Commonwealth Government as stimulus in infrastructure development for the 2022/2023 financial year. Section 4.5 Capital Works Program includes further analysis of the grants and contributions expected to be received during the 2022/2023 financial year.

Any additional funding secured during the year will be incorporated into future adjustments to the City's budget. Grants are budgeted to be received in respect of the following:

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Summary of grants sources				
Commonwealth funded grants	32,243	34,162	1,919	6.0%
State funded grants	25,962	15,075	(10,887)	(41.9%)
Total grants received	**58,205**	**49,238**	**(8,968)**	**(15.4%)**
(a) Operating grants				
Recurrent - Commonwealth Government				
Victorian Grants Commission - Unallocated	14,596	15,962	1,366	9.4%
Victorian Grants Commission - Local Roads	3,855	3,964	109	2.8%
Aged care	4,436	4,569	133	3.0%
Health Services - Immunisation	10	10	-	0.0%
Recurrent - State Government				
Youth	161	171	10	6.2%
Aged care	772	772	-	0.0%
School crossing supervisors	284	278	(6)	(2.1%)
Maternal and child health	867	860	(7)	(0.8%)
Family and children	773	686	(87)	(11.2%)
Arts and Culture	392	295	(97)	(24.6%)
Emergency Management	60	60	-	0.0%
Environment	70	56	(14)	(19.7%)
Health Services - Sleep and Settling	499	435	(64)	(12.8%)
Health Services - Immunisation	65	65	-	0.0%
Total recurrent grants	**26,838**	**28,182**	**1,344**	**5.0%**

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Non-recurrent - State Government				
Health Services	1,707	-	(1,707)	(100.0%)
GovHub Transition	500	-	(500)	(100.0%)
Youth	21	-	(21)	(100.0%)
Business Development	455	-	(455)	(100.0%)
Arts and Culture	100	-	(100)	(100.0%)
Environment	76	-	(76)	(100.0%)
Jobs Advocate	500	202	(299)	(59.7%)
Tourism / Events Projects	800	-	(800)	(100.0%)
Outdoor Dining	813	-	(813)	(100.0%)
Family and children	90	-	(90)	(100.0%)
Community Partnerships	1,118	932	(187)	(16.7%)
Total non-recurrent grants	**6,181**	**1,133**	**(5,048)**	**(81.7%)**
Total operating grants	**33,018**	**29,315**	**(3,703)**	**(11.2%)**
(b) Capital Grants				
Recurrent - Commonwealth Government				
Roads to recovery	2,282	2,246	(36)	(1.6%)
Recurrent - State Government				
Total recurrent grants	**2,282**	**2,246**	**(36)**	**(1.6%)**
Non-recurrent - Commonwealth Government				
Buildings	4,720	5,442	722	15.3%
Land improvement	1,510	300	(1,210)	(80.1%)
Pathways	462	1,000	538	100.0%
Public Furniture and Fittings	-	600	600	100.0%
Sealed roads	372	70	(302)	(81.2%)
Non-recurrent - State Government				
Bridges	898	-	(898)	(100.0%)
Buildings	7,400	9,240	1,840	24.9%
Land improvement	3,297	489	(2,808)	(85.2%)
Drainage	200	-	(200)	(100.0%)
Lighting	163	-	(163)	(100.0%)
Plant, machinery and equipment	27	-	(27)	(100.0%)
Public Furniture and fittings	122	135	14	100.0%
Pathways	108	-	(108)	(100.0%)
Sealed roads	3,626	400	(3,226)	(89.0%)
Total non-recurrent grants	**22,905**	**17,677**	**(5,228)**	**(22.8%)**
Total capital grants	**25,187**	**19,923**	**(5,264)**	**(20.9%)**
Total Grants	**58,205**	**49,238**	**(8,968)**	**(15.4%)**

4.1.5 CONTRIBUTIONS

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Monetary	2,305	2,707	402	17.4%
Non-monetary	15,225	12,000	(3,225)	(21.2%)
Total contributions	**17,530**	**14,707**	**(2,823)**	**(16.1%)**

Monetary contributions represent funds received from community groups to contribute toward specific projects. Non-monetary contributions are developer constructed assets contributed by developers in accordance with planning permits issued for property development, including land, roads, footpaths, play spaces and drainage.

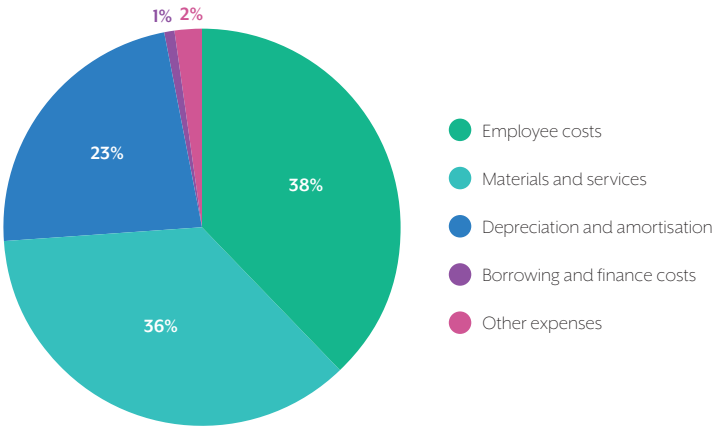
4.1.6 OTHER INCOME

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Interest	340	271	(69)	(20.3%)
Rental Income	1,672	1,840	168	10.0%
Other Income	338	246	(91)	(26.9%)
	2,350	**2,357**	**8**	**0.3%**

Other income is expected to have minimal change year on year. Interest revenue is budgeted to remain low which is consistent with commercial investment rates for deposits and based on the forecast actual interest revenue generated by the City in 2021/2022.

EXPENDITURE

The following graph presents a snapshot of expense types in the 2022/2023 financial year.



4.1.7 EMPLOYEE COSTS

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Wages and salaries	66,418	68,485	2,067	3.1%
WorkCover	978	1,200	222	22.8%
Superannuation	6,796	7,838	1,042	15.3%
Fringe Benefits Tax	178	248	70	39.3%
Total employee costs	**74,370**	**77,771**	**3,401**	**4.6%**

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

The change between financial years relates to the following:

- Some additional positions supported by successful grant funding secured to enable additional services to be provided to the community – predominantly through State or Commonwealth Government programs.
- New budget initiatives (often offset by funding arrangements) to ensure Council is achieving outcomes set out in the annual plan.
- Anticipated pay increases in line with the City's Enterprise Agreement (EA), estimated at 1.8 per cent in 2022/2023.
- Compulsory Superannuation Guarantee rate increases from 10 per cent to 10.5 per cent effective July 1, 2022.
- Band movements and reclassification of employees as prescribed by the EA awards.

A summary of human resources expenditure categorised according to the organisational structure of the City can be found in the Statement of Human Resources in section 3.

4.1.8 MATERIALS AND SERVICES

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Administration expenses	4,781	6,677	1,896	39.7%
Contract payments	34,372	34,540	168	0.5%
Contributions and donations	3,084	2,433	(651)	(21.1%)
Insurance	1,938	1,855	(83)	(4.3%)
Maintenance and consumables	11,582	11,655	73	0.6%
Materials	5,286	4,697	(589)	(11.1%)
Plant and equipment operating cost	6,400	5,744	(656)	(10.3%)
Utilities	6,710	6,802	92	1.4%
Total materials and services	**74,153**	**74,403**	**250**	**0.3%**

Materials and services include the purchases of consumables and payments to contractors for the provision of services and utilities. Materials and services are budgeted to Increase by 0.3 per cent compared to the 2021/2022 forecast.

While there are expected increases due to CPI factors on contracts, as well as growth in use of council facilities and services, this is largely offset by the fact the City annually reviews operating costs and continue to identify and implement efficiencies across services.

4.1.9 DEPRECIATION AND AMORTISATION

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Property	9,012	9,900	888	9.9%
Plant and equipment	3,523	3,345	(178)	(5.1%)
Infrastructure	29,880	29,481	(399)	(1.3%)
Amortisation - intangible assets	645	930	285	44.2%
Amortisation - right of use assets	2,439	2,800	361	14.8%
Total depreciation and amortisation	**45,499**	**46,456**	**957**	**2.1%**

Depreciation is an accounting measure and is a non-cash item which attempts to allocate the value of an asset over its useful life for the City's property, plant and equipment and infrastructure assets such as roads and drainage. Amortisation is the allocation of an intangible asset over its useful life. Overall increases in budgeted depreciation for the 2022/2023 financial year account for the City's increasing asset base.



4.2 BALANCE SHEET

4.2.1 ASSETS

Current assets $82M and non-current assets $2B

Key points related to the City's balance sheet asset disclosures:

- Cash and cash equivalents include cash and investments such as cash held in the bank and in petty cash, and investments held in deposits or other highly liquid investments with short term maturities of three months or less.
- Trade and other receivables are monies owed to the City by ratepayers and other debtors. All receivables are managed in accordance with the City's Revenue and Debt Collection policy.
- Investments in associates reflect the City's investment in the North Central Goldfields Library Corporation.
- Other assets include items such as prepayments for expenses that the City has paid in advance of service delivery, inventories or stocks held for sale or consumption in the City's services, and other revenues due to be received in the next 12 months. These are not expected to change significantly in 2022/2023.
- Property, infrastructure, plant and equipment make up the largest component of the City's assets and represents the value of all the land, buildings, roads, vehicles, equipment, etc. which has been built up by Council over many years.

4.2.2 LIABILITIES

Current liabilities $50.4M and non-current liabilities $30M

- Trade and other payables are those to whom the City owes money as at June 30.
- Provisions include accrued long service leave, annual leave days off owing to employees. An increase for Enterprise Agreement outcomes has been factored into these employee entitlements. Provisions also include a provision for landfill rehabilitations. Overall provision balances are expected to remain steady.

4.2.3 BORROWINGS

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

	Forecast 2021/2022 $'000	Budget 2022/2023 $'000	Change $'000	Change %
Amount borrowed as at June 30 of the prior year	40,560	24,961	(15,599)	(38.5%)
Amount proposed to be borrowed	-	5,126	5,126	-
Amount projected to be redeemed	(15,599)	(7,903)	7,696	(49.3%)
Amount of borrowings as at June 30	**24,961**	**22,184**	**(2,777)**	**(11.1%)**

The opening balance of the amount borrowed for 2022/2023 reflects the projected balance of Council's loan portfolio as at June 30, 2022. In 2022/2023 an upper limit is forecast for additional borrowings of $5.1M. $2.1M is to support specific strategic land purchases, capital projects and future development (residential and industrial) capital investments. The remaining $3M reflects estimates for projects which may be brought forward – or grant funding to support co-contributions for other projects. Loan facilities are now supported more directly by a Victorian Government entity since September 2021, as Treasury Corporation of Victoria now has the capacity to lend directly to Local Government entities.

Note that the projected balance of $22.0M by June 30, 2023 is disclosed on the balance sheet as current ($5.2M) and non-current ($17M).

4.3 STATEMENT OF CHANGES IN EQUITY

Equity – total $1.9B

Total equity always equals net assets and is made up of the following components:

- Asset revaluation reserve represents the difference between the previously recorded value of assets and their current valuations.
- Other reserves that are funds that the City wishes to separately identify as being set aside to meet a specific purpose in the future and to which there is no existing liability. These amounts are transferred from the accumulated surplus of the City to be separately disclosed.
- Accumulated surplus is the value of all net assets less reserves that have accumulated over time.

4.4 STATEMENT OF CASH FLOWS

This section analyses the expected cash flows from the operating, investing and financing activities of the City for the 2022/2023 year. Budgeting cash flows for the City is a key factor in setting the level of fees and charges. This provides 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

Operating activities ($74.1M inflow)

Operating activities refers to the cash generated or used in the normal service delivery functions of the City. Cash remaining after paying for the provision of services to the community may be available for investment in capital works or repayment of debt. The net cash flows from operating activities does not equal the surplus (deficit) 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

Investing Activities ($68.5M outflow)

Investing activities refers to cash generated or used in the enhancement or creation of infrastructure and other assets. These activities also include the acquisition and sale of other assets such as vehicles, property and equipment. The cash outflow from investing activities is tied to the expenditure in the capital program.

4.4.3 NET CASH FLOWS PROVIDED BY/USED IN FINANCING ACTIVITIES

Financing activities ($8.7M outflow)

Financing activities refers to cash generated or used in the financing of the City's functions. Activities include both the repayment of the principal component and the interest expense component of loan repayments for the year. Due to a change in accounting standards, financing activities also includes lease payments.

4.5 CAPITAL WORKS PROGRAM

This section presents a listing of the capital works projects that will be undertaken for the 2022/2023 year, classified by expenditure type and funding source. Works are also disclosed as 2022/2023 budget or carried forward from prior year. A carry forward refers to an allocation of funds that has not been used and/or received by the end of the financial year; however, these funds will be used and/or received in the following financial year. Carry forwards are often needed for projects that are delivered across multiple financial years.

4.5.1 SUMMARY

		Asset expenditure types			Summary of Funding Sources			
	Project Cost $'000	New $'000	Renewal $'000	Upgrade $'000	Grants $'000	Contrib. $'000	Council Cash $'000	Borrowings $'000
Property	32,661	22,501	9,810	350	14,682	5	14,474	3,500
Plant and equipment	12,518	7,818	4,700	-	-	980	11,538	-
Infrastructure	42,252	15,176	27,076	-	5,240	292	35,094	1,626
Total	**87,431**	**45,495**	**41,586**	**350**	**19,922**	**1,277**	**61,106**	**5,126**

Council will be undertaking $87.4M worth of Capital Works projects during the 2022/2023 financial year, with $69.5M of newly committed projects. $17.9M of the total expenditure relates to project funds that are expected to be carried forward from the 2021/2022 financial year.

Of the capital works budget, 52 per cent has been allocated to renewing and upgrading Council's existing assets. The remainder of the program is for delivery of new assets within the municipality.

4.5.2 CURRENT BUDGET

		Asset expenditure types			Summary of Funding Sources			
Capital Works Area	**Project Cost $'000**	**New $'000**	**Renewal $'000**	**Upgrade $'000**	**Grants $'000**	**Contrib. $'000**	**Council Cash $'000**	**Borrowings $'000**
Property								
Buildings	19,550	13,150	6,050	350	14,682	5	1,863	3,000
Land	3,000	3,000	-	-	-	-	2,500	500
Total Property	**22,550**	**16,150**	**6,050**	**350**	**14,682**	**5**	**4,363**	**3,500**
Plant and Equipment								
Fixtures, fitting and furniture	8,398	7,798	600	-	-	-	8,398	-
Plant, machinery and equipment	3,860	20	3,840	-	-	980	2,880	-
Total Plant and Equipment	**12,258**	**7,818**	**4,440**	**-**	**-**	**980**	**11,278**	**-**
Infrastructure								
Land Improvements	7,618	4,478	3,140	-	789	-	5,514	1,315
Bridges	660	-	660	-	-	-	660	-
Sealed Roads	11,789	889	10,900	-	2,716	-	8,762	311
Unsealed Roads	3,300	-	3,300	-	-	-	3,300	-
Pathways	3,785	1,885	1,900	-	1,000	-	2,785	-
Drainage	3,072	322	2,750	-	-	-	3,072	-
Public furniture and fittings	4,444	1,809	2,635	-	735	292	3,417	-
Fountains, statues and monuments	55	-	55	-	-	-	55	-
Total Infrastructure	**34,723**	**9,383**	**25,340**	**-**	**5,240**	**292**	**27,565**	**1,626**
Total 2022/2023 Capital Works	**69,531**	**33,351**	**35,830**	**350**	**19,922**	**1,277**	**43,206**	**5,126**

Available funds for capital works are driven by the long-term financial plan and guided by the Capital Investment Framework and Council Plan.

The total capital works Budget is split between two core components:

- Renewal of existing assets:

  The amounts allocated for renewal are guided by relevant asset renewal modelling and asset management policy and planning.

- New, upgrade or expansion:

  These projects are first defined in the capital project pipeline, require a Project Proposal and are then prioritised using the Capital Investment Framework (CIF).

CAPITAL WORKS HIGHLIGHTS OF THE BUDGET

Bendigo Airport Terminal and Precinct – Continuation of the multiyear project to deliver an expanded terminal building, new administration building and complete the first stage of a new business park ($5.4M expenditure, $5.4M grant funding in 2022/2023).

Bendigo Skate Park Relocation to Ewing Park Precinct – Continuation of the multiyear renewal and relocation of the Bendigo Skate Park to Ewing Park. The second stage of the Ewing Park Redevelopment will see construction of an adjacent learn to ride park and further upgrade of surrounding open space including a bouldering wall and fitness equipment; as well as reconstruction of Harcourt Street. ($1.8M expenditure)

Pathways – $3.8M on installing and maintaining new and existing footpaths, increasing accessibility and active transport opportunities.

Road Network Improvements – Renewal and construction of our sealed and unsealed local road network ($14.9M expenditure).

Community Buildings, Heritage and Recreation – $6.1M towards renewing our buildings for the benefit of our community; $6.2M renewal of recreation, aquatic and open space facilities to encourage community connection and health, including $950,000 renewal of the Strathfieldsaye Sports Club Clubrooms and $900,000 for the Brennan Park Swimming Pool.

A listing of all capital works projects can be viewed at Appendix B of this document.

4.5.3 FUNDING RELATING TO MULTI-YEAR CAPITAL WORKS CARRIED FORWARD FROM THE 2021/2022 YEAR

At the end of each financial year there are projects that are forecast to extend across multiple years for a variety of factors. These can include extended construction periods, planning issues, weather delays or additional consultation with the community. For the 2021/2022 year it is forecast that a total of $17.9M of capital works will be carried forward for completion in the 2022/2023 financial year.

		Asset expenditure types			Summary of Funding Sources			
Capital Works Area	**Project Cost $'000**	**New $'000**	**Renewal $'000**	**Upgrade $'000**	**Grants $'000**	**Contrib. $'000**	**Council Cash $'000**	**Borrowings $'000**
Property								
Buildings	7,340	3,580	3,760	-	-	-	7,340	-
Land	2,771	2,771	-	-	-	-	2,771	-
Total Property	**10,111**	**6,351**	**3,760**	**-**	**-**	**-**	**10,111**	**-**
Plant and Equipment								
Fixtures, fitting and furniture	260	-	260	-	-	-	260	-
Total Plant and Equipment	**260**	**-**	**260**	**-**	**-**	**-**	**260**	**-**
Infrastructure								
Land Improvements	4,019	3,985	34	-	-	-	4,019	-
Sealed Roads	602	602	-	-	-	-	602	-
Pathways	54	54	-	-	-	-	54	-
Drainage	725	-	725	-	-	-	725	-
Public furniture and fittings	2,129	1,152	977	-	-	-	2,129	-
Total Infrastructure	**7,529**	**5,793**	**1,736**	**-**	**-**	**-**	**7,529**	**-**
Total Carried Forward	**17,900**	**12,144**	**5,756**	**-**	**-**	**-**	**17,900**	**-**

4.6 SUMMARY OF PLANNED CAPITAL WORKS EXPENDITURE – YEARS ENDING JUNE 30, 2024, 2025 AND 2026

2023/2024

		Asset expenditure types		Summary of Funding Sources			
Capital Works Area	**Project Cost $'000**	**New $'000**	**Renewal $'000**	**Grants $'000**	**Contrib. $'000**	**Council Cash $'000**	**Borrowings $'000**
Property							
Buildings	24,781	16,357	8,424	7,953	-	9,328	7,500
Land	-	-	-	-	-	-	-
Total Property	**24,781**	**16,357**	**8,424**	**7,953**	**-**	**9,328**	**7,500**
Plant and Equipment							
Fixtures, fitting and furniture	1,257	1,007	250	-	-	1,257	-
Plant, machinery and equipment	3,258	-	3,258	-	980	2,278	-
Total Plant and Equipment	**4,515**	**1,007**	**3,508**	**-**	**980**	**3,535**	**-**
Infrastructure							
Land Improvements	8,427	5,955	2,472	-	-	8,427	-
Bridges	685	-	685	-	-	685	-
Sealed Roads	15,909	4,876	11,033	2,291	-	8,742	4,876
Unsealed Roads	2,187	-	2,187	-	-	2,187	-
Pathways	3,402	282	3,120	-	-	3,120	282
Drainage	3,053	-	3,053	-	-	3,053	-
Public furniture and fittings	2,630	400	2,230	-	-	2,630	-
Fountains, statues and monuments	160	-	160	-	-	160	-
Total Infrastructure	**36,453**	**11,513**	**24,940**	**2,291**	**-**	**29,004**	**5,158**
Total 2023/2024 Capital Works	**65,749**	**28,877**	**36,872**	**10,244**	**980**	**41,867**	**12,658**

2024/2025

		Asset expenditure types		Summary of Funding Sources			
Capital Works Area	**Project Cost $'000**	**New $'000**	**Renewal $'000**	**Grants $'000**	**Contrib. $'000**	**Council Cash $'000**	**Borrowings $'000**
Property							
Buildings	16,594	8,000	8,594	2,000	-	14,594	-
Land	1,662	1,662	-	-	-	-	1,662
Total Property	**18,256**	**9,662**	**8,594**	**2,000**	**-**	**14,594**	**1,662**
Plant and Equipment							
Fixtures, fitting and furniture	250	-	250	-	-	250	-
Plant, machinery and equipment	3,328	-	3,328	-	980	2,348	-
Total Plant and Equipment	**3,578**	**-**	**3,578**	**-**	**980**	**2,598**	**-**
Infrastructure							
Land Improvements	4,571	2,049	2,522	-	-	4,571	-
Bridges	699	-	699	-	-	699	-
Sealed Roads	14,030	2,777	11,253	2,342	-	8,911	2,777
Unsealed Roads	2,229	-	2,229	-	-	2,229	-
Pathways	3,183	-	3,183	-	-	3,183	-
Drainage	3,990	876	3,114	-	-	3,114	876
Public furniture and fittings	2,275	-	2,275	-	-	2,275	-
Fountains, statues and monuments	163	-	163	-	-	163	-
Total Infrastructure	**31,140**	**5,702**	**25,438**	**2,342**	**-**	**25,145**	**3,653**
Total 2024/2025 Capital Works	**52,974**	**15,364**	**37,610**	**4,342**	**980**	**42,337**	**5,315**

2025/2026

		Asset expenditure types		Summary of Funding Sources			
Capital Works Area	**Project Cost $'000**	**New $'000**	**Renewal $'000**	**Grants $'000**	**Contrib. $'000**	**Council Cash $'000**	**Borrowings $'000**
Property							
Buildings	14,895	7,000	7,895	2,000	-	12,895	-
Land	2,000	2,000	-	-	-	1,000	1,000
Total Property	**16,895**	**9,000**	**7,895**	**2,000**	**-**	**13,895**	**1,000**
Plant and Equipment							
Fixtures, fitting and furniture	250	-	250	-	-	250	-
Plant, machinery and equipment	4,007	500	3,507	-	980	3,027	-
Total Plant and Equipment	**4,257**	**500**	**3,757**	**-**	**980**	**3,277**	**-**
Infrastructure							
Land Improvements	3,844	1,196	2,648	-	-	3,844	-
Bridges	734	-	734	-	-	734	-
Sealed Roads	11,816	-	11,816	2,389	-	9,427	-
Unsealed Roads	2,340	-	2,340	-	-	2,340	-
Pathways	3,342	-	3,342	-	-	3,342	-
Drainage	3,270	-	3,270	-	-	3,270	-
Public furniture and fittings	2,389	-	2,389	-	-	2,389	-
Fountains, statues and monuments	171	-	171	-	-	171	-
Total Infrastructure	**27,906**	**1,196**	**26,710**	**2,389**	**-**	**25,517**	**-**
Total 2024/2025 Capital Works	**49,058**	**10,696**	**38,362**	**4,389**	**980**	**42,689**	**1,000**

5. PROPOSALS TO LEASE COUNCIL LAND

This section presents a summary of Council's proposals to lease council land to external parties in the 2022/2023 financial year. This list includes any rental agreement greater than $100,000 or have a lease term greater than 10 years.

Leasee	Location	Term
Spring Gully Tennis Club Inc	Spring Gully Recreation Reserve -Tennis Clubrooms and Courts	10 years
Kangaroo Flat Supermarket Pty Ltd	17 Carpenter Street, Kangaroo Flat	18 years
Sandhurst Football Netball Club	QEO Grandstand – Social Clubrooms	10 years
Girton Grammar School Ltd	Londonderry Reserve	21 Years
Hockey Central Vic Inc	Ashley Street, Garden Gully	21 years
Heathcote Bowling Club Inc	Herriot Street	21 years
Bendigo District RSL Sub Branch Inc	37-39 Pall Mall, RSL Memorial Hall	21 Years
YWCA Victoria	20 Townsend Street	21 Years
North Central Goldfields Library Service	Library Building	20 Years
Telstra Corporation Limited	24 Elliott Street, Golden Square	Under negotiation
Optus Mobile Pty Ltd	998 Wellington Street, Strathfieldsaye	Under negotiation
Zafcan Pty Ltd	Coles Carpark	Under negotiation
Department of Treasury and Finance	51-73 Pall Mall, Bendigo	Under negotiation
Sprayline	Wallan Railway Reserve Part of O'Keefe Trail at Bendigo East	Under negotiation
Vodafone Network Pty Ltd	Corner Wallenjoe Road and Salesyard Lane	Under negotiation
Star Community Cinema Association	Eaglehawk Town Hall	Under negotiation
Kangaroo Flat Fire Brigade	9 Browning Street, Kangaroo Flat	21 years
Workspace Australia Ltd	Enterprise Park Factory	Under negotiation
State Trustees	Edwards St Multi Story Car Park	2 years
Steam Rail	Steam Locomotive R711	Under negotiation



6. FINANCIAL PERFORMANCE INDICATORS

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

Indicator	Measure	Notes	Actual 2020/21	Forecast 2021/22	Budget 2022/23	Projections 2023/24	Projections 2024/25	Projections 2025/26	Trend +/o/-
Operating position									
Adjusted underlying result	Adjusted underlying surplus (deficit) / Adjusted underlying revenue	1	(7%)	(0.3%)	(0.4%)	(0.3%)	0.1%	0.3%	o
Liquidity									
Working Capital	Current assets / current liabilities	2	(160%)	(171%)	(163%)	(160%)	(161%)	(173%)	-
Unrestricted cash	Unrestricted cash / current liabilities	3	69%	74%	74%	73%	76%	81%	o
Obligations									
Loans and borrowings	Interest bearing loans and borrowings / rate revenue	4	32%	19%	16%	20%	19%	14%	-
Loans and borrowings	Interest and principal repayments on interest bearing loans and borrowings / rate revenue		5%	13%	6%	5%	5%	5%	o
Indebtedness	Non-current liabilities / own source revenue		29%	22%	18%	20%	18%	15%	-
Asset renewal	Asset renewal and upgrade expense / Asset depreciation	5	68%	75%	78%	80%	80%	79%	+
Stability									
Rates concentration	Rate revenue / adjusted underlying revenue	6	71%	67%	69%	69%	69%	70%	o
Rates effort	Rate revenue / CIV of rateable properties in the municipality		1%	1%	1%	1%	1%	1%	o
Efficiency									
Expenditure level	Total expenses/ no. of property assessments		$3,230	$3,285	$3,209	$3,239	$3,270	$3,296	+
Revenue level	Total rate revenue / no. of property assessments		$1,794	$2,143	$2,200	$2,230	$2,269	$2,304	+

Notes to indicators

1. Adjusted underlying result

An indicator of the sustainable operating result required to enable Council to continue to provide core services in the long term, which is not impacted by capital income items. There is a higher amount of non-capitalised expenditure in 2022/2023 (including landfill remediation), influencing the negative result.

This indicator will improve over the long term. Impacting on this measure is the finalisation of non-capitalised, waste-related expenses and GovHub operational expenses which are forecast to commence in 2022/2023 (shifting some costs from capital to operational long term).

2. Liquidity

The proportion of current liabilities represented by current assets. The trend in later years remains steady. Current loans will be repaid over future years. The City plans to borrow to support the funding of new projects in the Capital Works program.

3. Unrestricted cash

This represents the availability of the City to pay its short-term liabilities as required. The City is forecasting long term reserves being held of approximately $27.6M in 2022/2023.

4. Debt compared to rates

Additional borrowings are forecast at $5M and $12.6M in the next two years to support additional land development and capital works. In the longer term, Council's debt is forecast to reduce against its annual rate revenue as long-term debt is redeemed.

5. Asset renewal

This is a percentage calculation of the amount Council invests in renewing its assets against its depreciation costs (which is an indication of the decline in value of existing capital assets). A percentage greater than 100 indicates Council is investing more than an efficient level towards maintaining existing assets. A percentage less than 100 means asset replacement costs may be increasing faster than they are being renewed and future capital expenditure will be required to renew assets. Impacting this number is a higher allocation in 2022/2023 of works which are categorised as major expenditure (non-capitalised), including some works on joint-use facilities.

6. Rates concentration

The modelling suggests that the extent of Council's reliance on rate revenues to fund all of Council's on-going services remains steady. It is difficult to accurately forecast any future Government Grant revenue due to shifting State and Federal priorities.

APPENDICES

The following appendices include voluntary and statutory disclosures of information which provide support for the analysis contained in sections **1** to **6** of this report.

This information has not been included in the main body of the Budget in the interests of clarity. The City has decided that while the Budget needs to focus on the important elements of the Budget and provide appropriate analysis, the detail upon which the Budget is based should be provided in the interests of open and transparent local government.

The contents of the appendices are summarised below:

Appendix	**Nature of Information**
A	Fees and Charges Schedule
B	List of capital works program

APPENDIX A – USER FEES AND CHARGES SCHEDULE

This appendix presents the fees and charges of a statutory and non-statutory nature which will be charged in respect to various goods and services provided during the 2022/2023 year. Certain prices may change over the course of the year due to external or statutory requirements. Where these do change, the City will update the relevant part of the City's website and endeavour to communicate with all relevant stakeholders.

Pricing type definitions:

- **Accessible pricing -** a discount on the full cost of providing the service. The discounted rate is determined on the community benefit or social good and can be set between 100 per cent discount up to full cost recovery.
- **Full cost pricing -** applied where the objective is to achieve a financial return for the City.
- **Incentive Pricing -** utilised where certain behaviours are encouraged by pricing above full cost recovery.
- **Market pricing -** applied to services considered discretionary and is without strong social benefit, or ancillary to the social benefit of the service.
- **Statutory -** Pricing which is set by legislation and which does not enable Council to apply any discretion on the amount charged. This includes fees subject to a signed funding agreement.

CORPORATE PERFORMANCE

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
FINANCIAL STRATEGY						
Finance						
Dishonoured Cheque - Dishonoured by Bank	Full Cost	Each	N	28.45	29	1.93%
Dishonoured Cheque - Dishonoured by Post Office	Full Cost	Each	N	28.45	29	1.93%
Rates and Charges						
Land Information Certificate	Full Cost	Certificate	N	27.5	28	1.82%
Property Ownership Detail	Full Cost	Per hour	N	0	60	-
Rate Searches 15 year	Full Cost	Per hour	N	0	60	-
Rate Searches 30 year	Full Cost	Per hour	N	0	60	-
Reprint of Rates Notice - previous years	Full Cost	Per year	N	15.25	15.6	2.30%
Sales Information to Valuers	Full Cost	Per month	N	67.3	69	2.53%
GOVERNANCE						
Risk Management						
Public Liability Ins for venue booking (up to 3 consecutive days)	Full Cost	Function	Y	26.9	27.5	2.23%
Freedom of Information						
Application fee	Statutory	Unit	N	2 Units	2 Units	-
Black and White Photocopy	Statutory	A4	N	0.2	0.2	0.00%
Photocopy other than Black and White	Full Cost	A4	N	0.55	0.6	9.09%
Search Time	Statutory	Per hour	N	1.5 Units	1.5 Units	-
Supervision Charge	Statutory	Per hour	N	1.5 Units	1.5 Units	-
BUSINESS TRANSFORMATION						
Customer Support						
CBD Public Space Marquee's for CBD Traders	Accessible	Per Marquee	Y	30	31	3.33%
CBD Public Space Marquee's for Commercial/ Corporate Use	Market	Per Marquee	Y	66	67.5	2.27%
CBD Public Space Stage for Commercial/Corporate Use	Market	Varies	Y	Varies	Varies	-
CBD Public Spaces	Accessible	Varies	Y	Varies	Varies	-
Heathcote Service Centre - Community Art/Meeting Spaces for Commercial/Corporate Use (over 4 hours)	Accessible	Over 4 hours	Y	60.2	61.5	2.16%
Heathcote Service Centre - Community Art/Meeting Spaces for Commercial/Corporate Use (up to 4 hours)	Accessible	Up to 4 hours	Y	36.7	37.5	2.18%
INFORMATION TECHNOLOGY						
File Retrieval Fee (Commercial)	Full Cost	Each	N	254.5	254.5	0.00%
File Retrieval Fee (Residential)	Full Cost	Each	N	10.15	153	1407.39%

STRATEGY AND GROWTH

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
STRATEGIC PLANNING						
Planning Scheme Amendments						
Stage 1 - consider request • Considering a request to amend a planning scheme; and • Exhibition and notice of the amendment; and • Considering any submissions which do not seek a change to the amendment; and • If applicable, abandoning the amendment	Statutory	Fee Unit	N	206 units	206 units	-
Stage 2 - up to 10 submissions • Considering submissions which seek a change to an amendment and where necessary, referring the submission to a panel: i. Up to 10 submissions	Statutory	Fee Unit	N	1,021 units	1,021 units	-
Stage 2 - 11 to 20 submissions • Considering submissions which seek a change to an amendment and where necessary, referring the submission to a panel: ii. 11 to 20 submissions	Statutory	Fee Unit	N	2,040 units	2,040 units	-
Stage 2 - More than 20 submissions • Considering submissions which seek a change to an amendment and where necessary, referring the submission to a panel: iii. More than 20 submissions	Statutory	Fee Unit	N	2,727 units	2,727 units	-
Stage 3 - Adopt and approval of amendment • Adopting the amendment or part of an amendment; and • Submitting the amendment for approval by the Minister; and • Giving notice of the approval of the amendment	Statutory	Fee Unit	N	32.5 units	32.5 units	-
Stage 4 - consideration and approval by the Minister • Consideration by the Minister of a request to approve an amendment; and • Giving notice of approval of an amendment	Statutory	Fee Unit	N	32.5 units	32.5 units	-
** Statutory Planning fees are set by the State Government and are subject to change after Budget Adoption.*						
BENDIGO ART GALLERY						
Public Programs						
Numerous public programs and events	Accessible	Person	Y	Varies	Varies	-
ECONOMIC DEVELOPMENT						
Bendigo Airport – Airport Rental Rates						
Airport serviced lease rate	Market	Site Value	Y	0.1117 (incl GST)	site value x 0.1159 (incl. GST)	-
Airport unserviced lease rate	Market	Site Value	Y	0.0670 (incl. GST)	site value x 0.0695 (incl. GST)	-
Bendigo Airport – Airport License Fees – applicable to new leases only based on use (annual CPI applies)						
Commercial use	Market	Licence	Y	621.9	634	1.95%
Flight training - Bendigo Airport leaseholder - annual	Market	Per aircraft	Y	1116.5	1140	2.10%
Flight training - non local - annual	Market	Per aircraft	Y	2233	2275	1.88%
Grassed parking annual	Market	Per aircraft	Y	1116.5	1140	2.10%
Grassed parking per day	Market	Per aircraft	Y	5.6	5.7	1.79%
Hardstand parking - per day[D]	Market	Per aircraft	Y	12.3	12.6	2.44%
Landing fee - per landing[A]	Market	$p/1,000kg	Y	11.2	11.4	1.79%
Local user fee - annual[B]	Market	$p/1,000kg	Y	334.95	341	1.81%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Non local user fee - annual[B]	Market	$p/1,000kg	Y	558.25	569	1.93%
Passenger fee[C]	Market	Per passenger	Y	13.4	13.8	2.99%
Premium use	Market	Licence	Y	991	1010	1.92%
Private use	Market	Licence	Y	310.95	317	1.95%
[A]Aircraft below 1,000kg will be charged at a 1,000kg minimum. [B]Aircraft below 1,000kg will be charged at a 1,000kg minimum. Aircraft over 3,000kg cannot apply for an annual option. [C]Per departing passenger. [D]First 3 nights of aircraft parking per calendar month are free for non locals.						
Livestock Exchange						
Agents Flagfall Cattle (Rental)	Market	Dist over 6 Agts	Y	56.05	57.5	2.59%
Agents Flagfall Sheep	Market	Dist over 6 Agts	Y	59.35	60.5	1.94%
AV Data	Market	Per minute	Y	1.5	1.55	3.33%
Bull Yard Dues	Market	Per head	Y	12.35	12.6	2.02%
Calf Yard Dues	Market	Per head	Y	1.65	1.7	3.03%
Cattle Market Post Weigh	Market	Dist over 6 Agts	Y	2334.5	2380	1.95%
Cattle Market Ring Sale	Market	Dist over 6 Agts	Y	2842	2895	1.86%
Cattle Yard Dues	Market	Per head	Y	9.8	10	2.04%
Complex Hire - Conference Room	Market	Weekday	Y	208.8	210	0.57%
Complex Hire - Conference Room - Weekends	Market	Weekend	Y	472.4	480	1.61%
Complex Hire - Full Day	Market	Day	Y	472.4	480	1.61%
Complex Hire - Half Day	Market	1/2 Day	Y	236.2	240	1.61%
Complex Hire hourly rate	Market	Per hour	Y	16.45	16.8	2.13%
Cow and Calf Yard Dues	Market	Per head	Y	11.4	11.6	1.75%
Market Fee Sheep and Lambs	Market	Dist over all Agts	Y	3071.75	3135	2.06%
Office Rental - BASA	Market	Per month	Y	101.05	103	1.93%
Paddocking Fees Cattle	Market	Per head per day	Y	2.25	2.3	2.22%
Paddocking Fees Sheep and Lambs Inwards	Market	Per head	Y	0.1	0.1	0.00%
Paddocking Fees Sheep and Lambs Outwards	Market	Per head per day	Y	0.15	0.15	0.00%
RFID Replacement	Market	Device	Y	21.95	4.4	-79.95%
RFID Replacement - Sheep and Lambs	Market	Per month	Y	2.15	2.15	0.00%
Sheep and Lamb Yard Dues	Market	Per head	Y	0.85	0.88	3.53%
Sheep loading fee	Market	Per head	Y	0.15	0.15	0.00%
Store Sales Cattle - Market fee	Market	Per head	Y	1.6	1.65	3.12%
Store Sales Sheep Fee	Market	Dist over operating Agents	Y	1488.75	1567.5	5.29%
Truck Wash Keys	Market	Each	Y	38.5	39.5	2.60%
Unfit Livestock Disposal Fee	Market	Animal	Y	105.65	108	2.22%
Unfit Livestock Disposal Fee - Selling Pen	Market	Per head	Y	211.25	215.99	2.24%
BENDIGO VENUES AND EVENTS						
Local Community Hirers						
Venue Hire – Community Hirers						
Banquet Room/Bendigo Bank Concert Performance Rental (max 5 hrs)	Accessible	Event	Y	197	200	1.52%
Banquet Room/Bendigo Bank Theatre Non Performance Rental Hire - Day	Accessible	Day	Y	250	255	2.00%
Banquet Room/Bendigo Bank Theatre Non Performance Rental Hire - Half Day	Accessible	Half Day	Y	125	153	22.40%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Banquet Room/Bendigo Bank Theatre Performance Additional Hours	Accessible	Hour	Y	34	35	2.94%
Bendigo Town Hall set up/pack down rate - Community Hirers	Accessible	Event	Y	240	240	0.00%
Bendigo Town Hall, Fri - Sunday - Full Day - Community Hirers	Accessible	Full Day	Y	1275	1300	1.96%
Bendigo Town Hall, Fri - Sunday - Half Day - Community Hirers	Accessible	Half Day	Y	757	780	3.04%
Bendigo Town Hall, Mon - Thursday - Full Day - Community Hirers	Accessible	Full Day	Y	971	1040	7.11%
Bendigo Town Hall, Mon - Thursday - Half Day - Community Hirers	Accessible	Half Day	Y	605	624	3.14%
Capital Theatre additional Performance/s in same day - Community Hirers	Accessible	Event	Y	372	380	2.15%
Capital Theatre Bump In/Out and Stage Rehearsals - Community Hirers	Accessible	Hour	Y	52	53	1.92%
Capital Theatre Dark Day - Community Hirers	Accessible	Event	Y	635	615	-3.15%
Capital Theatre Performance Rental (max 5 hrs) - Community Hirers	Accessible	Event	Y	745	760	2.01%
Conference venue hire in Capital Theatre - Community Hirers	Accessible	Day	Y	604	615	1.82%
Dudley House - Day	Accessible	Day	Y	125	127	1.60%
Dudley House - Half Day	Accessible	Half Day	Y	83	84	1.20%
Dudley House (Exhibitions) - Weekly	Accessible	Week	Y	702	712	1.42%
Hon Howard Nathan Foyer venue hire - non performance - Half Day - Community Hirers	Accessible	Half Day	Y	250	306	22.40%
Hon Howard Nathan Foyer venue hire non-performance - Day - Community Hirers	Accessible	Day	Y	500	510	2.00%
Lanyon Room - Day - Community Hirers	Accessible	Day	Y	153	155	1.31%
Lanyon Room - Half Day - Community Hirers	Accessible	Half Day	Y	92	93	1.09%
Old Fire Station - Downstairs - Auditorium - Day - Community Hirers	Accessible	Day	Y	125	127	1.60%
Old Fire Station - Downstairs - Auditorium - Half Day - Community Hirers	Accessible	Half Day	Y	83	84	1.20%
Old Fire Station - Downstairs - Auditorium - Weekly	Accessible	Week	Y	702	712	1.42%
Old Fire Station Upstairs - Ballet Studio - Day - Community Hirers	Accessible	Day	Y	125	127	1.60%
Old Fire Station Upstairs - Ballet Studio - Half Day - Community Hirers	Accessible	Half Day	Y	83	84	1.20%
Old Fire Station Upstairs - Ballet Studio - Weekly	Accessible	Week	Y	702	712	1.42%
Town Hall Dark Day - Community Hirers	Accessible	Event	Y	1410	1040	-26.24%
Ulumbarra Balcony Foyer venue hire non-performance - Day - Community Hirers	Accessible	Day	Y	250	255	2.00%
Ulumbarra Balcony Foyer venue hire non-performance - Half Day - Community Hirers	Accessible	Half Day	Y	125	153	22.40%
Ulumbarra Stratagem, Dance, Drama Studio, MPR venue hire - Community Hirers	Full Cost	Day	Y	Cost charged by BSSC	Cost charged by BSSC	-
Ulumbarra Theatre additional performance/s in same day - Community Hirers	Accessible	Event	Y	687	700	1.89%
Ulumbarra Theatre Bump In/Out and Stage Rehearsals - Community Hirers	Accessible	Hour	Y	96	98	2.08%
Ulumbarra Theatre Conference hire rate - Community Hirers	Accessible	Day	Y	932	950	1.93%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Ulumbarra Theatre Dark Day - Community Hirers	Accessible	Event	Y	680	695	2.21%
Ulumbarra Theatre Performance Rental (max 5 hrs) - Community Hirers	Accessible	Event	Y	1373	1400	1.97%
Other – Community Hirers						
Additional Cleaning - Community Hirers	Full Cost	Hour	Y	By negotiation	By negotiation	-
Box Office Staff/Merchandise Staff - Community Hirers	Accessible	Hour	Y	39	40	2.56%
Catering Costs (Various Menus for Different Functions) - Community Hirers	Full Cost	Person	Y	By negotiation	By negotiation	-
FoH Supervisor - Community Hirers	Accessible	Hour	Y	39	40	2.56%
Mid Conference Clean - Community Hirers	Full Cost	Each	Y	By negotiation	By negotiation	-
Supervising Technician - Community Hirers	Accessible	Hour	Y	39	40	2.56%
Technicians - Community Hirers	Accessible	Hour	Y	39	40	2.56%
Equipment Hire, Service and Consumables – Community Hirers						
2 x handheld wireless microphones - Community Hirers	Accessible	Event	Y	40	41	2.50%
2 x push up poles and black draping - Community Hirers	Accessible	Event	Y	180	183	1.67%
Additional AV/Audio/Lighting equipment - Community Hirers	Full Cost	Event	Y	Cost	Cost	-
Batteries - Community Hirers	Full Cost	Each	Y	2.55	2.6	1.96%
Conference Kit Ulumbarra foyer: 2 speakers, audio mixing console, 2 wireless handheld mics, lectern with mic, 1.2x2.4 stage - Community Hirers	Accessible	Event	Y	300	305	1.67%
Conferencing PA: Mixer + speakers with stands and cabling - use in non theatre space	Accessible	Event	Y	270	275	1.85%
Electrical tape - Community Hirers	Full Cost	Roll	Y	2	2.1	5.00%
Engine Room/BBT audio package: 2 foldback wedges, 4 x vocal mics, 4 x stands 2 x DI's, cable inc set up	Accessible	Event	Y	270	275	1.85%
Fast fold screen - Community Hirers	Accessible	Event	Y	360	367	1.94%
Follow spots (each unit)	Accessible	Day	Y	23	24	4.35%
Foyer Lighting package: 4 x trees, 2 x model 4 dimmer packs, 8 par can lights, cable inc set up	Accessible	Event	Y	360	367	1.94%
Gaffer tape - Community Hirers	Full Cost	Per roll	Y	26.5	27	1.89%
Hire of Projector in the Capital Theatre auditorium - Community Hirers	Accessible	Day	Y	200	204	2.00%
Hire of Projector in Ulumbarra Theatre auditorium	Accessible	Day	Y	200	204	2.00%
Kawai Baby Grand in BBT (without tuning)	Accessible	Day	Y	97	99	2.06%
Kawai Upright Piano in Capital or OFS (without tuning)	Accessible	Day	Y	97	99	2.06%
Laptop hire - Community Hirers	Accessible	Day	Y	100	102	2.00%
Mark up tape - Community Hirers	Full Cost	Roll	Y	4	4.1	2.50%
Missed Meal Break Allowance - Community Hirers	Full Cost	Each	Y	23	23.5	2.17%
Piano Hire with Tuning - recommended (excluding Steinway Grand at The Capital)	Accessible	Day	Y	273	278	1.83%
Portable Data Projector	Accessible	Day	Y	100	102	2.00%
Security - Monday to Saturday Prior to Midnight - Community Hirers	Full Cost	Hour	Y	Cost	Cost	-
Security on Sundays and after midnight - Community Hirers	Full Cost	Hour	Y	Cost	Cost	-
Set Up and Down Dancefloor - Community Hirers	Accessible	Event	Y	306	312	1.96%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Setup and pack down of staging - Community Hirers	Accessible	Event	Y	306	320	4.58%
Small portable PA system suitable for small spaces background music and speeches - Community Hirers	Accessible	Event	Y	58	59	1.72%
Standard use of NBN service where available - Community Hirers	Full Cost	Day	Y	58	59	1.72%
Steinway Baby Grand at Capital (without tuning)	Accessible	Day	Y	97	99	2.06%
Steinway Grand Piano at Capital (including tuning)	Accessible	Day	Y	364	371	1.92%
Steinway Grand Piano at Capital (without tuning)	Accessible	Day	Y	97	99	2.06%
Touring PA: Mixer + 2 x speakers with stands + 2 subs and cabling - small band not theatre space	Accessible	Event	Y	270	275	1.85%
Ulumbarra - TV hire - Community Hirers	Accessible	Day	Y	100	102	2.00%
Yamaha Grand Piano at Ulumbarra (hire and tune - recommended)	Accessible	Day	Y	273	278	1.83%
Yamaha Grand Piano at Ulumbarra (without tuning)	Accessible	Day	Y	97	99	2.06%
Box Office Fees – Community Hirers						
Booking Fee Per Ticket Sold - Community Hirers	Accessible	Ticket	Y	2	2.1	5.00%
Complimentary Tickets Per Ticket Issued - Community Hirers	Accessible	Ticket	Y	0.9	0.95	5.56%
Credit Card Charges - Community Hirers	Full Cost	Value of Sales	Y	0.02	0.02	-
Express Postage - Community Hirers	Market	Transaction	Y	9	9.5	5.56%
Free event online only registration - Community Hirers	Full Cost	T	Y	0.35	0.4	14.29%
Postage Fee - Community Hirers	Market	Transaction	Y	3	3.5	16.67%
Marketing Costs – Community Hirers						
Email Blast (dedicated) - Community Hirers	Full Cost	Email	Y	95	97	2.11%
Large Format Light Box Poster Print - Community Hirers	Full Cost	Unit	Y	By negotiation	By negotiation	-
Newspaper advertising - Community Hirers	Full Cost	Unit	Y	By negotiation	By negotiation	-
OFS Billboard - Community Hirers	Full Cost	Billboard	Y	By negotiation	By negotiation	-
Promotion Package - fee for all inclusive service of listed items - Community Hirers	Market	Service	Y	370	377	1.89%
Social Media boost - Community Hirers	Full Cost	Service	Y	By negotiation	By negotiation	-
Commercial Hirers						
Venue Hire – Commercial Hirers						
Banquet Room/Bendigo Bank Theatre performance additional hrs - Commercial Hirers	Market	Hour	Y	52	53	1.92%
Banquet Room/Bendigo Bank Theatre Performance Rental - Commercial Hirers	Market	Event	Y	457	466	1.97%
Banquet Room/Bendigo Bank Theatre Rental Only Non-Performance Hire - Day - Commercial Hirers	Market	Day	Y	480	480	0.00%
Banquet Room/Bendigo Bank Theatre Rental Only Non-Performance Hire - Half Day - Commercial Hirers	Market	Half Day	Y	239.7	288	20.15%
Bendigo Town Hall set up/pack down rate - Commercial Hirers	Market	Event	Y	240	312	30.00%
Bendigo Town Hall, Fri - Sunday - Full Day - Commercial Hirers	Market	Full Day	Y	2138	2180	1.96%
Bendigo Town Hall, Fri - Sunday - Half Day - Commercial Hirers	Market	Half Day	Y	1222	1305	6.79%
Bendigo Town Hall, Mon - Thursday - Full Day - Commercial Hirers	Market	Full Day	Y	1695	1745	2.95%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Bendigo Town Hall, Mon - Thursday - Half Day - Commercial Hirers	Market	Half Day	Y	990	1045	5.56%
Capital Theatre additional Performance/s in same day - Commercial Hirers	Market	Event	Y	677	710	4.87%
Capital Theatre Bump In/Out and Stage Rehearsals - Commercial Hirers	Market	Hour	Y	97	99	2.06%
Capital Theatre Dark Day - Commercial Hirers	Market	Event	Y	792	792	0.00%
Capital Theatre Performance Rental (max 5 hrs) - Commercial Hirers	Market	Event	Y	1390	1420	2.16%
Conference venue hire in Capital Theatre - Commercial Hirers	Market	Day	Y	755	792	4.90%
Dudley House Daily Rental - Commercial Hirers	Market	Day	Y	238	242	1.68%
Dudley House Half Day Rental - Commercial Hirers	Market	Half Day	Y	141	145	2.84%
Dudley House Weekly Rental (Exhibitions) - Commercial Hirers	Market	Week	Y	1313	1355	3.20%
Hon Howard Nathan Foyer venue hire - non performance - half day - Commercial Hirers	Market	Half Day	Y	388	456	17.53%
Hon Howard Nathan Foyer venue hire non-performance - day - Commercial Hirers	Market	Day	Y	755	760	0.66%
Lanyon Room - Day - Commercial Hirers	Market	Day	Y	238	242	1.68%
Lanyon Room - Half day - Commercial Hirers	Market	Half Day	Y	140	145	3.57%
Old Fire Station - Downstairs - Auditorium - Day - Commercial Hirers	Market	Day	Y	238	242	1.68%
Old Fire Station - Downstairs - Auditorium - Half Day - Commercial Hirers	Market	Half Day	Y	141	145	2.84%
Old Fire Station - Downstairs - Auditorium - Weekly Rental - Commercial Hirers	Market	Week	Y	1313	1355	3.20%
Old Fire Station Upstairs - Ballet Studio - Day - Commercial Hirers	Market	Day	Y	238	242	1.68%
Old Fire Station Upstairs - Ballet Studio - Half Day - Commercial Hirers	Market	Half Day	Y	141	145	2.84%
Old Fire Station Upstairs Ballet Studio - Weekly Rental - Commercial Hirers	Market	Week	Y	1313	1355	3.20%
Town Hall Dark Day - Commercial Hirers	Market	Event	Y	1760	1745	-0.85%
Ulumbarra Balcony Foyer venue hire non-performance - day - Commercial Hirers	Market	Day	Y	378	380	0.53%
Ulumbarra Balcony Foyer venue hire non-performance - half day - Commercial Hirers	Market	Half Day	Y	198	228	15.15%
Ulumbarra Stratagem, Dance, Drama Studio, MPR venue hire - Commercial Hirers	Full Cost	Day	Y	Cost charged by BSSC	Cost charged by BSSC	-
Ulumbarra Theatre additional performance/s in same day - Commercial Hirers	Market	Event	Y	1039	1065	2.50%
Ulumbarra Theatre Bump In/Out and Stage Rehearsals - Commercial Hirers	Market	Hour	Y	145	148	2.07%
Ulumbarra Theatre Conference hire rate - Commercial Hirers	Market	Day	Y	1165	1185	1.72%
Ulumbarra Theatre Dark Day - Commercial Hirers	Market	Event	Y	1188	1185	-0.25%
Ulumbarra Theatre Performance Rental (max 5 hrs) - Commercial Hirers	Market	Event	Y	2079	2130	2.45%
Other – Commercial Hirers						
Additional Cleaning - Commercial Hirers	Market	As Required	Y	By negotiation	By negotiation	-
Box Office Staff/Merchandise Staff - Commercial Hirers	Market	Hour	Y	51	52	1.96%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Catering Costs (Various Menus for Different Functions) - Commercial Hirers	Market	Person	Y	By negotiation	By negotiation	-
FoH Supervisor - Commercial Hirers	Market	Hour	Y	51	52	1.96%
Mid Conference Clean - Commercial Hirers	Market	Each	Y	By negotiation	By negotiation	-
Supervising Technician - Commercial Hirers	Market	Hour	Y	51	52	1.96%
Technicians - Commercial Hirers	Market	Hour	Y	51	52	1.96%
Equipment Hire, Service and Consumables – Commercial Hirers						
2 x handheld wireless microphones - Commercial Hirers	Market	Event	Y	40	41	2.50%
2 x push up poles and black draping - Commercial Hirers	Market	Event	Y	210	214	1.90%
Additional AV/Audio/Lighting equipment - Commercial Hirers	Market	Event	Y	Market rate	Market rate	-
Additional piano tune on same day	Market	Day	Y	200	204	2.00%
Batteries - Commercial Hirers	Full Cost	Each	Y	2.55	2.6	1.96%
Conference Kit Ulumbarra foyer: 2 speakers, audio mixing console, 2 wireless handheld mics, lectern with mic, 1.2x2.4 stage - Commercial Hirers	Market	Event	Y	357	364	1.96%
Conferencing PA: Up to 1 x Mixer + speakers with stands and cabling - use in non theatre space - Commercial Hirers	Market	Event	Y	315	320	1.59%
Electrical tape - Commercial Hirers	Full Cost	Roll	Y	2	2.1	5.00%
Engine Room/BBT audio package: up to 2 foldback wedges, 4 x vocal mics, 4 x stands 2 x DI's, cable inc set up - no discounts for less items - Commercial Hirers	Market	Event	Y	315	320	1.59%
Fast fold screen - Commercial Hirers	Market	Event	Y	420	428	1.90%
Follow spot hire (per unit) - Commercial Hirers	Market	Event	Y	63	64	1.59%
Foyer Lighting package: up to 4 x trees, 2 x model 4 dimmer packs, 8 par can lights, cable inc set up - Commercial Hirers	Market	Event	Y	420	428	1.90%
Gaffer tape - Commercial Hirers	Full Cost	Per roll	Y	26.5	27	1.89%
Hire of Projector in the Capital Theatre auditorium - Commercial Hirers	Market	Day	Y	200	204	2.00%
Kawai Baby Grand in BBT (hire and tuning)	Market	Day	Y	352	359	1.99%
Kawai Upright Piano in Capital or OFS (hire and tuning)	Market	Day	Y	352	359	1.99%
Laptop hire - Commercial Hirers	Market	Day	Y	100	102	2.00%
Mark up tape - Commercial Hirers	Full Cost	Roll	Y	4	4.1	2.50%
Missed Meal Break Allowance - Commercial Hirers	Full Cost	Each	Y	23	23.5	2.17%
Portable Data Projector - Commercial Hirers	Market	Day	Y	100	102	2.00%
Projector and screen hire in Ulumbarra auditorium - Commercial Hirers	Market	Day	Y	200	204	2.00%
Security - Monday to Saturday Prior to Midnight - Commercial Hirers	Market	Hour	Y	Market rate	Market rate	-
Security on Sundays and after midnight - Commercial Hirers	Market	Hour	Y	Market rate	Market rate	-
Set Up and Down Dancefloor - Commercial Hirers	Market	Event	Y	306	312	1.96%
Setup and pack down of staging - Commercial Hirers	Market	Event	Y	408	416	1.96%
Small portable PA system suitable for small spaces background music and speeches - Commercial Hirers	Market	Event	Y	58	59	1.72%
Standard use of NBN service where available - Commercial Hirers	Market	Day	Y	58	59	1.72%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Steinway Baby Grand at Capital (hire and tuning)	Market	Day	Y	352	359	1.99%
Steinway Grand Piano at Capital (hire and tuning)	Market	Day	Y	380	387	1.84%
Touring PA: Up to Mixer + 2 x speakers with stands + 2 subs and cabling - small band not theatre space - Commercial Hirers	Market	Event	Y	315	320	1.59%
Ulumbarra - TV hire - Commercial Hirers	Market	Each	Y	100	102	2.00%
Yamaha Grand Piano at Ulumbarra (hire and tuning)	Market	Day	Y	352	359	1.99%
Box Office Fees – Commercial Hirers						
Booking Fee Per Ticket Sold - Commercial Hirers	Market	Ticket	Y	4	4.1	2.50%
Complimentary Tickets Per Ticket Issued - Commercial Hirers	Market	Ticket	Y	2	2.1	5.00%
Credit Card Charges - Commercial Hirers	Full Cost	Transaction	Y	2%	2%	-
Express Postage - Commercial Hirers	Market	Transaction	Y	9	9.5	5.56%
Free event online only registration - Commercial Hirers	Market	Ticket	Y	0.35	0.4	14.29%
Postage Fee - Commercial Hirers	Market	Transaction	Y	3	3.5	16.67%
Marketing Costs – Commercial Hirers						
Email Blast (dedicated) - Commercial Hirers	Market	Email	Y	95	97	2.11%
Large Format Light Box Poster Print - Commercial Hirers	Market	Unit	Y	By negotiation	By negotiation	-
Newspaper advertising - Commercial Hirers	Market	Unit	Y	By negotiation	By negotiation	-
OFS Billboard - Commercial Hirers	Market	Billboard	Y	By negotiation	By negotiation	-
Promotion Package - fee for all inclusive service of listed items - Commercial Hirers	Market	Service	Y	370	377	1.89%
Social Media boost - Commercial Hirers	Market	Service	Y	By negotiation	By negotiation	-
Wedding Events – Commercial Hirers						
The Capital BBT and Banquet Room - Wedding Ceremony Only	Market	Event	Y	852	870	2.11%
The Capital BBT and Banquet Room - Wedding Reception + Ceremony	Market	Event	Y	1698	1730	1.88%
The Capital BBT and Banquet Room - Wedding Reception Only	Market	Event	Y	1086	1110	2.21%
Town Hall - Wedding Reception	Market	Day	Y	2138	2180	1.96%
Ulumbarra Foyer - Wedding Ceremony and Reception	Market	Event	Y	2083	2125	2.02%
Ulumbarra Foyer - Wedding Ceremony Only	Market	Event	Y	1086	1110	2.21%
Ulumbarra Foyer - Wedding Reception	Market	Event	Y	1471	1500	1.97%
Industry Service Fee – Commercial Hirers						
LPA Industry Service Fee	Market	Event	Y	n/a	On charge of regulated fee set by Live Performance Australia	-
TOURISM AND MAJOR EVENTS						
Tourism Services						
Tourism Other						
Accommodation	Full Cost	Booking	Y	10%	10%	-
Shop Sales including goods on consignment	Market	Item	Y	Varies	Varies	-
Tours/Commission	Market	Booking	Y	Varies	Varies	-

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Federation Room Conference Facility						
Additional cleaning outside normal cleaning - cost per hour indicated - Federation Room Conference Facility	Full Cost	Each	Y	60.95	62.5	2.54%
Hire - Community and Industry Rate - After Hours - Federation Room Conference Facility	Full Cost	Hourly	Y	43.05	44	2.21%
Hire - Community and Industry Rate - Full Day - Federation Room Conference Facility	Full Cost	9am-5pm	Y	152.25	155	1.81%
Hire - Community and Industry Rate - Half Day - Federation Room Conference Facility	Full Cost	9am-1pm or 1-5pm	Y	91.4	93.5	2.30%
Hire - Corporate Rate - After Hours - Federation Room Conference Facility	Full Cost	Hourly	Y	64.65	66	2.09%
Hire - Corporate Rate - Full Day - Federation Room Conference Facility	Full Cost	9am-1pm or 9am-5pm	Y	236.5	241	1.90%
Hire - Corporate Rate - Half Day - Federation Room Conference Facility	Full Cost	9am-1pm or 1-5pm	Y	140.1	143	2.07%
Hire of Projector/whiteboard - Federation Room Conference Facility	Full Cost	Day	Y	105	107	1.90%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Public Holiday - Federation Room Conference Facility	Full Cost	Each	Y	63.8	65	1.88%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Saturday - Federation Room Conference Facility	Full Cost	Each	Y	47.8	49	2.51%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Sunday - Federation Room Conference Facility	Full Cost	Each	Y	58.5	60	2.56%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Weeknights - Federation Room Conference Facility	Full Cost	Each	Y	44.65	45.5	1.90%
Security Close - After Hours - Federation Room Conference Facility	Full Cost	Each	Y	42.5	43.5	2.35%
Security Open - After Hours - Federation Room Conference Facility	Full Cost	Each	Y	42.5	43.5	2.35%
Staff Call Out Fee for After Hours Functions - cost per call out indicated - Federation Room Conference Facility	Full Cost	Each	Y	60.95	62.5	2.54%
Tea and Coffee - Federation Room Conference Facility	Full Cost	Head	Y	3.6	3.7	2.78%
The Basement Conference Facility						
Additional cleaning outside normal cleaning - cost per hour indicated - The Basement Conference Facility	Full Cost	Each	Y	60.95	62.5	2.54%
Hire - Community and Industry Rate - After Hours - The Basement Conference Facility	Full Cost	Hourly	Y	43.05	44	2.21%
Hire - Community and Industry Rate - Full Day - The Basement Conference Facility	Full Cost	9am-5pm	Y	152.25	155	1.81%
Hire - Community and Industry Rate - Half Day - The Basement Conference Facility	Full Cost	9am-1pm or 1-5pm	Y	91.4	93.5	2.30%
Hire - Corporate Rate - After Hours - The Basement Conference Facility	Full Cost	Hourly	Y	64.65	66	2.09%
Hire - Corporate Rate - Full Day - The Basement Conference Facility	Full Cost	9am-1pm or 9am-5pm	Y	236.5	241	1.90%
Hire - Corporate Rate - Half Day - The Basement Conference Facility	Full Cost	9am-1pm or 1-5pm	Y	140.1	143	2.07%
Hire of Projector/whiteboard - The Basement Conference Facility	Full Cost	Day	Y	105	107	1.90%

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Public Holiday - The Basement Conference Facility	Full Cost	Each	Y	63.8	65	1.88%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Saturday - The Basement Conference Facility	Full Cost	Each	Y	47.8	49	2.51%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Sunday - The Basement Conference Facility	Full Cost	Each	Y	58.5	60	2.56%
Security After Hours for functions/events (4 hour minimum) cost per hour indicated - Weeknights - The Basement Conference Facility	Full Cost	Each	Y	44.65	45.5	1.90%
Security Close - After Hours - The Basement Conference Facility	Full Cost	Each	Y	42.5	43.5	2.35%
Security Open - After Hours - The Basement Conference Facility	Full Cost	Each	Y	42.5	43.5	2.35%
Staff Call Out Fee for After Hours Functions - cost per call out indicated - The Basement Conference Facility	Full Cost	Each	Y	60.95	62.5	2.54%
Tea and Coffee - The Basement Conference Facility	Full Cost	Head	Y	3.6	3.7	2.78%
STATUTORY PLANNING*						
Planning Permits*						
Application to change or allow a new use of the land - Class 1	Statutory	Fee Unit	N	89 units	89 units	-
Amendment to change the statement of what the permit allows, or change any or all conditions - Class 1	Statutory	Fee Unit	N	89 units	89 units	-
Single Dwelling – Permit Application*						
Development up to $10,000 - Single Dwelling - Class 2	Statutory	Fee Unit	N	13.5 units	13.5 units	-
Development $10,001 to $100,000 - Single Dwelling - Class 3	Statutory	Fee Unit	N	42.5 units	42.5 units	-
Development $100,001 to $500,000 - Single Dwelling - Class 4	Statutory	Fee Unit	N	87 units	87 units	-
Development $500,000 to $1,000,000 - Single Dwelling - Class 5	Statutory	Fee Unit	N	94 units	94 units	-
Development $1M to $2M - Single Dwelling - Class 6	Statutory	Fee Unit	N	101 units	101 units	-
Single Dwelling – Amendment to Permit*						
Development up to $10,000 - Single Dwelling - Amendment to Permit - Class 2	Statutory	Fee Unit	N	13.5 units	13.5 units	-
Development $10,001 to $100,000 - Single Dwelling - Amendment to Permit - Class 3	Statutory	Fee Unit	N	42.5 units	42.5 units	-
Development $100,001 to $500,000 - Single Dwelling - Amendment to Permit - Class 4	Statutory	Fee Unit	N	87 units	87 units	-
Development $500,000 to $1,000,000 - Single Dwelling - Amendment to Permit - Class 5	Statutory	Fee Unit	N	94 units	94 units	-
Development $1M to $2M - Single Dwelling - Amendment to Permit - Class 6	Statutory	Fee Unit	N	94 units	94 units	-
All Other Development – Permit Application*						
Development up to $100,000 - All Other Development - Class 10	Statutory	Fee Unit	N	77.5 units	77.5 units	-
Development $100,001 to $1M - All Other Development - Class 11	Statutory	Fee Unit	N	104.5 units	104.5 units	-
Development $1M to $5M - All Other Development - Class 12	Statutory	Fee Unit	N	230.5 units	230.5 units	-
Development $5M to $15M - All Other Development - Class 13	Statutory	Fee Unit	N	587.5 units	587.5 units	-

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Development $15M to $50M - All Other Development - Class 14	Statutory	Fee Unit	N	1,732.5 units	1,732.5 units	-
Development more than $50M - All Other Development - Class 15	Statutory	Fee Unit	N	3,894 units	3,894 units	-
All Other Development – Amendment to Permit*						
Development up to $100,000 - All Other Development - Amendment to Permit - Class 10	Statutory	Fee Unit	N	77.5 units	77.5 units	-
Development $100,001 to $1M - All Other Development - Amendment to Permit - Class 11	Statutory	Fee Unit	N	104.5 units	104.5 units	-
Development $1M to $5M - All Other Development - Amendment to Permit - Class 12	Statutory	Fee Unit	N	230.5 units	230.5 units	-
Development $5M to $15M - All Other Development - Amendment to Permit - Class 13	Statutory	Fee Unit	N	230.5 units	230.5 units	-
Development $15M to $50M - All Other Development - Amendment to Permit - Class 14	Statutory	Fee Unit	N	230.5 units	230.5 units	-
Development more than $50M - All Other Development - Amendment to Permit - Class 15	Statutory	Fee Unit	N	230.5 units	230.5 units	-
VicSmart – Application for Permit and Amendment to Permit*						
Development up to $10,000 - VicSmart - Class 7	Statutory	Fee Unit	N	13.5 units	13.5 units	-
Development more than $10,000 - VicSmart - Class 8	Statutory	Fee Unit	N	29 units	29 units	-
Application to subdivide or consolidate land - VicSmart - Class 9	Statutory	Fee Unit	N	13.5 units	13.5 units	-
Any other VicSmart application - Class 10	Statutory	Fee Unit	N	13.5 units	13.5 units	-
Subdivision – Application for Permit and Amendment to Permit*						
To subdivide an existing building - Class 16	Statutory	Fee Unit	N	89 units	89 units	-
To subdivide land into two lots - Class 17	Statutory	Fee Unit	N	89 units	89 units	-
To effect a realignment of a common boundary between 2 lots or to consolidate 2 lots - Class18	Statutory	Fee Unit	N	89 units	89 units	-
To subdivide land - $1,241 for each 100 lots created - Class 19	Statutory	Fee Unit	N	89 units	89 units	-
To create, vary or remove a restriction within the meaning of the Subdivision Act 1988, or to create or move a right of way, or to create, vary or remove an easement other than a right of way, or to vary or remove a condition in the nature of an easement other than a right of way in a Crown grant. - Class 20	Statutory	Fee Unit	N	89 units	89 units	-
A permit not otherwise provided for in this Regulation, including a reduction in car parking requirements - Class 21	Statutory	Fee Unit	N	89 units	89 units	-
Permit Applications for More Than One Class						
An application for more than one class of permit set out in the above table	Statutory	Fee Unit	N	The sum of the highest of the fees which would have applied if separate applications were made, and 50% of each of the other fees which would have applied if separate applications were made		-
An application to amend a permit in more than one class set out in the above table	Statutory	Fee Unit	N	The sum of the highest of the fees which would have applied if separate applications were made, and 50% of each of the other fees which would have applied if separate applications were made		-

Strategy and Growth continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Fees to Amend After Notice Has Been Given						
Section 57A - Request to amend an application for an amendment to a permit after notice has been given	Statutory	Amend Permit	N	40% of the application fee for that class of permit or amendment to permit, and where the class of application is changing to a new class of higher application fee, the difference between the fee for the application to be amended and the fee for the new class		-
Section 57A - Request to amend an application for permit after notice has been given	Statutory	Amend Permit	N	40% of the application fee for that class of permit or amendment to permit, and where the class of application is changing to a new class of higher application fee, the difference between the fee for the application to be amended and the fee for the new class		-
Advertising of Applications by Council*						
Notice	Full Cost	Each	N	7.3	7.5	2.74%
On-Site Notice	Full Cost	Each	N	142.55	170	19.26%
On-site notice - additional	Full Cost	Each	N	0	85	-
Subdivision Certification*						
Alteration of a plan	Statutory	Fee Unit	N	7.5 units	7.5 units	-
Amendment of certified plan	Statutory	Fee Unit	N	9.5 units	9.5 units	-
Certification of a plan of subdivision	Statutory	Fee Unit	N	11.8 units	11.8 units	-
Subdivision Engineering – costs based on the estimated cost of construction works*						
Checking of engineering plans	Statutory	Subd Value	N	0.75%	0.75%	-
Engineering plan prepared by Council	Statutory	Subd Value	N	3.50%	3.50%	-
Supervision of works	Statutory	Subd Value	N	2.50%	2.50%	-
Sale of Documents*						
Black and white photocopying A4 and A3 size	Full Cost	Each	N	0.3	0.35	16.67%
Initial search fee	Full Cost	Each	N	77.7	100	28.70%
Photocopying A2	Full Cost	Each	N	2.05	2.1	2.44%
Subsequent permit retrieval	Full Cost	Each	N	22.15	50	125.73%
Other Planning Fees*						
Amend or end a Section 173 Agreement	Statutory	Fee Unit	N	44.5 units	44.5 units	-
Certificate of Compliance section 97N	Statutory	Fee Unit	N	22 units	22 units	-
Condition 1 minor amendments to plans	Statutory	Each	N	0	140	-
Extension of Time - 1st request	Statutory	Each	N	202.9	220	8.43%
Extension of Time - 2nd request	Statutory	Each	N	405.85	440	8.41%
Extension of Time - 3rd request	Statutory	Each	N	608.7	660	8.43%
Planning Information Request	Statutory	Each	N	0	90	-
Planning information request - detailed	Statutory	Each	N	0	200	-
Retrospective permit - additional fee	Statutory	Each	N	0	300	-
Satisfaction matters	Statutory	Fee Unit	N	22 units	22 units	-
Secondary consent to plans	Statutory	Fee Unit	N	0	260	-

** Statutory Planning fees are set by the State Government and are subject to change after Budget Adoption.*

HEALTH AND WELLBEING

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
SAFE AND HEALTHY ENVIRONMENTS						
Building Services						
Building Fee						
Additional Inspections/Inspections for other Councils	Full Cost	Inspection	Y	162	165	1.85%
Amendments/Variations to Approved Documents	Full Cost	Amendment	Y	162	165	1.85%
Change of Use Permit	Full Cost	Application	Y	2050	2090	1.95%
Class 1 Alterations and Additions less than $100,000 (max 4 inspections)	Full Cost	Application	Y	2103	2145	2.00%
Class 1 Alterations and Additions greater than $100,000 (max 4 inspections)	Full Cost	Application	Y	2745	2795	1.82%
Class 1 Dwellings (max 5 inspections) less than $400,000	Full Cost	Application	Y	3343	3405	1.85%
Class 1 Dwellings (max 5 inspections), greater than $400,000	Full Cost	Application	Y	4414	4495	1.84%
Class 1 Multi Unit Developments (first Unit)	Full Cost	Application	Y	1995	2035	2.01%
Class 10 Misc Structures Garages/Sheds(2 Insp) up to $25,000	Full Cost	Application	Y	941	958	1.81%
Class 10 Misc Structures Garages/Sheds(2 Insp) up to $50,000	Full Cost	Application	Y	1109	1130	1.89%
Class 10 Pool/Spa fence only	Full Cost	Application	Y	660	672	1.82%
Class 10 Small Spas and kids pools and fence	Full Cost	Application	Y	455	464	1.98%
Class 10 Swimming Pools and fence	Full Cost	Application	Y	1220	1245	2.05%
Commercial and Industrial up to $5,000	Full Cost	Application	Y	528	538	1.89%
Commercial and Industrial $5,001-$15,000	Full Cost	Application	Y	740	754	1.89%
Commercial and Industrial $15,001-$30,000	Full Cost	Application	Y	951	969	1.89%
Commercial and Industrial $30,001-$100,000 value x 1.0% + $1,000	Full Cost	Application	Y	2030	2070	1.97%
Commercial and Industrial $100,001-$500,000 value x 0.4% + $2,200	Full Cost	Application	Y	4260	4340	1.88%
Commercial and Industrial $500,001-$2M value x 0.25% + $3,000	Full Cost	Application	Y	8100	8250	1.85%
Commercial and Industrial over $2M value/500 + $2,000) x 1.2	Full Cost	Application	Y	Varies	Varies	-
Commercial Airport Hangers (minimum fee)	Full Cost	Application	Y	1108	1130	1.99%
Extension of Building Permit Class 1 and 10	Full Cost	Application	Y	280	285.5	1.96%
Extension of Building Permit Class 2 to 9	Full Cost	Application	Y	451	460	2.00%
House Relocation/Restructure	Full Cost	Application	Y	3334	3395	1.83%
Lapsed Permit Approvals and Inspections less than 5 years	Full Cost	Application	Y	324	330	1.85%
Lapsed Permit Approvals and Inspections greater than 5 years	Full Cost	Application	Y	458	467	1.97%
Others Classes - Price on Application	Full Cost	Application	Y	Varies	Varies	-
Restumping, recladding, verandas, decks, retaining walls up to $12,000	Full Cost	Application	Y	853	869	1.88%
Lodgement Fee						
Permit From Private Building Surveyor - Reg 320, etc.	Statutory	Fee Unit	N	n/a	8.23 Fee Units	-
Information/Reports						
Amendment to Report and Consent	Full Cost	Fee Units	N	n/a	4 Fee Units	-
Building File Retrieval from Archives (Commercial)	Full Cost	Lodgement	N	250	254.5	1.80%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Building File Retrieval from Archives (Residential)	Full Cost	Lodgement	N	150	153	2.00%
Report and Consent Fee	Statutory	Fee Unit	N	n/a	19.61 Fee Units	-
Legal Point of Discharge	Statutory	Fee Unit	N	n/a	9.77 Fee Units	-
Local Drainage Information	Statutory	Application	N	126.9	126.9	0.00%
Property Information Only - Regulation 326 (1) (2) (3)	Statutory	Fee Unit	N	n/a	3.19 Fee Units	-
Demolitions						
Form 29A Report and Consent	Statutory	Fee Unit	N	n/a	5.75 Fee Units	-
Single Storey building more than 6m from street	Full Cost	Building	N	965.5	983	1.81%
Asset Protection						
Asset Protection Permit	Full Cost	Permit	N	116	118.5	2.16%
Miscellaneous Permits (Hoarding and Road Occupation)						
Long Term Occupation - per month	Full Cost	Application	N	569	580	1.93%
Long Term Occupation - per month (OUTSIDE CBD) NEW FEE	Full Cost	Application	N	284	289.5	1.94%
Short Term Occupation - 2 Days	Full Cost	Application	N	258	263	1.94%
Short Term Occupation - 2 Weeks	Full Cost	Application	N	451	460	2.00%
Short Term Occupation - Week	Full Cost	Application	N	344	351	2.03%
Short Term Occupation in Any Area (1 Day Maximum)	Full Cost	Application	N	214	218	1.87%
Standard Hourly Rates						
Administration Staff	Full Cost	Hour	Y	118	120.5	2.12%
Building Inspector	Full Cost	Hour	Y	166	169	1.81%
Certification of Private Projects by MBS (minimum)	Full Cost	Application	Y	640	652	1.88%
Municipal Building Surveyor	Full Cost	Hour	Y	245	249.5	1.84%
POPE's (Places of Public Entertainment)						
All POPE Applications submitted within 4 days of event attract late fee	Full Cost	Each	N	268	273	1.87%
Places of Public Entertainment Occupancy Permits - Large Events	Full Cost	Each	N	540	550	1.85%
Places of Public Entertainment Occupancy Permits - Standard	Full Cost	Each	N	368	375	1.90%
Temporary Structures and Special Use Occupancy Permits - Small Events Stands <50 people / Tents <250m2 / Stages <250m2	Full Cost	Each	N	167	170.5	2.10%
Pool or Spa Barrier Register						
Failure to comply with a barrier improvement notice	Statutory	Each	N	2.3 Penalty Units	2.3 Penalty Units	-
Failure to lodge certificate of barrier compliance	Statutory	Each	N	2.3 Penalty Units	2.3 Penalty Units	-
Failure to lodge certificate of barrier non-compliance	Statutory	Each	N	2.3 Penalty Units	2.3 Penalty Units	-
Failure to register pool or spa barrier	Statutory	Each	N	10 Penalty Units	10 Penalty Units	-
Information search fee	Statutory	Each	N	3.19 Fee Units	3.19 Fee Units	-
Lodgement of certificate of compliance	Statutory	Each	N	2.07 Fee Units	2.07 Fee Units	-
Lodgement of certificate of non-compliance	Statutory	Each	N	2.3 Penalty Units	2.3 Penalty Units	-
Pool or spa registration fee	Statutory	Application	N	2.15 Fee Units	2.15 Fee Units	-
Illegal Building Works						
Additions, Extensions, Alterations to Dwellings	Incentive	Application	Y	2990	3045	1.84%
Basic Pool and Pool Fence (Built after Jan 2018)	Incentive	Application	Y	896	913	1.90%
Basic Pool and Pool Fence (Built before Jan 2018)	Incentive	Application	Y	1420	1450	2.11%
Cancelling Building Notice	Incentive	Fee Unit	Y	n/a	13 Fee Units	-

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Commercial and Industrial $100,001 - $500,000 value x 0.4% + $6,700 Maximum fee published	Incentive	Application	Y	6700	6825	1.87%
Commercial and Industrial $20,000 - $50,000 ($3,200 plus $2.50 per sqm)	Incentive	Application	Y	3200	3260	1.88%
Commercial and Industrial $50,001 - $100,000 ($3,700 plus $2.50 per sqm)	Incentive	Application	Y	3700	3770	1.89%
Commercial and Industrial $500,001 - $2M value x 0.25% + $12,500 Maximum fee published	Incentive	Application	Y	12500	12725	1.80%
Commercial and Industrial over $2M value/$500 + $3,500) x 1.2 Maximum fee published	Incentive	Application	Y	Varies	Varies	-
Commercial Alterations/Additions under $20,000 ($2,250 plus $2.50 per sqm)	Incentive	Application	Y	2250	2295	2.00%
Demolitions - Commercial Buildings	Incentive	Application	Y	1564	1595	1.98%
Demolitions - Houses	Incentive	Application	Y	1569	1600	1.98%
Demolitions - Outbuildings	Incentive	Application	Y	841	857	1.90%
Internal alterations and additions (under 20 m^2)	Incentive	Application	Y	1797	1830	1.84%
New Commercial Buildings (Including change of use) ($3,640 min + $2.2/sqm floor area)	Incentive	Application	Y	3640	3710	1.92%
New Dwellings (including change of use)	Incentive	Application	Y	4684	4770	1.84%
Pool Fence	Incentive	Application	Y	469	478	1.92%
Reblocking	Incentive	Application	Y	946	964	1.90%
Relocatable dwellings ancillary to existing dwelling	Incentive	Application	Y	2403	2450	1.96%
Retaining Wall over 30m long	Incentive	Application	Y	1775	1810	1.97%
Retaining Wall under 30m long	Incentive	Application	Y	711	724	1.83%
Sheds (51 to 500 m^2)	Incentive	Application	Y	2157	2200	1.99%
Sheds (greater than 500 m^2)	Incentive	Application	Y	2599	2650	1.96%
Sheds (greater than 800m2)	Incentive	Application	Y	0	3500	-
Small Sheds (under 50 m^2)	Incentive	Application	Y	1000	1020	2.00%
Spa/Pool and Kids Pool Fence	Incentive	Application	Y	455	464	1.98%
Verandas and Carports	Incentive	Application	Y	1490	1520	2.01%
Environmental Health						
Food Act						
Class 1A - Proprietary FSP and Scale**	Full Cost	Fee Unit	N	n/a	88 Fee Units	-
Class 1B - Proprietary FSP**	Full Cost	Fee Units	N	n/a	55 Fee Units	-
Class 2A - Proprietary FSP or Independent and Scale**	Full Cost	Fee Unit	N	n/a	88 Fee Units	-
Class 2B - Standard or Independent**	Full Cost	Fee Unit	N	n/a	44 Fee Units	-
Class 2C - Standard FSP (Home based/farm gate/B&B)**	Full Cost	Fee Unit	N	n/a	22 Fee Units	-
Class 3A - Minimum Records**	Full Cost	Fee Unit	N	n/a	22 Fee Units	-
Class 3B (minimum records including community groups)**	Full Cost	Fee Unit	N	n/a	11 Fee Units	-
Follow Up of Non-Compliance Food Sampling	Full Cost	Fee Unit	N	n/a	11 Fee Units	-
One Off Event NEW	Full Cost	Fee Unit	N	n/a	11 Fee Units	-
*** Businesses experiencing financial hardship were eligible for a fee reduction in FY21/22. Fees have been reinstated for FY22/23.*						
Extracts						
Copy of Certificate of Analysis	Full Cost	Each	N	43.5	44.5	2.30%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Public Health and Wellbeing Act 2008						
Prescribed Accommodation**	Full Cost	Fee Unit	N	n/a	24 Fee Units	-
Public Health and Wellbeing Premises (including pool registrations)**	Full Cost	Fee Unit	N	n/a	28 Fee Units	-
*** Businesses experiencing financial hardship were eligible for a fee reduction in FY21/22. Fees have been reinstated for FY22/23.*						
Caravan Parks						
Inspection and Report Fee	Full Cost	Each	N	362.4	369	1.82%
Registration	Statutory	Site	N	As per schedule - varies	As per schedule - varies	-
Transfer Fee - Caravan Parks	Full Cost	Each	N	As per schedule (5 fee units)	As per schedule (5 fee units)	-
All Registrations (except caravan parks)						
Major Non-Compliant Premise Re-inspection Fee	Full Cost	Fee Unit	N	n/a	24 Fee Units	-
New Premise Fee**	Full Cost	Fee Unit	N	n/a	24 Fee Units	-
Registration of new premises 1 April - 30 June**	Full Cost	Each	N	New Premise fee + 25% of Annual registration fee	New Premise fee + 25% of Annual registration fee	-
Registration of new premises 1 January - 31 March**	Full Cost	Each	N	New Premise fee + 50% of Annual registration fee	New Premise fee + 50% of Annual registration fee	-
Registration of new premises 1 July - 30 September**	Full Cost	Each	N	New Premise fee + Annual registration fee	New Premise fee + Annual registration fee	-
Registration of new premises 1 October - 31 December**	Full Cost	Each	N	New Premise fee + 75% of Annual registration fee	New Premise fee + 75% of Annual registration fee	-
Transfer Fee	Statutory	Fee Unit	N	n/a	24 Fee Units	-
*** Businesses experiencing financial hardship were eligible for a fee reduction in FY21/22. Fees have been reinstated for FY22/23.*						
Environment Protection Act (septic tanks)						
Additional Site Inspection charge	Full Cost	Fee Unit	N	n/a	15 Fee Units	-
Amend a permit	Statutory	Application	N	As per schedule (10.38 fee units)	As per schedule (10.38 fee units)	-
Construct, install or alter OWMS	Statutory	Application	N	As schedule (minimum 48.88 fee units for assessments not exceeding 8.2 hours with an additional 6.12 fee units payable per hour of assessment exceeding 8.2 hours up to a maximum of 135.43 fee units)		-
Exemption	Statutory	Application	N	As per schedule (minimum 14.67 fee units for assessments not exceeding 2.6 hours with an additional 5.94 fee units payable per hour of assessment exceeding 2.6 hours up to a maximum of 61.41 fee units)		-
Minor alteration to OWMS	Statutory	Application	N	As per schedule (37.25 fee units)	As per schedule (37.25 fee units)	-
Renew a permit	Statutory	Application	N	As per schedule (8.31 fee units)	As per schedule (8.31 fee units)	-
Septic Plan/File Search Fee charge	Full Cost	Each	N	150	153	2.00%
Transfer a permit	Statutory	Application	N	As per schedule (9.93 fee units)	As per schedule (9.93 fee units)	-
Housing Orders – Certificate of Title						
Removal of Director of Housing Declarations affecting title	Market	Each	N	168.5	172	2.08%
Report on orders affecting property	Market	Each	N	84	86	2.38%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Local Laws						
A Frame - 1st Sign**	Full Cost	Each	N	67.5	69	2.22%
A Frame - 2nd Sign**	Full Cost	Each	N	140	143	2.14%
A Frame - 3rd Sign**	Full Cost	Each	N	306	312	1.96%
Administrative Fee - Fire Prevention - Invoices	Full Cost	Each	N	211	215	1.90%
Display of Goods for sale on Footpath - CBD**	Full Cost	Each	N	322.5	329	2.02%
Display of Goods for sale on Footpath - Decorative only - non CBD**	Full Cost	Each	N	78.5	80	1.91%
Display of Goods for sale on Footpath - non CBD**	Full Cost	Each	N	177.5	181	1.97%
Display of Goods on Footpath - Decorative only - CBD**	Full Cost	Each	N	133.5	136	1.87%
Grass Slashing (Administrative Cost - Slashing Carried Out by Council's Contractors)	Full Cost	Time	N	100% cost recovery	100% cost recovery	-
Itinerant Trade CBD area	Full Cost	Monthly	N	525	535	1.90%
Itinerant Trade Lake Trader	Full Cost	Monthly	N	709.5	723	1.90%
Itinerant Trade Miscellaneous/one off permits	Full Cost	Each	N	79.5	81	1.89%
Itinerant Trade Outer Area	Full Cost	Monthly	N	418	426	1.91%
Itinerant Trade Rural Area	Full Cost	Monthly	N	299.5	305	1.84%
Late fee Administration for renewal of Outdoor Dining and Street Trading Permits	Full Cost	Each	N	183.5	187	1.91%
Live on site Application Fee	Full Cost	Application	N	205	209	1.95%
Live on site Renew Permit (each six months)	Full Cost	Application	N	205	209	1.95%
Local Law Permits (Processing Permit Applications/ Issuing Permits) - Commercial	Full Cost	Each	N	79.5	81	1.89%
Local Law permit fees 1 April - 30 June	Full Cost	Each	N	25% permit fee	25% permit fee	-
Local Law permit fees 1 January - 31 March	Full Cost	Each	N	50% permit fee	50% permit fee	-
Local Law permit fees 1 July - 30 September	Full Cost	Each	N	100% permit fee	100% permit fee	-
Local Law permit fees 1 October - 31 December	Full Cost	Each	N	75% permit fee	75% permit fee	-
Sale of copy of all Councils Local Laws Charge	Full Cost	Each	N	39	40	2.56%
Table and Chairs - in CBD**	Full Cost	Chair	N	64	65.5	2.34%
Table and Chairs - outside CBD**	Full Cost	Chair	N	52	53	1.92%
*** Due to the impact of COVID-19 these fees were temporarily waived in FY21/22. Fees have been reinstated for FY22/23. Businesses are still required to renew their permits and provide all necessary documentation. New applications require the application fee ($80) to be paid.*						
Parking and Animal Control						
Animal Registrations – Non Concession Fees						
Cat kept for breeding by the proprietor of a Domestic Animal Business conducted on registered premises	Market	Animal	N	38	39	2.63%
Cat registered with the Feline Control Council	Market	Animal	N	38	39	2.63%
Cats - all other	Market	Animal	N	114.5	117	2.18%
Cats - Desexed	Market	Animal	N	38	39	2.63%
Cats - Over 10 Years	Market	Animal	N	38	39	2.63%
Dog kept for working stock - rural property	Market	Animal	N	46.5	47	1.08%
Dog undergone Obedience Training which complies with Regulations	Market	Animal	N	46.5	47	1.08%
Dogs - all other	Market	Animal	N	139.5	141	1.08%
Dogs - Desexed	Market	Animal	N	46.5	47	1.08%
Dogs - Domestic Animal Business conducted on Registered Premises	Market	Animal	N	46.5	47	1.08%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Dogs - Over 10 Years	Market	Animal	N	46.5	47	1.08%
Dogs registered with the Victorian Canine Association	Market	Animal	N	46.5	47	1.08%
Request to inspect the animal registry	Market		N	0	10.4	-
Request to obtain Certificate of from Registry	Market	Each	N	0	10.4	-
Animal Registrations Concession Fees						
Cat kept for breeding by the proprietor of a Domestic Animal Business conducted on registered premises.	Market	Animal	N	19	19.5	2.63%
Cat registered with the Feline Control Council - concession	Market	Animal	N	19	19.5	2.63%
Cats - all other - concession	Market	Animal	N	57.2	58.5	2.27%
Cats - Desexed - concession	Market	Animal	N	19	19.5	2.63%
Cats - Over 10 Years - concession	Market	Animal	N	19	19.5	2.63%
Dog kept for working stock - rural property - concession	Market	Animal	N	23.2	23.5	1.29%
Dog undergone Obedience Training which complies with Regulations - concession	Market	Animal	N	23.2	23.5	1.29%
Dogs - all other - concession	Market	Animal	N	69.7	70.5	1.15%
Dogs - Desexed - concession	Market	Animal	N	23.2	23.5	1.29%
Dogs - Domestic Animal Business conducted on Registered Premises - concession	Market	Animal	N	23.2	23.5	1.29%
Dogs - Over 10 Years - concession	Market	Animal	N	23.2	23.5	1.29%
Dogs registered with the Victorian Canine Association - concession	Market	Animal	N	23.2	23.5	1.29%
Meter Hoods, etc						
Reserved parking fee paying bay (metered) - per bay	Market	Day	Y	13	13.4	3.08%
Reserved parking free (unmetered) time restricted bay - per bay	Market	Day	Y	6.5	6.7	3.08%
Multi Storey Carpark – Hargreaves St						
Bay Hire - level 7 (24/7)	Market	Monthly	Y	150	153	2.00%
Bay Hire - level 7 (Mon-Fri)	Market	Monthly	Y	129	131.5	1.94%
Bay Hire - roof top	Market	Monthly	Y	93	95	2.15%
Bay Hire - roof top (24/7)	Market	Monthly	Y	107	109	1.87%
Car Park Fees - Hargreaves St	Market	Hour/Day	Y	$1.80/$8.00	$1.90/$8.20	-
Multi Storey Carpark – Edward St						
Bay Hire - 24/7	Market	Monthly	Y	167	170.5	2.10%
Bay Hire - Mon-Friday	Market	Monthly	Y	141	144	2.13%
Car Park Fees - Edward St	Market	Hour/Day	Y	First 90 min free then $1.90/$8.50	First 90 min free then $2.00/$8.70	-
Parking Fees						
Car Park Cnr Edwards and Hargreaves	Market	Hour/Day	Y	$1.90/$8.50	$2.00/$8.70	-
Car Park Fees Zone 1	Market	Hour/Day	Y	$1.80/$6.50	$1.90/$6.70	-
Fines						
Abandoned vehicle release from pound	Market	Each	N	143	146	2.10%
After hours release from Multi Storey Car Park	Market	Each	Y	130	130	0.00%
Parking Offence Road Rules	Market	Penalty Unit	N	0.5 Penalty Units	0.5 Penalty Units	-
Parking Offence Road Rules	Statutory	Penalty Unit	N	0.6 Penalty Units	0.6 Penalty Units	-
Parking Offence Road Rules	Statutory	Penalty Unit	N	1.0 Penalty Units	1.0 Penalty Units	-

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Registration of Domestic Animal Business	Market	Fee Unit	N	n/a	12 Fee Units	-
Livestock feeding daily cost	Market	DSE	N	n/a	$2 per DSE	-
Livestock impounding	Market	DSE	N	n/a	$8 per DSE	-
Livestock release from pound	Market	DSE	N	n/a	$6 per DSE	-
Unfit Livestock Disposal Fee	Market	Animal	N	0	108	-
Bendigo Animal Relief Centre						
Daily keeping fee	Market	Animal	N	35.5	36.5	2.82%
Microchipping fee - public	Market	Animal	N	40	40	0.00%
Microchipping Fee Impounded	Market	Animal	N	40	40	0.00%
Release Fee Cat - Day 1	Market	Animal	N	20	20	0.00%
Release Fee Cat - Day 2-4	Market	Animal	N	80	80	0.00%
Release Fee Cat - Day 5-8	Market	Animal	N	120	120	0.00%
Release Fee Dog - Day 1	Market	Animal	N	30	30	0.00%
Release Fee Dog - Day 2-4	Market	Animal	N	100	100	0.00%
Release Fee Dog - Day 5-8	Market	Animal	N	150	150	0.00%
Release Fee Small Domestic Animal - Day 1	Market	Animal	N	20	20	0.00%
Release Fee Small Domestic Animal - Day 2-4	Market	Animal	N	80	80	0.00%
Release Fee Small Domestic Animal - Day 5-8	Market	Animal	N	120	120	0.00%
Vaccination fee	Market	Animal	N	50	50	0.00%
Surrender Fee – not COGB resident						
Cat	Market	Animal	Y	50	51	2.00%
Dog	Market	Animal	Y	70	71.5	2.14%
Adoption fees						
Puppy (up to 6 months)	Market	Animal	Y	420	420	0.00%
Dog (6 months to 7 years)	Market	Animal	Y	380	380	0.00%
Senior Dog (7 years+)	Market	Animal	Y	100	100	0.00%
Kittens (up to 6 months)	Market	Animal	Y	170	170	0.00%
Cats (6 months to 7 years)	Market	Animal	Y	120	120	0.00%
Senior Cats (7 years+)	Market	Animal	Y	50	50	0.00%
Small Domestic Animal (Rabbit, Guinea Pig, Rodent, Ferret)	Market	Animal	Y	30	30	0.00%
Miscellaneous						
Registration of Foster Carer	Full Cost	Each	N	79.5	81	1.89%
Animal Registration – Non Concession Fees						
Cat - Registered foster carer	Market	Animal	N	8.2	8.2	0.00%
Dog - Registered foster carer	Market	Animal	N	8.2	8.2	0.00%
ACTIVE AND HEALTHY COMMUNITIES						
Active Communities						
Pool Entry Fees						
Adult Extended Season Ticket	Accessible	Season	Y	164	167	1.83%
Adult Ticket - Day	Accessible	Day	Y	5.6	5.7	1.79%
Adult Ticket - Season	Accessible	Season	Y	107	110	2.80%
Child Extended Season Ticket	Accessible	Season	Y	128	130.5	1.95%
Child Ticket (Child under 2 years old free when accompanied by a paying adult) - Day	Accessible	Day	Y	4.5	4.6	2.22%
Child Ticket (Child under 2 years old free when accompanied by a paying adult) - Season	Accessible	Season	Y	79	80.5	1.90%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Concession Adult Extended Season Ticket	Accessible	Season	Y	130	132.5	1.92%
Concession Adult Ticket - Day	Accessible	Day	Y	4.5	4.6	2.22%
Concession Adult Ticket - Season	Accessible	Season	Y	81	82.5	1.85%
Concession Family Extended Season Ticket	Accessible	Season	Y	217	221	1.84%
Concession Family Ticket (2 adults and dependent children under 16 years of age) - Day	Accessible	Day	Y	11.2	11.4	1.79%
Concession Family Ticket (2 adults and dependent children under 16 years of age) - Season	Accessible	Season	Y	162	165	1.85%
Concession Student Ticket - Day	Accessible	Day	Y	4.5	4.6	2.22%
Dive Pool, 1m, 3m, 5m Boards	Accessible	Hour	Y	46	47	2.17%
Family Extended Season Ticket (2 adults and dependent children under 16 years of age)	Accessible	Season	Y	270	275	1.85%
Family Ticket (2 adults and dependent children under 16 years of age) - Day	Accessible	Day	Y	14.8	15.2	2.70%
Family Ticket (2 adults and dependent children under 16 years of age) - Season	Accessible	Season	Y	205	210	2.44%
Intermediate Pool	Accessible	Hour	Y	46	47	2.17%
January 31 Season Ticket Price - Adult	Accessible	Season	Y	51	52	1.96%
January 31 Season Ticket Price - Child	Accessible	Season	Y	39	40	2.56%
January 31 Season Ticket Price - Family	Accessible	Season	Y	98	100	2.04%
Lane Hire	Accessible	Hour	Y	24	24.5	2.08%
Large Aquatic Facility Hire (additional charge where >400 people attend)	Accessible	Facility per hour	Y	175.5	180	2.56%
Pool Marketing and promotional discounts	Accessible	Season	Y	Varies up to 20%	Varies up to 20%	-
Rural Pool Pass - Adult	Accessible	Season	Y	82	83.5	1.83%
Rural Pool Pass - Child	Accessible	Season	Y	55	56	1.82%
Rural Pool Pass - Family	Accessible	Season	Y	130	132.5	1.92%
School Group Student Entry - Day	Accessible	Day	Y	2	2	0.00%
Small Aquatic Facility Hire (additional charge where >400 people attend)	Accessible	Facility per hour	Y	120	122.5	2.08%
Water Slide Hire	Accessible	Hour	Y	73	75	2.74%
Winter Seasonal Use - Adult	Accessible	Season	Y	198	200	1.01%
Winter Seasonal Use - Child	Accessible	Season	Y	158	160	1.27%
Winter Seasonal Use - Family	Accessible	Season	Y	342	350	2.34%
Indoor Aquatic and Wellbeing Centres						
12 Month Aquatic Membership Adult	Accessible	Term	Y	545	555	1.83%
12 Month Aquatic Membership Student/Concession	Accessible	Term	Y	445	454	2.02%
12 Month Gold/Partner Health Membership	Accessible	Term	Y	870	886	1.84%
12 Month Platinum Membership	Accessible	Term	Y	1050	1070	1.90%
12 Month Teen Platinum Membership	Accessible	Term	Y	650	662	1.85%
2 Weeks Gold/Partner Health Membership	Accessible	Term	Y	50	51	2.00%
2 Weeks Platinum Membership	Accessible	Term	Y	62	63.5	2.42%
6 Month Aquatic Membership Adult	Accessible	Term	Y	292	297.5	1.88%
6 Month Aquatic Membership Student/Concession	Accessible	Term	Y	240	244.5	1.88%
6 Month Gold/Partner Health Membership	Accessible	Term	Y	455	464	1.98%
6 Month Platinum Membership	Accessible	Term	Y	546	556	1.83%
6 Month Teen Platinum Membership	Accessible	Term	Y	345	352	2.03%
Aquatic Events Indoor 50m Off Peak	Accessible	Hour	Y	315	321	1.90%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Aquatic Events Indoor 50m Peak Time	Accessible	Hour	Y	680	693	1.91%
Aquatic Membership Adult - Direct Debit	Accessible	Weekly	Y	9.8	10	2.04%
Aquatic Membership Joining Fee	Accessible	Application	Y	42	42	0.00%
Aquatic Membership Student/Concession - Direct Debit	Accessible	Weekly	Y	7.7	7.9	2.60%
Aquatic Programs Adult Learn to Swim Membership - Direct Debit	Accessible	Weekly	Y	18	18.4	2.22%
Aquatic Programs Aqua Aerobics 20 Visit Pass	Accessible	Multi Visit Pass	Y	225	230	2.22%
Aquatic Programs Aqua Aerobics 20 Visit Pass (Concession)	Accessible	Multi Visit Pass	Y	170	174	2.35%
Aquatic Programs Aqua Aerobics Class	Accessible	Casual	Y	12.5	12.8	2.40%
Aquatic Programs Aqua Aerobics Class (Concession)	Accessible	Casual	Y	9.5	9.7	2.11%
Aquatic Programs Aqua Play (Splish Splash - 2 to 6 months)	Accessible	Casual	Y	6.8	7	2.94%
Aquatic Programs Birthday Parties (per child + food)	Accessible	Session	Y	21	21.5	2.38%
Aquatic Programs Child Learn to Swim Membership - Direct Debit	Accessible	Weekly	Y	15.6	16	2.56%
Aquatic Programs Squad Membership - Direct Debit	Accessible	Weekly	Y	18	18.4	2.22%
Casual Gym 20 Visit Pass	Accessible	Multi Visit Pass	Y	307	313	1.95%
Casual Gym Adult	Accessible	Casual	Y	16.5	16.8	1.82%
Casual Gym Concession/Student	Accessible	Casual	Y	13.4	13.8	2.99%
Casual Gym Concession/Student 20 Pass Visit	Accessible	Multi Visit Pass	Y	254	259	1.97%
Childcare 90 Minutes Member	Accessible	Casual	Y	8.8	9	2.27%
Childcare 90 Minutes Non-Member	Accessible	Casual	Y	10.8	11	1.85%
Coaching Zone Membership - Direct Debit	Accessible	Weekly	Y	50	50	0.00%
Exercise physiology - From	Accessible	Session	Y	60	62	3.33%
Gold/Partner Health Membership - Direct Debit	Accessible	Weekly	Y	16	16.4	2.50%
Gold/Partner Health Membership Student/ Concession - Direct Debit	Accessible	Weekly	Y	12.8	13.2	3.12%
Group Fitness Class 20 Visit Pass	Accessible	Multi Visit Pass	Y	242	246.5	1.86%
Group Fitness Class 20 Visit Pass Concession	Accessible	Multi Visit Pass	Y	160	163	1.88%
Group Fitness Class Adult	Accessible	Casual	Y	12.5	12.8	2.40%
Group Fitness Class Concession/Student	Accessible	Casual	Y	9.5	9.7	2.11%
Indoor Pool Adult Casual	Accessible	Casual	Y	6.8	7	2.94%
Indoor Pool Adult Swim Pass 10 Visits	Accessible	Multi Visit Pass	Y	55	56	1.82%
Indoor Pool Adult Swim Pass 20 Visits	Accessible	Multi Visit Pass	Y	110	112	1.82%
Indoor Pool Aquatic Teacher/Instructor	Accessible	Hour	Y	40	40	0.00%
Indoor Pool Casual Child/Concession Casual	Accessible	Casual	Y	4.7	4.8	2.13%
Indoor Pool Child/Concession Pass 10 Visits	Accessible	Multi Visit Pass	Y	38	39	2.63%
Indoor Pool Child/Concession Pass 20 Visits	Accessible	Multi Visit Pass	Y	76	77.5	1.97%
Indoor Pool Family (2 adults + dependant children)	Accessible	Casual	Y	19	19.4	2.11%
Indoor Pool Family Pass 10 Visits	Accessible	Multi Visit Pass	Y	150	153	2.00%
Indoor Pool Family Swim Pass 20 Visits	Accessible	Multi Visit Pass	Y	300	306	2.00%
Indoor Pool Group Entry (over 20 people)	Accessible	Casual	Y	4	4	0.00%
Indoor Pool Lane Hire	Accessible	Casual	Y	12.5	12.8	2.40%
Indoor Pool School Child Entry	Accessible	Casual	Y	3.5	3.6	2.86%
Indoor Pool Schools 3/4 hour lesson (inc. entry)	Accessible	Session	Y	8.2	8.4	2.44%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Indoor Pool Small Family (1 adult + dependant children)	Accessible	Casual	Y	13	13.4	3.08%
Indoor Pool Swim/Spa/Sauna	Accessible	Casual	Y	10.2	10.4	1.96%
Indoor Pool Swim/Spa/Sauna Concession	Accessible	Casual	Y	8.8	9	2.27%
Occasional Care 90 Minutes Member	Accessible	Casual	Y	16	16.4	2.50%
Occasional Care 90 Minutes Non-Member	Accessible	Casual	Y	19	19.4	2.11%
Personal Training - From	Accessible	Casual	Y	46	47	2.17%
Platinum and Gold Membership Joining Fee	Accessible	Application	Y	40	40	0.00%
Platinum Membership - Direct Debit	Accessible	Weekly	Y	20	20.5	2.50%
Platinum Membership Student/Concession - Direct Debit	Accessible	Weekly	Y	16	16.4	2.50%
Pool Marketing, sponsor and promotional discounts	Incentive	Application	Y	Varies up to 20%	Varies up to 20%	-
Pool Marketing, sponsor and promotional discounts - Incentive	Incentive	Casual	Y	Varies up to 20%	Varies up to 20%	-
Pool Marketing, sponsor and promotional discounts - Term/Monthly	Incentive	Term/ Monthly	Y	Varies up to 20%	Varies up to 20%	-
Room Hire - Multi Purpose Room	Accessible	Hour	Y	30	31	3.33%
School Fitness School Fitness Program Entry	Accessible	Casual	Y	5.2	5.3	1.92%
Squash Court Hire 1 hour	Accessible	Hour	Y	15	15.4	2.67%
Squash Court Hire 1/2 hour	Accessible	1/2 hour	Y	10	10.2	2.00%
Stadium hire 1 hour	Accessible	Hour	Y	20	20.5	2.50%
Stadium hire not for profit 1 hour	Accessible	Hour	Y	15	15.4	2.67%
Teen (13-15 years) Flexi Membership - Direct Debit	Accessible	Weekly	Y	11.7	12	2.56%
Wellness Centre Services - From	Accessible	Session	Y	65	66	1.54%
Additional prices, programs and services can be added at the discretion of the CEO.						
Reserves/Ovals – Season Hire						
Booking fee	Accessible	Percentage	Y	5%	5%	-
Graded A Reserve - Junior Use - Season Summer	Accessible	Season	Y	1968	2005	1.88%
Graded A Reserve - Junior Use - Season Winter	Accessible	Season	Y	3936	4010	1.88%
Graded A Reserve - Season Summer	Accessible	Season	Y	3936	4010	1.88%
Graded A Reserve - Season Winter	Accessible	Season	Y	7873	8015	1.80%
Graded B Reserve - Junior Use - Season Summer	Accessible	Season	Y	984	1005	2.13%
Graded B Reserve - Junior Use - Season Winter	Accessible	Season	Y	1968	2005	1.88%
Graded B Reserve - Season Summer	Accessible	Season	Y	1968	2005	1.88%
Graded B Reserve - Season Winter	Accessible	Season	Y	3936	4010	1.88%
Graded C Reserve - Junior Use - Season Summer	Accessible	Season	Y	490	500	2.04%
Graded C Reserve - Junior Use - Season Winter	Accessible	Season	Y	984	1005	2.13%
Graded C Reserve - Season Summer	Accessible	Season	Y	984	1005	2.13%
Graded C Reserve - Season Winter	Accessible	Season	Y	1968	2005	1.88%
Graded D Reserve - Junior Use - Season Summer	Accessible	Season	Y	245	250	2.04%
Graded D Reserve - Junior Use - Season Winter	Accessible	Season	Y	490	500	2.04%
Graded D Reserve - Season Summer	Accessible	Season	Y	490	500	2.04%
Graded D Reserve - Season Winter	Accessible	Season	Y	984	1005	2.13%
Occasional Hire						
Graded A Reserve - Day	Accessible	Day	Y	268	273	1.87%
Graded A Reserve - Junior Use - Day	Accessible	Day	Y	134	136.5	1.87%
Graded A Reserve - Junior Use - up to 3 hours	Accessible	Up to 3 Hours	Y	67	68.5	2.24%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Graded A Reserve - up to 1 hour	Accessible	Up to 1 hour	Y	45	46	2.22%
Graded A Reserve - up to 3 hours	Accessible	Up to 3 Hours	Y	134	136.5	1.87%
Graded B Reserve - Day	Accessible	Day	Y	200	204	2.00%
Graded B Reserve - Junior Use - Day	Accessible	Day	Y	100	102	2.00%
Graded B Reserve - Junior Use - up to 3 hours	Accessible	Up to 3 Hours	Y	50	51	2.00%
Graded B Reserve - up to 1 hour	Accessible	Up to 1 hour	Y	34	35	2.94%
Graded B Reserve - up to 3 hours	Accessible	Up to 3 Hours	Y	100	102	2.00%
Graded C Reserve - Day	Accessible	Day	Y	134	136.5	1.87%
Graded C Reserve - Junior Use - Day	Accessible	Day	Y	67	68.5	2.24%
Graded C Reserve - Junior Use - up to 3 hours	Accessible	Up to 3 Hours	Y	33.5	34.5	2.99%
Graded C Reserve - up to 1 hour	Accessible	Up to 1 hour	Y	23	23.5	2.17%
Graded C Reserve - up to 3 hours	Accessible	Up to 3 Hours	Y	67	68.5	2.24%
Graded D Reserve - Day	Accessible	Day	Y	67	68.5	2.24%
Graded D Reserve - Junior Use - Day	Accessible	Day	Y	33.5	34.5	2.99%
Graded D Reserve - Junior Use - up to 3 hours	Accessible	Up to 3 Hours	Y	16.75	17.2	2.69%
Graded D Reserve - up to 1 hour	Accessible	Up to 1 hour	Y	11.5	11.8	2.61%
Graded D Reserve - up to 3 hours	Accessible	Up to 3 Hours	Y	33.5	34.5	2.99%
Lighting at Epsom Huntly Recreation Reserve	Accessible	Hour	Y	37	38	2.70%
Lighting at Sports Centre Track or Oval Only	Accessible	Hour	Y	37	38	2.70%
Epsom Huntly Regional Recreation Reserve Pavilions						
Casual Use Cleaning Fee - From	Accessible	Per Use	Y	125	127.5	2.00%
Change Room Casual Use	Accessible	Day	Y	21.5	22	2.33%
Function Room - Training Nights - Seasonal	Accessible	Per Use	Y	22.5	23	2.22%
Function Room Playgroup Use	Accessible	Per Use	Y	12	12	0.00%
Function Room, Kitchen and Bar Commercial/Private Use - Casual	Accessible	Per Use	Y	350	360	2.86%
Function Room, Kitchen and Bar Community Use - Casual	Accessible	Per Use	Y	107	110	2.80%
Function Room, Kitchen and Bar Community Use - Seasonal	Accessible	Per Use	Y	107	110	2.80%
Kitchen / Kiosk - Seasonal	Accessible	Per Use	Y	37	38	2.70%
Meeting Room Casual Use up to 4 hours	Accessible	Hour	Y	30	31	3.33%
Seasonal Cleaning Fee - From	Accessible	Weekly	Y	22	22.5	2.27%
Bonds for events are subject to the nature of the event.						
Marist College Community Facility						
Function Room, Kiosk and Bar Commercial/Private Use - Casual	Accessible	Per Use	Y	344	352	2.33%
Function Room, Kiosk and Bar Community Use - Casual	Accessible	Per Use	Y	105	110	4.76%
Indoor Stadium Hire	Accessible	Hourly	Y	30	31	3.33%
Bonds for events are subject to the nature of the event.						
Commercial Fitness Operators						
Commercial Fitness Operator Additional Trainers Fee (Applicable 3+ trainers)	Accessible	Application	Y	120	122.5	2.08%
Commercial Fitness Operator Fee - Casual Use	Accessible	Application	Y	25	25.5	2.00%
Commercial Fitness Operator Fee - Over 3 sessions per week (Annual Permit)	Accessible	Application	Y	1200	1225	2.08%

Health and Wellbeing continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Commercial Fitness Operator Fee - Over 3 sessions per week (Summer Permit)	Accessible	Application	Y	600	610	1.67%
Commercial Fitness Operator Fee - Under 3 sessions per week (Annual Permit)	Accessible	Application	Y	600	610	1.67%
Commercial Fitness Operator Fee - Under 3 sessions per week (Summer Permit)	Accessible	Application	Y	300	305	1.67%
COMMUNITY WELLBEING						
Home Support Services						
Domestic Assistance - High Fee Range	Accessible	Hour	N	49.3	50.5	2.43%
Domestic Assistance - Low Fee Range	Accessible	Hour	N	9.2	9.4	2.17%
Domestic Assistance - Medium Fee Range	Accessible	Hour	N	22.95	23.5	2.40%
Food Services - Meals High Fee Range	Accessible	Each	N	26	26.5	1.92%
Food Services - Meals Low Fee Range	Accessible	Each	N	9.8	10	2.04%
Food Services - Meals Medium Fee Range	Accessible	Each	N	15	15.4	2.67%
Home Maintenance - High Fee Range	Accessible	Hour	N	52.5	53.5	1.90%
Home Maintenance - Low Fee Range	Accessible	Hour	N	13.55	13.8	1.85%
Home Maintenance - Medium Fee Range	Accessible	Hour	N	20.6	21	1.94%
Home Modifications - Low fee	Accessible	(blank)	N	0	0	-
Home Modifications - Medium fee	Accessible	(blank)	N	0	0	-
Personal Care - High Fee Range	Accessible	Hour	N	49.3	50.5	2.43%
Personal Care - Low Fee Range	Accessible	Hour	N	4.8	4.9	2.08%
Personal Care - Medium Fee Range	Accessible	Hour	N	12	12.4	3.33%
Respite Care - High Fee Range	Accessible	Hour	N	49.3	50.5	2.43%
Respite Care - Low Fee Range	Accessible	Hour	N	3.65	3.8	4.11%
Respite Care - Medium Fee Range	Accessible	Hour	N	6.75	6.9	2.22%
Social Support Group - High Fee Full Day	Accessible	Session	N	$81.20 ($70.70 + $10.50 meal)	$81.20 ($70.70 + $10.50 meal)	-
Social Support Group - High Fee Part Day	Accessible	per session	N	n/a	$40.00 (no meal)	-
Social Support Group - Low Fee Full Day	Accessible	Session	N	$19.80 ($9.30 + $10.50 meal)	$19.80 ($9.30 + $10.50 meal)	-
Social Support Group - Low Fee Part Day	Accessible	per session	N	n/a	$5.00 (no meal)	-
Social Support Group - Medium Fee Full Day	Accessible	Session	N	$35.10 ($24.60 + $10.50 meal)	$35.10 ($24.60 + $10.50 meal)	-
Social Support Group - Medium Fee Part Day	Accessible	per session	N	n/a	$13.00 (no meal)	-
Social Support Individual	Accessible	Hour	N	3.65	3.8	4.11%
Tip Fee	Accessible	Trip	N	12.35	12.6	2.02%
Early Years						
Child Care						
Full Day Care over 3 years of age	Accessible	Day	N	136.75	139.5	2.01%
Full Day Care under 3 years of age	Accessible	Day	N	136.75	139.5	2.01%
Late Collection of Children	Accessible	Minute	N	6.3	6.5	3.17%
Non Cancellation of OCC bookings	Accessible	Flat Admin	N	12.3	12.6	2.44%
Weekly over 3 years of age	Accessible	Week	N	517.15	527	1.90%
Weekly under 3 years of age	Accessible	Week	N	529.35	539	1.82%

PRESENTATION AND ASSETS

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
ENGINEERING						
Consent for Works in Road Reserves (Municipal roads) – Works other than minor works or traffic impact works						
Conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is more than 50km/hr	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is not more than 50km/hr	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Land Use Activity Agreement (LUAA) - Council administration fee for negotiable activity	Accessible	Each	N	1040	1060	1.92%
Not conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is more than 50km/hr	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Not conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is not more than 50km/hr	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Consent for Works in Road Reserves (Municipal Roads) – Minor Works						
Conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is more than 50km/hr - minor works	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is not more than 50km/hr - minor works	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Not conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is more than 50km/hr - minor works	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Not conducted on, or on any part of, the roadway, shoulder or pathway which the maximum speed limit is not more than 50km/hr - minor works	Statutory	Each	N	Fee is set by State Government based on fee unit		-
Full Colour – Posters etc.						
A2 - Full Colour	Market	Each	Y	13.75	14	1.82%
AO - Full Colour	Market	Each	Y	36.95	38	2.84%
Black and White Print						
A1 - Black and White	Market	Each	Y	6.7	6.9	2.99%
A2 - Black and White	Market	Each	Y	4.47	4.6	2.91%
AO - Black and White	Market	Each	Y	10.05	10.4	3.48%
Map Books	Market	Each	Y	10.15	10.4	2.46%
PARKS AND OPEN SPACE						
Booking fee - bookable Parks, Gardens and Passive Reserves	Accessible		Y	5%	5%	-
Commercial Event	Accessible	Per bookable location	Y	136	138.5	1.84%
Community/General Event/Gathering (0-30 People) • No booking required	Accessible	No booking required	Y	0	0	-
Community/General Event/Gathering (30-50 People)	Accessible	Per bookable location	Y	94	96	2.13%
Community/General Event/Gathering (Above 50 People)	Accessible	Per bookable location	Y	99	101	2.02%
Wedding / private event (birthday party / family reunion)	Accessible	Per bookable location	Y	136	138.5	1.84%
Bonds for events are subject to the nature of the event.						

Presentation and Assets continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
RESOURCE RECOVERY AND EDUCATION						
Eaglehawk Landfill						
Asbestos - Eaglehawk Landfill	Accessible	Tonne	Y	307	338	10.10%
Bob Cat - Eaglehawk Landfill	Accessible	Each	Y	13	13	0.00%
Building Rubble - Eaglehawk Landfill	Accessible	Tonne	Y	241	265.5	10.17%
Car Tyre (with Rim) - Eaglehawk Landfill	Accessible	Each	Y	14	14	0.00%
Car Tyres - Eaglehawk Landfill	Accessible	Each	Y	8	8	0.00%
Domestic Asbestos - Eaglehawk Landfill	Accessible	Tonne	Y	307	338	10.10%
Domestic Concrete - Eaglehawk Landfill	Accessible	Tonne	Y	88.5	97.5	10.17%
Domestic Garbage Bag - Eaglehawk Landfill	Accessible	Tonne	Y	226	249	10.18%
Domestic Green Waste - Eaglehawk Landfill	Accessible	Tonne	Y	Free	Free	-
Domestic Minimum Charge	Accessible	Under 10 kg	Y	0	2.5	-
Forklift (large) - Eaglehawk Landfill	Accessible	Each	Y	24	24	0.00%
Forklift (medium) - Eaglehawk Landfill	Accessible	Each	Y	19	19	0.00%
Forklift (small) - Eaglehawk Landfill	Accessible	Each	Y	14	14	0.00%
Forklift over 36" - Eaglehawk Landfill	Accessible	Each	Y	POA	POA	-
Fridges/Air conditioners/Freezers - Eaglehawk Landfill	Accessible	Each	Y	21	23.5	11.90%
Green Commercial - Eaglehawk Landfill	Accessible	Tonne	Y	93	95	2.15%
Heavy Truck - Eaglehawk Landfill	Accessible	Each	Y	14	14	0.00%
Heavy Truck (with Rim) - Eaglehawk Landfill	Accessible	Each	Y	24	24	0.00%
Immediate Deep Burial of Prohibited or Dangerous Items - Eaglehawk Landfill	Accessible	Fee Unit	Y	130	143	10.00%
Industrial, Commercial - Eaglehawk Landfill	Accessible	Tonne	Y	241	265.5	10.17%
Industrial, Commercial (Mixed loads of recycling and waste) - Eaglehawk Landfill	Accessible	Tonne	Y	463	510	10.15%
Industrial, Commercial (Polystyrene, carpet, PET, HDPE, LDPE, foam mattresses, insulation etc) - Eaglehawk Landfill	Accessible	Tonne	Y	463	510	10.15%
Industrial, Commercial <100kg - Eaglehawk Landfill	Accessible	Each	Y	24	26.5	10.42%
Light Truck - Eaglehawk Landfill	Accessible	Each	Y	12	12	0.00%
Light Truck (with Rim) - Eaglehawk Landfill	Accessible	Each	Y	14	14	0.00%
LL Contaminated Soil - Eaglehawk Landfill	Accessible	Tonne	Y	295	325	10.17%
Mattresses - Eaglehawk Landfill	Accessible	Each	Y	37.5	25.5	-32.00%
Motorcycle - Eaglehawk Landfill	Accessible	Each	Y	8	8	0.00%
Separated Waste - Eaglehawk Landfill	Accessible	Tonne	Y	167	184	10.18%
Super Single (with or without Rim) - Eaglehawk Landfill	Accessible	Each	Y	POA	POA	-
Tractor (large) - Eaglehawk Landfill	Accessible	Each	Y	171.5	171.5	0.00%
Tractor (medium) - Eaglehawk Landfill	Accessible	Each	Y	114	114	0.00%
Tractor (small) - Eaglehawk Landfill	Accessible	Each	Y	70	70	0.00%
Goornong/Strathfieldsaye Transfer Stations						
Car Boot - Goornong/Strathfieldsaye Transfer Stations	Accessible	Car Boot	Y	18	19.8	10.00%
Car Boot (Unsorted Load) - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Car Boot	Y	38.5	42.5	10.39%
Computer monitors/televisions - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Each	Y	Free	Free	-
Domestic Garbage Bag - Goornong/Strathfieldsaye Transfer Stations	Accessible	Domestic Bag	Y	4.5	5	11.11%

Presentation and Assets continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Domestic green waste (Goornong only) - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Each	Y	Free	Free	-
Fridges/Air conditioners/Freezers (Fridges and Large White Goods not accepted at Goornong) - Goornong/Strathfieldsaye Transfer Stations	Accessible	Each	Y	Free	Free	-
Gas Bottles (<9kg) - Goornong/Strathfieldsaye Transfer Stations	Accessible	Each	Y	12	13.2	10.00%
Mattresses - Goornong/Strathfieldsaye Transfer Stations	Accessible	Each	Y	37.5	25.5	-32.00%
Oil - Volumes <20L - Goornong/Strathfieldsaye Transfer Stations	Accessible	Each	Y	4	4.4	10.00%
Tandem Trailer 8 x 5 - Goornong/Strathfieldsaye Transfer Stations	Accessible	Load	Y	80.5	89	10.56%
Tandem Trailer 8 x 5 (Unsorted Load) - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Load	Y	160.5	177	10.28%
Tandem Trailer with cage 8 x 5 - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Load	Y	160.5	177	10.28%
Tandem Trailer with cage 8 x 5 (Unsorted Load) - Goornong/Strathfieldsaye Transfer Stations	Accessible	Load	Y	322	355	10.25%
Trailer 6 x 4 - Goornong/Strathfieldsaye Transfer Stations	Accessible	Trailer etc	Y	38.5	42.5	10.39%
Trailer 6 x 4 (Unsorted Load) - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Trailer etc	Y	76.5	84.5	10.46%
Trailer with cage 6 x 4 - Goornong/Strathfieldsaye Transfer Stations	Accessible	Trailer etc	Y	69.5	76.5	10.07%
Trailer with cage 6 x 4 (Unsorted Load) - Goornong/ Strathfieldsaye Transfer Stations	Accessible	Trailer etc	Y	138	152	10.14%
Wheelie Bin - Goornong/Strathfieldsaye Transfer Stations	Accessible	Load	Y	11.5	12.8	11.30%
Heathcote Transfer Station						
Bob Cat - Heathcote Transfer Station	Accessible	Each	Y	13	13	0.00%
Car Boot - Heathcote Transfer Station	Accessible	Load	Y	18	19.8	10.00%
Car Boot (Unsorted Load) - Heathcote Transfer Station	Accessible	Load	Y	38.5	42.5	10.39%
Car Tyre (with Rim) - Heathcote Transfer Station	Accessible	Each	Y	14	14	0.00%
Car Tyres - Heathcote Transfer Station	Accessible	Each	Y	8	8	0.00%
Computer monitors/Televisions - Heathcote Transfer Station	Accessible	Each	Y	Free	Free	-
Domestic green waste - Heathcote Transfer Station	Accessible	Load	Y	Free	Free	-
Forklift (large) - Heathcote Transfer Station	Accessible	Each	Y	24	24	0.00%
Forklift (medium) - Heathcote Transfer Station	Accessible	Each	Y	19	19	0.00%
Forklift (small) - Heathcote Transfer Station	Accessible	Each	Y	14	14	0.00%
Forklift over 36" - Heathcote Transfer Station	Accessible	Each	Y	POA	POA	-
Fridges /Air conditioners/Freezers - Heathcote Transfer Station	Accessible	Each	Y	Free	Free	-
Garbage Bag - (< 70 Litres) - Heathcote Transfer Station	Accessible	Each	Y	4.5	5	11.11%
Gas Bottles (<9kg) - Heathcote Transfer Station	Accessible	Each	Y	12	13.2	10.00%
Green Commercial - Heathcote Transfer Station	Accessible	Cubic Metre	Y	19.5	20	2.56%
Heavy Truck - Heathcote Transfer Station	Accessible	Each	Y	14	14	0.00%
Heavy Truck (with Rim) - Heathcote Transfer Station	Accessible	Each	Y	24	24	0.00%
Industrial, Commercial (Including commercial cardboard) - Heathcote Transfer Station	Accessible	Cubic Metre	Y	51	56.5	10.78%

Presentation and Assets continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Industrial, Commercial (Unsorted Load) - Heathcote Transfer Station	Accessible	Cubic Metre	Y	102.5	113	10.24%
Light Truck - Heathcote Transfer Station	Accessible	Each	Y	12	12	0.00%
Light Truck (with Rim) - Heathcote Transfer Station	Accessible	Each	Y	14	14	0.00%
Mattresses - Heathcote Transfer Station	Accessible	Each	Y	37.5	25.5	-32.00%
Motorcycle - Heathcote Transfer Station	Accessible	Each	Y	8	8	0.00%
Oil - Volumes <20L - Heathcote Transfer Station	Accessible	Each	Y	4	4.4	10.00%
Super Single (with or without Rim) - Heathcote Transfer Station	Accessible	Each	Y	POA	POA	-
Tandem Trailer 8 x 5 - Heathcote Transfer Station	Accessible	Load	Y	80.5	89	10.56%
Tandem Trailer 8 x 5 (Unsorted Load) - Heathcote Transfer Station	Accessible	Load	Y	160.5	177	10.28%
Tandem Trailer with cage 8 x 5 - Heathcote Transfer Station	Accessible	Load	Y	160.5	177	10.28%
Tandem Trailer with cage 8 x 5 (Unsorted Load) - Heathcote Transfer Station	Accessible	Load	Y	322	355	10.25%
Tractor (large) - Heathcote Transfer Station	Accessible	Each	Y	172	172	0.00%
Tractor (medium) - Heathcote Transfer Station	Accessible	Each	Y	114	114	0.00%
Tractor (small) - Heathcote Transfer Station	Accessible	Each	Y	70	70	0.00%
Trailer with cage 6 x 4 - Heathcote Transfer Station	Accessible	Load	Y	69.5	76.5	10.07%
Trailer with cage 6 x 4 (Unsorted Load) - Heathcote Transfer Station	Accessible	Load	Y	138	152	10.14%
Trailer/Ute 6 x 4 - Heathcote Transfer Station	Accessible	Load	Y	38.5	42.5	10.39%
Trailer/Ute 6 x 4 (Unsorted Load) - Heathcote Transfer Station	Accessible	Load	Y	76.5	84.5	10.46%
Wheelie Bin - Heathcote Transfer Station	Accessible	Each	Y	11.5	12.8	11.30%
Bin Hire						
Up to 5 240L Bins	Accessible	Fee Unit	Y	122.5	135	10.20%
6 to 10 240L Bins	Accessible	Fee Unit	Y	162	178.5	10.19%
11 to 15 240L Bins	Accessible	Fee Unit	Y	189	208	10.05%
15 to 20 240L Bins	Accessible	Fee Unit	Y	290.5	320	10.15%
21 to 25 240L Bins	Accessible	Fee Unit	Y	331	365	10.27%
26 to 30 240L Bins	Accessible	Fee Unit	Y	362.5	399	10.07%
31 to 35 240L Bins	Accessible	Fee Unit	Y	463.5	510	10.03%
36 to 40 240L Bins	Accessible	Fee Unit	Y	508	559	10.04%
41 to 45 240L Bins	Accessible	Fee Unit	Y	682.5	751	10.04%
46 to 50 240L Bins	Accessible	Fee Unit	Y	712.5	784	10.04%
Bin Charges						
Supply of Garbage Bins - 140 Litre	Full Cost	Bin	N	94.95	104	9.53%
Supply of Garbage Bins - 240 Litre Commercial Only	Full Cost	Bin	N	126.9	139	9.54%
Supply of Organic Bin - 240 Litre	Full Cost	Bin	N	94.95	104	9.53%
Supply of Recycle Bin - 240 Litre	Full Cost	Bin	N	94.95	104	9.53%
WORKS (TRAFFIC MANAGEMENT)						
Saturday	Full Cost	Per person per hour	Y	61.45	63	2.52%
Sunday	Full Cost	Per person per hour	Y	62.5	64	2.40%
1 Man crew and vehicle	Full Cost	Per hour	Y	68.35	70	2.41%
2 Man crew and vehicle	Full Cost	Per hour	Y	117.3	119.5	1.88%

Presentation and Assets continued.

Name	Pricing Type	Unit of Measure	GST	Year 2021/2022 Fee (incl. GST) $	Year 2022/2023 Fee (incl. GST) $	Increase %
Arrow Boards	Full Cost	Per Day	Y	106.65	109	2.20%
Corflute Sign Replacement	Full Cost	Each	Y	29.65	30.5	2.87%
Flagman - Normal Hours	Full Cost	Per person per hour	Y	49.75	51	2.51%
Flagman - Outside Normal Hours	Full Cost	Per person per hour	Y	56	57.5	2.68%
Multi Message Frame Replacement	Full Cost	Each	Y	37.9	39	2.90%
Public Holidays	Full Cost	Per person per hour	Y	72.7	74.5	2.48%
Traffic Management Plans	Full Cost	Each	Y	177.75	181	1.83%
Vehicle and required signs	Full Cost	Per hour	Y	19.25	19.6	1.82%
VMS Boards	Full Cost	Per Day	Y	237.05	241.5	1.88%
PROPERTY SERVICES						
Services in connection with a Council land transaction	Full Cost	Varies	Y	Varies	Varies	-

APPENDIX B – LIST OF CAPITAL WORKS PROGRAM

There are a number of projects within the following listing which are dependent on co-contribution by government, community groups or the private sector. In some cases, the progress and delivery of these projects are contingent on these funding agreements

Sealed Roads

- Axedale Kimbolton Road - Sealed Road Renewal
- Howard Street - Sealed Road Renewal
- Murphy Street - Sealed Road Renewal
- Avonmore-Mayreef Road - Sealed Road Renewal
- Road Reseals / Resurfacing
- Roads - Major Patching
- Bridge Street Tram Tracks Renewal
- Minor Extensions Widening Renewals with Developments
- Waratah Road Intersection Design
- Various Road Safety and Traffic Management improvements
- Plumridge Street Holdsworth Road Intersection Treatment

Unsealed Roads

- Gravel Resheeting

Pathways

- Short Street, Bendigo; East side, Mackenzie Street to Rowan Street - Footpath Renewal
- Milroy Street, Bendigo; West side, Valentine Street to Ironbark Road - Footpath Renewal
- Wills Street, Bendigo; West side, Edward Street to Arthur Street - Footpath Renewal
- Baxter Street, Bendigo; North side, Havelock Street to McCrae Street - Footpath Renewal
- Hallam Street, Quarry Hill; South side, Carpenter Street to Havlin Street West - Footpath Renewal
- Brougham Street, Bendigo; East side, Williamson Street to Mundy Street - Footpath Renewal
- Midland Hwy, Bendigo; West side, Nolan Street to middle Lake Weeroona car park - Footpath Renewal
- Keck Street, Flora Hill; North side, Somerville Street to Curtain Street - Footpath renewal
- Wattle Street, Bendigo; Footpath Renewal Associated with Bendigo Creek Bridge Repairs
- Wattle Street, Bendigo; West side, High Street to Mackenzie Street - Footpath Renewal
- Williamson Street, Bendigo; North side, Brougham Street to Havlin Street West - Footpath Renewal
- Curtain Street, Eaglehawk; South Side, Averys Road to No 26 - Footpath Renewal
- Various minor footpath renewals
- Civic Precinct Pedestrian Connections
- Jobs Gully Road, Jackass Flat; East side, Kingston Drive to Averys Road – New Footpath
- Taylors Lane, Strathfieldsaye; East side, Wellington Street to No 79 – New Footpath
- Stout Street, Bendigo; South Side, Hope Street to Barkly Terrace East
- Guys Hill Road, Strathfieldsaye; West side, Tannery Lane to Ryalls Lane – New Footpath

Bridges

- Midland Highway Pedestrian Bridge Renewal (Lions Park)
- Culvert Renewal along Bike Path North of Weeroona Avenue
- Strathdale Park Footbridge Renewal
- Various Minor Bridge Renewal Works

Drainage

- Kennington Reservoir Dam Wall Renewal – Year 1
- Various Dam Wall Renewal Works
- Bendigo Creek Wall Renewal - High Street to Thistle Street, Golden Square
- Drainage Renewal - Aspinall Street, Kangaroo Flat
- Various Drainage Works
- Stormwater Quality Works
- Development Related Drainage
- Bendigo Creek - Instream Works, North Bendigo[1]

Buildings and Structures

- Strathfieldsaye Sports Club - Clubrooms renewal
- Brennan Park Swimming Pool - facilities renewal and ramp
- Bendigo Stadium - Basketball court resurfacing, internal painting
- Bendigo Heritage Attractions Renewal
- Design of future Building Renewal Works
- Lake Weeroona - Boardwalk Café external renewal works
- Capital Theatre Verandah Renewal
- Allingham Drill Hall Internal Renewal
- Bendigo Town Hall Internal Renewal
- Essential Safety Measures Renewals
- Golden Square Recreation Reserve - Clubrooms Renewal Design
- Security Renewals
- Bendigo Aquatic Centre - Plant Room Shed Renewal
- Allingham Street Toilet Block Renewal
- Axedale Tennis Shed Shelter Renewal
- Dick Turner Reserve - Toilet Block Renewal
- Gas Works Renewal Program
- QEO - Brick Clubrooms Decommission
- Strathdale Park - Toilet Block Renewal
- Strathdale Park - Dick Conroy Pavilion - Change Room Renewal
- Sustainable Building Renewal Initiatives
- Eaglehawk Town Hall External Renewal
- Havilah Road - Long Gully Pre-School - Flooring and Office
- Chinese Joss House External Renewal
- Eaglehawk Bowling Club - Clubrooms - Roof Renewal, Deck
- Huntly Public/Memorial Hall - Hall Internal Renewal
- Kamarooka Public Hall - Renewal
- North Central Goldfields Library – Lighting Investigations
- Australian Manchester Unity Hall - Verandah Renewal
- QEO - Press Box / Broadcasting Box - Design
- Spring Gully Recreation Reserve - Hall and Senior Citizens Centre - Painting
- Axedale Public Hall and Preschool Amenities Design

1. Project is fully dependent on award of external funding

- Eaglehawk Town Hall - Mechanics Institute Library and Billiards Saloon - Painting
- Heathcote Tourist Information Centre Entry
- Lake Weeroona - Rowing Pavilion - Amenities Design
- Epsom Preschool and Maternal and Child Health Centre - External Painting
- South Bendigo Pre-School - Storage Shed Renewal
- Elmore Swimming Pool - Shade Sail Renewal
- Huntly Pre-School - Shade Structure Renewal
- Bendigo Airport Terminal and Business Park Precinct
- Bendigo Tramways Redevelopment
- Market Street Carpark Design
- Heathcote Integrated Precinct Design
- O'Keefe Rail Trail Carpark and Public Toilet - Longlea Lane
- Gurri Wanyarra - Energy Efficiency - Air Handling, Temperature Management and Solar PV System
- Marong Kindergarten and Community Hub - Stage 1 Design
- Peter Krenz Centre Redevelopment – Feasibility Work
- Long Gully Neighbourhood Centre Kitchen design

Aquatic Facilities

- Brennan Park Swimming Pool - Plant Renewal
- Faith Leech Aquatic Centre Diving Towers Renewal

Public Furniture

- Renewal of Mobile Garbage Bins
- Lake Weeroona Playspace Renewal, Bendigo
- Parking Control Equipment Renewal
- Passive Reserves Furniture Replacement Program
- Burvale Court, White Hills Playspace Renewal
- Street Furniture Renewal Program
- Fixture Replacement Program
- Playspaces Renewal General
- Playspace decommissions as per Greater Bendigo Public Space Plan
- Signage Replacement Program
- Lake Neangar Furniture Replacement
- Early Child Care Playspace Renewal
- Rubber and Organic Playspace Under-surface Renewal
- Weeroona BBQ Replacement
- Lake Tom Thumb Furniture Replacement
- Street Lighting Renewal Program
- Bus Shelters Renewal program
- California Gully Recreation Reserve Lighting Design
- Spring Gully Soccer Club, Stanley Avenue, Spring Gully; Pitch Lighting Construction
- Street Lighting Energy Efficiency (Lighting the Regions) - Year 3
- New Street Lighting Program
- Kamarooka Monument Design and Installation

Land Improvements

- Municipal Baths Redevelopment
- Tom Flood Sports Centre Soft Surface Renewal
- Soft Surfaces Renewal - General
- Irrigation Systems Renewal - Lake Weeroona
- Sportsfield Improvements
- Lighting Sporting Grounds - General
- Parks and Reserves Landscaping Renewal
- Irrigation Systems - General
- Rosalind Park Fernery Fence Renewal
- Retaining walls and decking Renewal
- Heritage Gardens Landscaping Renewal
- Canterbury Gardens Arbor Renewal
- Natural Reserves Signage Renewal
- Canterbury Gardens Landscaping Renewal
- Canterbury Gardens Shelters Design
- Paved Areas, Roundabouts and Medians Renewal
- Statues and Monuments Renewal
- Fountains and Water Features Renewal
- Heritage and Passive Lighting Renewal
- Natural Reserves Landscaping Renewal
- Albert Roy Recreation Reserve BMX Track Lighting Design
- Axedale Tennis Court Renewal
- Hard Sporting Surfaces Renewal Program
- Maiden Gully Recreation Reserve Sports Field Lighting Design
- Quarry Hill Recreation Reserve Sports Field Lighting Design
- Spring Gully Recreation Reserve Oval Lighting Design
- Catherine McCauley College Joint Use Facilities Development
- Ewing Park Redevelopment (Skate Park and Learn to Ride Park) - Year 2
- Bendigo Airport Security Fence Upgrade
- Bendigo Airport Helicopter stand and fuel truck parking area
- White Hills Landfill Rehabilitation
- Marist College Joint Use Facilities – Cricket Training Nets Design
- Mandurang Cricket Club Practice Nets[2]
- Strathfieldsaye Green Spine Design
- Victoria Hill Conservation Plan Implementation - Signage and Safety
- Heathcote Indigenous Story Boards

Plant and Equipment

- Replacement of General Vehicles
- Replacement of Plant
- Long Gully Trail - Trail Pedestrian Counter Installation

Office Furniture and Equipment

- Warranty Extension DR equipment
- Warranty Extension Juniper equipment
- Warranty Extension Sophos Firewall
- Meraki MDM replacement
- Meeting Room Conference equipment upgrade
- Public CCTV network maintenance
- Desktop Scanner Renewal
- Personal Computers Renewal
- Galkangu (GovHub) Contributions to ICT, Furniture, Fixtures and Equipment
- Portfolio, Program and Project Management (P3) System – Year 2
- Digital Transformation Program

2. Project is fully dependent on award of external funding

NOTES

NOTES



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CITY OF GREATER BENDIGO

15. LEAD AND GOVERN FOR ALL

15.1. Contracts Awarded under Delegation

Author:	Kylie Turner, Procurement Officer
Responsible Director:	Nathan Morsillo, Acting Director Corporate Performance

Purpose

To inform Council of contracts signed under Delegation.

Recommended Motion

That Council note the contracts awarded under delegation during the previous reporting period.

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 1 - Lead and govern for all

Secondary Council Plan Reference(s)

Goal 1 - Accountable, financially responsible, equitable, transparent decision making

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. Contracts Awarded under Delegation June 2022 [**15.1.1** - 1 page]

Reporting Period 26 April 2022 to 15 June 2022							
Service Contracts							
Contract No	Project	Successful Contractor	Delegated Officer	Date Signed	Price	Contract Term & Options	Budget
CT000623	Provision of Pest, Plant and Animal Management Services under a Panel Contract Arrangement	Panel • Bushco Land Management • Southern Ecosystems Management Pty Ltd	Brian Westley	27/04/2022	Schedule of Rates	Intial Term - 3 Years Option to extend - 1 X 2 years	$325,000.00
CT000624	Purchase of Supply & Delivery of 22 off Metal Hook Bins and Associated Equipment	Skip Bin Suppliers Pty Ltd	Brian Westley	3/06/2022	$289,000.00	Date for delivery 23/12/2022	$318,520.00
Contracts Awarded at Council							
Contract No	Project	Successful Contractor	Delegated Officer	Date Signed	Price	Practical Completion / Contract Term & Options	Budget
CT000552	Power it from the rooftops - Solar PV Installation Program	Mondo Power Pty Ltd	Craig Niemann	1/06/2022	Schedule of Rates	30/06/2041	$8,000,000 This project is a long term capital investment and solar rebate plan, which equates to approximately $8M over 20 years.

15.2. Planner authorisations (S11A)

Author:	Ryan Millard, Coordinator Legal Services
Responsible Director:	Nathan Morsillo, Acting Director Corporate Performance

Purpose

To formally appoint Council officers as Authorised Officers under the *Planning and Environmental Act 1987*.

Recommended Motion

That Council resolve to:
1. approve the attached Instrument of Appointment and Authorisation; and
2. authorise the Chief Executive Officer to execute the Instrument of Appointment and Authorisation.

Executive Summary

Appointment as an Authorised Officer involves Council appointing a person to a statutory position. Typically, appointments of Council's Authorised Officers are made by Directors, under sub-delegation from the CEO. However, due to the specific nature of the power to appoint under the *Planning and Environment Act* (P&E Act), it is appropriate for the appointment of Authorised Officers under the P&E Act to be made by Council and not by delegates.

Background

Appointment as an Authorised Officer involves Council appointing a person to a statutory position. Once a person is appointed as an Authorised Officer by Council, that person has the statutory powers of that position (as distinct from being delegated the statutory powers of Council). Whilst Authorised Officers are not exercising the powers of Council, they are employees of Council and therefore exercise the powers of their statutory position on behalf of Council in accordance with the organisation's policies, business rules and usual practices.

Many Acts enable the appointment of Authorised Officers of Council, including the P&E Act. The powers of Authorised Officers under the P&E Act are quite limited – relating generally to taking enforcement action for breaches of the P&E Act.

Report

Typically, appointments of Council's Authorised Officers are made by Directors, under sub-delegation from the CEO. This process keeps the decision of appointment at an appropriate level and enables the timely appointment of Council staff moving into positions which require them to be Authorised Officers.

The same process has been used historically for the appointment of Authorised Officers under the P&E Act. However, due to the specific nature of the power to appoint under the P&E Act, it is appropriate for the appointment of Authorised Officers under the P&E Act to be made by Council and not by Council delegates. We have also determined, in consultation

with the Statutory Planning team, that unless planning staff are, or may be, involved in enforcement action it is not necessary for them to be appointed as Authorised Officers under the P&E Act.

Accordingly, we have prepared for Council's consideration an Instrument of Appointment and Authorisation which will appoint relevant staff in the City's Statutory Planning team as Authorised Officers of Council under the P&E Act. We recommend that Council resolve to authorise those staff in accordance with the attached Instrument of Appointment and Authorisation.

Communications/Engagement

Legal Services engaged with the Statutory Planning team to understand how authorised planning officers operate at the City and determine which staff should be authorised.

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 1 - Lead and govern for all

Secondary Council Plan Reference(s)

Goal 1 - Accountable, financially responsible, equitable, transparent decision making

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. S 11 A Instrument of Appointment and Authorisation [**15.2.1** - 2 pages]

S11A Instrument of Appointment and Authorisation (Planning and Environment Act 1987)

Greater Bendigo City Council

Instrument of Appointment and Authorisation

(*Planning and Environment Act 1987* only)

Instrument of Appointment and Authorisation
(*Planning and Environment Act 1987*)

In this instrument "**officer**" means -

Steve Hamilton
Ross Douglas
Peter O'Brien
Daniel Strachan
Ray Chalkley
Dale Rogers

By this instrument of appointment and authorisation Greater Bendigo City Council -

1. under s 147(4) of the *Planning and Environment Act 1987* - appoints the officers to be authorised officers for the purposes of the *Planning and Environment Act 1987* and the regulations made under that Act; and

2. under s 313 of the *Local Government Act 2020* authorises the officers either generally or in a particular case to institute proceedings for offences against the Acts and regulations described in this instrument.

It is declared that this Instrument –

(a) comes into force immediately upon its execution;

(b) remains in force until varied or revoked; and

(c) is automatically revoked immediately upon the officer ceasing employment with the Council.

This instrument is authorised by a resolution of the Greater Bendigo City Council on and executed on behalf of Council by the CEO pursuant to that resolution

……
Signature

Craig Niemann
CEO
Greater Bendigo City Council

Date:

15.3. Final Greater Bendigo Asset Plan 2022-2032

Author:	Michelle Stedman, Coordinator Strategic Capital Management
Responsible Director:	Nathan Morsillo, Acting Director Corporate Performance

Purpose

The purpose of this report is to provide detail on outcomes of community engagement and seek endorsement of the final Asset Plan 2022-2032.

Recommended Motion

That Council:

- Note community feedback on the Draft Asset Plan 2022-2032
- Adopt the final Asset Plan 2022-2032.

Executive Summary

The Local Government Act 2020 (the Act) mandates Councils to undertake a principles-based approach to integrated strategic planning and reporting, including development of an Asset Plan with a ten-year outlook.

The City currently has an Asset Management System in place to support its asset management activities. The Asset Plan (the Plan) is proposed to sit at the top of this hierarchy with the aim of acting as a conduit between the organisation's technical asset management documentation and the Greater Bendigo community.

This report details outcomes from recent community engagement undertaken with the draft Plan. Over the course of the community engagement period, 366 individuals visited the draft Asset Plan page on the City's Let's Talk engagement platform.

Although the amount of feedback submitted to Let's Talk was limited, one written submission has directly resulted in additional graphs being added to the Plan to help explain the future condition of the asset base if expenditure profiles recommended in the Plan are realised. Other nuanced feedback comments will be provided to relevant officers to help inform future work activities.

The revised Asset Plan is now presented to Council seeking final endorsement.

Background

The requirement for an Asset Plan in the Act is a welcome recognition that asset management practices are an integral part of local government's business. Its inclusion in the Integrated Strategic Reporting and Planning Framework is also an acknowledgement that decisions around assets are not made for the sake of assets alone, they are made in the pursuit of the delivery of the Community Vision and the Council Plan.

The Asset Plan Project Plan was discussed with EMT and Council in November and December 2021 respectively. Work then commenced on the draft Plan with local consultants

RMCG, led by internal officers. The prepared draft Plan was considered for release to community feedback by EMT and Council in March 2022.

Previous Council decision dates:

28 March 2021 – Council resolved to endorse the draft Asset Plan and approve its release for community consultation for a period of four weeks.

Report

As noted above, the Plan forms a key component of the Council's suite of integrated strategic planning documents as required under the Act. As such, development of the Plan has considered closely the other documents within this suite of work.

The Plan details six Strategic Initiatives to be delivered over the life of the Plan as outlined below. Actions to support each of these Initiatives are included within the Plan:

No.	Strategic Initiative
AP-1	Define technical, community and environmental service levels for all asset groups
AP-2	Establish and implement an informed process for 'whole of life' costing of assets
AP-3	Engage and deliberate with community on key service planning and asset management issues (including decommissioning, funding, and quantity vs quality)
AP-4	Develop approach for optimising asset base (e.g. quality vs quantity)
AP-5	Develop systems to better track and report annually on operational costs associated with an increasing Council asset base and non-Council assets
AP-6	Monitor, evaluate and update the Asset Plan

The Final Asset Plan 2022-2032

As a result of the community feedback process outlined below, comparative graphs have now been added into the State of the Assets sections of the Plan.

A greater presence in the Plan for Council's heritage buildings and their ongoing management has also been incorporated, as well as acknowledging emerging opportunities on which limited detail is fully understood at this point in time. These future impacts will be explored in an Asset Plan context as soon as information becomes available.

Priority/Importance

The Plan needs to be adopted before 30 June 2022 to comply with the provisions of the Act. Endorsement of the Plan is the final milestone in the initial suite of work associated with the Integrated Strategic Planning Framework within the Act.

Communications/Engagement

After endorsement from Council in late March, the draft Plan was released for community consultation via the City's *Let's Talk* Platform on 30 March 2022.

Let's Talk provided a brief overview and invited community members to answer a short survey about the relative importance of various assets and how they experienced these assets as a member of the community. Other opportunities for feedback included the ability

to share stories about an asset and to upload a written submission. *Let's Talk* closed to inputs on 26 April 2022.

Results of Community Consultation:

Consultation Element	Statistics	Notes
Let's Talk Webpage	506 visits from 366 visitors over the consultation period	Large peaks of visitation at launch of platform, and on 5 April and 13 April.
Survey	25 Contributions Close to 45% of contributions were from people aged 60 and over. Gender split of respondents was even.	Very small sample size meaning results are unlikely to represent a consensus and should be considered with caution.
Share your Stories	1 Contribution	Discussed the lack of provision of communal open space for township events in Strathfieldsaye
Submissions	1 Contribution	Commended preparation of Draft Asset Plan and suggested improvement in a range of areas. The submission also noted some anomalies that have since been resolved in version control since the release of the Draft for consultation.

Visitation

Over the course of the community engagement period, 366 individuals visited the Draft Asset Plan page on the City's *Let's Talk* engagement platform. Some of these people accessed the site multiple times.

Survey Results

Survey questions were primarily related to community perceptions of how assets performed their service. Survey respondents were also asked to rank groups of assets in their order of importance. With a caveat as to the small sample size, this data can provide an understanding of how various asset groups are functioning for the community.

Some points identified:

- 19 of 25 respondents rated aquatic facilities as meeting community needs. The asset group was also identified as least important to the community when ranked against other asset groups.
- Over 50% of respondents felt City buildings were clean (13 of 25), accessible (14 of 25) and meeting community needs (15 of 25).
- Only two of 25 respondents indicated that street furniture, including benches and bus shelters, and unsealed roads felt safe.
- The asset group least meeting community needs according to survey respondents is Pathways.

The survey also asked respondents to rank asset groups in order of importance to the community. Sealed roads were identified as most important by respondents, followed by pathways and drainage.

Stories and Submissions

The single contribution in 'Share Your Stories' detailed local challenges with open space for community events in Strathfieldsaye. In the upcoming 2022/2023 Budget, Council is considering the inclusion of design for the Strathfieldsaye Green Spine. This project will aim to deliver a multi-use open green space in central Strathfieldsaye for the purpose of passive recreation and community events. Council will consider adopting the final 2022/2032 Budget, and this project's inclusion, at its June 2022 meeting.

The single written submission received made several observations on aspects of the Plan and provided feedback on how these elements might be explored more effectively. It suggested that the Plan could improve how it communicated the outcomes of the decisions being made on capital expenditure. This feedback has led to the inclusion of a comparative State of the Assets graph which details how much change Council and the community can expect in the condition of infrastructure based on the investment decisions being proposed.

The submission also spoke about providing a better understanding to the community of the trade-offs associated with proposed investment. By implementing the Strategic Initiatives proposed in the Plan, Council will be able to demonstrate trade-offs more readily, and with greater accuracy and detail. This recommendation is proposed to be actioned in future iterations of the Plan.

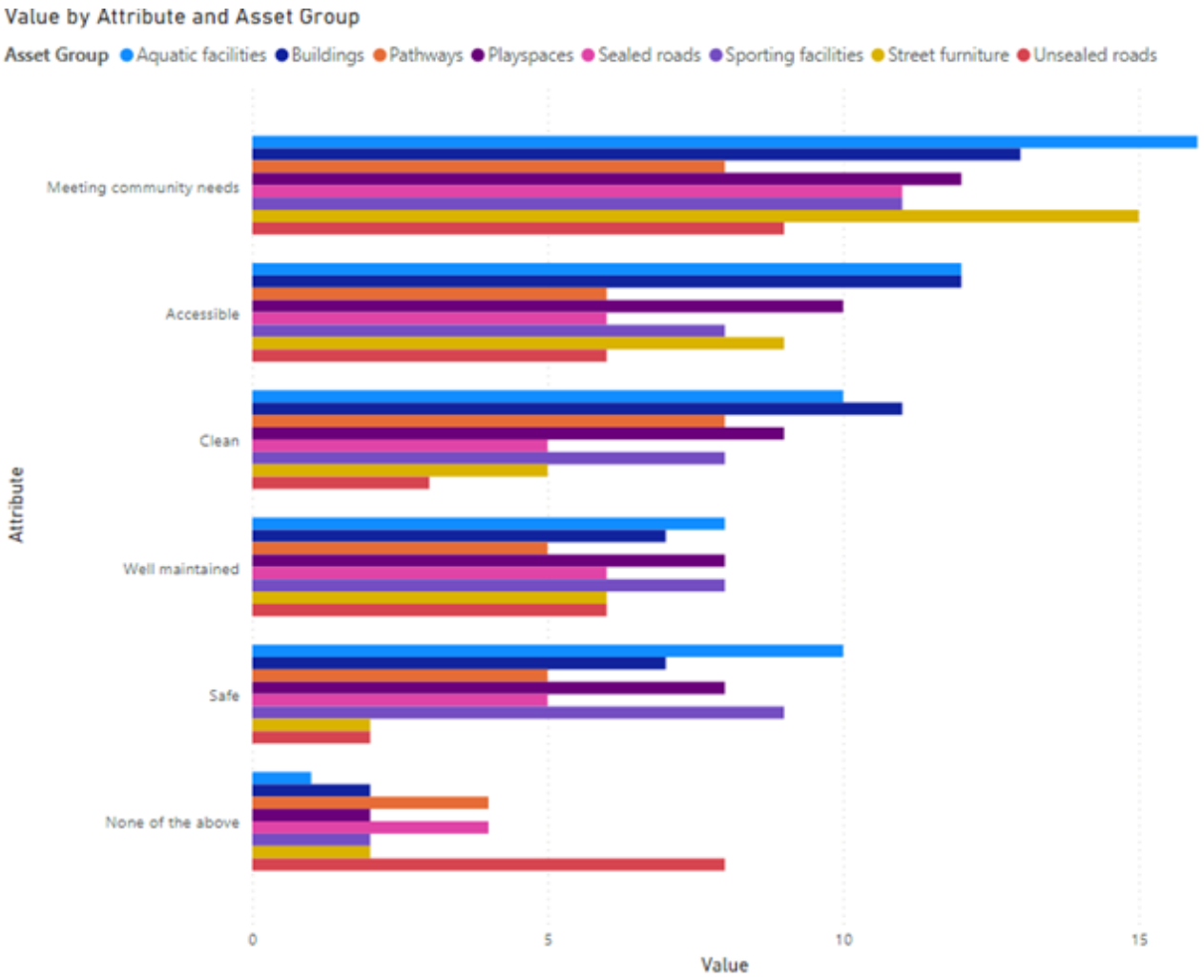
One more key theme of the written submission was using the 'strong financial position' of Council to invest further in renewal of assets. In considering this, it is worth noting the Council's adjusted underlying result. The impact of increased planned expenditure in 2022/2023 contribute to an adjusted underlying deficit in the 2022/2023 Budget, with net cash relatively static over the next four years.

Borrowings are also planned in the future to support the funding of new and upgrade projects in the Capital Works program to support growth and the increased infrastructure services required. The City will continue to ensure the balance of these elements (alongside many other complexities in its Financial Plan) when considering using its financial position to increase renewal funding.

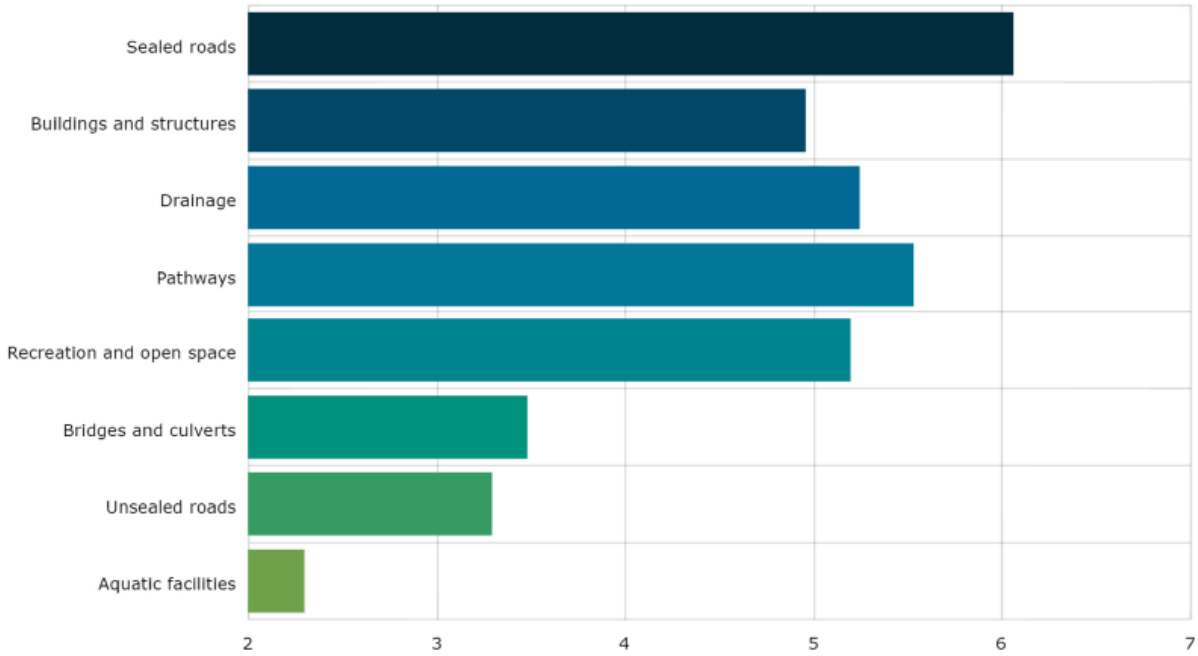
Further internal consultation on the draft Plan has resulted in an increased presence for heritage buildings within the document. The City specifically models its renewal investment across this category of buildings, however to reduce technical information in the Asset Plan, details of this individual treatment had been consolidated into the wider Buildings and Structures category. Recognising the important role these heritage assets have on the City's long-term infrastructure outlook, a stronger emphasis on these assets has been added to the Plan.

Emerging opportunities such as the Commonwealth Games in 2026, for which the City has limited information on at the time of writing this Plan, have also been identified for future short-term revisions as information becomes available.

Community feedback - attributes of various Asset Groups as identified by survey respondents:



Community feedback - Asset groups ranked in order of importance



Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 1 - Lead and govern for all

Secondary Council Plan Reference(s)

Goal 1 - Accountable, financially responsible, equitable, transparent decision making

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. City of Greater Bendigo Asset Plan 2022-2032 [**15.3.1** - 46 pages]


Asset Plan
2022-2032
CITY OF GREATER
BENDIGO



ACKNOWLEDGEMENT OF COUNTRY

The City of Greater Bendigo is on Dja Dja Wurrung and Taungurung Country.

We would like to acknowledge and extend our appreciation to the Dja Dja Wurrung and Taungurung Peoples, the Traditional Owners of the land.

We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture and the hopes of all Dja Dja Wurrung and Taungurung Peoples.

We express our gratitude in the sharing of this land, our sorrow for the personal, spiritual and cultural costs of that sharing, and our hope that we may walk forward together in harmony and in the spirit of healing.



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GREATER BENDIGO ASSET PLAN 2022-2032

01
ASSETS IN THIS PLAN

- Total asset replacement value of $1.99B
- Supporting services for a population of 119,980
- Tangible, fixed, infrastructure-based assets that are owned by Council

02
MAKING ASSET MANAGEMENT DECISIONS

- Community vision and values
- Council Plan and Financial Plan
- Balance of community needs, equity and affordability

03
COSTS OF ASSET MANAGEMENT

- Over the next 10 years, there is $649.5M projected expenditure on maintenance, renewal, upgrade and acquisition of new assets
- Renewal gap increasing each year, although the rate of growth slows significantly within four years

04
CHALLENGES AND OPPORTUNITIES

- Changing environment, social responsibilities, financial constraints and technology
- Managing expectations
- Sustainability and resource use efficiency

05
MOVING FORWARD

- Community input into future Asset Plans will again be sought
- Six significant improvement initiatives are detailed in the Plan



The Asset Plan guides the management of eight asset groups:

- Sealed roads
- Buildings and structures
- Drainage
- Pathways
- Recreation and open space
- Bridges and major culverts
- Unsealed roads
- Aquatic facilities

EXECUTIVE SUMMARY

This Asset Plan provides a strategic overview of how Council and the City manage assets on behalf of the community, now and into the future. It outlines:

- How asset management contributes to achieving the community vision and Council Plan
- The diversity of Council's assets, and how assets support services for the community
- The total value and current condition of the eight asset groups
- The City's asset management responsibilities, and how decisions are made on investments
- How the community is involved in asset management and decision-making
- Asset management challenges and improvement actions

This Asset Plan will provide strategic guidance for Council over the next 10 years. It will be regularly reviewed and evaluated to ensure that asset management is achieving Council's goals and is aligned with the Community Vision, Council Plan and Financial Plan.

This Asset Plan is the top tier in the City's comprehensive asset management system, and overarches an existing Policy, Strategy, and detailed plans for each asset group.

SEALED ROADS
$693,129,471 Replacement value | **34.73%** Percentage of total asset base value

BUILDINGS AND STRUCTURES
$482,634,769 Replacement value | **24.18%** Percentage of total asset base value

DRAINAGE
$391,656,524 Replacement value | **19.62%** Percentage of total asset base value

PATHWAYS
$148,849,721 Replacement value | **7.46%** Percentage of total asset base value

RECREATION AND OPEN SPACE
$122,822,537 Replacement value | **6.15%** Percentage of total asset base value

BRIDGES AND MAJOR CULVERTS
$76,476,778 Replacement value | **3.83%** Percentage of total asset base value

UNSEALED ROADS
$33,304,212 Replacement value | **1.67%** Percentage of total asset base value

AQUATIC FACILITIES
$17,213,081 Replacement value | **0.86%** Percentage of total asset base value

The City's asset base

The City continually acquires, maintains, renews, expands, upgrades and decommissions assets. They are responsible for a wide range of assets, including roads, buildings, stormwater drains, pathways, open space and recreational facilities (playgrounds, tennis courts, etc.), bridges and aquatic centres.

The City's assets are currently valued at around $1.99B and they provide services to a population of 119,980. The snapshot on this page shows the value of assets across eight asset groups.

Making asset investment decisions

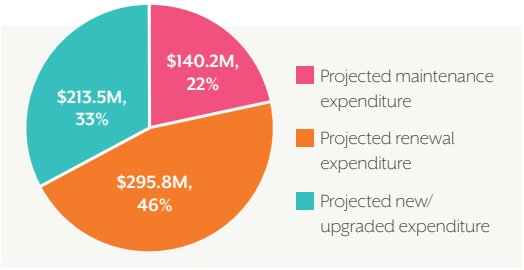
Council's asset investment decisions must consider:

- The community's current and future needs
- Costs and financial sustainability
- Legislative and regulatory obligations
- Social responsibilities and changes
- Environmental impacts and challenges
- Technological changes
- Risks and community safety.

Together, these drivers make asset management decisions complex, requiring long term planning, compromise and community-wide deliberation.

The cost of managing assets

The following diagram shows the City's forecast total expenditure on maintenance, renewal and acquisition or upgrade of assets over the next 10 years.



With a large and growing asset base and restricted funding (including rate capping), there is a gap between the demand for renewals and the ability to fund them. This is why sometimes tough decisions need to be made, and prioritisation is important.

The Financial Plan 2021-2031 sets out Council's intention to continue to increase renewal investment. This planned expenditure on renewal has been further broken down, and the City has used historical data to estimate that approximately 20 per cent of renewal allocations each year are redirected to upgrades. This occurs because renewing assets to historic standards (like-for-like replacement) often does not meet current day standards or contemporary community expectations. With restricted (rate capped) income, and an estimated 20 per cent of renewal allocations going toward upgrades, the renewal gap will continue to grow over the next 10 years (Figure 7-2). Consequently, the City's renewal gap is forecast to reach around $70M by 2031/2032.

Challenges and opportunities

The City, like many Local Government organisations across Victoria, faces several challenges in managing community assets. This Asset Plan will guide planning and decisions so that assets and associated services continue to serve community needs. It will help to ensure that in the face of the changing climate, a growing population, increasing construction costs, an expanding asset base and a dynamic regulatory environment, Greater Bendigo will continue to be welcoming, sustainable and prosperous well into the future.

Strategic initiatives and actions

With this Asset Plan, six strategic initiatives have been developed to help drive improvement and efficiencies in asset management over the life of this Plan.

Emerging Opportunities

At the time of preparing the final version of the Greater Bendigo Asset Plan 2022-2032, it was announced the City of Greater Bendigo would be a joint regional host to the Victoria 2026 Commonwealth Games. It is acknowledged that this opportunity is likely to impact the forecasts proposed in this plan, however the details of this initiative are in their infancy. As more becomes known about the impact of the Commonwealth Games, it will be incorporated into future versions of the Asset Plan and Financial Plan.

Greater Bendigo Asset Plan strategic initiatives

AP1
Define technical, community and environmental service levels for all asset groups

AP2
Establish and implement an informed process for 'whole of life' costing of assets

AP3
Engage and deliberate with the community on key service planning and asset management issues

AP4
Develop an approach for optimising the asset base

AP5
Develop systems to better track and report annually on operational costs associated with an increasing Council asset base and non-Council assets

AP6
Monitor, evaluate and regularly update this Asset Plan





1 INTRODUCTION

Asset management covers the process of planning and controlling the 'whole of life' management, refurbishment and maintenance of infrastructure assets to support the delivery of services and to ensure that these services and assets are available for future generations. The practice of good asset management is an integral part of Local Government's business.

Local Government across the municipality is led by the Greater Bendigo City Council (Council), being the decision-making body elected by rate payers generally every four years. Providing subject matter expertise and implementation of decisions made by the Council is the organisation the City of Greater Bendigo (the City). This is an important distinction to make as while the City undertakes asset management activities, they do so under strategic guidance and decisions made by Council.

With the introduction of the Local Government Act 2020, asset management and planning became an explicit part of the Integrated Strategic Reporting and Planning Framework. Council's decisions about asset management are ultimately made in the pursuit of the delivery of the Community Vision, and the Council Plan. The actions and initiatives in this Asset Plan are also strongly integrated with Council's Financial Plan.

Council and the City are already guided by an existing Asset Management Policy, an Asset Management Strategy, and a range of individual Asset Management Plans currently in place. As well as influencing ongoing reviews of these operational documents, the intention of the Asset Plan is to:

- Articulate Council's strategic intent around management and planning of infrastructure and assets
- Describe the processes Council goes through to make complex asset management decisions
- Outline how Council's stewardship of their assets responds to the Community Vision, the Financial Plan, and a range of challenges and opportunities
- Identify actions to improve the way the City manages and monitors assets on behalf of Council and the community

2 WHAT IS ASSET PLANNING?

2.1 WHAT IS A COUNCIL ASSET?

Defining assets

An "asset" is defined as something of value. Assets can be tangible (often physical objects that can be touched, such as a pathway or a building), or intangible (such as someone's expertise or a scenic view).

For the purposes of this Plan, we are referring only to tangible, fixed, infrastructure-based assets that are owned or controlled by Council. This includes the following eight Asset Groups:

- Sealed roads
- Stormwater drainage
- Buildings and structures
- Pathways
- Recreation and open space
- Bridges and major culverts
- Unsealed roads
- Aquatic facilities

A profile of each asset group is provided in Section 6 of this Plan.

Some assets are not included in this plan

The City manages a range of other assets which are not included in this Plan, including plant equipment (machinery), vehicles, non-fixed or mobile items, trees, artworks, signage and office equipment. These assets are not currently included in this Plan because they are managed differently from a financial perspective on the basis that they are portable, have a relatively short asset life, or are of low financial value. These assets are monitored and managed through other processes, including being overseen by subject matter experts who are guided by other Council-endorsed strategies and plans.

The City sometimes manages assets that Council does not own. These special assets include buildings, land and other infrastructure, in most cases owned by the State Government. These assets help to provide services for the community and so the City may take responsibility for maintenance of these assets to protect what the community values

Assets versus services

Assets enable the delivery of services. For example, an aquatic centre is an asset that enables the City to provide for recreational water services, including exercise, swimming lessons and water play. A library is an asset that provides community services, including meeting and learning spaces, and storage and display of reading and audio-visual resources. A large culvert under the road and a swale drain through parkland are assets that provide drainage services, including drainage of stormwater away from residential and commercial property.

The standard, quantity and location of Council's assets directly affect the levels of service communities experience and subsequently the community's quality of life.

Some of the services that Council assets support, include:

- Sports and recreation
- Drainage of stormwater
- Public health
- Aged care
- Meeting places
- Arts and cultural activity
- Integrated transport
- Waste management
- Emergency response
- Youth wellbeing
- Business development
- Education and learning

Statutory requirements sometimes set the framework for minimum levels of service or performance levels that assets are required to meet. Section 3.3 of this Asset Plan provides further information on how levels of service are considered when Council makes decisions about assets.

This Asset Plan does not cover the delivery of services. Service information, revenue and expenditure can be found in the City's annual budget. More detailed service planning is contained in Council's service profiles and business plans (and these include the drivers, objectives, benefits, enablers, issues affecting service delivery and the costs to deliver).



Challenges:

- There are around $100M of assets that the City invests in but does not own. The City's investment ensures that services important to the community continue to be delivered. Notable examples include the Ulumbarra Theatre and the range of facilities at Marist College in Maiden Gully. Assets like this are called 'third party' or 'shared' assets and are not included in Council's normal asset groups because of their external ownership
- Costs to maintain third party assets are increasing. The long-term nature of these commitments is not well understood and are not accurately accounted for in Council's Financial Plan

Opportunities for improvement:

- The City will work to accurately quantify the impact that these third-party asset management responsibilities have on maintenance and renewal budgets
- The City will also continue to investigate opportunities to advocate to other levels of Government, form partnerships and obtain grant funding around the ongoing support for these assets

2.2 WHAT IS ASSET MANAGEMENT?

Asset management is a process of investing in, and looking after, assets to ensure maximum value is obtained from each investment, and to ensure those assets can deliver appropriate and financially sustainable community services. Asset management includes planning for WHAT assets are required, WHEN they are required (or when they need to be repaired, replaced, upgraded or removed), WHERE they should go, and HOW Council's financial resources can best be spent to provide the full range of assets (and thereby the associated services) that the community values.

Council aims to ensure that infrastructure assets 'deliver the required level of service to existing and future customers (community) in the most cost-effective way'. Council is therefore responsible for planning, and for making decisions about, assets throughout their life cycle (Figure 2-1). Not all assets will go through all stages of the life cycle; for example, some will be renewed but not upgraded, some will never be decommissioned.

In managing assets for the community, Council must consider many factors: cost, risk, safety, engineering, land use, environment, performance (of assets), community needs, accessibility, social and financial equity, and regulation. Council must also collect and store data on each asset, which can be used to make sound financial and functional decisions.

Striking a good balance between the cost of assets and the provision of community services can be complex. Council regularly evaluates their long-term ability to finance the maintenance and renewal of existing assets, whilst still planning for future changes and growth.

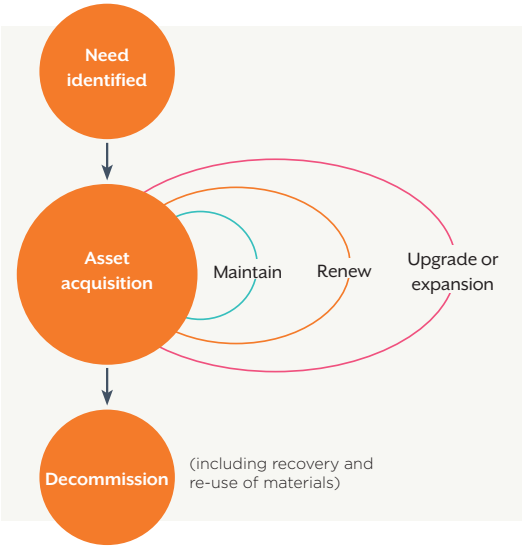


Figure 2-1: Asset Life cycle

The assets we refer to in this Plan currently have a combined value and replacement cost of $1.99B. Council has accumulated these assets progressively over time, resulting in assets sitting across all stages of the life cycle. Managing assets which have differing ages, were designed to different standards and deliver different service levels means that Council must provide tailored levels of intervention and care. The standard to which each asset is managed are key considerations in delivering on Council's responsibilities and commitments.



2.3 STRATEGIC CONTEXT

Council strategic planning

Council endeavours to understand the assets and related services that the community needs and values, both now and for the future. Through collection of asset and usage data, planning processes, engagement with the community (individually and through groups) and by analysing changes, Council works to develop a strong understanding of those needs and values. Alongside this understanding is the responsible management of finances, and the appropriate allocation of funds each year to meet community needs, but also to meet safety and statutory responsibilities.

To achieve all these things, Council develops and regularly refreshes a range of interconnected strategic plans, with the Council Plan and Community Vision being key guiding documents.

The Community Vision states:

Greater Bendigo celebrates our diverse community. We are welcoming, sustainable and prosperous. Walking hand-in-hand with the traditional custodians of this land. Building on our rich heritage for a bright and happy future.

The Community Vision for Greater Bendigo was crafted by 65 residents selected specially to form a community panel and represent the views of the community.

The vision is also supported by five values – transparency, sustainability, inclusion, innovation and equity – that underpin the vision and ensure future Council decision making reflects these values.

This Asset Plan aims to respond to the five values and helps to achieve the Community Vision (and underpinning strategies and plans) by guiding the management of assets that support services the community wants and needs; providing for meeting places, recreation, entertainment, learning, movement and safety, and doing all this in sustainable, equitable and responsible ways.

This Asset Plan is also underpinned by a hierarchy of asset planning documents, as illustrated in Figure 2-2.

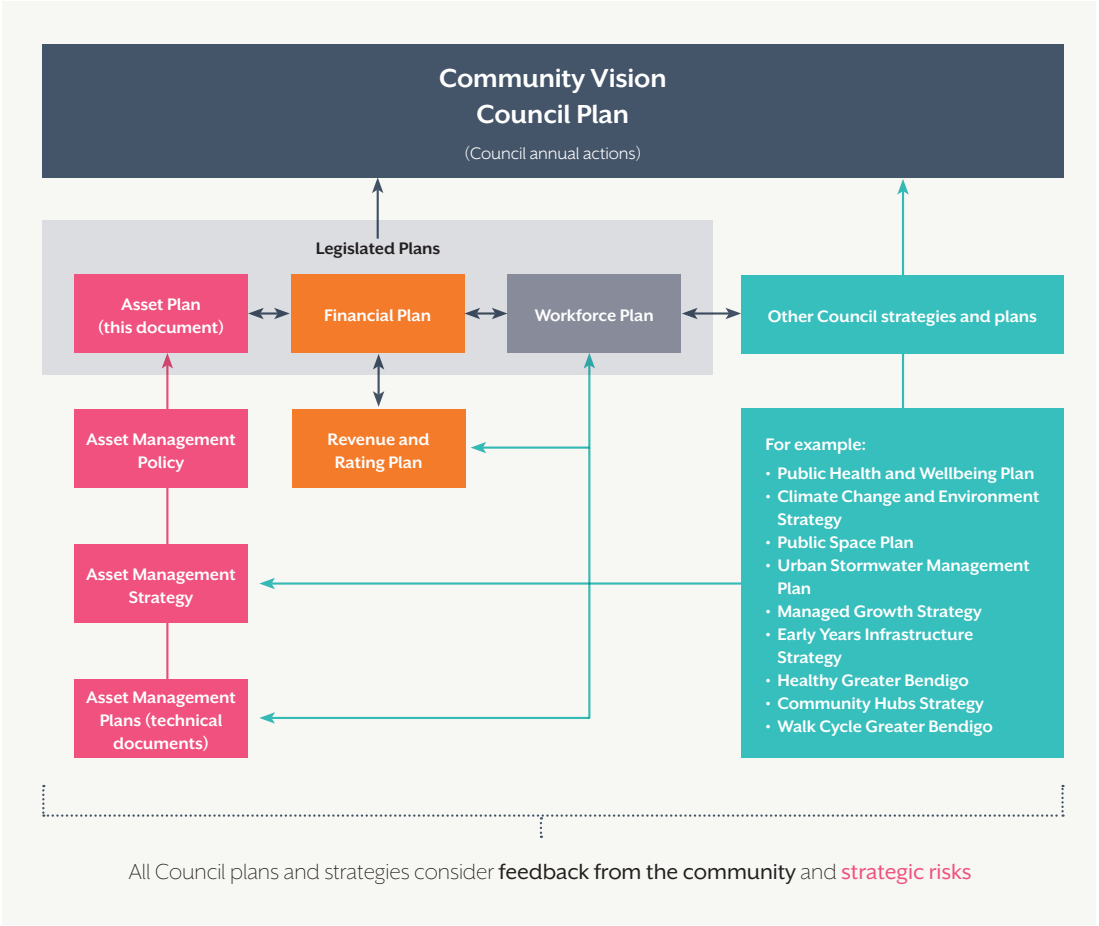


Figure 2-2: Strategic planning context for the Asset Plan



Legislation and regulation

State and Federal laws set a strict framework for minimum standards of many Council assets. These include a broad range of legislation and subordinate regulation, including:

- Local Government Act 2020
- Cladding Safety Victoria Act 2020
- Gender Equality Act 2020
- Planning & Environment Act 1987
- Building Act 1993
- Public Health & Wellbeing Act 2008
- Occupational Health and Safety Act 2004
- Dangerous Goods Act 1985
- Environment Protection Act 2017
- Equipment (Public Safety) Act 1994
- Road Management Act 2004
- Electricity Safety Act 1998
- Disability Act 2006
- Climate Change Act 2017
- Flora and Fauna Guarantee Act 1988
- Heritage Act 2017
- Aboriginal Heritage Act 2006
- Catchment & Land Protection Act 1994
- Financial Management Act 1994

This list is not exhaustive, but relevant legislation is signposted in each of the detailed Asset Management Plans.

In addition to regulatory obligations, there are also guidelines and standards that must be followed to provide safe and compliant assets and services for the community. Specific guidelines are issued by organisations such as the Environment Protection Agency (EPA), WorkSafe Victoria, and the Australian National Committee on Large Dams (ANCOLD). Council considers all relevant legislation, regulation, guidelines and standards when acquiring, commissioning, maintaining and decommissioning assets.

Other Government regulatory bodies such as the Victorian Auditor General's Office and the Victorian Ombudsman may also place recommendations on Local Governments around asset management activities to promote transparency and best practice.

Local Government Asset Management: opportunities to improve

In 2019, the Victorian Auditor General's Office (VAGO) published a report: Local Government Assets - Asset Management and Compliance.

VAGO audited five local government Councils (these did not include Greater Bendigo City Council) and made seven general recommendations to improve the way Councils manage assets and asset information. These recommendations were for Councils to:

1. Revise their governance and policy guidance for asset investment decision-making to ensure that it is evidence-based
2. Clearly determine and document the information that they need for effective asset reporting and decision-making, including ensuring disaster recovery funding arrangements needs are met
3. Establish more consistent and systematic processes for data collection on all asset classes to a level commensurate to the criticality of the asset and implement them to collect the information
4. Integrate asset management information systems so staff can easily record and access data to enable analysis for planning and decision-making
5. Identify their critical assets, and the potential risks of their failure, to inform investment priorities
6. Integrate asset management planning into financial planning cycles and processes to ensure councils balance asset investment needs against their objectives and funding constraints
7. Evaluate their capability, including resources, skills and training to meet their identified asset management needs, potentially using the national asset management assessment framework

The strategic initiatives and actions developed throughout this Asset Plan will help the City to address VAGO's recommendations where they apply.

3 HOW COUNCIL MAKES DECISIONS ON ASSETS

Council aims to provide safe and effective assets which support services to meet community needs. There are many constraints and influences on Council's decisions, including: financial capacity, regulatory standards and controls, industry best practice, current state of the assets (including legacies) and use of asset data, environmental factors, population growth and changes, economic environment, social and financial equity, and political influence.

Council makes decisions based on community needs, balancing the demands of diverse assets and associated services with financial sustainability, and keeping a long-term focus with planning and scheduling for major asset expenditure.

Decisions on asset investments are made at two levels: life cycle planning, and the options available within each stage of the asset life cycle.

3.1 LIFE CYCLE PLANNING

Life cycle planning is an important part of asset management that considers the whole-of-life implications of design, planning, acquiring, constructing, operating, maintaining, renewing, and disposing of assets. It considers the financial, social, and environmental impacts associated with all stages of the asset's life. The life cycle of an asset was outlined in Section 2.2 and Figure 2-1.

Life cycle planning is required to get the most out of the asset at each stage of its life cycle, and to avoid or minimise negative legacies.

The objectives of life cycle planning are to:

- Provide a sound basis for making investment, maintenance, and disposal decisions
- Accurately determine the total cost of ownership and operation of an asset, in order to ensure service affordability and intergenerational equity
- Identify and minimise environmental impacts through all stages of asset life
- Improve cost-effectiveness by optimising the initial costs of construction and the long-term maintenance and renewal costs, rather than making decisions only on the basis of initial (or capital) cost

Life cycle assessments

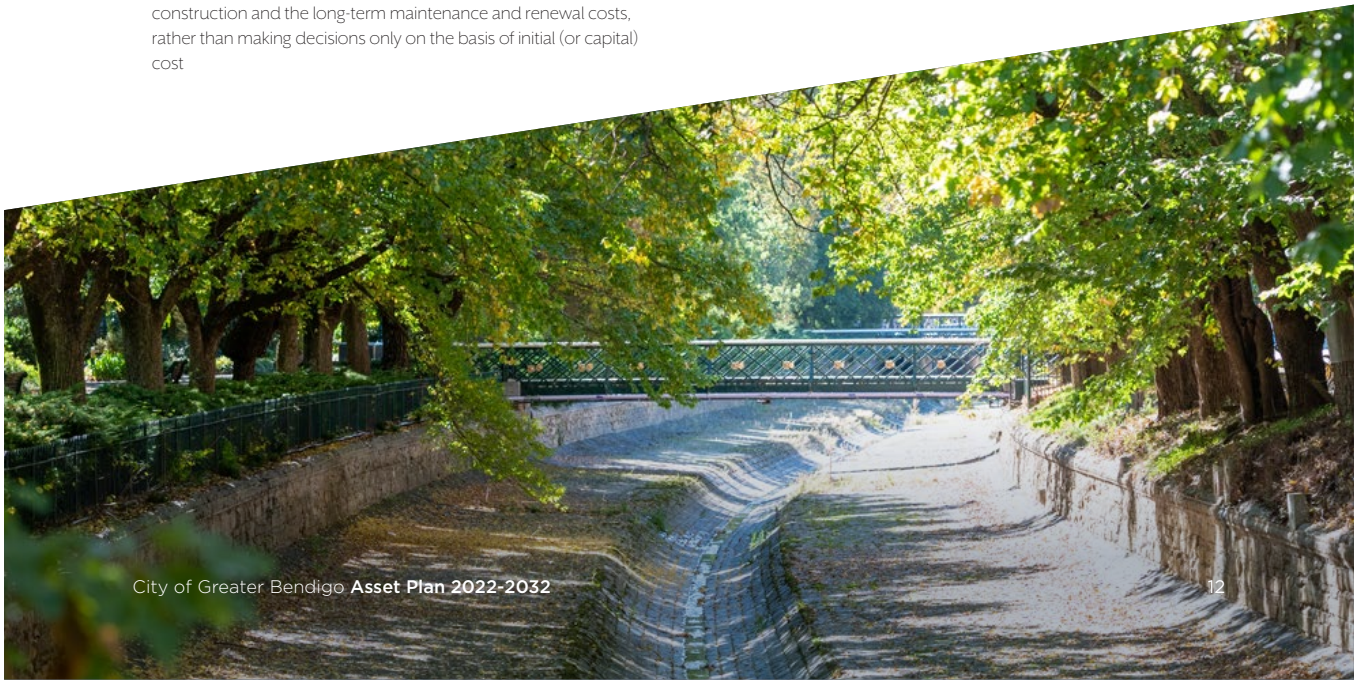
These involve undertaking an assessment of an asset before acquisition or construction to understand if it provides the most effective solution over the whole of its expected life. This assessment may identify how the asset, and the ongoing costs it creates, affect, or address financial sustainability, social or service needs, environmental impacts, climate challenges and economic prosperity over the whole of its life. Life cycle assessments help to improve decision-making by considering the long-term effects an asset may have.

Benefits of life cycle planning

Understanding the impact that an asset can have over the long term is important in reaching the best outcome for communities. It becomes quickly evident when investigating these impacts that upfront costs of assets are only a small part of the picture.

Fore example, throughout Bendigo's city centre, roads provide a key transport service for people to access businesses, parks and other important facilities. Road assets in areas with high use are under constant demand. Decisions made about the assets in these locations need to plan for higher than normal demand.

Road sealing treatments can vary in their durability, longevity and (subsequently) cost. Given their increased demand, city centre roads are treated with asphalt seals to maximise their durability. Although the asphalt seal can cost as much as five times more than the alternative, the extra costs are balanced by the longer life and the reduced need to undertake disruptive roadworks and maintenance in the busy city centre.



3.2 CONSIDERATIONS AT EACH STAGE OF THE LIFE CYCLE

The life cycle of an asset was described in Section 2.2. Decisions must be made by Council at each stage of an asset's life: whether to build or buy an asset; how big it should be; where should it go; when it needs to be replaced or upgraded or repaired; how it will be paid for; what standard of service the asset should support; how many of the same asset the City needs; what compromises need to be made to fund new assets or major repairs; and when an asset should be decommissioned or disposed of. These are often complex and interconnected decisions that are made within the constraint of a limited budget.

Council uses three key processes to decide on an investment:

1. Quantitative and qualitative measures to assess the need
2. Consideration of options to meet that need or demand
3. Engagement with the community to determine priorities, information, and options

These three processes are outlined below.

Quantitative and qualitative measures of need

Council uses a range of quantitative and qualitative measures to understand the need for investment, and to make the best investment decisions possible. More than one measure is often applied, and they include:

Forecasts of remaining asset life

Most assets have a predicted useful life which is known at construction, installation, or acquisition. The ability of an asset to reach or exceed that life span can be dependent on the quality of its construction, environmental factors (including damage from storms or accident), maintenance undertaken, the level of usage and demand, and ultimately the reliability of the data and assumptions that determined its predicted useful life. The City uses the predicted life, informed by data on past assets, and calculates the likely timing when an asset will need renewal, and/or disposal. Asset inspection data helps the City to understand changes in the asset over time and when maintenance may be required, or inspection timing may require change.

Regulations and standards

Some assets need to be inspected, tested, maintained, or replaced according to a set schedule or criteria that have been established in industry Standards or regulations. To meet regulatory obligations, minimise risks and to ensure worker and public safety, the City documents these in the Asset Management Plans and manages the assets according to the relevant criteria and schedules.

Levels of service

Levels of service are set by Council and provide a standard for an activity or asset that aligns with contemporary service needs and that can be monitored and reported on over time.

Specific performance measures and targets are documented for the City's service plans but are currently only partially established for assets. These levels of service are not yet documented for all asset groups and have been flagged as an opportunity for improvement in Asset Management Plans. This is an area of improvement that the City is working to resolve. As highlighted in the VAGO 2019 report into Local Government Asset Management, this information is important for decision making and prioritisation of asset investment.

The following three elements are considered in setting and managing levels of service:

- **Community** – Standards specific to the availability of assets and the outcomes sought by the community. This includes safety, equitable access, reliability, appropriate to needs, and the City's responsiveness to faults
- **Technical** – Specific standards to how the asset functions or to what technical standard the asset is maintained or built to. These are strongly influenced by regulatory requirements. Some examples include Essential Safety Measures determined by a Certificate of Occupancy, the frequency public toilets are cleaned, or how often road inspections are undertaken
- **Environmental** – Standards specific to the environmental performance of an asset and how it enhances or reduces impact on the environment. For example, minimising energy and water use, meeting environmental licencing conditions, reducing waste generation, reducing and sequestering greenhouse emissions, and any effect on water quality or biodiversity.



Strategic initiative action AP-1

Define technical, community and environmental service levels for all asset groups

Description: *Working with subject matter experts across the City, and being informed by community engagement initiatives, Council will consider and adopt agreed levels of service across these areas to ensure the asset base is responding to contemporary service needs.*

Actions:

1. Confirm gaps in existing technical service levels across all asset groups in conjunction with the City's Service Planning Working Group and where necessary, improve management and reporting of these.
2. Ensure established technical levels of service within all asset groups and coverage of any identified gaps.
3. Establish and implement a community engagement plan to facilitate community discussion and negotiation on community levels of service across all asset groups and provide recommendations for the consideration of Council.
4. Work with the City's Climate Change and Environment unit to draft environmental levels of service for the consideration of Council.
5. Develop prioritisation criteria for all levels of service to assist Council in making decisions on service level criticality and implications of investment (or divestment).



Performance or condition assessment

The City regularly inspects a wide range of assets to assess and understand their condition. A condition rating between 0 and 10 is recorded; with 0 for a new asset or an asset recently rehabilitated back to new condition, and 10 for an asset that has failed, is no longer serviceable, may pose an unacceptable risk, and should be retired.

The condition assessment process assists in identification of investment urgency. That is, it helps identify the type and scale of investment required, and the timeframe within which it may need to occur.

Usage or demand analysis

In many cases, the City collects data to help understand the level of asset use or investigates asset use in similar situations. This could be the number of bookings or attempted bookings at a community hall, the number of patrons using a swimming pool, or the number of cars travelling on a road. This information helps the City to understand if the asset's predicted remaining life might be extended or reduced, if the asset is necessary, if it is of substantial value to the community, and if there is opportunity to better maximise its use, and support equitable service delivery.

Options to meet demand for an asset

Meeting demand, and the ability to deliver the required assets to meet appropriate service levels requires long term planning, but also requires adaptation to changing asset, environmental and community conditions.

When a new or altered need, changed conditions or a material change in asset functionality has been identified, Council considers how to respond, following the principle of "renew before new". Options can include:

- Maintain the existing assets and services
- Advocate for better utilisation of alternative or existing assets
- Change the prioritisation for planned upgrade, renewal, or acquisition activities for certain assets
- Increase the asset base as growth occurs using developer contributions or other funding sources, and ensure that new assets built by developers meet the required standards
- Rationalise the assets, including decommissioning and disposal of assets where they are beyond their useful life, not economically viable, or no longer have alignment with Council strategies and plans
- Consolidation of similar and surplus assets to create a centralised and greatly improved asset
- Consider the use of non-Council owned assets to deliver services, through partnerships, commercial or cooperative agreements

Challenges:

- The City develops project proposals for capital projects, however there are opportunities to improve how ongoing costs are considered and what the improved maintenance cost is (otherwise known as operating expenditure) – including links to how it fits within Council's existing budgets or recommendations to fund. This would support the City to have discussions about trade-offs
- Currently there are no clear directions or guidance about how to manage the conflict of some assets with other Council assets. For examples, there is a tension between trees, kerb and roads. Council has a Greening Greater Bendigo Strategy which aims to increase tree cover throughout the municipality, however this may conflict with the useful life and risk profiles of surrounding infrastructure, where tree roots become destructive

Opportunities for improvement:

- Consider key strategic plans and develop clear guidance about managing the conflict between natural assets and built Council assets
- Review expected operating expenditure data and use it to inform project proposals; including a section to outline how it fits with existing Council budgets and relevant trade-off

Engagement processes

Council uses a range of processes to engage with the community, to discuss complex information and negotiate outcomes. It is acknowledged that there will often be competing interests, compromise, and trade-offs. Processes used include:

- Community consultation, input, feedback or deliberative engagement
- Feasibility studies
- Business case development and cost-benefit analysis
- Life cycle costing
- Impact analysis (on other assets, services, and on social equity)
- Grant applications (for unfunded or partially funded assets)

3.3 MAKING DECISIONS

Making decisions on asset investment is often difficult. Some of the important, and often competing considerations are:

- Finding a balance in investment for assets and services that are important now, against those that will be needed in the future (years of funding may need to be reserved for major assets)
- Investments must contribute to long term, responsible and sustainable financial management
- Benefit of the investment to the community
- Relative importance of growing the asset base vs maintaining the current asset base
- Criticality of the investment (is it close to failure or does it underpin important community services)
- Optimising each investment (timing to meet a need, leveraging from other local or regional asset management activities, optimal levels of usage and demand, life cycle cost assessments, etc.)
- Meeting regulatory obligations and strategic commitments (internal strategies including but not limited to the Council Plan, Climate Change & Environment, Early Years Infrastructure, Managed Growth, Community Hubs)
- Responding to identified strategic risks as documented in the organisation's Strategic Risk Register
- Various thresholds, triggers, options and levers for intervention
- Alternative funding options: grants, developer contributions, partnerships, co-funding, user fees

Challenges:

- Where over-servicing exists, the City has struggled to reduce levels of service or decommission community assets
- There are no clear criteria or process for decommissioning assets. The City has policies around the sale of assets; however, criteria or processes may help to define and support change where assets are no longer useable, economically viable, or should be sold or disposed of
- Levels of service are not defined for all asset groups. This information is critical for benchmarking, and for assessing community experience, and technical and environmental performance of assets
- Usage data is not collected across a wide range of Council assets
- Data quality and completeness is variable across asset groups and asset classes
- Not all asset classes have recognised industry standards for service levels

Opportunities for improvement:

- Develop criteria for asset decommissioning and disposal
- Document service levels for all asset groups and asset classes
- Expand the collection of usage data across relevant assets to inform asset investment planning
- Undertake an assessment of data quality across all asset classes
- Utilise deliberative engagement processes to allow community members to identify and decide on an acceptable solution to decommission and/or consolidate assets

Difficult decisions: decommissioning and disposal of assets

Council sometimes has to decide whether to stop investing in an asset and to retire, sell or dispose of it. Communities rarely ask for assets to be decommissioned, often for fear of losing a service or facility, regardless of the viability of that asset or service. Endlessly accumulating low-performing assets places an unrealistic burden on Council's resources through increasing maintenance and operating costs. Inability to rationalise also means Council is less able to invest in other new or upgraded assets. Decommissioning and/or disposal can release funding to acquire or upgrade another asset of value to the community. Consolidating assets could be one strategy to explore with involved stakeholders to avoid the sense of communities losing their assets.

Clear criteria for decommissioning assets have not yet been developed but have been identified by Council as an improvement action during the life of this Plan.



Difficult decisions: aquatic centres and over servicing

Greater Bendigo City Council currently operates 13 aquatic facilities. Many of these are over 50 years old, with ageing buildings, pool shells, chemical handling facilities, and changerooms. These old facilities often struggle to (or cannot) meet today's standards for equitable access, safety and health, or are inefficient, with high operational costs. Aged aquatic centres require significant investment for upgrades to modern standards. Across Victoria, local governments acknowledge that these are expensive assets to maintain and operate.

Bendigo has approximately one aquatic facility per 9,200 head of population. This is one of the highest servicing levels for aquatic centres in Victoria and could be considered an 'over-servicing'. With these levels of service and the financial challenges of keeping the centres up to standard, Council faces the decision to either rationalise the existing number of aquatic centres or to extend the life of aged facilities until some of them begin to fail. In terms of life cycle costing, there is a benefit to rationalising the number of centres, but in terms of community sentiment, there is benefit in keeping all current facilities. If a centre were to be decommissioned, the trade-off may be that another facility can be upgraded, and services expanded. These are difficult decisions for community and Council.

Managing a diverse portfolio of assets

Council is responsible for managing a diverse portfolio of fixed assets, including roads, bridges and culverts, an airport, buildings and community centres, drainage infrastructure, recreational and outdoor facilities, aquatic centres and pathways. Profiles of each of these assets are provided in Section 6.

Managing this diversity of assets means allocating funding across many service areas, balancing competing demands and ensuring that financial resources can meet obligations and the community outcomes as agreed in the Council Plan and Financial Plan. Funding must cover ongoing maintenance, renewal and growth, but sometimes must be accumulated to prepare for investment in major infrastructure.

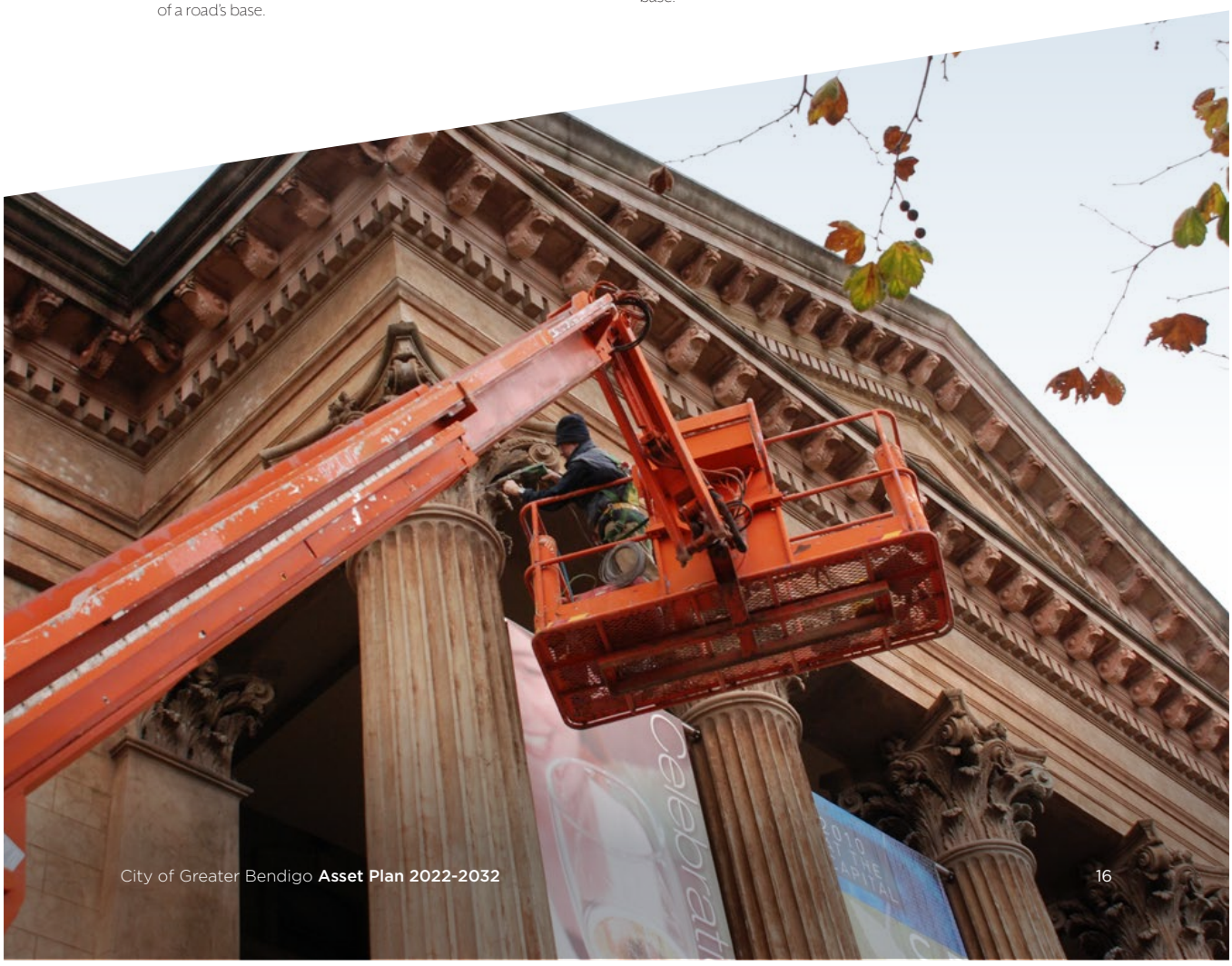
There are many changes, challenges and opportunities that will influence Council's asset investment and management decisions.

3.4 EXPENDITURE CATEGORIES

When it comes to budgeting and spending money on assets, Council refers to three expenditure categories:

1. Maintenance – The repair of an asset to an appropriate standard, so its service or performance levels can be maintained until the end of the asset's expected life. The asset is returned to a serviceable condition. For example, a fresh coat of paint helps protect the structure of a building so that it lasts the expected amount of time; or filling a pothole ensures the ongoing integrity of a road's base.
2. Renewal – Where an existing asset or component of an asset is replaced with a modern equivalent asset or component. This renewed asset would then be capable of delivering the same level of service to the same existing users for an expected length of time. For example, a toilet block that is at the end of its life is rebuilt in the same location with the same number of toilets. Renewal does not increase future operating and maintenance costs, in fact in the short term it may reduce them, and it ensures assets continue to deliver their intended service. It is considered non-discretionary spending.
3. New/upgrade/expansion – This is discretionary expenditure that may be standalone or in addition to renewal, and it is deliberately chosen to make an improvement to the current level of service:
   - New creates a new asset that did not exist beforehand. For example, a new toilet block is installed at a park
   - Upgrade is when an existing asset is enhanced to provide a higher level of service than what already existed. For example, an old 1-metre-wide footpath being replaced with a new 2.5-metre-wide shared path
   - Expansion is where an existing asset is extended at the same level of service but to an increased number of users. For example, extra rooms are added to a community building so it can accommodate more groups of people

These forms of expenditure may impact revenue (an expanded theatre allows more patrons) and will usually increase future operating and maintenance costs because they increase the organisation's asset base.



4 CHALLENGES AND OPPORTUNITIES

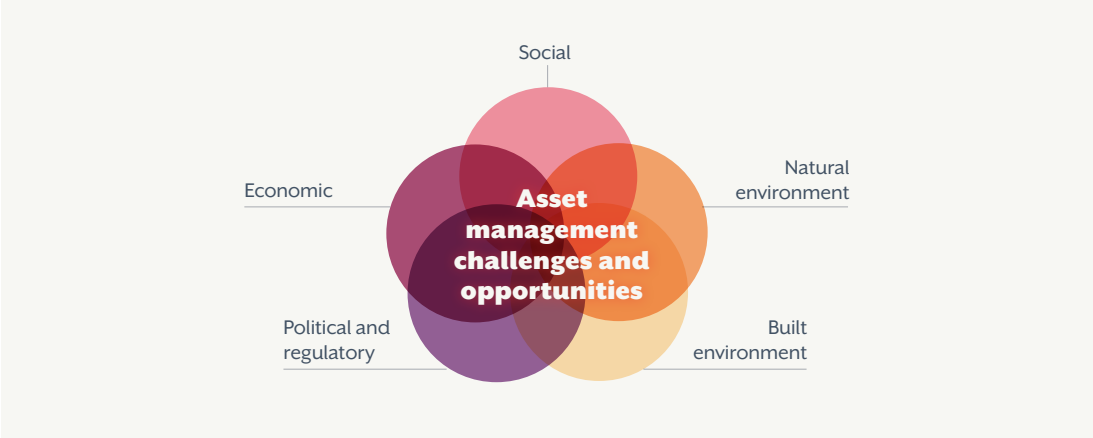


Figure 4-1: Asset Management Challenges

There are several challenges that Council needs to balance when making decisions about assets. These are broadly related to political and regulatory influence, economic demands, social demands, the natural environment, and the built environment (Figure 4-1).

Political and regulatory

Laws, policy and regulation change

Council must respond to changes in regulation and policy. A recent example of significant change affecting asset management includes State policy and laws on greenhouse gas emissions and climate change. Council has a responsibility to consider future generations (intergenerational equity), and this will influence asset investment decisions. Council must plan for climate risk and build adaptability into their assets, to reduce the severity and likelihood of climate induced natural disasters. Building adaptability into assets can incur high costs, yet failing do so, can be more costly as response and recovery costs are extremely expensive.

Council has developed a Climate Change and Environment Strategy (2021-2026), which specifies targets and actions to reduce emissions and commence climate adaptation. These targets and actions will influence asset management decisions.

Funding comes in different forms and often with specific limitations

Council generates income from four main sources: rates and charges, user fees and charges, grants, and monetary contributions, which have associated challenges such as:

- **Rate capping** – State government has placed a state-wide cap on rate increases which constrains Council's ability to control revenue. Rates are Council's main sources of income
- **Grant funding** – usually only available for the development of new assets. New asset development influences Council's acquisition, maintenance, and renewal priorities. Grants are often only accessible if Council projects are aligned to State service standards, which are sometimes higher than strictly necessary for a regional setting. There are also increasing expectations that Council will continue to deliver services associated with the asset once State or Federal government funding is withdrawn, which further impacts on the capacity of Council to maintain and renew its assets portfolio

Increasing expectations to maintain Crown Land (and other non-Council) assets

Councils are often best placed to manage built assets because they understand their community and have a strong presence in the region. When regional communities utilise a State-owned asset, Council often takes on, or is specifically designated by the State Government, the role of manager for that asset. With that management responsibility comes the financial responsibility to maintain and renew fixed assets (buildings, drainage, pathways, roads, etc).

Economic

Costs of procurement, construction and maintenance are increasing beyond CPI

Over time, the increasing asset base and replacement costs are outstripping the City's ability to raise rates to maintain all assets and service levels. Annual increases in construction costs will also directly impact Council's asset management responsibilities. Annually to September 2021, costs have risen 6.8 per cent (Construction Costs index). With consideration to capital expenditure, the purchasing power 'gap' for one financial year in 2022/2023 for capital expenditure for Council (with an estimated capital program of $55M in 2022/2023) is likely to equal $2.78M.

A 1.75 per cent increased rate cap has been announced for the 2022/2023 financial year. At the same time, the ABS recorded the National CPI through to September 2021 as 2.9 per cent for Victoria. In financial terms, this represents a $1.2M gap between the rate cap increase and a likely CPI increases for Council on operational expenses.



Increasing asset base

Residential and commercial development often involves parks and open space, roads, and drainage for the people who live and work in those areas. Developers 'gift' assets as a condition of their development and planning permits when on-selling properties. After construction, Council takes responsibility for the asset's life cycle and associated costs of an increasing asset base. In certain developments, developers may also be required to make financial contributions to shared community assets, for which Council must also find complementary funding to develop.

Changing community needs and expectations, while maintaining affordability

As the population grows and diversifies, so do community needs for various assets and services. Our community expects Council to respond quickly to emerging needs. Sometimes, it is not clear how long the demand might last or how existing assets are being used.

Social and cultural

The population of Greater Bendigo is growing, changing, and becoming more geographically spread

The population of the City of Greater Bendigo has been growing by around 1.7 per cent each year and is estimated to reach around 200,000 residents by 2050. The proportion of people over 65 years of age is also expected to grow from 17.2 per cent to 19.4 per cent within the next 15 years. The COVID-19 pandemic has generated a migration to rural areas and regional centres, and the expanding ability to 'work from home' has provided opportunity for the decentralisation of Victoria's population. Population growth is putting pressure on Council's existing asset portfolio to meet the service need, and the increasing need for new assets to support this growth. The Managed Growth Strategy (estimated to be completed in December 2022) will provide a framework for how Greater Bendigo should grow to accommodate an additional 80,000 residents by 2050 based on continued current rate of growth. This will help the City to understand what level of maintenance, renewals, upgrades and asset consolidation is required for existing assets and where new assets are needed.

Recognising Traditional Owner aspirations and rights

Council recognises and celebrates the long and continuing history of Aboriginal people as custodians of this land and acknowledge the injustices they have experienced in the years since colonisation. The increasing recognition of the value of Aboriginal traditions and knowledge provide opportunities for the City to invest differently in social, cultural and environmental assets, providing additional value to the community. Council actively supports the reconciliation and self-determination for Aboriginal people.

In 2013 the State Government entered into a Recognition and Settlement Agreement (RSA) with the Dja Dja Wurrung Aboriginal Clans Corporation (on behalf of Dja Dja Wurrung traditional owners). The RSA includes Land Use Activity Agreements (LUAA), which are legally binding instruments that apply to works on crown land. Land managers like Council must follow the LUAA process when carrying out works on crown land, including providing payment and/or other contributions to the Traditional Owners to compensate dispossession and past injustices. This is a critically important mechanism for achieving social justice outcomes. Subsequently, asset projects on crown land need to factor in LUAA costs as part of their development costs.

Council has a Reconciliation Plan – Barpangu – which is structured around three core themes: respect, partnerships and opportunities. Under these three themes are 19 objectives and 71 actions that drives the City's contribution to reconciliation both internally and within the Greater Bendigo community. Council will provide sufficient time and resources to respond to the needs of Traditional Owners in accordance with relevant LUAA requirements and Barpangu.

Environmental responsibility

Community expectations are increasing about the climate and environmental performance of Council assets. With impacts being experienced from a changing climate (including drought, bushfire, extreme storm events), and a range of state policy that supports the reduction of emissions and the regeneration of waterways and biodiversity, the community is demanding that Council demonstrate a higher level of environmental responsibility. Asset management responds to these demands through the application of Environmentally Sustainable Development (ESD) principles, integrated water management (IWM), water sensitive urban design (WSUD), life cycle assessments and energy and water conservation programs.

Social equity

Community expectations are also increasing for equitable access to Council assets. Social equity means the fair and equitable distribution of public assets and services to ensure everyone can fully participate in community life. In planning and developing assets, Council must seek to eliminate barriers preventing equitable access. Access must be equitable regardless of disability, cultural background, language, gender and age.

Built environment

Ageing infrastructure

Some of Council's assets were built at the time of the gold rush in the 1800s, and an enormous range of assets have been acquired through the intervening years. Local Government amalgamations in 1994 also saw assets of six Councils joined together when Bendigo City, Huntly Shire, Borough of Eaglehawk, Marong Shire, Strathfieldsaye Shire and much of the Shire of McIvor brought many duplicate assets servicing smaller Local Government areas together under the one Council. Asset renewal has in some asset groups, not kept pace with the ageing profiles, and has left Council with a renewal legacy and funding gaps. These renewal gaps have been quantified, and through the Asset Management Plans, the City is working to address the gaps. Asset profiles in Section 6 illustrate these renewal gaps and the future trend.

Advancing technology

People and businesses are increasingly connecting online and seeking to deliver or access services online. This has been fast-tracked by the COVID-19 pandemic, with many businesses and government transitioning to a 'work from home' or hybrid model. Technology has enabled remote servicing across many aspects of life. For example, libraries traditionally provided storage and display of large collections of hard copy books and audio-visual materials for the community. These days, the community is less reliant on hardcopy reading and reference materials, and libraries have adapted to provide equitable access to the internet, and to deliver online services for borrowing of e-books, audiobooks and streaming of movies.

Technology is also advancing in asset management. New ways of inspecting assets and monitoring their condition and/or use are being developed all the time. Connectivity and access to data is also growing, as are the ways in which data can be analysed and interpreted. The City must continually explore and understand these recent technology initiatives and their value propositions.

Natural environment

Climate change

Climate change is increasing average and extreme temperatures, reducing annual rainfall and increasing the frequency and intensity of storms and fire. These changes will have implications for human health, natural systems, economic activity, community wellbeing, and Council's services, assets and liabilities. Council's Climate Change and Environment Strategy sets out several goals that impact how Council will aim to manage its asset base over the next 15 years. For some of these commitments, higher construction costs will be required from Council, but life cycle costings indicate overall savings through lower operating costs.

These commitments include:

- Zero carbon from Council operations by 2030
- A safe and well-connected active transport network by 2036
- Developing project proposals to increase the funding for new footpaths
- Council operations are water efficient and utilise diverse water supplies
- Flood risk is reduced through flood mitigation infrastructure and planning
- Waterways in Bendigo are healthy, connected, and nurturing paces (Water Sensitive Urban Design)

Biodiversity

Roadsides, open space assets and "drainage" infrastructure (e.g. waterways and water-sensitive urban design, or WSUD, assets) all provide important ecological functions and habitat for flora and fauna. In doing so, they enhance and connect regional biodiversity. Council have outlined several commitments in the Climate Change and Environment Strategy which will influence how assets are managed to ensure that impact on biodiversity from Council works is minimised and there is an overall net vegetation gain within the municipality. The main commitments relevant to biodiversity include:

- 150 per cent net gain in vegetation and biodiversity from Council projects by 2036
- No net loss of native habitat in the municipality by 2036
- No patch of native vegetation over 20ha within the municipality is fragmented from other native vegetation

Mining legacy

The Greater Bendigo region has supported mining operations since the 1800s. Historical mining and settlements have left a legacy of aged assets and contaminated land, particularly on Crown Land. As regional development pressures increase, there are expectations that Council fund or contribute to remediation costs for contaminated land and historic assets.



Strategic initiative action AP-2

Establish and implement an informed process for 'whole of life' costing of assets

Description: *Different approaches to understanding the total long-term costs of assets will be further explored to ensure that the City and Council have accurate information in order to make well informed decisions. A consistent and transparent approach to applying whole-of-life costs will be more regularly applied to all infrastructure investment.*

Actions:

1. Work with Financial Strategy unit and City Asset Managers to improve capture of asset-level financial data on maintenance expenditure.
2. Identify and workshop potential methodologies to inform, and consistently apply, whole-of-life costings to asset groupings.
3. Incorporate endorsed methodology into the City's existing Capital Investment Framework and other components of the Asset Management System as required.
4. Identify any opportunities for learnings through data trending, and any potential efficiency gains in maintenance activities as part of whole-of-life expenditure reviews.

5 THE COMMUNITY'S ROLE IN ASSET MANAGEMENT

The community plays an important role in helping Council to determine the 'what, when, where and how' of asset management. Usage data helps Council to determine service levels for assets, but there are many other ways the community can directly and indirectly influence decisions and actions on-ground.

How the community helps with asset management

The community engages with Council in several ways, including:

- **Customer service requests** – Members of the community can call, email or write to Council and advise of maintenance issues. Although Council has safety and maintenance inspection programs for most assets, sometimes an asset can be damaged from use, weather, accident or vandalism. The community play an important role in providing 'eyes on the ground'. Council logs all requests, then investigates and responds. This system can also be used to report problem with service levels or unfulfilled service need
- **Specific project consultation** – All major infrastructure works have a consultation phase with residents and other stakeholders who are affected by a project
- **Development of strategic plans** – Council engages with the community in the development of strategic plans and policies. Public engagement activities are intended to encourage the community to have a strong voice in the decisions that affect asset and service provision. Recent and current strategic plans that benefited from community involvement include the Council Plan (Mir wimbul), the Health and Wellbeing Plan, the Financial Plan, the Cultural Diversity and Inclusion Plan, and Barpangu
- **Council publications and meetings** – Council provides community access to their meeting agendas and minutes, and the opportunity to raise issues directly with Council at public monthly meetings
- **Partnerships with Traditional Owners** - Through conversation and consultation with Traditional Owners, the City of Greater Bendigo has developed a Reconciliation Plan 2021-2025 - *Barpangu* - meaning 'build together'. This Reconciliation Plan works towards achieving our vision for reconciliation
- **Capital works** – Council's Annual Capital Works Program is developed with a consultation process including internal and external stakeholders and councillors. The community has the ability and is encouraged to request works through the City's Pathway system and these works are evaluated and prioritised using standard criteria. These are considered during the Council budget process
- **Council annual budget** – The draft budget is published for community consideration, comment and input
- **Annual reports, leases, licences and usage data from community groups** – this information helps Council to understand the demand and trends for assets and services
- **Submission through state government and legislative processes** – There are opportunities for the community to get involved in local government evaluation and regulation processes (e.g. input to VAGO reports, Ombudsman, etc), and some types of legislation provide an opportunity for community to report or influence asset management decisions. For example, the Road Management Act provides scope for community to comment on Council's Road Management Plan

Future asset plan engagement

This Asset Plan was informed by the community engagement project Imagine Greater Bendigo and with input from City officers. The Draft Asset Plan also went through a four-week period of community engagement in March- April 2022. Future iterations of this plan will involve a deliberative engagement process as outlined in the Local Government Act 2020.

This future process will enable community to engage and consider detailed asset planning information, discuss the impacts, trade-offs and options for service levels and asset management, and influence a range of important principles that guide Council's asset and service level decisions.



Strategic initiative action AP-3

Engage and deliberate with community on key service level and asset management issues (including decommissioning, funding, and quantity vs quality)

Description: *Under the Local Government Act 2020, deliberative engagement practices are to be incorporated into the development of future Asset Plans to ensure the Plan remains aligned with the needs of the community.*

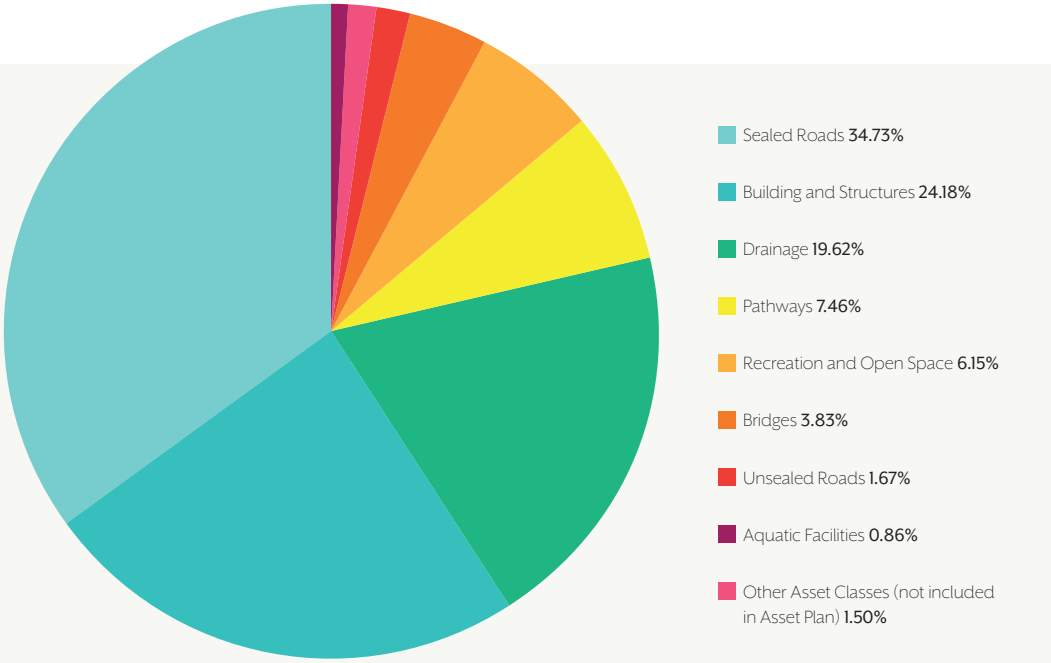
Actions:

1. In conjunction with future integrated strategic planning undertaken by Council and the City, develop and implement a community engagement plan focused on deliberative engagement regarding relevant questions posed on asset management and service levels.
2. Prepare an outcomes report from deliberative engagement activities to be incorporated into future Asset Plans.

6 PROFILES OF COUNCIL ASSETS

This section provides a snapshot of eight major groups and classes of assets. The data in these pages will be updated annually and re-published on Council's website.

2021 Percentage of asset value by asset group







SEALED ROADS

$693,129,471
Replacement value

34.73%
Percentage of total asset base value

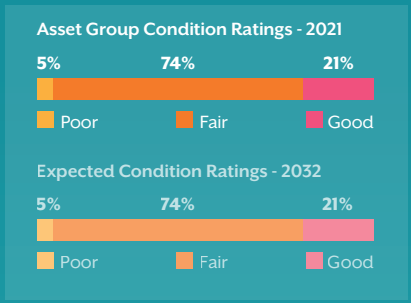
OBJECTIVES

To provide the community with a **safe and effective** network of sealed roads

To ensure the road network **connects and complements** other road and infrastructure systems

To ensure the road network is **fit for purpose**

STATE OF THE ASSETS

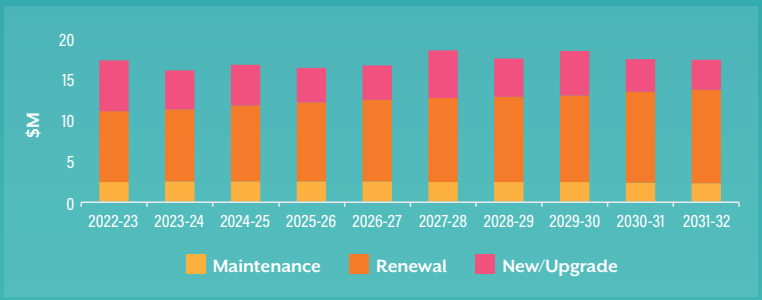


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Sealed pavement	100	Repairing potholes	Digging out and replacing failed sections of pavement	Constructing a new road or widening an existing one
Car parks	50	Repainting line-marking	Reconstructing failed sections of an existing carpark	Extending an existing carpark to cater for additional parking demand
Asphalt surface	25	Sealing cracks to prevent water damage to pavement	Removing and relaying aged asphalt on a section of sealed road	Build a new road to provide a connection between existing roads
Sprayed surface	15	Laying additional aggregate	Resealing a section of sealed road	Extending seal to a previously unsealed section of road
Kerb and channel	50	Using street sweeper truck to ensure kerb and channel is clear	Reconstructing damaged sections of kerb and channel	Constructing kerb and channel on a road that did not have it previously
Tram tracks	50	Inspecting and oiling points	Replacing worn tram tracks	Extending the length of existing tram tracks
Airport runways and taxiways	100	Removing built up rubber to ensure runway meets skid resistance requirements	Reconstructing a runway	Extending existing runway to service increased plane traffic

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to remain stable over the next 10 years averaging $2.4M per annum
- New/upgrade expenditure is projected to average $4.8M over the next 10 years (excluding additional borrowings)



SEALED ROADS

GIFTED ASSETS

These are mostly received from developers as a contribution to community infrastructure and include local roads, kerb and channel and parking.

Gifted assets are not purchased by Council, but they do increase the value of the asset group and increase requirements for maintenance and renewals.

The average annual value of gifted sealed road assets is $5M (based on 2021 data).

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Increased usage of recycled and environmentally sustainable material in construction and maintenance of sealed road assets
- Carry out life cycle assessments for all sealed road assets
- Develop technical and community service level targets to manage expectations and provide clarity for future investment
- Develop performance monitoring measures to report on performance against target levels of service

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Meeting community expectations and demand
- Increased population growth

ENVIRONMENTAL

Examples include:

- Increased rainfall intensity and frequency associated with climate change resulting in increased rates of deterioration of sealed roads
- Increased temperatures associated with climate change resulting in a higher risk of cracking of road surfaces
- Balancing road safety with native vegetation retention

FINANCIAL

Examples include:

- Managing the cost and balance between maintenance, renewal and new/ upgrades to assets
- Costs associated with managing roads with increased heavy vehicle traffic (e.g. B-Doubles)

LEGACIES

Examples include:

- Ageing infrastructure
- Factoring in maintenance and renewal costs for gifted assets
- Retrofitting on-road bike lanes and challenges associated with funding their installation and maintenance

REGULATORY

Examples include:

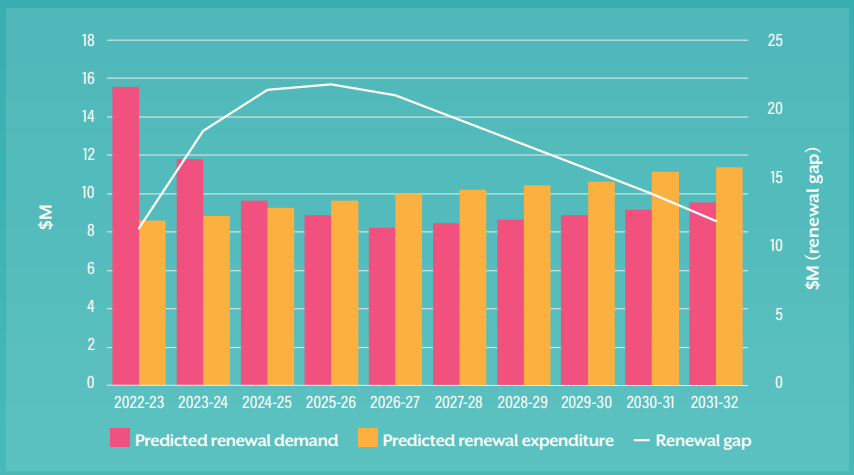
- Ensuring compliance with the Road Management Act 2004
- Meeting requirements of the Road Management Plan
- Ensuring the community has clarity on which roads Council is responsible for
- Constraints on development opportunity (e.g. land acquisition requirements)

MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of sealed roads will increase from $8.6M in 2022/2203 to $11.4M in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $22M in 2025/2026 then decrease to $12M by 2031/2032.





BUILDINGS AND STRUCTURES

$482,634,769
Replacement value

24.18%
Percentage of total asset base value

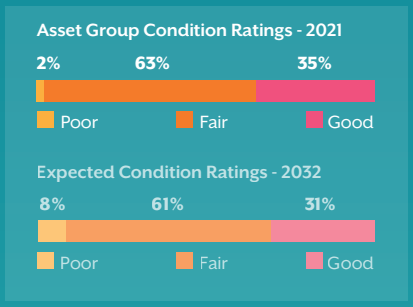
OBJECTIVES

To provide **safe, effective, accessible and resource efficient** buildings and structures

To provide buildings and structures for the community **that meet service needs**

To ensure buildings and structures **are fit for purpose**

STATE OF THE ASSETS

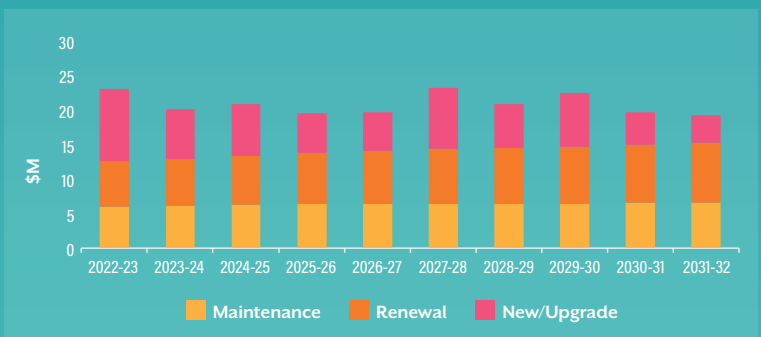


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Building structure	50-150	Proactive treatment of structure for termites	Renovating an aged, existing building	Constructing a new building to provide a community service
Building structure - shade sails	N/A	Fixing a torn or damaged shade sail	Replacing an existing shade sail with a new one	Installing additional shade sails
Building roof	50	Cleaning gutters	Replacing a roof on an existing building	Constructing a roof on a new building
Building fit out	25	Cleaning carpet, or electrical wiring maintenance	Replacing flooring such as worn carpet or vinyl	Installing new solar panels
Building mechanicals	25	Servicing air conditioning units	Replacing an aged air conditioning unit	Installing air conditioning in a building that did not have it previously

EXPENDITURE PROJECTIONS

- Over the next 10 years councils' predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to increase slightly over the next 10 years averaging $6.5M per annum
- New/upgrade expenditure is projected to average $7M over the next 10 years (excluding additional borrowings)



BUILDINGS AND STRUCTURES

GIFTED ASSETS

These are received from developers as a contribution to community infrastructure and include libraries, community health centres, arts and cultural facilities.

Gifted assets are not purchased by Council, but they do increase the value of the asset group and increase requirements for maintenance and renewals.

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Investigate and review how council manages 'non-Council' building and structure assets
- Identify and record levels of service for building and structure assets
- Formally identify, prioritise and implement a program of works to improve access for all genders and all abilities
- Develop a strategy, or plan, for identifying the priority for providing maintenance and upgrade funding for council operated buildings and for committees of management or groups, managing non-Council assets
- Identify assets that are surplus to needs
- Finalise and implement the Greater Bendigo Community Buildings Policy
- Develop and implement the Greater Bendigo Community Hubs Strategy to support consistent, transparent and equitable decision making about future community hub provision

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Meeting diverse community demands for buildings and structures e.g. community halls
- Improving access for all genders, all abilities and for under-represented communities
- Maximising how buildings are used
- Improving equity of access to community facilities across the municipality

ENVIRONMENTAL

Examples include:

- Ensuring our buildings are fit-for-purpose in a changing climate
- In line with Council's Sustainable Buildings Policy, ensure we use environmentally sustainable design (ESD) principles when construction or renewing buildings or structures
- Ensuring Council meets and maintains its emission reduction target of zero emissions by 2030

FINANCIAL

Examples include:

- Managing surplus assets
- Managing the cost and balance between maintenance, renewal and new/upgrades to assets
- Reducing operating costs as a result of improving resource efficiency
- Managing disposal of assets to ensure financial capacity to support other strategic acquisitions

LEGACIES

Examples include:

- Ageing infrastructure
- Managing the community's service level expectations for non-Council assets
- Navigating community emotional links to and personal investment in assets where Council needs to consider asset base rationalisation and optimisation
- Ensuring the ongoing sustainability of heritage buildings so they can continue to provide service to communities while showcasing Greater Bendigo's rich history

REGULATORY

Examples include:

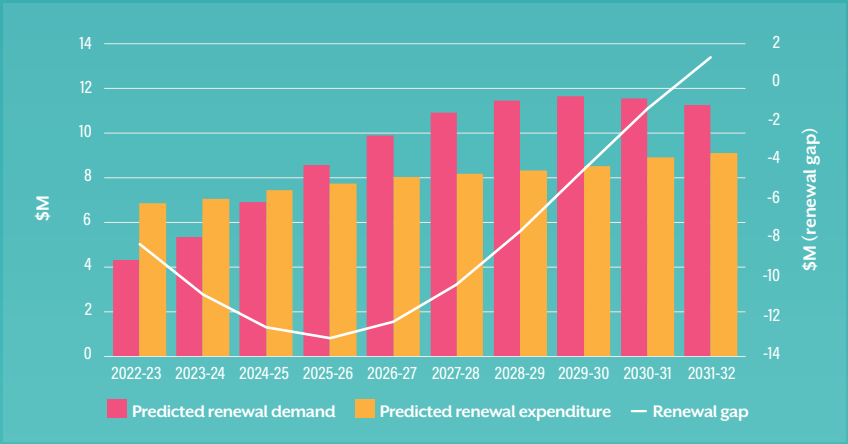
- Ensuring Council are compliant with the *Disability Discrimination Act (DDA) 1992 and Occupational Health and Safety Act 2004*
- Ensuring Council assets are provided in line with the National Construction Code which provides regulatory requirements relating to access

MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of buildings and structures will increase from $6.8M in 2022/2023 to $9M in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $1.2M by 2031/2032.





DRAINAGE

$391,656,524
Replacement value

19.62%
Percentage of total asset base value

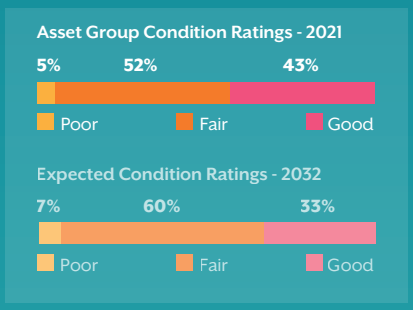
OBJECTIVES

To reduce the impact of flooding for the community by providing **safe and effective** drainage

To ensure **environmental values** of our waterways are maintained through progressive upgrade and re-naturalisation of drainage assets

To ensure drainage is **fit for purpose**

STATE OF THE ASSETS

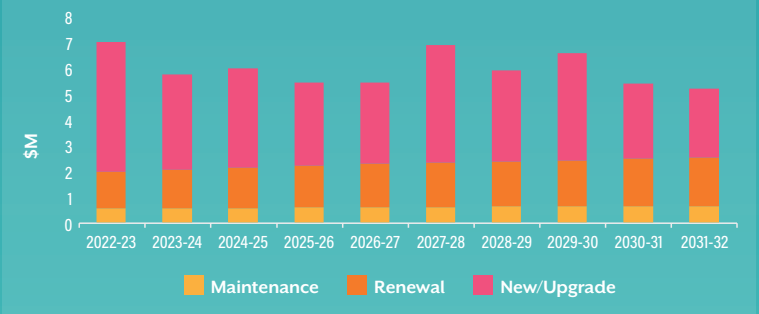


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Pits and endwalls	100	Cleaning a pit to remove debris	Reconstructing an existing pit	Constructing additional pits so the network can handle more water run-off
Pipes and culverts	100	Removing grass and debris from the entrance of a culvert to allow water to flow	Replacing or reline cracked pipes	Replacing existing pipes with larger ones to increase network capacity
Dam walls	200	Keeping spill way clear of vegetation and debris	Repairing dam walls so it can fulfil its original function	Raising the wall of a dam so it can hold more water
Creek infrastructure	100	Keeping access points for run-off to creeks clear of vegetation and debris	Replacing failed sections of concrete/bluestone creek walls	Re-naturalise creek assets for environmental and social benefit

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to increase slightly over the next 10 years averaging $603,000 per annum
- New/upgrade expenditure is projected to average $3.8M over the next 10 years (excluding additional borrowings)



DRAINAGE

GIFTED ASSETS

These are mostly received from developers as a contribution to community infrastructure and include new drainage infrastructure and upgrades.

Gifted assets are not purchased by Council, but they do increase the value of the asset group and increase requirements for maintenance and renewals.

The average annual value of gifted drainage assets is $4M (based on 2021 data).

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Carry out physical condition assessments for all drainage infrastructure
- Incorporate integrated stormwater management approaches to renewal and upgrade programs
- Implement Reimagining Bendigo Creek Plan
- Implement priority recommendations from the urban flood studies

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Ensuring that damage to property from floods is reduced or mitigated where possible
- Increasing community expectations about the role and importance of waterways for urban liveability

ENVIRONMENTAL

Examples include:

- Balancing the need for storm water drainage with the need for water for the environment
- Rainfall events are likely to be fewer but far more intense increasing pressure on our drainage infrastructure
- Using water sensitive urban design (WSUD) principles

FINANCIAL

Examples include:

- Balancing the asset life expectancy versus service need with the significant costs of drainage infrastructure
- Potential to increase the levy rate of developer contributions to more adequately finance drainage and water quality offset projects
- Finding a balance between the increased costs of water sensitive urban design (WSUD) infrastructure and the positive impacts on water health

LEGACIES

Examples include:

- Ageing infrastructure
- Limited data on the condition of drainage infrastructure
- Potential to transform Bendigo Creek infrastructure and the connecting drainage network via the Reimagining Bendigo Creek Plan

REGULATORY

Examples include:

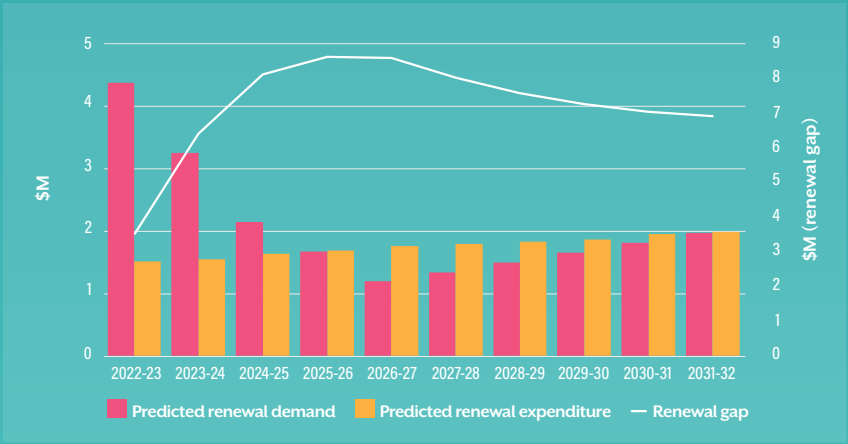
- Additional drainage asset responsibilities as a result of the state's Flood Management Plan

MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of drainage assets will increase from $1.5M in 2022/2023 to $2M in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $8.5M in 2025/2026 then decrease to $7M by 2031/2032.





PATHWAYS

$148,849,721
Replacement value

7.46%
Percentage of total asset base value

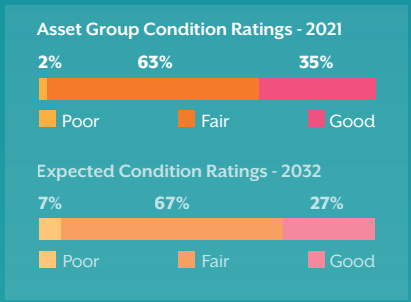
OBJECTIVES

To provide the community with a **safe and effective** network of pathways

To provide a **connected network** of pathways for the community to use to access facilities

To ensure the pathway network is **fit for purpose**

STATE OF THE ASSETS

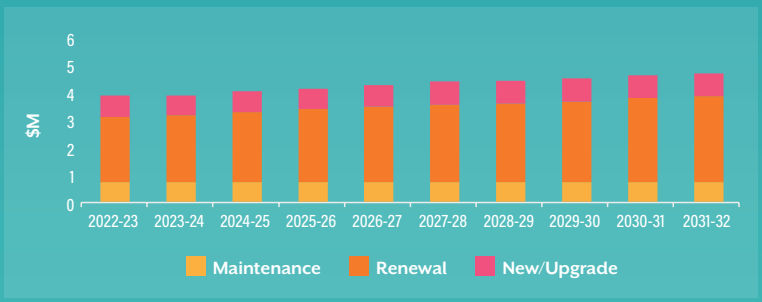


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Concrete footpaths and cycleways	50	Grinding exposed edges to remove trip hazards	Reconstructing cracked sections of existing footpath	Extending a footpath's length to service other areas of a neighborhood
Asphalt footpaths and cycleways	25	Repairing cracks and potholes in the path	Reconstructing failed sections of an existing path	Constructing a new length of path to connect to existing paths

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to remain stable over the next 10 years averaging $739,000 per annum
- New/upgrade expenditure is projected to average $820,000 over the next 10 years (excluding additional borrowings)



PATHWAYS

GIFTED ASSETS

These are mostly received from developers as a contribution to community infrastructure and include off-road walking and cycling paths.

Gifted assets are not purchased by Council, but they do increase the value of the asset group and increase requirements for maintenance and renewals.

The average annual value of gifted pathway assets is $2M (based on 2021 data).

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Increased usage of recycled and environmentally sustainable material in construction and maintenance of pathway assets
- Develop technical and community service level targets to allow council to manage expectations and provide clarity for future investment
- Carry out life cycle assessments for all pathway assets
- Develop performance monitoring measures to report on performance against target levels of service
- Implement priority works from Walk Cycle Greater Bendigo, including addressing gaps in network

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Managing community expectations
- Managing the shared use of pathways
- Addressing gaps in the path network to increase active travel opportunities
- Ageing but more mobile community needing higher safety standards for paths
- Improving equitable access to pathways, to support freedom of movement

ENVIRONMENTAL

Examples include:

- Opportunities to provide better connectivity between the network and with the natural environment
- Addressing gaps in the path network to promote active travel and reduce road congestion

FINANCIAL

Examples include:

- Managing the cost and balance between maintenance, renewal and new/ upgrades to assets
- Balancing the cost of implementing the Walk Cycle Greater Bendigo Strategy with other priorities

LEGACIES

Examples include:

- Gaps in the path network created by older residential development without requirement for supporting infrastructure contributions
- Opportunity to build a Low Line Trail within Bendigo Creek to transform active travel in and around the City Centre
- Changes in standard for shared path widths mean many older shared paths are too narrow
- Inappropriate tree planting close to paths causing trip hazards and path failures

REGULATORY

Examples include:

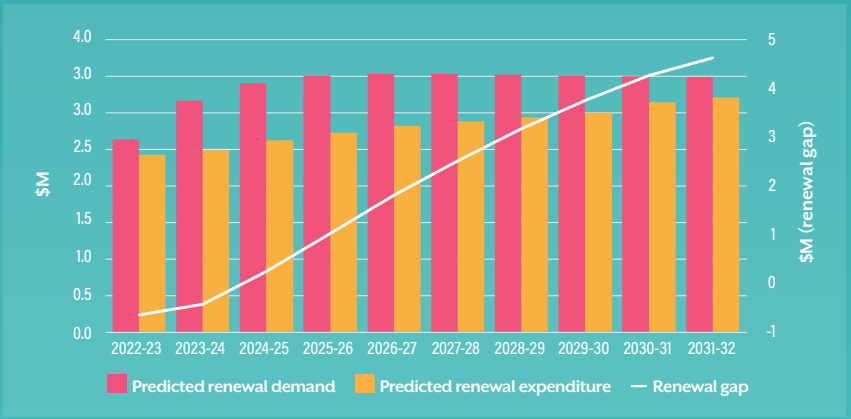
- Ensuring road crossings meet regulatory standards for road safety, accessibility and standard infrastructure design

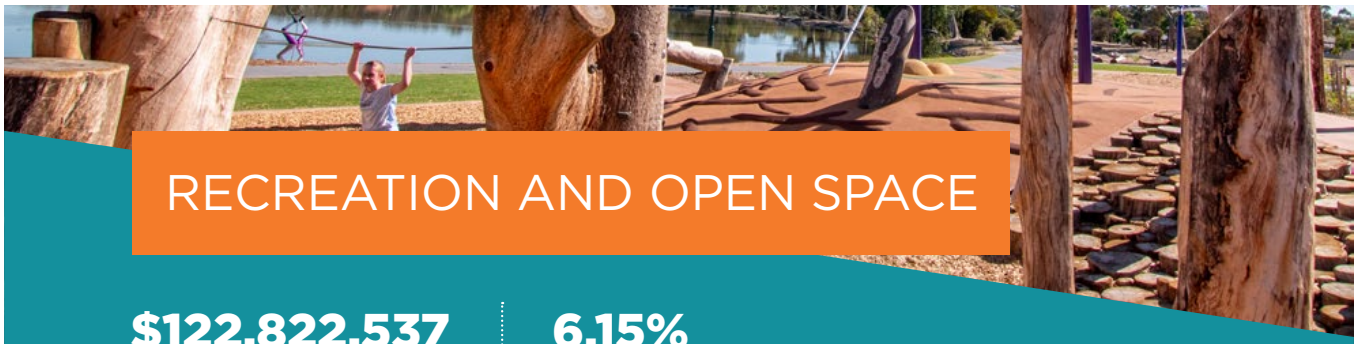
MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of pathways will increase from $2.4M in 2022/2023 to $3.2M in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $4.6M by 2031/2032.





RECREATION AND OPEN SPACE

$122,822,537
Replacement value

6.15%
Percentage of total asset base value

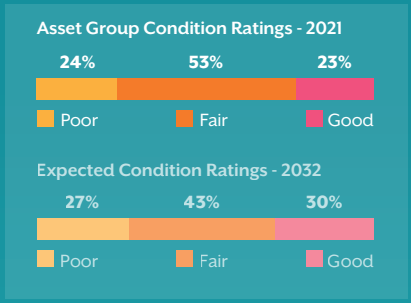
OBJECTIVES

To provide **safe, effective and accessible** open space and recreational facilities for the community

To provide open space that **connects** with existing remnant vegetation where appropriate

To ensure recreation and open space areas **are fit for purpose**

STATE OF THE ASSETS

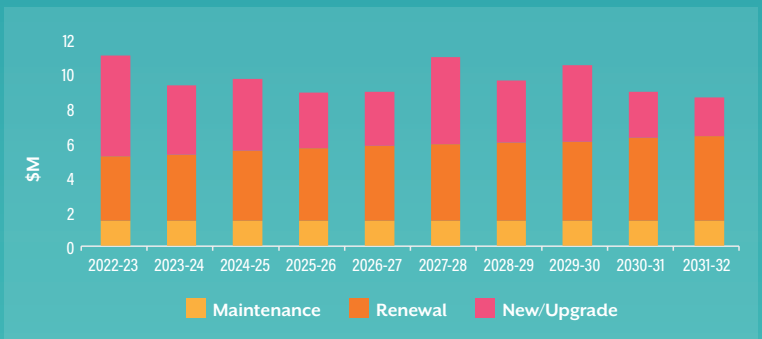


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Play spaces	20	Replacing soft fall mulch around an existing play space	Replacing play equipment with new pieces that meet contemporary standards	Constructing a play space in a new location
Lighting – street, public and sport	25	Replacing globe in sports field lighting	Replacing existing aged sports fields lighting towers	Extending the street light network to previously unlit areas
Public furniture	30	Cleaning public BBQs	Replacing aged existing public furniture such as BBQs	Constructing additional public furniture or BBQs
Sporting surfaces – hard, synthetic and turf	25	Mowing grass playing fields	Resurfacing existing hard courts	Constructing additional playing surfaces
Irrigation	25	Cleaning sprinkler heads	Replacing an aged sprinkler system at a sports field	Installing irrigation in previously non-irrigated areas
Paved areas	50	Replacing individual cracked pavers	Replacing paving in an larger area that was already paved	Creating new paved areas

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to decrease slightly over the next 10 years averaging $1.4M per annum
- New/upgrade expenditure is projected to average $3.7M over the next 10 years (excluding additional borrowings)



RECREATION AND OPEN SPACE

GIFTED ASSETS

These are mostly received from developers as a contribution to community infrastructure, and include new parks and play spaces, public lighting and toilet blocks, landscaping and streetscaping.

Gifted assets are not purchased by Council, but they do increase the value of the asset group and increase requirements for maintenance and renewals.

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Identify and collect missing data and information (including condition for assets)
- Identify, investigate and review council's future and ongoing responsibility for managing or supporting financially 'non-Council' recreation and open space assets, whether listed or not listed in council's Assets Register
- Identify and record service level targets
- Identify current recreation and open space assets under-performing and add to long-term upgrade/expansion/new works program
- Investigate and list high risk recreation and open space assets

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Meeting community demand for recreational and open space
- Meeting community demands for sporting fields
- Enhancing community wellbeing by facilitating opportunities to connect with nature
- Improving equity of access to recreation facilities and open space across the municipality
- Ensuring the provision of recreational and open spaces that are safe for women and girls
- Improving access for all genders, all abilities and for under-represented communities

ENVIRONMENTAL

Examples include:

- Balancing the interface between the community and the natural environment
- Increased temperatures associated with climate change resulting in less water availability for irrigating parks
- Extreme dry or wet conditions make it more difficult to maintain unsealed roads
- Enhancing resilience to the changing climate through native plantings that enhance connectivity and biodiversity

FINANCIAL

Examples include:

- Managing the cost and balance between maintenance, renewal and new/ upgrades to assets

LEGACIES

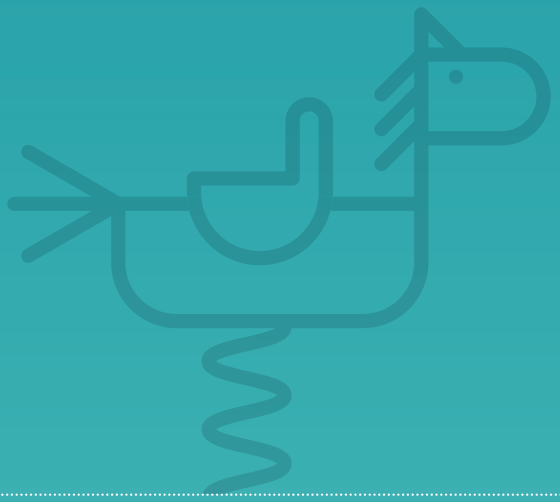
Examples include:

- Management of non-council assets
- Managing mining legacy issues such as contaminated land

REGULATORY

Examples include:

- Ensuring compliance with regulatory conditions and requirements e.g. *Environment Protection Act 2017*

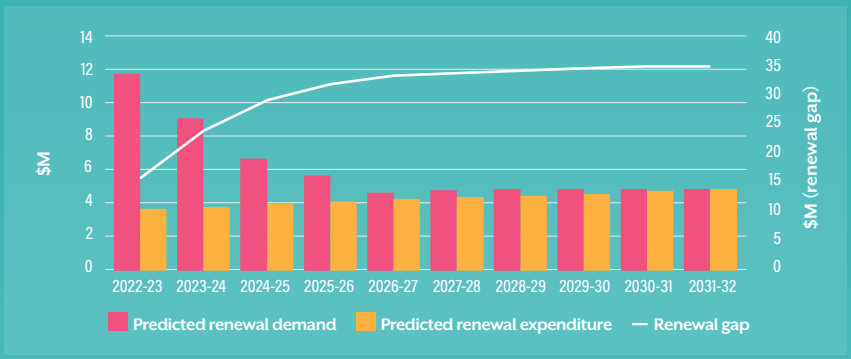


MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of buildings and structures will increase from $6.8M in 2022/2023 to $9M in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $1.2M by 2031/2032.





BRIDGES AND MAJOR CULVERTS

$76,476,778
Replacement value

3.83%
Percentage of total asset base value

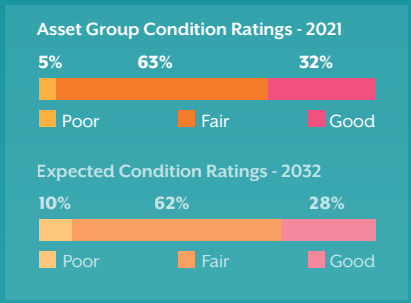
OBJECTIVES

To provide the community with a **safe and effective** set of bridges crossings and culverts

To ensure the community has **access** across rivers and creeks

To ensure bridges are **fit for purpose**

STATE OF THE ASSETS

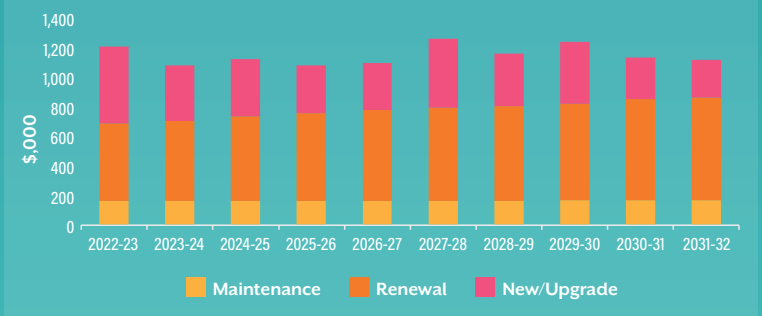


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Road and pedestrian; boardwalks; wharves; jetties	100	Repairing slats on a wooden bridge	Reconstructing an existing bridge that had failed due to age	Constructing a new crossing over a creek to meet the demands of increased traffic

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to remain stable over the next 10 years averaging $164,000 per annum
- New/upgrade expenditure is projected to average $374,000 over the next 10 years (excluding additional borrowings)



BRIDGES AND MAJOR CULVERTS

GIFTED ASSETS

These are mostly received from developers as a contribution to community infrastructure and include bridges to connect off road walking and cycling paths.

Gifted assets are not purchased by Council, but they do increase the value of the asset group and increase requirements for maintenance and renewals.

The average annual value of gifted bridge assets is $83,000 (based on 2021 data).

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Increased usage of recycled and environmentally sustainable material in construction and maintenance of bridge assets
- Carry out life cycle assessments for all bridge assets
- Develop technical and community service level targets to manage expectations and provide clarity for future investment performance
- Develop performance monitoring measures to report on performance against target levels of service

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Ensuring that bridges are strategically placed within the existing road network to maintain accessibility for the public

ENVIRONMENTAL

Examples include:

- Consider the impact of flooding on bridge assets as a result of more frequent and intense rainfall events associated with climate change
- Ensuring that construction or maintenance meets Council's Sustainable Infrastructure Guidelines

FINANCIAL

Examples include:

- Managing the cost and balance between maintenance, renewal and new/ upgrades to assets

LEGACIES

Examples include:

- Ensuring bridges built prior to current regulations are upgraded to meet these new regulations and requirements

REGULATORY

Examples include:

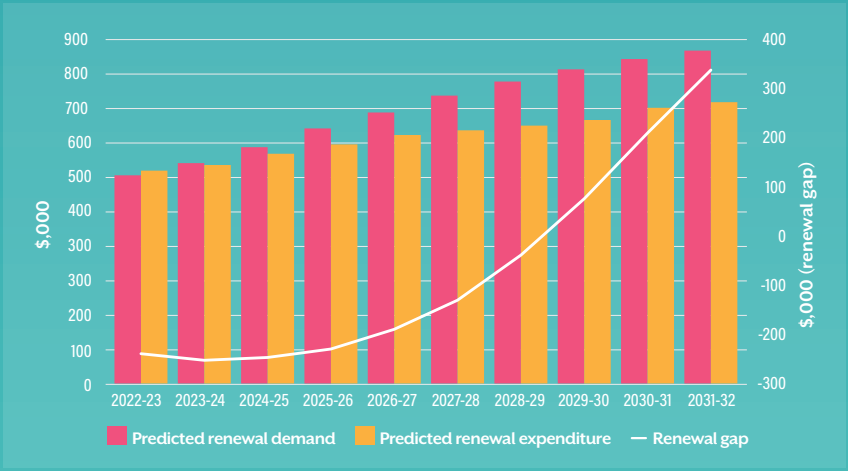
- Ensuring compliance with regulatory conditions and requirements

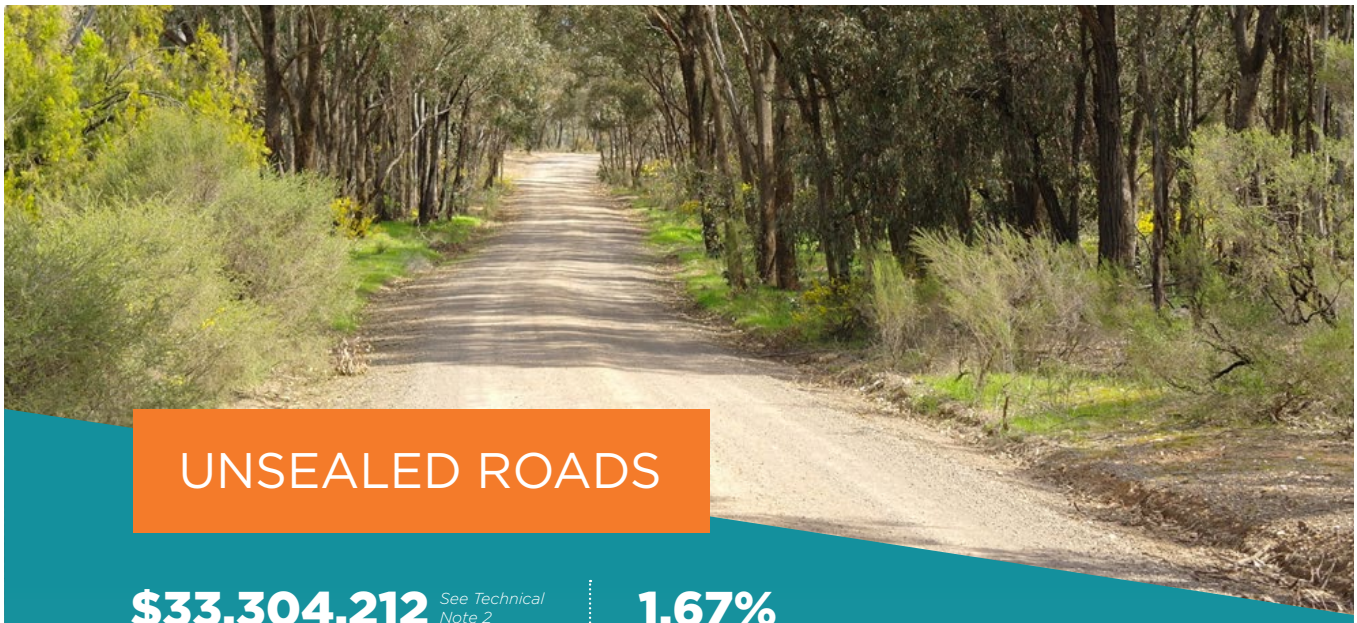
MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of bridges will increase from $534,000 in 2022/2023 to $706,000 in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $310,000 by 2031/2032.





UNSEALED ROADS

$33,304,212 *See Technical Note 2*
Replacement value

1.67%
Percentage of total asset base value

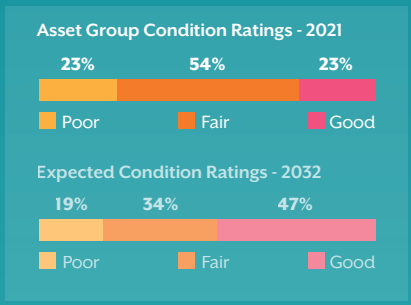
OBJECTIVES

To provide the community with a **safe and effective** network of unsealed roads

To ensure the road network **connects and complements** other road and infrastructure systems

To ensure the road network is **fit for purpose**

STATE OF THE ASSETS

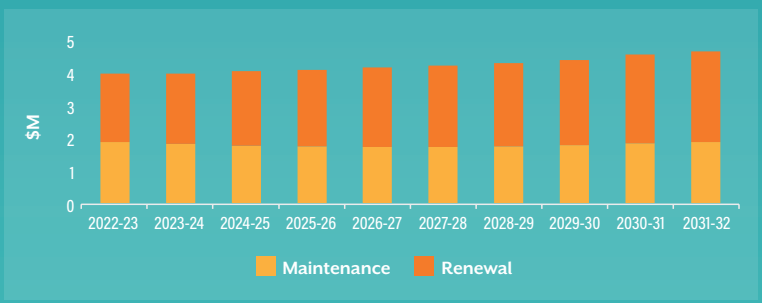


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Unsealed roads	15	Road grading to enhance the road surface	Resheeting works - application of compacted crushed rock to the road surface and corrugation repair	A new unsealed road where one did not exist previously *Note that the City does not generally fund 'new/upgraded' unsealed roads.*

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to remain stable over the next 10 years averaging $1.8M per annum
- The council does not generally allocate expenditure for the 'new/upgrade' category for unsealed roads



UNSEALED ROADS

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Increased usage of recycled and environmentally sustainable material in construction and maintenance of unsealed road assets
- Carry out life cycle assessments for all unsealed road assets
- Develop technical and community service level targets to manage expectations and provide clarity for future investment
- Develop performance monitoring measures to report on performance against target levels of service

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Meeting community expectations and demand for grading and resheeting
- Increased population growth
- Managing dust and amenity impact from unsealed roads where there has been intensified residential development in rural areas

ENVIRONMENTAL

Examples include:

- Increased hotter, drier conditions associated with climate change could increase the need for additional maintenance (e.g. dust suppression works)

FINANCIAL

Examples include:

- Managing the cost and balance between maintenance, renewal and new/ upgrades to assets

LEGACIES

Examples include:

- Increased volume of traffic on roads transitioning from rural to higher density residential

REGULATORY

Examples include:

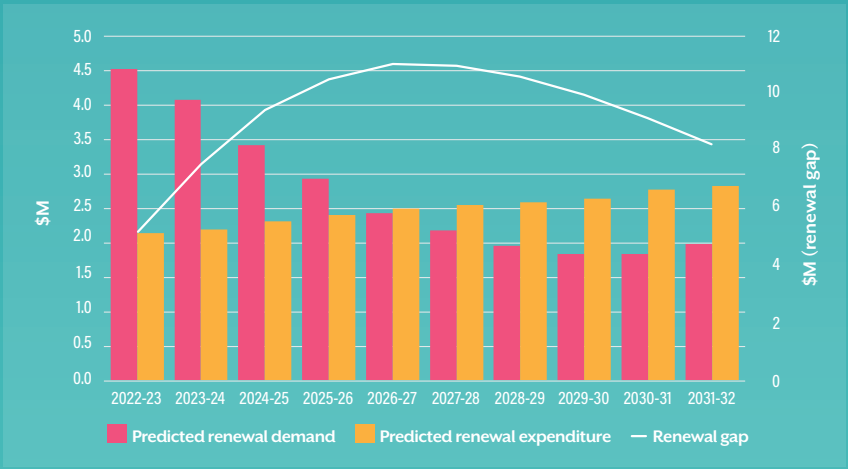
- Ensuring compliance with the Road Management Act 2004
- Meeting safety regulations with native vegetation removal regulations

MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of unsealed roads will increase from $2.1M in 2022/2023 to $2.8M in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $11M in 2026/2027 then decrease to $8M by 2031/2032.





AQUATIC FACILITIES

$17,213,081 *See Technical Note 3*
Replacement value

0.86%
Percentage of total asset base value

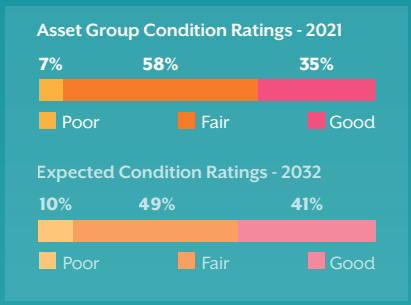
OBJECTIVES

To provide **safe, effective, accessible and resource efficient** aquatic facilities for the community

To provide aquatic facilities for the community **that meet service needs**

To ensure buildings and structures **are fit for purpose**

STATE OF THE ASSETS

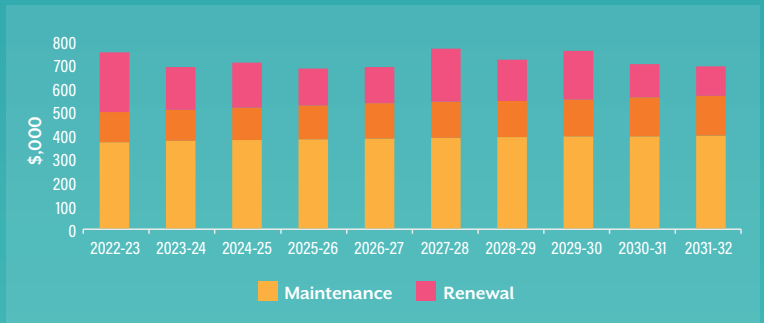


ASSET GROUPING AND EXPENDITURE CATEGORY

Asset type	Asset life (years)	Maintenance *Examples include:*	Renewal *Examples include:*	New/upgrade *Examples include:*
Pool shell and plant	Varies	Replacing a valve on a pool	Re-tiling the whole pool	Constructing a new pool

EXPENDITURE PROJECTIONS

- Over the next 10 years Council's predicted renewal expenditure is expected to increase by three per cent per annum
- Maintenance costs are predicted to increase slightly over the next 10 years averaging $375,000 per annum
- New/upgrade expenditure is projected to average $177,000 over the next 10 years (excluding additional borrowings)



AQUATIC FACILITIES

IMPROVEMENT ACTIONS AND SIGNIFICANT PROJECTS

- Better understand the condition for older aquatic facilities including pool components such as pumps and water treatment systems
- Identify service level targets
- Develop a strategy, or plan, for identifying the priority for providing maintenance and upgrade funding to committees of management or groups, managing non-Council assets
- Carry out life cycle assessments on aquatic assets
- Ensure lease agreements clearly define maintenance responsibilities

CHALLENGES AND OPPORTUNITIES

SOCIAL

Examples include:

- Meeting community demands for aquatic facilities e.g. pool capacity limits
- Improving access for all genders, all abilities and for under-represented communities

ENVIRONMENTAL

Examples include:

- Ensuring pools are fit-for-purpose in a changing climate
- Ensuring environmentally sustainable design (ESD) principles are used when constructing or renewing aquatic facilities

FINANCIAL

Examples include:

- Managing surplus assets
- Managing the cost and balance between maintenance, renewal and new/ upgrades to assets
- Reducing operating costs as a result of improving resource efficiency

LEGACIES

Examples include:

- Ageing and surplus infrastructure

REGULATORY

Examples include:

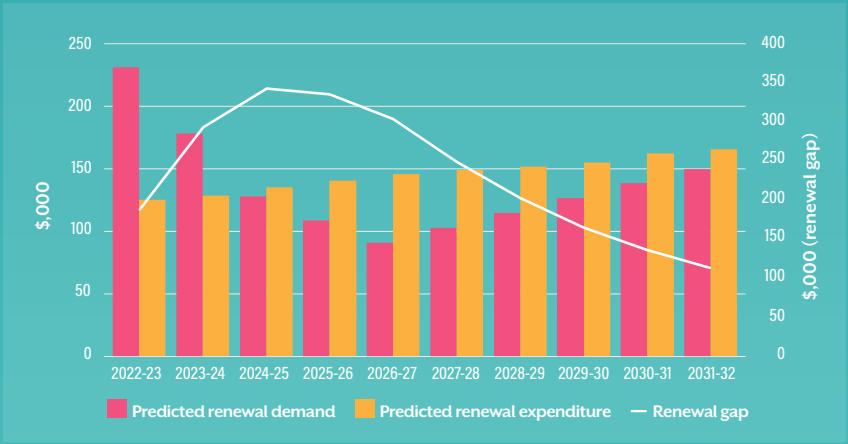
- Ensuring Council are compliant with the *Disability Discrimination Act (DDA) 1992, Occupational Health and Safety Act 2004* and the Australian Building Code

MANAGING THE RENEWAL GAP

Trends and forecast

Over the next 10 years, predicted spending on the renewal of aquatic facilities will increase from $124,000 in 2022/2023 to $164,000 in 2031/2032, an average increase of three per cent per annum.

The renewal gap will increase to $340,000 in 2024/2025 then decrease to $110,000 by 2031/2032.



7 SUSTAINABLE FUNDING OF ASSETS

The City's planning and forecasting aim to drive capital and operational investment that maximises public value (both now and for the future), whilst maintaining financial sustainability.

The City's key financial management documents are the Financial Plan 2021–2031 and the Annual Budget. The current Financial Plan confirms that the City is in a stable financial position. It has sufficient cash reserves and a sustainable level of borrowings. This financial position has been achieved through careful planning and financial discipline, including a commitment to reinvest in the City's asset base.

How funds are received and allocated

The Financial Plan provides a 10-year forecast of revenue, and identifies which financial activities, community services and assets the City proposes to fund and prioritise, incorporating the demands of future growth and change.

Revenue, expenditure, and borrowing decisions are guided by:

- The overarching governance and financial management principles in sections 9 and 101 of the Local Government Act 2020
- The risk to, or opportunity for, long term financial sustainability. Financial sustainability is currently rated as a medium risk in council's strategic risk register
- Council's policies and a broad range of strategic plans, which collectively aim for long term financial stability and the provision of predictable, timely and appropriate services for the community

Funding for asset management is mainly sourced from general rates. Total revenue budgeted for 2021/2022 is $223.5M, which is projected to rise to $267M by 2030/2031. Revenue in 2021/2022 is budgeted to be sourced from rates ($133M or 63 per cent), government grants ($40M or 19 per cent), user fees and charges ($35M or 16 per cent), and monetary contributions ($3M or two per cent). Non-monetary contributions, which are predominantly gifted assets, have been estimated at $15M. Where required, particularly for large asset investments, the City uses debt to fund new construction and then pays this debt down over time.

Several road and local community infrastructure grants and programs (funded by State and Federal governments) are available, which acknowledge the gap between rate revenue and regional Councils' ability to maintain infrastructure.

Increases to rate revenue are currently capped under the State Government's Fair Go Rates system. A 1.75 per cent increased rate cap has been announced for the 2022/2023 financial year. This limits revenue available to fund new projects and initiatives. There is an ability to apply for an increase above the cap; but such a decision would need broad community support. There is also the option to raise fees and charges for certain community services. Council's Revenue and Rating Plan 2021–2025 details the current rating approach.

To fund large infrastructure or priority projects, whilst minimising debt, Council often seeks grant money. The application processes for government grants can be complex, requiring well developed feasibility studies and business cases, with cost-benefit analysis, financial projections and substantiated usage forecasts.



Future spending

Council's planned expenditure on assets and services are detailed in the Financial Plan. This plan provides a 10-year guide of forecast revenue which financial activities, community services and assets Council proposes to fund and prioritise. The Financial Plan examines Council's ability to fund community services and assets and to meet agreed service levels, whilst continuing to plan for growth and change.

The City allocates a significant component of its annual budget towards supporting current services and the assets which support them, including asset renewal and upgrade.

Funding for the actions that are detailed in asset management plans is aligned to the Financial Plan forecasts and projections. Figure 7-1 illustrates the breakdown of projected expenditure on asset management for the period 2021–2031.

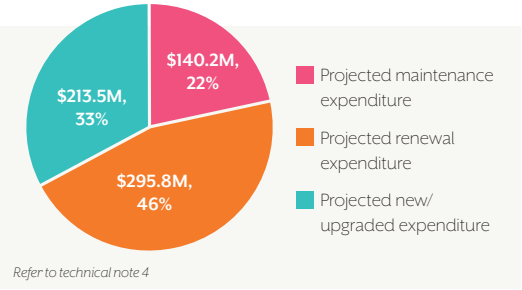


Figure 7-1: 10 year projected spend on assets by expenditure category

The Financial Plan 2021-2031 sets out Council's intention to continue to increase renewal investment. This planned expenditure on renewal has been further broken down, and the City has used historical data to estimate that around 20 per cent of renewal allocations each year are redirected to upgrades. This occurs because renewing assets to historic standards (like-for-like replacement) often does not meet current day standards or contemporary community expectations.



With restricted (rate capped) income, and an estimated 20 per cent of renewal allocations going toward upgrades, the renewal gap will continue to grow over the next 10 years (Figure 7-2). Consequently, the City's renewal gap is forecast to reach around $70M by 2031/2032.

As noted elsewhere in this Plan, there are several key risks to these estimates. The largest and most current of these is construction cost increases growing faster than available revenue. This would increase the overall 'renewal gap' over time as renewal activities become more expensive.

Maintaining financial sustainability and community assets are priorities for the City. The renewal gap will be managed through a mixture of financial control, external funding (grants and cost-sharing), increasing revenue (e.g. user fees) and optimising the asset base by reducing low-performing assets and increasing high-performing assets.

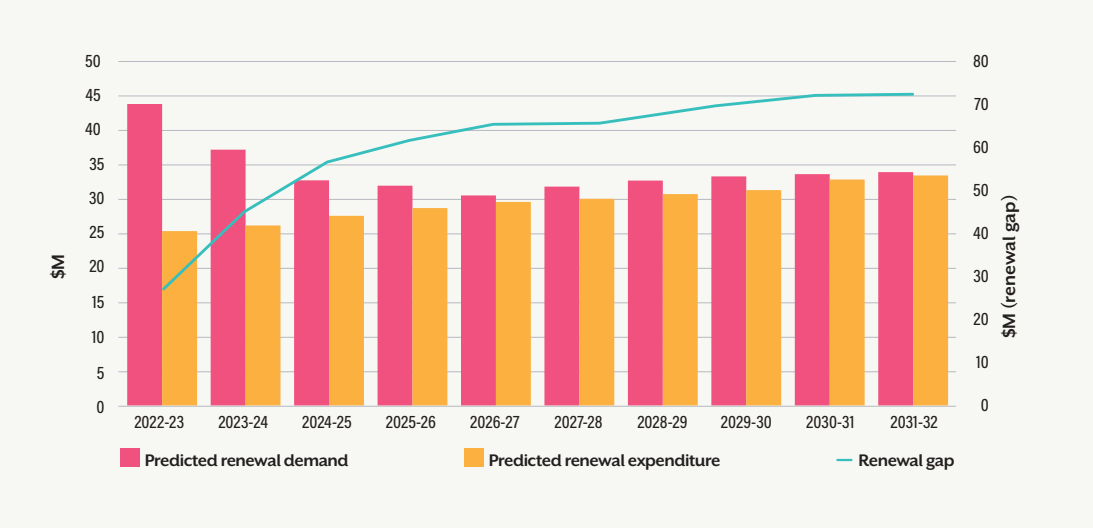


Figure 7-2: Renewal gap over 10 years

Strategic initiative action AP-4

Develop approach for optimising asset base (e.g. quality vs quantity)

Description: *Utilise engagement processes to support and inform assessments of the asset base and potential decommissioning of underperforming assets. This will help to ensure decisions are transparent, robust and financially sustainable.*

Actions:

1. In conjunction with Strategic Initiative AP-2, work with Asset Management Steering Committee to develop parameters and criteria for Life cycle Assessments.
2. Undertake Life cycle Assessments on asset groups to ensure they provide the most effective solution over the whole expected life of an asset.
3. Using outcomes from Strategic Initiative AP-3, provide advice to Council on options and recommendations to optimise Council's asset base, including:
   a. Policy development for decommissioning of assets that identifies criteria to assess if decommissioning is required, and acceptable budgetary treatment of decommissioning expenditure.
   b. A program to address assets that are no longer fit-for-purpose or do not meet required levels of service.
4. Report on life cycle assessment and policy development findings in future Asset Plans.

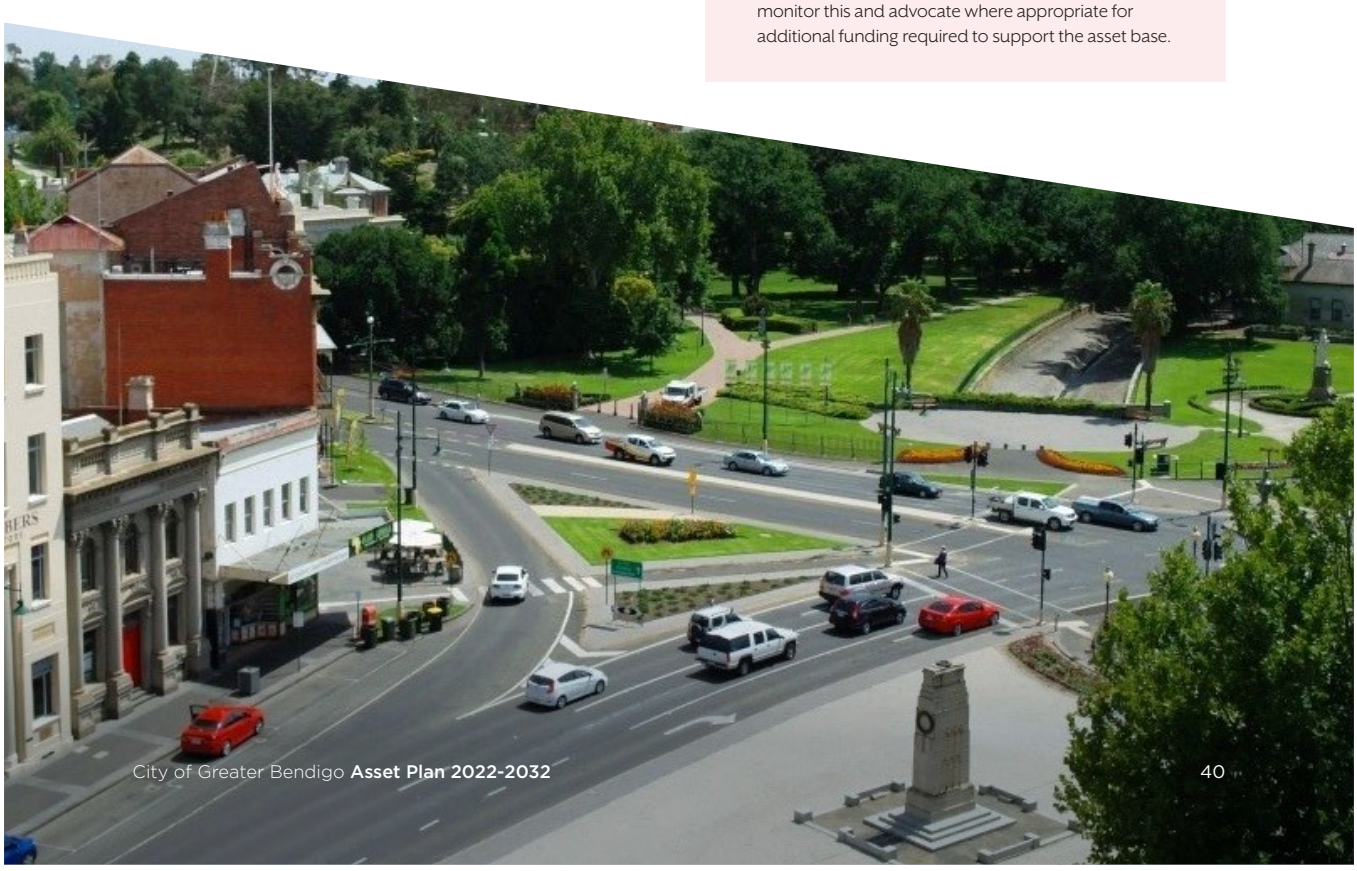
Strategic initiative action AP-5

Develop systems to better track and report annually on operational costs associated with an increasing Council asset base and non-Council assets

Description: *Every year the City's asset base increases through new developments (subdivisions); State Government decisions; and the City's own new/upgrade works. Assets that Council does not own but are responsible for maintaining also increase through joint agreements for public use of assets and State Government decisions. These asset responsibilities are growing more quickly than the related operational budgets (particularly maintenance requirements) – which are constrained by the State Government's rate cap.*

Actions:

1. In conjunction with Strategic Initiative AP-2, prepare and implement project plan to:
   a. review impact of increasing asset base and associated growth in maintenance costs. This will inform future financial indicators for next iteration of the Asset Plan to better plan for financially sustainable growth of the asset base.
   b. review impact of non-Council assets and associated maintenance costs of these. This will inform planning around future asset acquisition and provide opportunity for advocacy to other levels of government on costs to maintain non-Council assets.
2. Report annually to Council on asset base growth, scale of non-Council assets responsibility, and subsequent operational expense demand increase as compared to budget forecasts. This will quantify efficiencies that are otherwise not identified and allow Council to actively monitor this and advocate where appropriate for additional funding required to support the asset base.



8 STRATEGIC IMPROVEMENT INITIATIVES

Council's strategic asset management improvement initiatives are signposted throughout this document and are summarised in Table 8-1.

Table 8-1: Council's strategic improvement initiatives and actions

Strategic initiative		Proposed actions
AP-1	**Define technical, community and environmental service levels for all asset groups** Description: Working with subject matter experts across the City, and being informed by community engagement initiatives, Council will consider and adopt agreed levels of service across these areas to ensure the asset base is responding to contemporary service needs.	· Confirm gaps in existing technical service levels across all asset groups in conjunction with the City's Service Planning Working Group and where necessary, improve management and reporting of these · Ensure established technical levels of service within all asset groups and coverage of any identified gaps · Establish and implement a community engagement plan to facilitate community discussion and negotiation on community levels of service across all asset groups and provide recommendations for the consideration of Council · Work with the City's Climate Change and Environment unit to draft environmental levels of service for the consideration of Council · Develop prioritisation criteria for all levels of service to assist Council in making decisions on service level criticality and implications of investment (or divestment)
AP-2	**Establish and implement an informed process for 'whole of life' costing of assets** Description: Different approaches to understanding the total long-term costs of assets will be further explored to ensure that the City and Council have accurate information to make well informed decisions. A consistent and transparent approach to applying whole-of-life costs will be more regularly applied to all infrastructure investment.	· Work with Financial Strategy unit and City Asset Managers to improve capture of asset-level financial data on maintenance expenditure · Identify and workshop potential methodologies to inform, and consistently apply, whole-of-life costings to asset groupings · Incorporate endorsed methodology into the City's existing Capital Investment Framework and other components of the Asset Management System as required · Identify any opportunities for learnings through data trending, and any potential efficiency gains in maintenance activities as part of whole-of-life expenditure reviews
AP-3	**Engage and deliberate with community on key service level and asset management issues (including decommissioning, funding, and quantity vs quality)** Description: Under the Local Government Act 2020, deliberative engagement practices are to be incorporated into the development of future Asset Plans to ensure the Plan remains aligned with the needs of the community.	· In conjunction with future integrated strategic planning undertaken by Council and the City, develop and implement a community engagement plan focused on deliberative engagement regarding relevant questions posed on asset management and service levels · Prepare an outcomes report from deliberative engagement activities to be incorporated into future Asset Plans

Strategic initiative	Proposed actions
AP-4 **Develop approach for optimising asset base (e.g. quality vs quantity)** Description: Utilise engagement processes to support and inform assessments of the asset base and potential decommissioning of underperforming assets. This will help to ensure decisions are transparent, robust, and financially sustainable.	· In conjunction with Strategic Initiative AP-2, work with Asset Management Steering Committee to develop parameters and criteria for Life cycle Assessments · Undertake Life cycle Assessments on asset groups to ensure they provide the most effective solution over the whole expected life of an asset · Using outcomes from Strategic Initiative AP-3, provide advice to Council on options and recommendations to optimise Council's asset base, including: a. Policy development for decommissioning of assets that identifies criteria to assess if decommissioning is required, and acceptable budgetary treatment of decommissioning expenditure b. A program to address assets that are no longer fit-for-purpose or do not meet required levels of service · Report on life cycle assessment and policy development findings in future Asset Plans
AP-5 **Develop systems to better track and report annually on operational costs associated with an increasing Council asset base and non-Council assets** Description: Gain a clear understanding of implications from the fact that every year the City's asset base increases through new developments (subdivisions); State Government decisions; and the City's own new/upgrade works. Assets that Council does not own but are responsible for maintaining also increase through joint agreements for public use of assets and State Government decisions. These asset responsibilities are growing more quickly than the related operational budgets (particularly maintenance requirements) – which are constrained by the State Government's rate cap.	· In conjunction with Strategic Initiative AP-2, prepare and implement project plan to: a. Review impact of increasing asset base and associated growth in maintenance costs. This will inform future financial indicators for next iteration of the Asset Plan to better plan for financially sustainable growth of the asset base b. Review impact of non-Council assets and associated maintenance costs of these. This will inform planning around future asset acquisition and provide opportunity for advocacy to other levels of government on costs to maintain non-Council assets · Report annually to Council on asset base growth, scale of non-Council assets responsibility, and subsequent operational expense demand increase as compared to budget forecasts. This will quantify efficiencies that are otherwise not identified and allow Council to actively monitor this and advocate where appropriate for additional funding required to support the asset base
AP-6 **Monitor, evaluate and update the Asset Plan** Description: to ensure the Asset Plan remains relevant and is kept up to date, and that further guidance and advice is added to ensure the Asset Plan continues to achieve its intent.	· Complete a post-release review within six months of the process to develop the inaugural Asset Plan to understand lessons learnt and opportunities for improvement from the first iteration · Incorporate Asset Renewal Funding ratio (proposed renewal budget for the next 10 years divided by forecast renewal demand for next 10 years) as an ongoing indicator into Asset Plan during next review · Develop and implement a Monitoring, Evaluation and Learning Plan (MELP) for the Asset Plan to understand effectiveness of the Plan and its ability to guide and inform decision making as intended. · Implement Asset Plan reviews as identified – annually (data set and indicator review), every 4 years (reproduction of Plan), and every 10 years (retrospective Full review)



9 MONITORING THIS PLAN

The City recognises the importance of monitoring and evaluating all our work to deliver the best possible outcomes for our communities, businesses, and natural environment. The City will therefore develop a detailed monitoring, evaluation and learning plan (MELP) over the next 12 months.

The MELP will ensure that the Asset Plan is kept up to date, and that it achieves its intent. Results of the MELP will be made publicly available.

The MELP will use the following basic framework.

Timing of reviews:

- Annual update of data
- Interim review and update in line with every council election (an Asset Plan must be produced every four years)
- Full review at the end of the 10-year plan

Core questions:

- Are we making progress on the Actions (doing what we said we would do)?
- Is this Plan making a difference (effectiveness, appropriateness, impact)?
- Is our approach/Plan efficient (cost and time)?
- Is asset condition improving/ maintaining in line with projected funding allocations?

Responsibilities:

The Director Corporate Performance will be responsible for managing this Plan's implementation and for developing and overseeing the MELP.

Strategic initiative action AP-6

Monitor, evaluate and update the Asset Plan

Description: *to ensure the Asset Plan remains relevant and is kept up to date, and that further guidance and advice is added to ensure the Asset Plan continues to achieve its intent.*

Actions:

1. Complete a post-release review within six months of the process to develop the inaugural Asset Plan to understand lessons learnt and opportunities for improvement from the first iteration.
2. Incorporate Asset Renewal Funding ratio (proposed renewal budget for the next 10 years divided by forecast renewal demand for next 10 years) as an ongoing indicator into Asset Plan during next review.
3. Develop and implement a Monitoring, Evaluation and Learning Plan (MELP) for the Asset Plan to understand effectiveness of the Plan and its ability to guide and inform decision making as intended.
4. Implement Asset Plan reviews as identified – annually (data set and indicator review), every four years (reproduction of Plan), and every 10 years (retrospective Full review).

APPENDIX 1

Glossary

Term	Definition
Asset	Fixed infrastructure-based assets that are owned or controlled by Council.
Asset management	Planning for, and making decisions about, assets throughout their life cycle.
Asset Plan (this document)	Provides a high-level overview of Council's approach to managing assets. It outlines Council's asset management processes, challenges, and opportunities. It also commits Council to continuous improvement in asset management and highlights some of the key actions that will improve cost-effectiveness.
Asset Management Policy	Provides direction and strategic intent for managing assets. It states the core principles, requirements, and responsibilities for asset management, and how these link to Council's strategic objectives.
Asset Management Steering Committee (AMSC)	An internal governance group to the City of Greater Bendigo that was established to ensure an integrated approach to continuous improvement in asset management awareness, practice, and capability.
Asset Management Strategy	Outlines how asset management will happen. Provides the scope, objectives and organisational approach, holistic renewal demand, and the Council's asset improvement plan.
Asset Management Plans	Detail the targets, and what and how Council will deliver. These are technical documents for each of the asset classes. They detail the service levels, demand forecasts, risks, and life cycle activities for the asset groups.
Brownfield rates	Constructing assets in developed areas incurs additional costs over and above the cost to construct the asset itself, e.g. traffic management is required when working on an existing road compared to constructing a new road in an area closed to the public. For the purposes of allocating funds to renewing assets a 20 per cent markup is applied to the cost of constructing the asset without constraints to cover these incidental costs.
Council	Greater Bendigo City Council, as the Local Government decision making body, i.e. the Councillors.
City	The City of Greater Bendigo, as the Local Government organisation that enacts the decisions made by Greater Bendigo City Council.
Community Vision	The Community Vision for Greater Bendigo was crafted by 65 residents selected specially to form a community panel and represent the views of the community. The vision is also supported by five values – transparency, sustainability, inclusion, innovation and equity – that underpin the vision and ensure future Council decision making reflects these values.
Council Plan	The Council Plan is a critical document that guides the work of staff at the City. The goals within this plan will help to deliver on the community vision to create a bright and happy future for us all as we prepare to support a population of 200,000 people by 2050.
Executive Management Team (EMT)	The City of Greater Bendigo's team of Directors and the Chief Executive Officer.

Term	Definition
Financial Plan	The Financial Plan supports the Community Vision and Council Plan. It outlines the resources required to deliver the Council Plan and ensures Council is investing in assets the community values, services remain affordable and accessible for the community, and the City remains financially sustainable.
Integrated Strategic Reporting and Planning Framework	The Local Government Act 2020 requires councils to prepare a range of reports including a Community Vision, Council Plan, Financial Plan and Asset Plan.
Levels of service	Levels of service are set by Council and provide a standard for an activity or asset that aligns with contemporary service needs and that can be monitored and reported on over time.
Life cycle Assessment	Undertaking an assessment of an asset before acquisition or construction to understand if it provides the most effective solution over the whole expected life of the asset; provides key information for Life cycle Planning.
Renewal gap	When there is a gap between the funding allocated to renewing an asset group and the funding required a backlog of assets requiring renewal occurs. If funding is consistently below the required level the backlog will grow and if the funding is increased above the required level the backlog will shrink. The cumulative backlog of assets requiring renewal is referred to as the 'renewal gap'.
Service	The action of doing something or supplying something for a specific need. In the context of this plan, assets enable the delivery of council services.

TECHNICAL NOTES

Note 1:
Replacement valuation figures in the following asset profiles represent brownfields rates of asset replacement and do not align with asset base financial valuation. Brownfield rates are applied in Asset Renewal Modelling to provide more robust advice for decision making and are used here to give the community a sense of the true cost of assets, rather than aligning with accounting methodologies.

Note 2:
The City excludes 'Unsealed Roads - Formation' from this category because it does not attract depreciation.

Note 3:
This category reflects pools shells and plant only. Buildings that may enclose pools (for example Gurri Wanyarra Wellbeing Centre) are valued within the Buildings and Structures Group.

Note 4:
20 per cent of funds allocated to renewal in the Financial Plan are spent on upgrading assets. This is a common assumption in asset management, as there is often a desire (or legislative need) to improve the size and/or quality of an asset when it comes up for renewal. For stormwater drainage assets the upgrade ratio increases to 50 per cent.

ASSUMPTIONS AND REFINEMENTS OF THIS ASSET PLAN

This Asset Plan is strongly aligned with Council's 10-year Financial Plan. These two documents incorporate forecasts and predictions of factors that will determine their accuracy over the next 10 years, including assumptions about future demand, revenue, and the operating environment.

These assumptions have been derived using the best data and information currently available, along with trend analysis and modelling. Over the next 10 years, this Asset Plan will be refined and adjusted to maintain its currency and accuracy; enabling it to reflect changes in revenue, demands, financial sustainability and external drivers. The review cycle is outlined in Section 9.

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CITY OF GREATER BENDIGO

16. HEALTHY, LIVEABLE SPACES AND PLACES

16.1. CA 9 Bendigo-Maldon Road, Lockwood South 3551 - Use and Development of the Land for a Dwelling and Outbuildings

Author:	Dale Rogers, Statutory Planning Officer
Responsible Director:	Steve Hamilton, Director Strategy and Growth

Summary/Purpose

Application No:	DR/1001/2021
Application Documents:	https://epathway.bendigo.vic.gov.au/ePathway/Production/Web/GeneralEnquiry/ExternalRequestBroker.aspx?Module=EGELAP&Class=P&Type=PLNADV&Applicationid=1048954
Applicant:	Shane Muir Consulting Engineers Pty Ltd
Land:	CA 9 Bendigo-Maldon Road, LOCKWOOD SOUTH 3551
Zoning:	Farming Zone Transport Zone 2
Overlays:	Environmental Significance Overlay 1 Salinity Management Overlay
No. of objections:	1
Consultation meeting:	NA
Key considerations:	Whether the proposal will result in an acceptable planning outcome having regard to the purposes of the Farming Zone and the relevant planning policy that deals with rural dwellings and the protection of agricultural land.
Conclusion:	The application is not in accordance with the Greater Bendigo Planning Scheme. It is recommended that Council refuse to grant a permit as the proposal does not present an acceptable planning outcome with regards to the purposes of the Farming Zone and the relevant planning policy that deals with rural dwellings and the protection of agricultural land.

Recommended Motion

Pursuant to section 61 of the Planning and Environment Act (1987), Council issue a Notice of Decision to Refuse to Grant a Permit for the use and development of the land for a dwelling and outbuildings at CA 9 Bendigo-Maldon Road, LOCKWOOD SOUTH 3551 on the following grounds:

1. The proposal is inconsistent with local planning policy (Clause 22.02) and the purpose and decision guidelines of the Farming Zone as:
   a. The dwelling does not support or enhance agriculture; and
   b. The dwelling would cause the fragmentation of agricultural land.

Report

Subject Site and Surrounds

The site is formally referred to as Crown Allotment 9 Section 18 Parish of Lockwood, comprises an area of 7.6 hectares and is an historical Crown allotment (not created by a subdivision) that is shown on a 1929 Parish / Survey Plan.

The site has an eastern frontage to Bendigo-Maldon Road of 244.02m, a northern frontage to McMillan Road of 201.4m, and a southern frontage to an unmade government road of 380m.

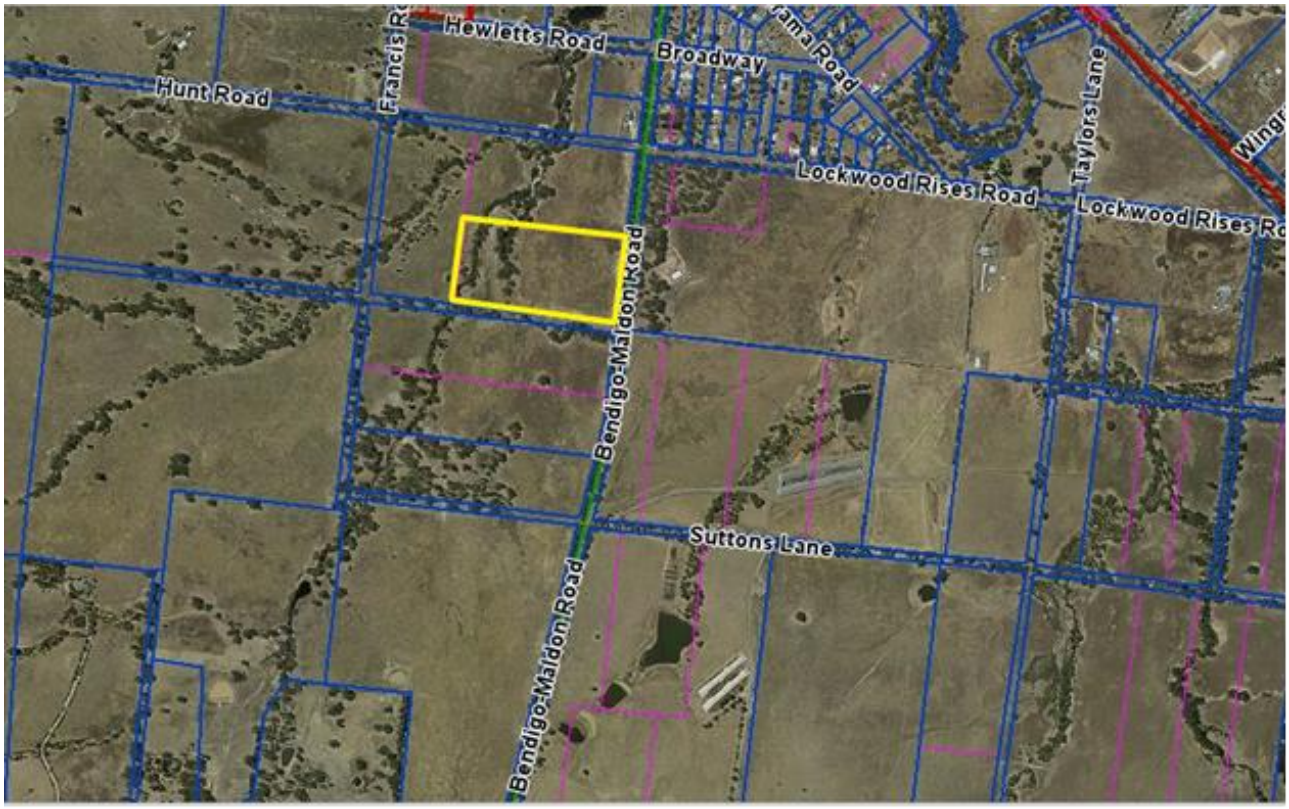


Figure 1: Location map showing subject site.

The site is currently vacant and contains two waterways and a dam. The vegetation is clustered around the waterways on the western portion of the site. The site has historically been used for light agricultural practices (grazing).

The site is located within the Farming Zone and surrounding land is also located within the Farming Zone, 215m north of the property is Low Density Residential Zone.

The area contains multiple poultry farms as well as grazing farms. This is an intact agricultural area containing multiple agricultural industries that require physical buffers between the agricultural land use and residential land.

The site is partially affected by an Environmental Significance Overlay Schedule 1 (Watercourse protection), and the Salinity Management Overlay, however the proposed development would be sited outside these overlays.

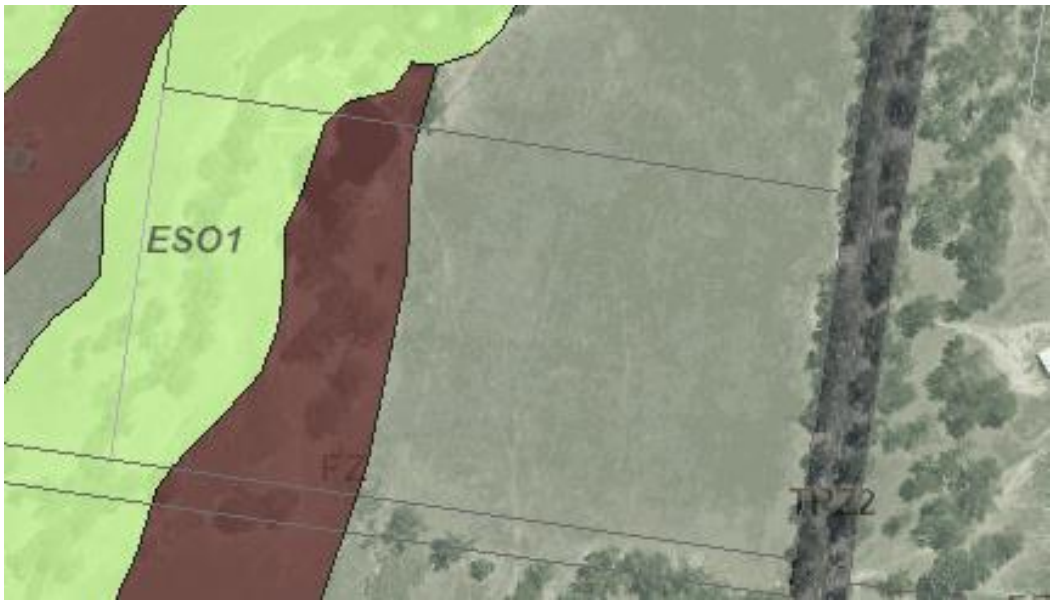


Figure 2: Environmental Significance Overlay Schedule 1 (shaded pale green), and the Salinity Management Overlay (shaded brown)

Proposal

The application proposes the use and development of the land for a dwelling and outbuildings.

The dwelling would be located within the eastern portion of the lot, located 58m from the eastern property boundary (Bendigo-Malden Road), and 37m from the southern property boundary (unmade road).

The dwelling is proposed to be 561.21m2 in total and of a single storey design. The dwelling would comprise of four bedrooms; two bathrooms; four living rooms; an open plan kitchen and dining area; and double garage. The dwelling would be constructed of a combination of brick, Colorbond and timber cladding.

The applicant has advised that no native vegetation removal is required in order to facilitate the development of the land for a dwelling.

The proposed outbuilding has an area of 162m2 and would be on the southern portion of the property, 3m from the southern title boundary.

It is also proposed have the driveway utilise the unmade Council road to access Bendigo-Malden Road.

The application states that no agricultural activities will be undertaken.

The application was accompanied by a Land Capability Assessment and Environmental Management Plan.

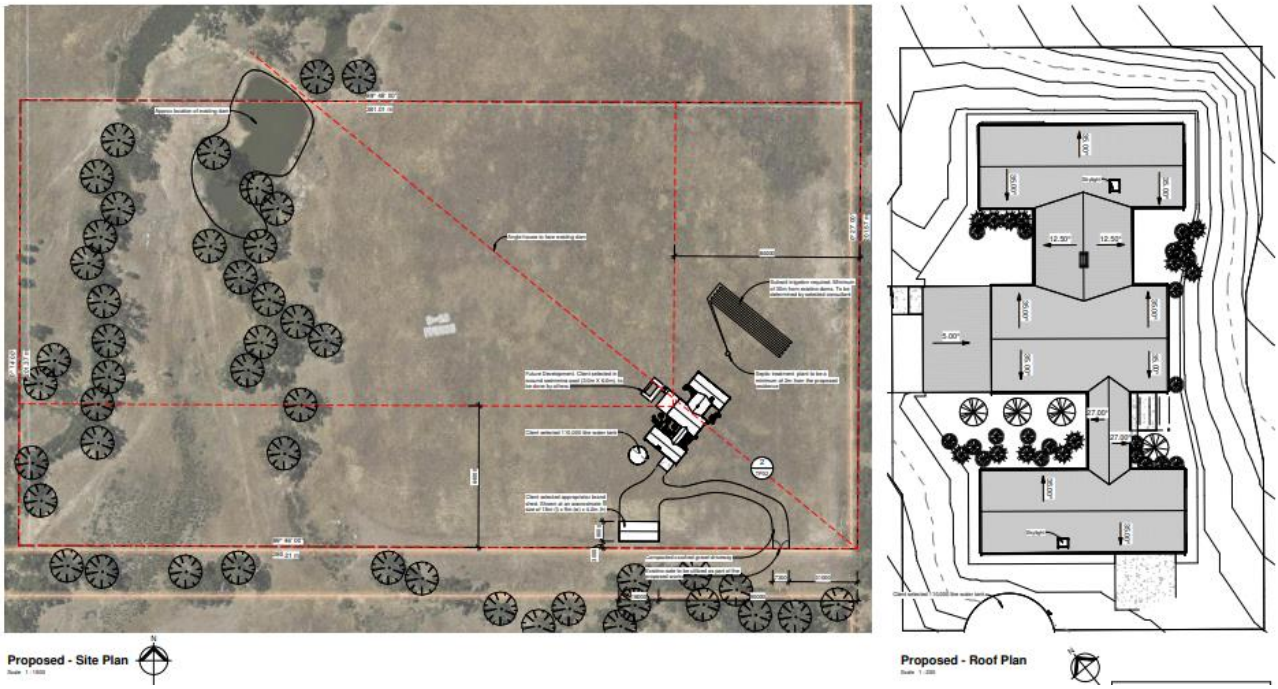


Figure 3: Site Plan



Figure 4: Elevations

Planning Controls - Greater Bendigo Planning Scheme

The following clauses are relevant in the consideration of this proposal:

State Planning Policy Framework

Clause 11	Settlement
Clause 11.01-1R	Settlement – Loddon Mallee South
Clause 13.07-1S	Land use compatibility
Clause 14.01-1S	Protection of agricultural land
Clause 14.01-1L	Protection of agricultural land
Clause 14.02-1S	Catchment planning and management
Clause 14.02-2S	Water quality
Clause 15.01-6S	Design for rural areas
Clause 16.01-5S	Rural residential development
Clause 16.01-3L	Rural residential development - Greater Bendigo
Clause 17.01-1S	Diversified economy

Other Provisions

Clause 35.07	Farming Zone

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025

Outcome 2 – Healthy, liveable spaces and places

Secondary Council Plan Reference

Goal 7 – Sustainable population growth is planned for

Consultation/Communication

Referrals

The following authorities and internal departments have been consulted on the proposal:

Referral	Comment
The Department of Transport	Section 52 notice; raised concerns relating to Land Use Activity Agreements for the unmade road reserve proposed to be utilised to access the Bendigo-Maldon Road (Transport Zone 2).
Traffic	Conditions provided.
Environmental Health	Conditions provided.

Public Notification

The application was advertised by way of notice on the site and letters to adjoining and nearby owners and occupiers.

As a result of advertising, 1 objection was received from a resident of Lockwood (approximately 5km from the subject site), with the grounds of objection being:

- The owner has a significant number of 20-acre blocks that are being marketed / sold as ‘residential blocks’.
- The Farming Zone stipulates that dwellings cannot be built on blocks under 100 acres.
- The issuing of a permit would be inconsistent with Council’s approach.

As a result of advertising, 1 letter of support was received from a resident of Kerang (approximately 130km from subject site), with the grounds of support being:

- The area is “ideal” for farmlets for rural lifestyle blocks.
- Encourage Council to support similar development to “breathe new life” into an old farming area
- There are other lifestyle properties in the area.
- The potential for tree planting as part of a residential development.

Planning Assessment

Rural lifestyle development poses an ongoing risk to agricultural land. Planning schemes in rural municipalities will usually seek to address these challenges through directing ‘rural lifestyle’ development to appropriately zoned land (Rural Living Zone), and through the use of local planning policies to manage the development of dwellings in other rural zones, so as to protect the primacy of agriculture. The Rural Dwellings Policy at Clause 22.02 of the Greater Bendigo Planning Scheme has been developed for this purpose of managing the large number of vacant rural parcels that exist across this municipality. This Policy will be further discussed in the sections below alongside the Statewide Farming Zone provisions.

The Rural Areas Strategy, September 2009 notes that the use of discretion to allow new dwellings in rural areas, primarily the Farming Zone, has been and continues to be generously applied, despite an over supply of zoned Rural Living land (estimated to be an 80 year supply) to cater for such demand. Such decision making poses a significant threat to the viability of the local agricultural sector as it progressively compromises the ability of local businesses to grow and operate relatively unhindered. It should also be noted that the Farming Zone has been facing increasing pressures in more recent years for subdivision and residential development, primarily for rural lifestyle opportunities rather than for farming purposes. Rural residential development should be directed to existing planned areas for this purpose.

Will the proposal result in an acceptable planning outcome having regard to the purposes of the Farming Zone and the relevant planning policy that deals with rural dwellings and the protection of agricultural land?

The purposes of the Farming Zone encompass the following relevant matters:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for the use of land for agriculture.*
- *To encourage the retention of productive agricultural land.*
- *To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.*
- *To provide for the use and development of land for the specific purposes identified in a schedule to this zone.*

The use and development of the land for a dwelling and outbuildings requires planning approval in this instance due to the subject site being located within the Farming Zone and on a lot of less than 40 hectares in size. However, Clause 65 of all planning schemes in Victoria states:

> *"Because a permit can be granted does not imply that a permit should or will be granted. The responsible authority must decide whether the proposal will produce acceptable outcomes in terms of the decision guidelines of this clause."*

In addition to the purposes of the Farming Zone outlined above, the provisions of the Farming Zone direct that consideration must also be given to a number of decision guidelines under the Zone which consider the question of how rural dwellings fit within these purposes. The decision guidelines provide a means by which to assess such applications, and require consideration to be given to matters such as:

- *Whether the dwelling will result in the loss or fragmentation of productive agricultural land. Whether the dwelling will be adversely affected by agricultural activities on adjacent and nearby land due to dust, noise, odour, use of chemicals and farm machinery, traffic and hours of operation.*
- *Whether the dwelling will adversely affect the operation and expansion of adjoining and nearby agricultural uses.*
- *The potential for the proposal to lead to a concentration or proliferation of dwellings in the area and the impact of this on the use of the land for agriculture.*

Common to the purposes of the Farming Zone and the decision guidelines is the question of whether the proposal is consistent with the planning policy framework.

At a Statewide planning level, Clause 14.01-1S relating to the protection of agricultural land has the objective to "*protect the State's agricultural base by preserving productive farmland*". Some of the main strategies in response to this objective seek to ensure the State's agricultural base is protected from the unplanned loss of productive land, prevent inappropriately dispersed urban activities in rural areas and to limit new housing in rural areas.

Related Clause14.01-1L also expresses the need to avoid the construction of a dwelling proximate to locations for intensive animal production, pig farm or poultry farms unless associated with the use. In this case the land is in close proximity to a large poultry farm and any dwelling on this land has the ability to impinge the operation of that farm.

At a local planning level, Clause 22.02 relating to Council's Rural Dwellings Policy draws together these themes to provide a consistent basis for considering the use of rural land for dwellings, and has the following relevant objectives:

- *To discourage the fragmentation of rural land, or land with significant environmental values.*
- *To ensure that existing agricultural enterprises in the Farming Zone are not placed under pressure from the encroachment of residential activities.*
- *To limit the subdivision, use or development of land to that which is compatible with the utilisation of the land as a sustainable agricultural resource.*
- *To ensure that domestic wastewater management systems are appropriately located, designed and managed.*
- *To discourage the construction of dwellings on existing small lots within the Farming Zone.*

This clause has the following relevant policies on rural dwellings:

- *Protect existing land zoned Farming Zone from fragmentation by the use of land for residential purposes.*
- *Discourage dwellings on existing small lots (lots smaller than the schedule minimum) in all rural areas except if:*
    - *Subdivisions have been created since the introduction of planning controls;*
    - *Substantial infrastructure works have been completed; or*
    - *The land has no agricultural potential and native vegetation will be retained and managed.*

It is evident that the overall aim of the relevant policy framework seeks to ensure that agricultural land is carefully managed in order to prevent adverse impacts on agricultural production, prevent the fragmentation of rural land and to ensure an orderly development of residential development in rural areas so that agricultural production of these areas is not disadvantaged or prejudiced by ad hoc and unplanned residential development.

As outlined above, from a policy perspective, the application of the Farming Zone to the subject land and its surrounds indicates its suitability for agriculture, and a proposal which would ultimately result in a non-agricultural land use runs counter to these policies. It is evident from a review of the site and surrounding area that agriculture can and is practiced in this location. The Planning Scheme makes it clear that land zoned for farming designates it as suitable for agricultural purposes; a position further substantiated by VCAT decisions (e.g. Russell Smith Town Planning Services v Mount Alexander SC [2018] VCAT 58 (11 January 2018).

Current Planning Scheme policy seeks to ensure that new dwellings in the Farming Zone are only approved in instances where they are considered to support or enhance agriculture. In making such a determination, consideration should be given to why there is a need to live on site and how that would support or enhance agricultural use / production, whether agriculture would remain the primary land use, whether it is likely that the land would remain in agricultural use into the future following development of the dwelling, and so on.

For the following reasons, it is concluded that the proposal would not be acceptable when considered against these matters.

The applicant has not produced a compelling planning argument that this application is acceptable in terms of planning policies and the decision guidelines of the Farming Zone. The applicant has failed to substantiate that the dwelling is in association with the use of the land for agriculture and as such, it does not appear that the dwelling would support or enhance agriculture, which is contrary to the policy framework.

The application material states that no agricultural activities are proposed. No argument has been proposed as to how the proposed dwelling would support or enhance the land for agriculture. It is noted that the land has historically been used for agriculture (grazing) and the refusal of the application for the use and development of the land for a dwelling and outbuildings would not hinder the ability for the land to continue to be used for agriculture in accordance with the purposes of the zone, but would rather avoid the potential for a permanent change in land use to occur that was not in accordance with planning policy.

Some planning permit applications have the hallmarks of resulting in rural living or rural residential while others are clearly genuine in their genesis to add value to agricultural use

and achieve the purposes of the Farming Zone and applicable policies. This proposal presents the former. Approving such proposals can undermine the achievement of outcomes sought for the Farming Zone.

Further to this, there is a large degree of land within this locale that is vacant and suitable for agricultural practices. Whilst it is acknowledged that lot sizes in the surrounding area are varied, several lots remain in common ownership which presents opportunities for a variety of agricultural land uses and development. The approval of a dwelling which does not support or enhance agriculture on the site would result in the fragmentation of agricultural land and could lead to a proliferation of dwellings within the surrounding area.

Conclusion

The application proposes the use and development of the land for a dwelling which runs contrary to planning policies relating to the rural dwellings and the Farming Zone. The application does not provide a compelling argument that the proposed dwelling would support or enhance agriculture, or that any genuine agricultural land use is intended for the site. If approved, the proposal would likely result in a reduction in agricultural land area and contribute to the incremental shift towards rural living. Such rural living opportunities could result in a net loss to agriculture due to permanent land use changes.

It is recommended that a Notice of Decision to Refuse to Grant a Permit be issued.

Options

Council, acting as the responsible authority for administering the Planning Scheme, may resolve to issue a Notice of Decision to Grant a Permit, Notice of Decision to grant a permit with conditions or Notice of Decision to grant a permit.

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

Nil

16.2. Malone Park Master Plan

Author:	Fraser Neele, Recreation and Open Space Strategic Planner
Responsible Director:	Vicky Mason, Director Health and Wellbeing

Purpose

To present the Malone Park Master Plan, dated March 2022, for adoption to Council.

Recommended Motion

That Council:

1. Adopt the Malone Park Master Plan dated March 2022 and prepared by Insight Leisure Planning;
2. Instruct officers to investigate alternative sites for the Marong Light Harness Club as required by the master plan and engage with the club, Harness Racing Victoria and other affected parties to progress the relocation of the Marong Light Harness Club;
3. Instruct officers to engage with stakeholders to develop a Sports Club Governance Model and Operational Plan for the proposed new pavilion;
4. Instruct officers to implement the recommendations of the Master Plan as adopted.

Executive Summary

The Malone Park Master Plan has been prepared to inform development of Malone Park in a manner that will service Marong into the future. Marong is predicted to quadruple in population within the foreseeable future and a large increase in sporting and recreation needs are predicted.

The Master Plan as attached endeavours to satisfy these demands as identified in the incorporated demand assessment. Key outcomes include the relocation of the Marong Light Harness Club to allow the substantial increase in the sporting footprint of the reserve, the development of a new multi-purpose pavilion and a significant increase in passive and casual recreation infrastructure including integrated walking and cycling paths, a new play space and dog park and associated infrastructure.

The plan identifies key next steps for planning and prioritises elements via a high/medium/low rating to inform council resourcing and focusses on critical elements, such as the increase in playing surface, are implemented in as timely a manner as possible.

Background

The previous master plan for Malone Park was developed in 2006 when the reserve was managed by a community Committee of Management and due to many changes at the reserve, it is not possible to deliver the plan.

Council resolved to assume Committee of Management for this reserve in November 2015 and since this time has undertaken many improvements at the site including cricket training nets, netball/tennis courts and essential safety improvements.

With the Marong township continuing to grow and demand pressures, Council allocated funding to support a Master Plan for this reserve. Last year, Insight Leisure Planning was appointed to prepare a Master Plan for Malone Park, the premier open space within Marong. This plan is intended to identify a service and infrastructure footprint that will provide for an eventual Marong population of 8,000 in line with the Marong Structure Plan.

An Issues and Opportunities Report was prepared as an internal working document and allowed officers, consultants and the community to flesh out constraints and options in order to identify challenges and test initial ideas before developing into the draft plan. This draft plan has been exhibited to Council and stakeholders as well as general community consultation in October/November 2021.

Previous Council Decisions Dates:

October 2021 – Presentation of draft Malone Park Master Plan for exhibition to Council with the below resolution:

That Council:

1. Approve the draft Malone Park Master Plan being released for public exhibition;
2. Seek community feedback on the draft;
3. Receive a further report summarising feedback and a final version of the Master Plan.

November 2015 – Council agreed to take on Committee of Management for Malone Park with the below resolution:

That Council:

1. Assume Committee of Management status for the reserve effective 1 July 2016.
2. Allocate the necessary financial resources to meet recurring operational needs of the reserve and facilities.
3. Refer compliance and safety works to Council's mid-year budget process for consideration.
4. Refer improvement works to the City's capital works process for consideration as part of future budgets.
5. Write to the Crown Land Committee of Management acknowledging and thanking them for their contribution to the community and advising of Council's decision.
6. Authorise officers to complete the necessary administrative steps required for the City of Greater Bendigo to assume Committee of Management for the reserve.

Report

This report seeks Council approval of the actions and outcomes specified within the Draft Master Plan for Malone Park in Marong.

The Master Plan:

- Provides a service and infrastructure footprint that will serve as the key public open space in a future Marong of 8,000 residents;
- Identifies critical barriers to the increased utilisation of the reserve, namely the area occupied by the Marong Light Harness Club and the age and condition of the buildings and facilities on the reserve;

- Provides for a facility that services a much larger user base including a new multi-purpose central pavilion, additional netball/tennis courts, a large, potentially illuminated, multi-purpose irrigated area that will service many different sporting and community needs flexibly and in step with emerging needs;
- Identifies a relationship with future reserves and open spaces developed through the Marong Structure Plan;
- Continues and perpetuates the unique and contradictory nature of the reserve as a facility that is both nested within the bush and centrally located within a growing urban area;
- Retains flexibility to accommodate future users through the changing demographics and growth of Marong whilst continuing to service the existing user groups as appropriate.

The plan in its final form includes all the key elements of the draft with some minor alterations to accommodate community feedback. These include:

- Additional formalised car parking has been proposed in proximity to the proposed pavilion as well as throughout the reserve. This is to service both the sporting users and events, such as the classic car and machinery events which currently occur;
- Retention of the existing play space near the Marong Pool in addition to the proposed play space. This is justified by the service this playspace provides to travellers and a stopping point in conjunction with the toilet and coffee van;

Feedback was also received on the proposed play space location and the footprint and alignment of the pavilion, but these have not been amended within the Master Plan due to the following reasons.

The proposed play space location was not changed as it is considered that the location provides better connection to the walking and cycling network, reduces impacts on the orientation and siting of the proposed pavilion, increases separation between the play space and sporting facility to encourage casual community use during sporting events and provides better connectivity to the proposed dog park.

It was also decided not to increase the footprint or change the alignment of the pavilion in the Master Plan despite community feedback. This is due to the nature of the master plan as a high level document. Specifics such as exact alignment, size and floorplan of the proposed pavilion require detailed design, carefully undertaken in partnership with existing and proposed users. In this case it is considered there is enough flexibility in the siting of the pavilion to allow this to be undertaken through a separate design process.

<u>Development of a multi-purpose community facility</u>

The master plan proposes a change to the recreation reserve, increasing its utility as a facility and service to all residents of Marong. The key investments in:

- The proposed joint use pavilion to service all users of the site;
- A multi-purpose, irrigated and illuminated green space that can accommodate multiple sport and community uses;
- A new play space and;
- A path network to encourage active recreation, casual and occasional use of the space.

These changes will continue to support Marong through its growth to a predicted population of 8,000 as indicated by the Marong Township Structure Plan and supported by the demand assessment on page 18 of the Master Plan. The Master Plan accommodates current users but allows flexibility for future uses and responds to community needs, changing participation and current standards in a fair and equitable manner.

Future of the Marong Light Harness Club and facilities

One of the key challenges for the master plan has been the future of the Marong Light Harness Club (MLHC). MLHC is a key user of the site with a substantive footprint on the eastern side of the site. The facilities developed by MLHC are also utilised by the Bendigo and District Family Equestrian Group (BDFEG), and HRCAV (Horse Riding Club Association of Victoria) affiliated club that uses the reserve for monthly rallies. Due to the extensive vegetation on the site and constraints such as floodplains, the area currently accommodating the harness track is the primary opportunity for growth of the sporting and recreation facilities in Marong.

The need to expand the sporting and recreation facilities in Marong is demonstrated through the demand assessment within the master plan with the desire to retain Malone Park as the key sporting facility for the community.

There are two options to achieve these goals: Relocation of the MLHC or development of the site with the MLHC retained.

Option 1: The relocation of MLHC

The relocation of MLHC would allow the redevelopment of the entire space and would enable a fit for purpose specialised facility to be upgraded and maintained. Possible sites include (but are not limited to) Sebastian Recreation Reserve approximately 20 minutes north of Marong.

Throughout the development of this master plan MLHC and Sebastian Harness Club have both been engaged with. It is noted that both these parties prefer the status quo or Option 2, however the discussions indicated that co-location at Sebastian was feasible however not without substantial facility and logistical change to overcome user challenges.

Option 1: MLHC relocated	
Benefits	Challenges
Opportunity to invest in an equestrian facility on an otherwise under-utilised and invested site (if Sebastian viable).	Ensuring the development or upgrading of an appropriate facility for the MLHC to ensure the club is viable and sustainable into the future.
Opens the entire eastern portion of the reserve to other sporting and active recreation uses with the development of a large, flexible and multipurpose green space that can accommodate a range of different uses and activities.	The need to fund development of an alternative site as necessary to achieve a facility of the same or better standard than the existing facilities at Marong.
Encourages casual use by reducing the opportunities for conflict between equestrian and non-equestrian users.	Ensuring the consistency and continued operation of MLHC and BDFEG.

Enables the development of the area surrounding the new surface without needing to consider casual usage by harness racers.	
Enables most efficient use of existing cleared and non-flooded areas.	
Allows integration of the new sporting surfaces into the surrounding natural and built environment without a barrier formed by the harness track.	

Option 2: MLHC retained on site.

This option involves the retention of the MLHC on site with the centre of the harness track redeveloped as a sporting surface. The development of the centre would include: The improvement of internal and external fences of the harness track, the introduction of irrigation, drainage and potential lighting, designated crossing points of the harness track to enable access to the centre. This would involve a substantial period when the track would be unusable during construction.

Option 2: MLHC retained	
Benefits	Challenges
Continued presence of MLHC on site and continuation of historic use	Reduced open space restricting new green space to an undersized senior oval
Allows for continuance of existing patterns of management and operation for trials nights	Increased costs in developing the new surface due to working around existing track, needs for fencing and crossovers, managing drainage and irrigation to avoid impacting track.
An additional user on the site	Need to integrate MLHC into a centralised booking system, limiting casual use of both the track and oval.
Continued use of existing ancillary facilities such as yards etc.	Potential extended hiatus of the club throughout the works period impacting club sustainability
	There would be a significant impact on the flexibility and reduction in size of the new sporting surface as opposed to Option 1. This would impact potential future uses and users and integration of this space into the broader reserve.
	The larger area accessed and utilised by equestrian users would result in increased disruption and disconnection to the site as a whole as necessitated by safety barriers and exclusive use areas.
	Increasing risk for conflict between harness track users and casual recreation reserve users due to increased use by a growing population. Due to more regular use, greater casual use and a larger usage area than other equestrian users this is a greater risk for MLHC.

Implementation

Part 10 of the Master Plan is the implementation plan. This plan avoids the traditional designation of implementation in terms of years to focus instead on the priority of developments, enabling officers and Council to adapt to funding and infrastructure opportunities as they arise.

The prioritisation has been assorted into Pre-planning, High, Medium, and Low priorities with a clear order from design through to construction allowing Council to focus on the best outcome activities. Key pre-planning activities such as the relocation of the MLHC, the improvement of power to the site, the design of the multi-use pavilion and sporting fields as well as identifying a sustainable and manageable model of governance for the reserve and users are the key items with subsequent items to be implemented as these are achieved.

Priority/Importance

The implementation of the master plan, as well as the funding and resourcing of its actions are essential to ensure appropriate levels of service for Marong residents throughout periods of future growth.

Options considered

Option 1: Adoption of the draft Malone Park Master Plan as prepared by Insight Leisure Planning and dated March 2022

This includes the adoption of the findings and recommendations of the draft plan and directs officers to implement the outcomes of the plan including the relocation of the Marong Light Harness Club from Malone Park.
This is the recommended action.

Option 2: Adoption of an amendment of the draft to retain the Marong Light Harness Club on the site at Malone Park, otherwise retaining the outcomes of the draft.
This includes the redevelopment of the centre of the harness track in lieu of the proposed surface and the retention of the track and associated facilities on the site. This would result in a compromised development that would severely impact both the operation of the Harness Track and the proposed sporting surface, increase the cost of development, and potentially stop all use of the track through the development of the sporting surface.
This is **not** the recommended action.

Option 3: Do nothing

This results in the lack of action with the master plan not being adopted. This would retain the existing services and facilities at Malone Park and will result in disjointed upgrades and redevelopments occurring in line with increasing demand and facilities reaching the end of life.
This is **not** the recommended action.

Communications/Engagement

The Draft has been generated through extensive internal and external consultation. This included:

- One on One meetings between the consultant and key stakeholder groups,
- Widespread surveying of the Marong community with 268 responses,
- Workshop with stakeholders once the Issues and Opportunities Paper was prepared.

Internal consultation was undertaken at project inception including one on one engagement with internal stakeholders at an officer and coordinator level.

The Public Space Committee was consulted in the development of the Issues and Opportunities Paper and had the opportunity to discuss the Issues and Opportunities in a meeting and provide a response.

Internal officer groups undertook workshops on the refinement of the Issues and Opportunities Paper into the Draft Plan.

Lockwood Ward Councillors were briefed on 15 April 2021 to outline the key issues and opportunities this master plan process has identified and likely outcomes within a draft master plan.

Ward Councillors briefed in December 2021 with information concerning the response to community engagement.

General exhibition of the draft plan undertaken in October/November 2021 including:

- Letter drops to Marong residents
- One-on-one meetings with stakeholders
- Joint meetings with stakeholders
- On-line and virtual listening posts
- Continuation of the Let's Talk page on the City of Greater Bendigo website
- Traditional and social media advertising
- Corflute signs on site.

Forty-four submissions were received with the majority supporting the Master Plan in general terms. Approximately 20 submissions objected to the relocation of the Marong Light Harness Club from the reserve. Other matters raised include the location and alignment of the proposed pavilion, the location of the proposed play space and the need for additional parking on site. A more detailed summary of the community submissions and feedback is included as an attachment to the report.

Financial Sustainability

The implementation of the plan is subject to future budget and resourcing allocations. Budget bids will be generated and administered through the budgetary process.

There are four pre-planning activities that are identified within the Master Plan that need to happen as soon as possible to support the implementation of the Master Plan. These four activities have an indicative total cost of between $125K and $175K.

The Master Plan also identifies four key, high priority projects to be delivered in the first five years following adoption of the Master Plan. These four high priority projects have an indicative total cost of between $2.9M and $3.6M and it is anticipated that grant funding would be sought to lessen the financial burden on Council.

If Council decides to adopt the Master Plan then it needs to be aware that there is an expectation in the community that these pre-planning and high priority projects will be delivered in the next five years.

There is also a number of medium and low priority projects that are considered aspirational and would need to go through a competitive budgeting process to be funded.

Risk Assessment

The plan mitigates the chances of stranded and inappropriate assets within Malone Park. Failure to adopt the plan may lead to ongoing, haphazard planning and implementation of improvements, a lower level of service for Marong and Bendigo west generally, as well as a continued deterioration of the facilities to a point where they are no longer fit for purpose.

The plan has attempted to incorporate flexible outcomes and facilities where possible to ensure adaptation to changing community needs can be accommodated throughout the life of the plan and the infrastructure which it generates.

Primary risks associated with the plan include resistance to the relocation of the Marong Light Harness Club, the failure to adequately fund the implementation and the need to ensure that detailed design for the new pavilion and sports surface fully accommodate and meet the needs of users. These risks are addressed in this report's body and are manageable through the design process and by acting in accordance with Council's community engagement policy.

Policy Context
Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 1 - Lead and govern for all
Outcome 2 - Healthy, liveable spaces and places
Outcome 7 - A safe, welcoming and fair community

Secondary Council Plan Reference(s)

Goal 1 - Accountable, financially responsible, equitable, transparent decision making
Goal 3 - Active community engagement and excellence in customer service
Goal 1 - Strengthened community health and wellbeing
Goal 3 - Everyday walking and cycling is easier for all ages and abilities.
Goal 7 - Sustainable population growth is planned for
Goal 8 - Targeted investment in services, facilities, and programs to communities most in need
Goal 4 - A community that values and engages with people of all ages, abilities, genders and sexualities

Other Reference(s)

Marong Township Structure Plan 2020
Healthy Heart of Victoria Active Living Census 2019

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. Malone Park Master Plan [**16.2.1** - 29 pages]
2. Draft report feedback summary [**16.2.2** - 4 pages]


MALONE PARK
Final Master Plan
March 2022

Malone Park
Master Plan

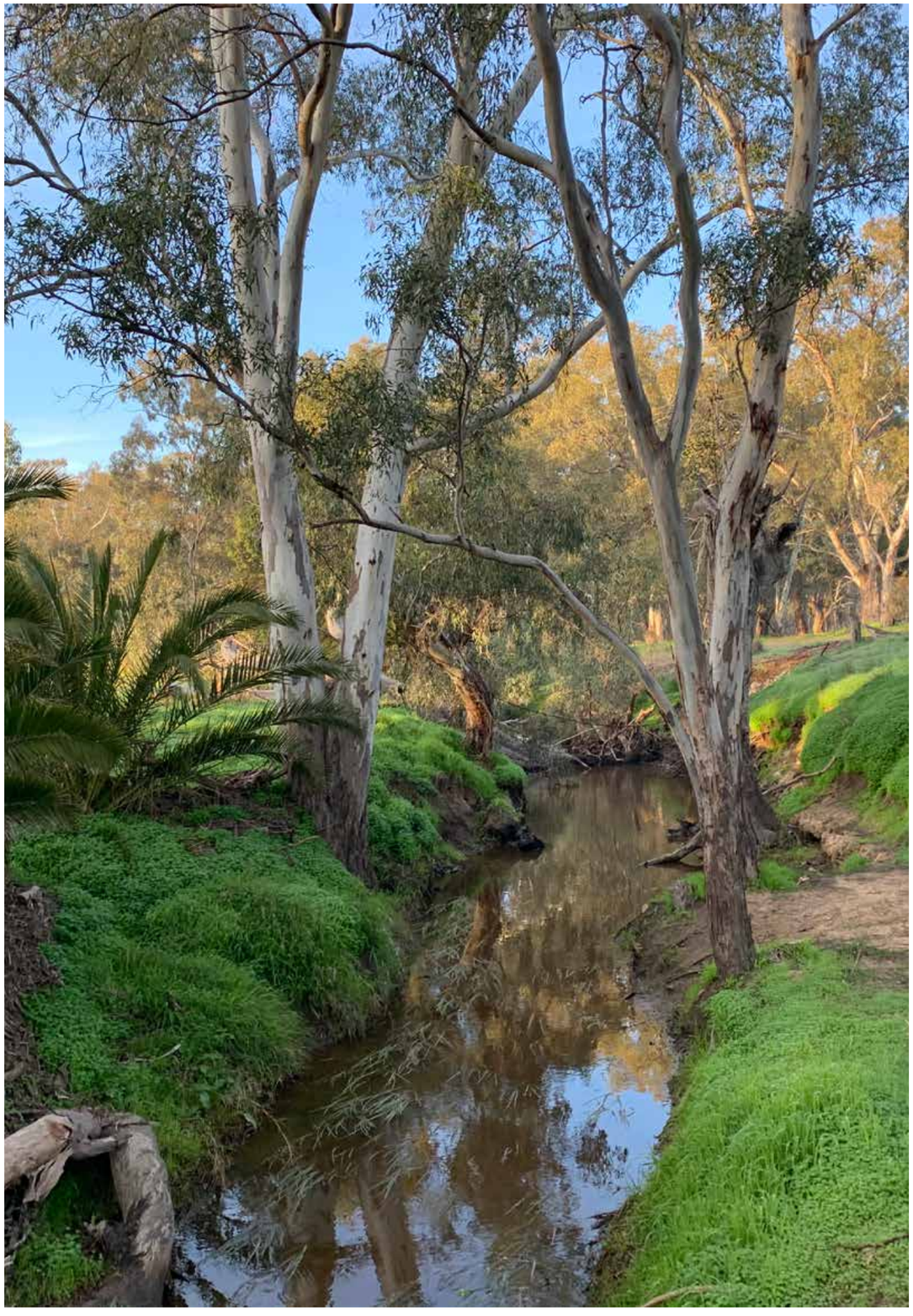
CITY OF GREATER BENDIGO

INSIGHT Leisure Planning

fitzgerald frisby landscape architecture

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1. Introduction

Project Aim

The project aim is to undertake a strategic assessment of Malone Park Recreation Reserve to produce a Master Plan to guide development, maintenance and management of the reserve for the long term.

Project Objectives

The purpose of this project is to undertake a strategic review of use and assets at the reserve and surrounding township to determine a future development strategy for Malone Park.

The plan will enable more people to participate in physical activity at Malone Park and in Marong generally. Objectives include:

- Develop a long term plan that allows Malone Park to grow and adapt with the township of Marong through coming decades to service a population of 8,000 people;
- Identify the strengths and weaknesses of facilities based on evidence of current and future use;
- Set a realistic and achievable strategic improvement program;
- Identify opportunities and recommendations based on needs of the community who have been well engaged in the process with clear support for the master plan;
- Ensure the community is aware that the master plan is a long term vision for the reserve which guides decision making and phasing of work but is not a design for the facilities; and
- Assist the community in identifying ways in which it can contribute to implementing the master plan actions by managing, maintaining or contributing expertise and/or funding.

The master plan will guide investment priorities at Malone Park to help facilitate opportunities for more people to be more physically active more often at the reserve.



Background

Malone Park Recreation Reserve is a Crown Land Reserve with the City of Greater Bendigo as the Committee of Management. Malone Park is in a forested setting a short distance from the Marong town centre, primary school, golf course and other facilities.

Malone Park is identified within the City of Greater Bendigo's Public Space Plan (PSP) as Marong's primary, central open space. The reserve covers an area of 43Ha with the majority (40.5Ha) south of the railway reserve. The site fronts onto the Calder Highway, Marong High Street and Calder Alternate Highway and is dissected by an active railway line and a dry creek line.

The site includes a mixture of Active Recreation and formalised sporting facilities on the northern portion and lower intensity passive and unorganised active recreation spaces to the south.

The following Strategic Context has been drawn from the recently completed Marong Township Structure Plan (Sept. 2020):

Marong is located on the western edge of the City of Greater Bendigo, approximately 15 kilometres from the centre of Bendigo. The original one-mile square township is centred at the intersection of the Calder, and Calder Alternative Highways. The town retains a number of important historic buildings, many with a civic and community function, such as the former Marong Shire offices.

Marong has always served a larger catchment than the township itself. Its various functions and services such as the primary school, hotel, doctor's clinic, and Malone Park support the wider region of western Bendigo. Bullock Creek, which flows from Ravenswood south east of Marong into the Pyramid Creek west of Leitchville near the Murray River traverses much of the town. It flows south-north and forms an important feature of the town. The reserve along Bullock Creek has contributed to the valuable network of public space in the town and has provided a habitat for the iconic large river red gums that create a sense of arrival into Marong. Areas surrounding the creek are subject to severe flooding.

The long-term vision for Marong is a satellite township of 8,000 people built around a vibrant community town centre and civic focus with a well serviced railway station and an outstanding public space network.



2. Existing Conditions

The site includes a mixture of Active Recreation and formalised sporting facilities on the northern portion and lower intensity, passive and unorganised active recreation spaces to the south.

Facilities on-site include:
- irrigation infrastructure
- sundry access and drainage infrastructure

The reserve hosts junior and senior AFL and netball, as well as senior cricket and junior cricket training. The effort of local clubs and community in developing and maintaining the facilities is acknowledged.

While dated, the buildings are structurally sound and have been extended and renovated in recent decades. Despite these renovations, their fitness-for-purpose requires assessment given changing use and expectations (for example female football). Available power supply is a significant barrier to upgrading facilities and the provision of air conditioning in the main pavilion.

For the purposes of this master plan, the Malone Park Recreation Reserve is a standard facility in accordance with the AFL Victoria Preferred Facilities Guidelines and the AFL Central Victoria Regional Strategy (2017). It is also a ‘Local’ scale facility in accordance with the Cricket Victoria Facilities Guidelines and a “Township” facility under the City of Greater Bendigo Public Space Plan.

Land Use Planning Zones

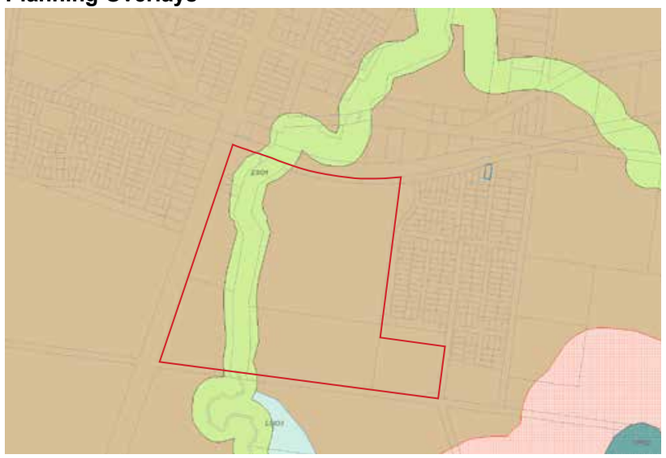


- Malone Park Site Boundary
- PPRZ - Public Park and Recreation
- PUZ - Public Use Zone
- SUZ4 - Special Use Zone
- C2Z - Commercial Use Zone

Zoning Ordinance

Malone Park comprises of four different land use zones. It's primarily Public Park zoning, which includes all of the current sporting facilities and ovals. Special Use zoning covers much of the bushland vegetation area along the south-western section converging with the Commercial zone in the north-west, which includes the current public toilet and playground. The Public Use Zone (6) covers Bullock Creek as public land use for Local Government.

Planning Overlays



- Malone Park Site Boundary
- ESO1 - Environmental Significance Overlay
- BMO - Bushfire Management Overlay
- BPA - Bushfire Prone Area
- LSIO3 - Land Subject To Inundation Overlay

Environment and Landscape

Environment and Landscape overlays seek to protect vegetation or landscape features of an area and are used to recognise areas of environmental or landscape significance. The ESO1 running through Malone Park is a water course protection overlay to ensure development is compatible with identified environmemntal values and objectives associated with Bullock Creek.



- Malone Park Site Boundary
- DP06 - Development Plan Overlay
- Area of Aboriginal Cultural Heritage Sensitivity
- HO560 - Heritage Overlay

Heritage and Built Form

Majority of Malone Park is an area of cultural heritage sensitivity. These areas are defined under the Aboriginal Heritage Regulations 2018 and require a 'cultural heritage management plan' to be prepared where a listed 'high impact activity' is proposed.

Source: Planning Maps Online



History

Prior to European Settlement, the original inhabitants of the City of Greater Bendigo area, which includes Marong, are the Dja Dja Wurrung (Jarra) people. From the 1830's, it was primarily an agricultural.and pastoral area until the discovery of gold in the municipal area in the early 1850's. This generated a rapid period of growth and development. Marong was consolidated as a gold washing site due to its proximity to permanent water from Bullock Creek before becoming a Shire in 1964.

Marong, believed to have derived from the aboriginal word meaning a native or Murray pine tree, is located at the junction of the Calder Hwy (A79) and the Calder Alternate Hwy (A790) and is 17 kilometres west of Bendigo and 157 kilometres north-west of Melbourne.

Malone Park, named after the Malone family (who were well known residents of the area), is a Crown Land site divided by Bullock Creek. It was established for the Marong Football Club in the 1960's, but went into a hiatus before being reactivated along with the Marong Cricket Club in the 1970's. During the hiatus, the Marong Light Harness Club took over the site and developed a harness track around the oval. Since that time more users including the Marong Bowls Club, Bendigo and District Family Equine Group and Marong Tenis Club have established at the site.



Marong Village c.1950
(source: National Library of Victoria)



Marong pastoralists posing with their wheat stack c.1925
(source: Museum Victoria)



Marong Shire Hall, prior to WWI
(source: "Moving Forward, Looking Back - The History of Marong Shire, Ruth Hopkins)

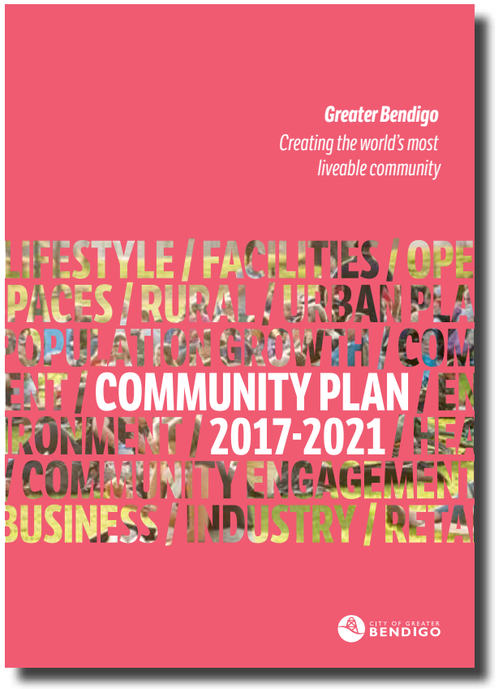


Bullock Creek channel diverting from the Loddon River c.1892 (source: State Library of Victoria)

3. Strategic Context

Background Documents

Below is a summary of key background documents and existing strategies that may influence future directions and priorities for the master plan



Greater Bendigo Community Plan 2017-21

Extracts/ Key Findings:

- The Community Plan, formally known as the Council Plan, was renamed by Council to emphasise it is a plan for the community.
- The a vision for Greater Bendigo is to be the world's most liveable community.
  - A liveable community is one that enables people to live healthy, safe, harmonious lives in attractive and affordable settings. Liveable places have an excellent range of services for children and adults of all ages and facilities that are accessible to all. They don't make unsustainable demands on the environment.
- Six key goals (strategic objectives):
  - Lead and govern for all.
  - Wellbeing and fairness.
  - Strengthening the economy.
  - Presentation and managing growth.
  - Environmental sustainability.
  - Embracing our culture and heritage.
- Key Challenges include:
  - Population growth.
  - Rate capping.
  - Environmental management and climate change.

Possible implications for Master Plan:

- Support initiatives that increase access, improve health and learning opportunities, community connections and quality of life for all.
- Support infrastructure that increases liveability and pride of place.
- Protect and enhance the natural environment, conserve resources and increase resilience to a changing climate.
- Consider opportunities to recognise and celebrate the sites history and cultural values.
- Establish agreed priorities for infrastructure improvements based on evidence of demand and community needs to guide future resource allocation.



Greater Bendigo Health & Wellbeing Plan 2017-21

Extracts/ Key Findings:

- The World Health Organization defines health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.
- Goal 1: Healthy and well - The Greater Bendigo community has good physical and mental health supported by healthy lifestyles.
- Goal 2: Safe and secure - The Greater Bendigo community lives free from violence and abuse, is protected from environmental risks and is supported to live affordably.
- Goal 3: Able to participate - The Greater Bendigo community has the capability to participate and contribute to the local economy and community life.
- Goal 4: Connected to culture and community - The Greater Bendigo community is socially engaged and inclusive and is a place where people can safely identify and connect with their culture and identity.
- Goal 5: Liveable - The Greater Bendigo community is adaptable and resilient and has access to sustainable natural, built, social and economic environments that support and enhance health and wellbeing.

Possible implications for Master Plan:

- Reinforce / develop facilities, infrastructure and community structures that support healthy lifestyles through physical activity participation and harm reduction.
- Support facilities that increase community safety and connection.
- Support community participation, physical activity and capacity building (i.e. sport and physical activity participation, club sustainability and volunteer opportunities).
- Acknowledge and celebrate cultural heritage of the site.
- Support community inclusion (i.e. through sporting clubs).
- Support protection and connection to the natural environment.
- Facilitate supportive built and natural environments.



Marong Township Structure Plan, September 2020

Extracts/ Key Findings:

- Acknowledgment of Country:
  Marong is on Dja Dja Wurrung Country.
  The City of Greater Bendigo would like to acknowledge and extend appreciation for the Dja Dja Wurrung People, the Traditional Owners of the land where Marong is today.
  Today, we pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture and the hopes of all Dja Dja Wurrung Peoples.
  We express our gratitude in the sharing of this land, our sorrow for the personal, spiritual and cultural costs of that sharing and our hope that we may walk forward together in harmony and in the spirit of healing.
- The long-term vision for Marong is a satellite township of 8,000 people built around a vibrant community town centre and civic focus with a well serviced railway station and an outstanding public space network.
- As Marong grows, improved facilities, and new parks and play spaces will be needed in appropriate locations. With an expected population of 8,000 by 2045, Malone Park will not meet the needs of the community. There is also poor connection with the park and the surrounding neighbourhoods.
- Upgraded existing neighbourhood park to township level (i.e. play space adjacent to public swimming pool). Included in DCP.
- The Structure Plan identifies a site for possible future additional Active Open Space (two ovals) adjacent to future primary school site west of Malone Park. Included in DCP allowance for purchase of land and construction of ovals, courts, pavilion, play space, skate park, car parking and other associated infrastructure (medium term).

Possible implications for Master Plan:

- Include Acknowledgment of Country.
- Consider infrastructure assessment based on an ultimate population of approximately 8,000 people (by 2045).
- The existing play space adjacent to the swimming pool is earmarked for upgrade to Township level – consider implications for possible other play spaces within the reserve.
- Reinforce Malone Park as the primary/main active recreation reserve in Marong – any possible future active open space west of Malone Park (co-located with future school) is to be considered a secondary site and/or cater for alternative sporting activities.



Public Space Plan, 2019

Extracts/ Key Findings:

- The Plan reviews Open Space provision across the City and seeks to establish a 'big picture' strategy; a guiding and working document to which the City, other organisations and the wider community commit to implementing collaboratively over time. In broad terms, the Plan aims to do three things:
  - Set out a conceptual vision for public space in Greater Bendigo.
  - Provide strategic guidance for planning and provision, uses and management, funding and investment, major policy issues and implementation priorities.
  - Establish a framework of standards for access, quality, maintenance and design.
- Marong strategic findings include:
  - Malone Park provides the major public space resource for the local community and is a very good example of how a diversity of pubic space functions can be successfully combined.
  - Additional space for active recreation is needed to support the growing township and is proposed to be provided in conjunction with a new primary school.
  - Additional local public open spaces will also be needed, particularly to the east where the main focus for growth is planned. There are various local landscape features that can be incorporated to shape the form and character of these spaces.

Possible implications for Master Plan:

- Address the Malone Park specific recommendations, i.e.:
  - Recognise the significance of the reserve as the township's primary, central open space.
  - Optimise available space for provision of facilities to support organised sport.
  - Retain areas of dedicated passive space as part of the reserve.
  - Improve walking and cycling connections to and from the reserve with the planning and development of the local public space corridors network.
  - Recognise the importance of the creek corridor as a crucial natural and recreational asset of the township and its anchoring public space corridor.
  - Upgrade the creek corridor to support passive recreational use and improve environmental values.
- Review and update the Malone Park Master Plan 2006.



Healthy Heart of Victoria 2019 Active Living Census (ALC).

Extracts/ Key Findings:

- The 2019 Healthy Heart of Victoria Active Living Census was conducted to help with planning for health and recreation services and allow a better understanding of people's activity levels and preferences. Highline data of relevance include:
  - 2 in every 3 adults in Greater Bendigo are overweight or obese.
  - People who are overweight or obese are more likely to report fair or poor general health and lower life satisfaction.
  - 57.3% of Greater Bendigo residents meet the physical activity guidelines.
  - For both males and females, physical activity levels decline with age.
  - Two in every three people who meet physical activity guidelines report good to excellent general health and wellbeing.
  - Barriers to participation – Time, Cost, Health, Lack of Social Support and Safety.
  - Around 90% of people reported using open spaces, with 60% using open spaces weekly or more often.
  - Footpaths rated as the highest used facility with 87.9% of people reporting using footpaths.
- Most common suggested improvements that would encourage more regular use of public facilities and open spaces:
  - Walking tracks / footpaths 21.4%
  - Bicycle tracks / lanes and skate facilities 14.5%
  - Exercise equipment / facilities 14.2%
  - Toilets / change rooms 13.5%
  - Lighting 13.0%
  - Safety measures / restrictions 10.2%
- Marong Rural West specific:
  - 57.6% of residents use open spaces once a week or more.
  - Despite 65% of Adults meeting physical activity guidelines (the highest in the Region), 53.9% of residents want to be more active more often.
  - Public facilities and open spaces - rate of use:
    - Footpaths 78.4%
    - Parks 76.0%
    - Off-road walking and cycling tracks 67.8%
    - Sports grounds, ovals and clubrooms 65.5%
    - Swimming pools / splash parks 58.6%
    - Hard courts (e.g. netball / tennis) 46.0%
    - Playgrounds 35.6%
  - Barriers to being more active:
    - Time poor 57%
    - Personal reasons 25%
    - Cost 22%
    - Safety 19%
    - Lack of social support 16%
    - Poor health / disability 16%

Possible implications for Master Plan:

- Ongoing investment in sport, recreation and open space facilities at Malone Park will help support physical activity participation and health outcomes for residents.
- Existing open space and facilities in Malone Park are well used by the majority of Marong residents. Facility improvements are required to cater for current and increasing levels of demand as well as address ageing infrastructure renewal.
- More contemporary facilities are required to meet community needs and levels of use.
- Walking is the most popular physical activity – improvements to walking paths and trails will be critical to supporting participation.
- Master plan initiatives will address the common suggested improvements, specifically:
  - Walking tracks / footpaths
  - Bicycle tracks / lanes and skate facilities
  - Exercise equipment / facilities
  - Toilets / change rooms
  - Lighting (sport and amenity)
  - Safety measures / restrictions



Greater Bendigo Environment Strategy (2016-21)

Extracts/ Key Findings:

- The Greater Bendigo Environment Strategy will contribute to achieving outcomes that provide the local community with clean air, water and a healthy natural environment.
- It is based on an internationally-recognised benchmarking format One Planet, which supports sustainable living. It is based on the following objectives:
  - Zero carbon emissions
  - Zero waste
  - Improved shared or low-carbon transport options
  - Increased use of sustainable building materials
  - Supporting local and sustainable food production and community sharing
  - Long term sustainable water security
  - Thriving landscapes and ecosystems
  - Diverse cultures and communities celebrating connection to nature and sustainable living
  - Equitable and sustainable local economy
  - Improved overall health and happiness of the community
- The action plan says what Council will do to help everyone in our community have a good life. The plan says what we will do to make health and wellbeing better for children, young people, people with a disability and older people.
- The plan outlines five goals:
  - Our community is healthy and well.
  - Everyone feels safe and secure.
  - Everyone can be a part of what we do.
  - Everyone is part of our community.
  - Everyone can live well in our city.

Possible implications for Master Plan:

- Consider opportunities to embed Environmentally Sensitive Design (ESD) principles in the master plan, including vegetation management, resource use and Water Sensitive Urban Design (WSUD).



ALL AGES ALL ABILITIES

CITY OF GREATER BENDIGO

ACTION PLAN
OCTOBER 2019

1

All Ages All Abilities Action Plan 2019

Extracts/ Key Findings:

- The action plan says what Council will do to help everyone in our community have a good life. The plan says what we will do to make health and wellbeing better for children, young people, people with a disability and older people.
- The plan outlines five goals:
  - Our community is healthy and well.
  - Everyone feels safe and secure.
  - Everyone can be a part of what we do.
  - Everyone is part of our community.
  - Everyone can live well in our city.

Possible implications for Master Plan:

- Master plan initiatives will consider the needs of all population groups, ages and abilities.
- Design and infrastructure improvements will seek to maximise participation and accessibility for all groups.



AFL Central Victoria Regional Strategy 2017

Extracts/ Key Findings:

- The AFL Central Victoria Regional Strategy provides the principles and strategic framework to support the future development, governance and growth of football and netball throughout the Central Victoria Region. It also provides key regional strategic directions and recommendations, as well as identifying critical priorities and actions for AFL Central Victoria, AFL Victoria, Netball Victoria, AFL Central Victoria Leagues, Clubs and Netball Associations and project partner LGAs (including the City of Greater Bendigo).
- The Key Findings Report was completed in December 2016.
- PRIORITY 1: EXISTING FACILITIES - Increase the quality and functionality and maximise the use and carrying capacity of existing facilities.
- PRIORITY 2: NEW FACILITIES AND TALENT PATHWAYS - Plan and develop new facilities in key growth areas across the Region, considering regional needs and talent pathways, program and competitions at key locations.
- PRIORITY 3: BUILD CAPACITY - Support the capacity building of clubs, their people and culture.
- PRIORITY 4: ENHANCE RELATIONSHIPS - Continue to enhance the relationship between football, netball and government in the planning, provision and funding of facilities and programs.
- Malone Park is classified as a Local Standard venue. The following facility gaps were identified:
  - Change Rooms
  - Umpire Rooms
  - Football oval lighting
- Facility condition ratings highlighted deficiencies (i.e. very poor score) in relation to:
  - Change Rooms.
  - Umpire Rooms.
  - Oval drainage, irrigation, profile, fencing and lighting.
  - Reserve perimeter fencing.

Possible implications for Master Plan:

- Master Plan to address identified facility gaps and asset deficiencies, including change rooms, umpire Rooms, oval drainage, irrigation, profile, fencing and lighting, and reserve perimeter fencing
- Scope and standard of improvements to meet minimum AFL Preferred Facility Standards for a Local Standard venue (i.e. AFL Preferred Facilities Guidelines & Netball Victoria Facilities Manual).



Walking and Cycling Strategy 2019

Extracts/ Key Findings:

- The plan outlines the benefits of participation and a Vision: Greater Bendigo, Australia's regional walking and cycling capital – making everyday walking and cycling easier for all ages and abilities.
- Walking and Cycling are the most popular ways residents get physical activity in Greater Bendigo (Active Living Census).
- All Ages and Abilities Walking and cycling infrastructure creates more options for independent travel for children and people who have a disability.

Possible implications for Master Plan:

- Explore options to support walking and cycling infrastructure, including shared paths and connections throughout the reserve.



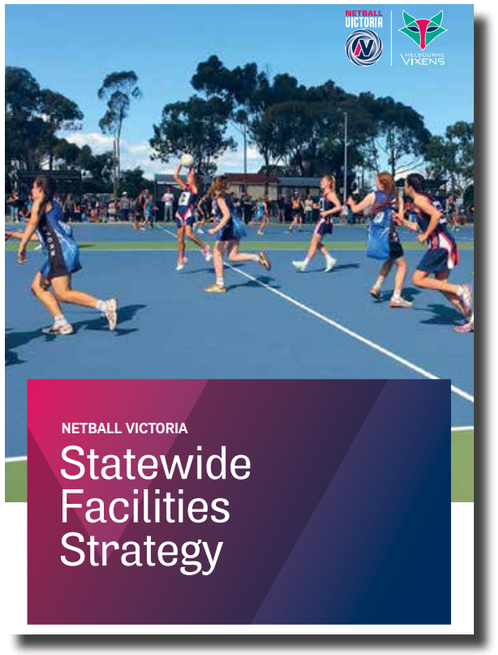
Victorian Cricket Infrastructure Strategy, 2018-2028

Extracts/ Key Findings:

- The strategy established the following key Pillars for action:
  - Maximise the capacity and activation of grounds and facilities
  - Improve access to cricket programs, pathways and development services
  - Supporting diversity through inclusive facilities
  - Providing welcoming, safe, flexible and accessible community facilities
  - Catering for change and maximise partnerships
- The City of Greater Bendigo falls within the CV 'Northern Rivers Region'.
- From an infrastructure planning and development perspective, the Region's current ground to population ratio of 1: 1,641 is above the Country Region average of 1:1,860 (ground to player ratio of 1:30 is also below average indicating that at a regional level, grounds are not at full capacity and have potential for greater use) which on face value would suggest no short-mid term need for additional grounds across the Region.
- However, forecast to be the second fastest growing Region across Country Victoria (behind South East Country which includes the LGA areas of Frankston and Mornington Peninsula) will place increased pressure on the carrying capacity of existing fields and supporting infrastructure and furthermore the need to develop additional playing fields (particularly those with synthetic pitches as current provision ratio below Country Region average). Planning for this future growth and ensuring infrastructure keeps pace with localised population hot spots (58% of the Region's population will reside within the LGA areas of Bendigo and Mitchell by 2031) will be important for future growth and sustainability of cricket across the Region.
- Key infrastructure related priorities for the Northern Rivers Region include
  - Training nets identified as presenting potential safety issues.
  - Playing fields with change room facility provision.
  - Average playing field condition rating.

Possible implications for Master Plan:

- The master plan will address the following identified priorities:
  - Maximise the capacity and activation of grounds and facilities.
  - Supporting diversity through inclusive facilities. Increase provision of inclusive facilities with a focus on female friendly design.
  - Providing welcoming, safe, flexible and accessible community facilities.
  - Playing fields with access to adequate change room facilities.
  - Improve the 'Average' playing field condition rating.
- Standard of facilities to reflect Cricket Australia Facilities Guide.



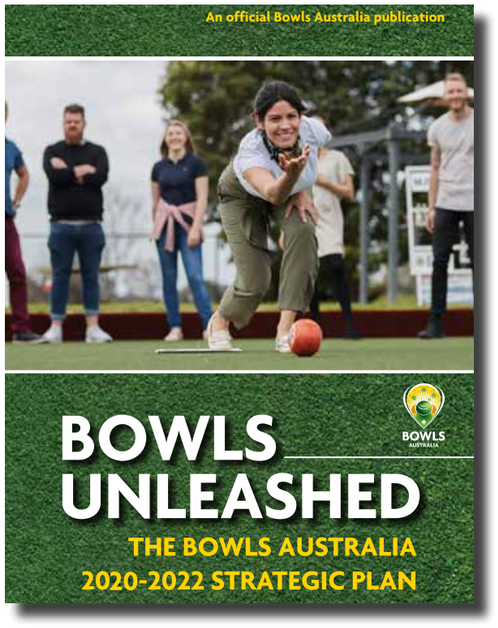
Netball Victoria's Statewide Facilities Strategy (2016 - 2026)

Extracts/ Key Findings:

- In 2015, there were 47,600 Netball Victoria members in Rural & Regional Victoria – a membership rate of 3.2%. The City of Greater Bendigo falls within the Loddon Mallee South NV region, which has a slightly higher participation rate of 3.4% of the population.
- The report identifies a deficit of outdoor lit courts in the Greater Bendigo region by 2031 to cater for future population growth, however, does not specifically mention Marong.
- The Facilities Strategy is accompanied by a Facilities Guide which sets out recommended standards and infrastructure requirements for netball venues.

Possible implications for Master Plan:

- The three tennis/netball courts in Malone Park have recently been upgraded and resurfaced. However adequate access to appropriate change rooms, amenities and support facilities is required.



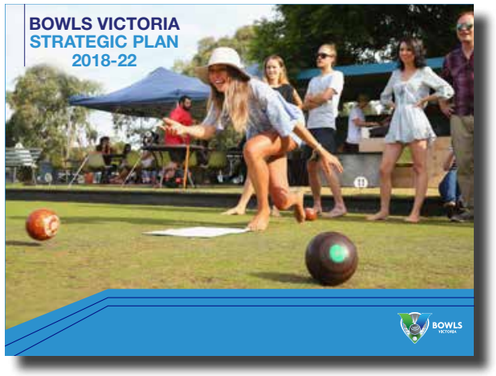
Bowls Unleashed 2020-2022 Strategic Plan

Extracts/ Key Findings:

- Bowls Unleashed builds on the previous strategic plan to identify priority focus areas for Bowls Vic. Specifically:
  - Business Model – governance, leadership, management.
  - More Play – connecting communities, participation, supporting clubs/volunteers and facility improvements (particularly addressing ageing infrastructure).
  - Winning Teams - performance pathways and athlete development.
  - Fan Experience – welcoming environments.
  - Innovation and Change – research, technology and environmental sustainability.

Possible implications for Master Plan:

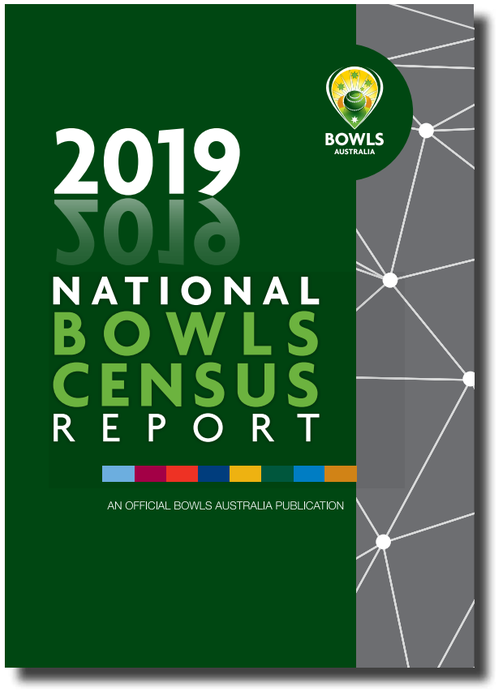
- The master plan will consider initiatives that support the sustainability of the Bowls Club, address ageing infrastructure and requirements for contemporary facility standards.



Bowls Victoria Strategic Plan 2018-22

Extracts/ Key Findings:
- The strategic plan establishes a vision for Bowls Victoria to define itself as a vibrant and committed State Sporting Association dedicated to further developing the sport through strengthened connections with the wider community.
- The report identifies three key Goals:
  - Create and implement initiatives that grow participation in bowls inclusive of all.
  - Develop strong viable Clubs through employing best practice governance and supporting an engaged volunteer network.
  - Enhance our community profile through effective communication, positive media presence and commercial growth.

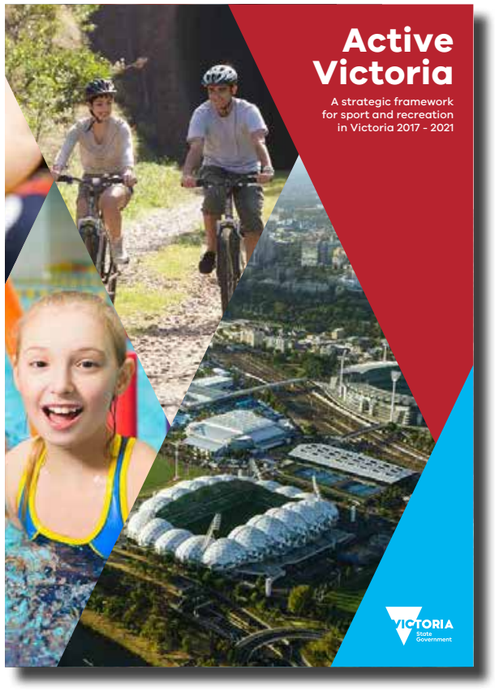
Possible implications for Master Plan:
- The master plan will consider initiatives that support the sustainability of the Bowls Club, address ageing infrastructure and requirements for contemporary facility standards.



Bowls Australia, 2019 National Bowls Census Report

Extracts/ Key Findings:
- Ninth National Bowls Census.
- Formal (i.e. registered playing member) participation in Bowls has been declining for over 30 years at a rate of around 3.4% p.a., however this was reduced to 1.8% between 2017-2019.
- Declines in formal membership have been off-set by increases in social membership and participation. Overall, regular participation in Bowls has increased by 3.3% from 2010-2019.

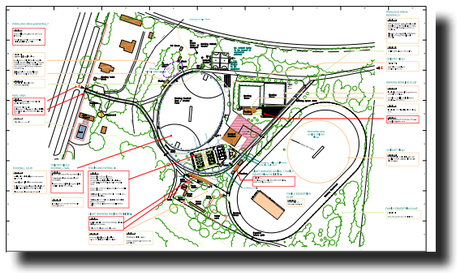
Possible implications for Master Plan:
- Initiatives that support social / informal participation in Bowls are more likely to help increase overall participation. This highlights the importance of adequate support facilities, amenities, shade, social areas etc. in addition to the playing greens.



Active Victoria: A strategic framework for sport and recreation in Victoria 2017 - 2021

Extracts/ Key Findings:
- Vision: More active - An increased proportion of Victorians participate in sport and active recreation.
- Strategic directions:
  - Meeting demand – increasing capacity.
  - Broader and more inclusive participation – Universal Design, gender equity.
  - Additional focus on active recreation – support formal sport.
  - Build system resilience and capacity – volunteer and governance support.
  - Connect investment in events, high performance and infrastructure.
  - Work together for shared outcomes.

Possible implications for Master Plan:
- Master plan improvements to focus on maximising multi-use infrastructure; increasing capacity and supporting a range of active and passive recreation opportunities.



Malone Park Master Plan (2006)

A Master Plan was developed for Malone Park in 2006 to guide future investment and improvement priorities. The Master Plan was based on retaining all existing user groups – including football, netball, tennis, lawn bowls, light harness club and 'family' equestrian activities – whilst increasing opportunities for informal community recreation, amenity and maintenance improvements.

Key 'high' priorities identified in the 2006 Master Plan included:

- Improving the main oval surface through top-dressing, conversion to drought tolerant grass, water reticulation and perimeter irrigation.
- Construction of three new tennis courts, with two available for netball.
- New playground adjacent to new courts.
- Public toilet refurbishment/upgrade.
- Additional horse stalls, stands and fencing upgrades.
- New meeting room / extension to Light Harness Clubrooms for shared use with Family Equestrian.

Medium priorities included:

- Development of a new passive recreation / picnic area in the north east corner of the site – including removal of disused and surplus infrastructure (i.e. shelter, concrete seats, etc).
- • Additional two lights on the western side of the main oval for sports training.
- • Football/cricket club room refurbishment, including amenities.
- Additional seating around main oval.
- Power and lighting upgrade to family equestrian area.
- Reserve road access and signage improvements.
- Development of three cricket practice nets.
- Extension to Bowls Pavilion (amenities upgrade).
- Shade and shelter facilities to service Lawn Bowls.
- Establishment of junior cricket oval inside harness track.
- Establishment of a large dressage arena (20m x 50m) inside the harness track.

Possible implications for Master Plan:

- As at June 2021, a number of priority improvements have been implemented – most notably construction of three new tennis/netball courts, establishment of the junior cricket oval, new cricket training nets and improvements to the main oval. However, the majority of critical recommendations are yet to be implemented, including toilets, amenities and club room improvements across the site. Furthermore, several key developments – specifically netball/ tennis courts and cricket nets – have been constructed in areas different to what was identified in the Master Plan.

- Given these changes and changing population profile of Marong, it is timely that this current master planning exercise review previous priorities to provide a framework for future improvements across the site, including opportunities for shared use, consolidation of built form, sustainable asset management and addressing current and future participation demands.

4. Population and Demographic Characteristics

Population Characteristics

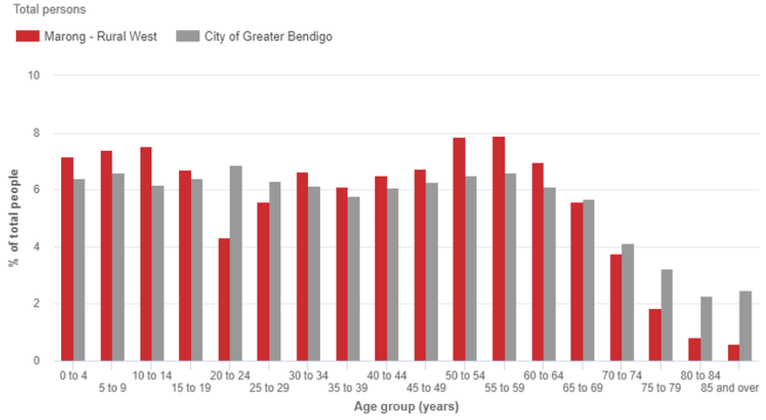
The City of Greater Bendigo is located in north-central Victoria, about 150 kilometres north-west of the Melbourne CBD. The City of Greater Bendigo Estimated Resident Population for 2019 was 118,093 people. The ABS Estimated Resident Population of Marong – Rural West in 2019 was 4,928 people. However, as outlined in the Marong Township Structure Plan (2020), the ultimate population of the town is expected reach around 8,000 people.

In 2016, Marong - Rural West had higher proportion of children (under 18) and a lower proportion of persons aged 60 or older than City of Greater Bendigo.

Overall, 22.1% of the population was aged between 0 and 15, and 12.6% were aged 65 years and over, compared with 19.2% and 17.8% respectively for City of Greater Bendigo.

The major differences between the age structure of Marong - Rural West and City of Greater Bendigo were:
- A *smaller* percentage of persons aged 20 to 24 (4.3% compared to 6.9%)
- A *smaller* percentage of persons aged 85 and over (0.6% compared to 2.5%)
- A *smaller* percentage of persons aged 80 to 84 (0.8% compared to 2.3%)
- A *smaller* percentage of persons aged 75 to 79 (1.9% compared to 3.2%)

Age structure - five year age groups, 2016



From 2011 to 2016, Marong - Rural West's population increased by 657 people (17.1%). This represents an average annual population change of 3.21% per year over the period.

The largest changes in age structure in the area between 2011 and 2016 were in the age groups:
- 30 to 34 (+113 persons)
- 25 to 29 (+112 persons)
- 0 to 4 (+87 persons)
- 65 to 69 (+71 persons)

In 2016, 6.5% of people in Marong - Rural West were born overseas, compared with 8.0% in City of Greater Bendigo.

Population Implications

The population characteristics indicate considerable population growth over a sustained period, which is set to continue into the foreseeable future, ultimately almost doubling the current population to reach around 8,000 people by 2045.

Population growth continues to reinforce Marong as a destination for young families, this is particularly evident in the high number of people aged 25-34 years moving to the region between the 2011-2016 Census periods. This reinforces the relatively 'young' age profile of the community which already has a lower proportion of people aged over 75 years compared to Greater Bendigo.

The young – and growing – population will influence demand for appropriate sport and recreation opportunities. However, equally important will be providing opportunities for all ages – children, youth, adults and families. Opportunities for older adults (75+years) will also become increasingly important over the longer term to help support healthy active living through all life stages.

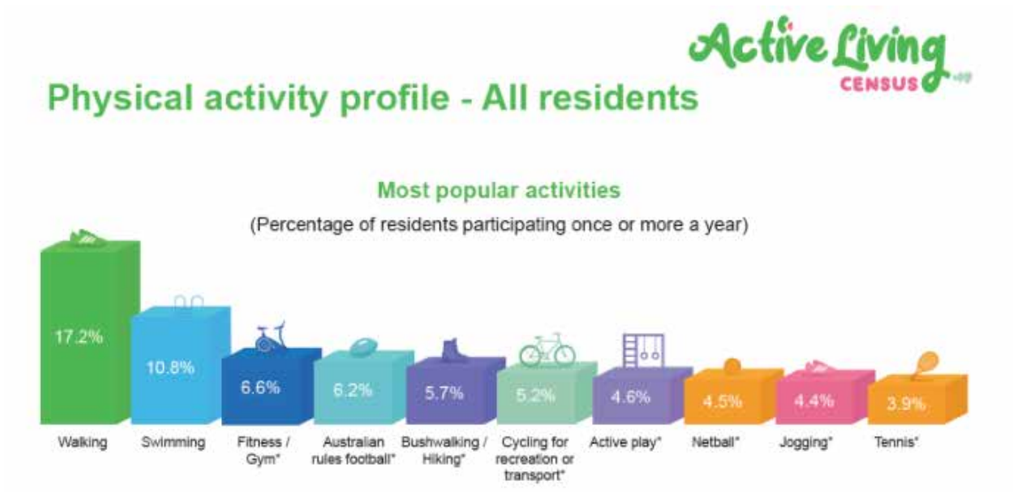
Whilst demand for participation in traditional formal sports undertaken at the reserve (e.g. cricket, football, tennis, netball, bowls and to a lessor extent Pony Club/Equestrian) can be expected to experience growth associated with population changes, demand for informal, non-club based leisure opportunities can also be expected to increase associated with the physical activity participation preferences of the community (i.e. walking, cycling, jogging).

The collective impact from sustained population growth will continue to drive demand for access to appropriate contemporary facilities and infrastructure in order to improve capacity and effective asset management at the reserve.

Physical Activity Participation

The City of Greater Bendigo Active Living Census (ALC) confirmed the most popular physical activities undertaken by residents are dominated by informal / no-club based activities such as walking, swimming, gym, active play, cycling, hiking, jogging and other fitness activities such as yoga, Pilates etc.

The graphic below highlights the most popular physical activities undertaken by Marong-Rural West residents.



The master plan will therefore seek to maximise opportunities for informal physical activity participation through improved paths, trails, connections, play facilities and spaces for informal active recreation. There may also be opportunities to utilise improved pavilion facilities for community programming when not in use by sporting clubs.

The results also highlight the relative popularity of 'traditional' sports such as football, netball and tennis, and hence the importance of appropriate facilities to support such activities. In terms of existing formal sports undertaken at the reserve, the table below provides a high-level summary of participation trends.

Tenant Club Participation

Activity	Team/ members	Active Living Census	Aust. Play data 2017 (15+ yrs)	Comments	Implications
Football (Aussie Rules)	Junior x 6 Senior x 2 Auskick x 80	6.2%	2.5%	Highest participation rate in CoGB (3.1%)	Very high participation despite no women's / girls team as yet. Auskick has doubled in recent years. Demand for minimum two ovals plus adequate amenities.
Netball	Junior x 4 Senior x 4 Net Set Go – TBC	4.5%	3.1%	CoGB 2.6%	Very high participation. Existing three courts are adequate. Master plan to focus on appropriate support facilities / amenities
Cricket	TBC	1.3% CoGB	2.7%	TBC	Retain capacity for two cricket ovals.
Tennis	TBC	3.9%	4.6%	TBC	Existing three courts are adequate. Master plan to focus on appropriate support facilities / amenities.
Bowls	77 members	N/A	1.3%	Membership up from 45 two-three yrs ago. Average member age approx. 40 years old.	Participation expected to increase associated with population growth, broader sport promotion and young age profile of the club. Existing two greens can cater for additional use (up to approx. 100 members).
Family Equestrian Group	65-70 members	N/A	Pony Club Less than 1%	Activity reflects rural character of the town. All ages activity.	Participation expected to remain stable or growing associated with population growth.
Light Harness Trotting	15-20 members (3-5 active)	N/A	Less than 1%	Currently used Thursday's for Trials which may involve up to 12-15 horses.	Active members / use is declining. Safety issues and conflicts with other reserve uses will need to be addressed or the activity relocated to another site.

5. Asset Audit

The table summarises asset condition information for a selection of core assets within the reserve based on Council's Asset Management data. This list does not include infrastructure assets such as roads and drainage. The final column provides an indication of implications for the Master Plan having regard to the site assessment and comparison to contemporary industry standards undertaken as part of this project.

Asset Audit Table

Council's condition assessment ratings utilise the following scale: 0 = Brand New to 10 = Completely Failed.

The table lists assets based on year of creation from oldest to newest.

Ref	Asset ID		Approx. Year Created	Age as at 2021	Condition Rating	Comment / Implications
1.	149580	Bowling Club Shed	1956	65yrs	3.7	Explore opportunities to demolish and consolidate function into proposed new pavillion.
2.	158061	Bowling Club Store	1956	65yrs	3.9	Explore opportunities to demolish and consolidate function into proposed new pavillion.
3.	158068	Bowling Club Tank Store Shed	1956	65yrs	3	Explore opportunities to demolish and consolidate function into proposed new pavillion.
4.	158062	Oval Coaches Boxes x 2	1956	65yrs	3.7	Retain and replace at end of life.
5.	158064	Football Broadcast Box/Scoreboard	1956	65yrs	8.4	Demolish and replace with new scoreboard.
6.	158063	Football Ticket Box	1956	65yrs	7.4	Demolish and replace at eastern 'main' entrance.
7.	149572	Oval Curator and Storage Sheds	1956	65yrs	7	Explore opportunities to demolish and consolidate function into proposed new pavillion.
8.	149578	Stables – shed/shelter	1956	65yrs	4.9	Retain and replace at end of life.
9.	149577	Storage Shed (equestrian)	1956	65yrs	7.7	Demolish, replace if required.
10.	715200	Trotting Track - Four Tier Grandstand (Old)	1956 (TBC)	65yrs	5.9	Demolish and remove.
11.	158065	Trotting Track Broadcast Box	1956	65yrs	7.2	Demolish and remove.
12.	158058	Trotting Track Canteen-Pony Club shed	1956	65yrs	5.9	Explore opportunities to demolish and consolidate function into proposed new pavilion.
13.	158059	Trotting Track Kiosk	1956	65yrs	7.2	Demolish and remove.
14.	158060	Trotting Track Shed	1956	65yrs	6.6	Demolish and remove.
15.	149576	Viewing Box (Trotting)	1956	65yrs	6.8	Demolish and remove.
16.	149571	Frankel Pavilion (Football/Cricket)	1975	46yrs	4	Demolish and replace with new multi-use pavilion.
17.	149574	Toilet Block	1975	46yrs	5.7	Demolish and replace with new multi-use pavillion.
18.	149570	Bowling Pavilion	1980	41yrs	4.7	Demolish and replace with new multi-use pavillion.
19.	655096	Trotting Track Store Shed	1990	31yrs	4	Retain and replace at end of life if required.
20.	98748	Oval 1: Turf Oval	1996	25yrs	N/A	Retain, upgrade / refurbish surface as required.
21.	627315	Oval Irrigation	2013	8yrs	N/A	Retain.
22.	684076 684077	Cricket Practice Nets	2016	5yrs	2	Retain.
23.	684080 684081 684082	Netball Tennis Courts	2016	5yrs	2	Retain.
24.	664657	Netball Tennis Court - Sports Lighting	2016	5yrs	N/A	Retain.
25.	663812	Netball Spectator Shelter 1	2016	5yrs	0	Retain.
26.	663813	Netball Spectator Shelter 2	2016	5yrs		Retain.
27.	687080	Malone Park Playspace (near Pool)	2017	4yrs	2.4	Retain.

6. Demand Assessment

The following section presents a summary strategic analysis of likely future demand for core sporting fields/ courts within Marong based on an ultimate population of 8,000 people. The results confirm demand for additional playing fields – including for activities yet uncatered for, such as soccer. The Marong Structure Plan outlines proposed future public open space acquisition to help address potential future gaps in active playing fields, however there are a number of options as to how opportunities could be provided across the town.

Planned Future Provision (Marong Structure Plan)

The Structure Plan outlines future provision for a 'Neighbourhood sports facility, including township park' adjacent to the proposed Primary School site. A 12-hectare open space site is proposed. Future uses of the site are yet to be determined, however a site of this size could accommodate two full size ovals (e.g. Football/ Cricket); three full size soccer pitches; or a combination thereof.
Analysis of the provision ratios and existing participation levels suggests that there is likely to be future demand for the following playing fields to cater for an ultimate population of 8,000 people:

- 1 oval (Football/Cricket);
- 2 netball courts; and
- 2 soccer pitches.

Common Industry Ratio's

Activity	Current Provision	Common Planning Ratio	Theoretical Gap (pop. 8,000)	Current Ratio (2019 pop. 4,928)	Comment
Football	1 x snr Oval 1 x jnr Oval	1:4,500	2 ovals rqd. No Gap.	1:2,464	Football participation in Marong-Rural West is double the Bendigo average. Hence demand for playing fields will be higher than industry averages. Access to an additional (third) oval is likely to be required to maintain comparable levels of provision.
Netball	3 courts	1:5,000	2 courts rqd. No Gap.	1:1,642	Netball participation in Marong-Rural West is also significantly higher than the Bendigo average. Hence demand for courts will be higher than industry averages. A total of 5 courts would be required to maintain comparable levels of provision (i.e. 2 additional courts).
Cricket	1 x snr Oval 1 x jnr Oval	1:3,000	Gap = 1 oval Total of 3 ovals rqd.	1:2,464	There is a potential future gap of 1-oval.
Tennis	1 x 3 courts (Malone Pk) 1 x 4 courts (Torrens St)	1:2000	4 courts rqd. No Gap	1:704	No additional courts required.
Bowls	2 greens	1:10,000	1 green rqd. No Gap	1:2,464	No additional greens required.
Soccer	Nil	1:5,000	Gap = 2 pitches rqd.	Nil	Two pitches likely to be required.

Implications for Master Plan

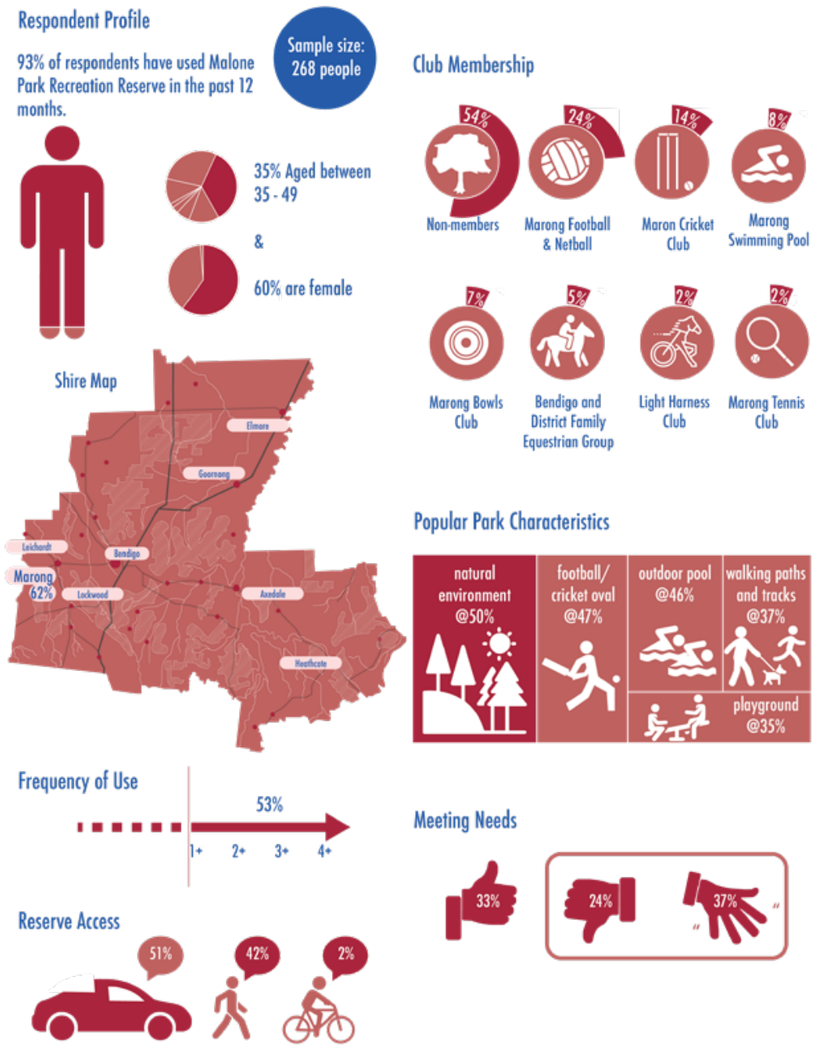
The Demand Assessment offers three main options for Council/Steering Committee consideration and direction to help inform the Master Plan for Malone Park. The options are:

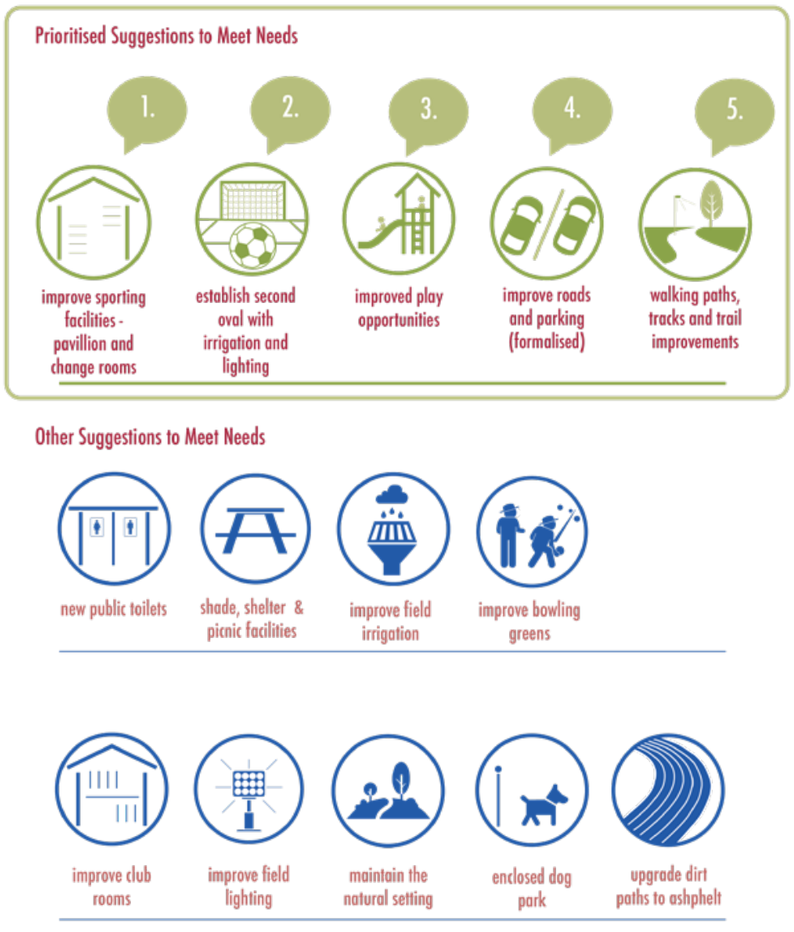
1. Consolidate existing sporting uses/activities at Malone Park, exploring options for possible additional playing field provision (i.e. 1 additional oval (third) and potential for 2 additional netball courts).
   - NB: Requires relocation of the Light Harness Club and repurposing the trotting track area.
2. Plan for/designate the proposed Neighbourhood Active Open Space as a site for soccer provision (e.g., Rural West soccer hub with 3-pitches – preferred model for club sustainability).
   - NB: There is potential to incorporate a soccer pitch as an interim measure at Malone Park (i.e., to help establish a participation base for soccer and support club formation) before ultimately relocating to the proposed New Neighbourhood Active Open Space.
3. Explore a mix of provision at both sites.
   - Options pending confirmation of Harness Club/Trotting Track at Malone Park.

7. Community Consultation Summary

Consultations occured with key stakeholders as part of the background research phase for the masterplan project in August 2020. Staff workshops and interviews were conducted with members from the City of Greater Bendigo, who raised issues pertaining to City planning, City partnerships, City Engineering and general facility use versus growth. The Malone Park User Group consists of existing tenant clubs at the reserve, including sporting clubs, the Bowls Club, Bendigo Family Equestrian Group and the Light Harness Trotting Club.

The representatives advocated improvements and recommentations outlined in the User Group Submission, which was documented in early 2019. These user groups highlighted problems and opportunities within the reserve specific to their needs, which included mutually shared suggestions for the Final Master Plan proposal. There was also a group opposed to major changes associated to the trotting track, preferring to advocate for upgraded and shared facilities. A summary of key comments, issues or priorities is identified in Appendix A.





8. Issues and Opportunities

The following is a summary of issues and opportunities identified during the preliminary consultation and site investigation phase.

Key Considerations:
Malone Park will be reinforced as the main Active Recreation Reserve servicing Marong and the Rural West region. Key considerations for Malone Park include:

- Primary base for sporting activity in the Town including Australian Rules Football, Cricket, Netball, Tennis, Lawn Bowls and Equestrian
- Enhance broader community health and amenity by reinforcing the landscape character
- Improve opportunities for community use including walking, swimming, play and community gatherings

Reserve Uses and Changing Urban Context

1. The population of Marong is expected to almost double by 2045 (approx.). Recent residential development directly borders the reserve – leading to increased informal use and increasing conflicts with current uses (i.e. Trotting Track).

2. Potential future Active Open Space (located off site) should be used to cater for future demands (e.g. soccer) and not dilute the sustainability of clubs at Malone Park.

3. Consolidate playing fields and courts at Malone Park – helping to support overall club sustainability and community connection and maximise opportunities for multi-use and shared use of facilities.

Community Activation & Safety

4. There is growing demand for participation in a range of informal physical activities in addition to formal sports. Opportunity to improve walking paths, informal and active play, trails and connections throughout the reserve. Use of the trotting track and Harness Club membership/active participation remains very low.

5. There are increasing conflicts between informal reserve users (e.g. walking, dogs, children) and current activities in the reserve. Opportunity to relocate the Harness Club to another location and re-purpose the area occupied by the Trotting Track.

6. Review road layout and car parking to improve safety, amenity and vehicle control (including speed).

7. Consider lighting requirements throughout the reserve, in particular key destinations, to improve safety and security. Opportunity to consider solar lights and ‘smart’ furniture.

Playing Fields/Courts

8. Upgrade the second oval to improve use, capacity and safety. Explore options for provision of one soccer field (shared use with cricket/football) as an interim measure. Soccer ultimately to be provided for at the proposed new active open Space in Town.

9. Explore opportunities for a third oval at Malone Park.

10. Identify options for future provision of two additional netball courts (NB: spatial identification only, future provision subject to confirmation of population growth and demand – i.e. by 2045).

Landscape and Environment

11. The reserve is home to a selection of significant trees and remnant vegetation, which should be conserved and protected

12. The reserve is dominated by a ‘bushland/rural’ character, which should be reinforced

13. Large parts of the reserve (i.e. along Bullock Creek, netball courts and main oval) are subject to flooding and inundation. Consider opportunities for relocation of built assets outside of the primary flood zone and/or remediation actions as required

14. The adjacent Golf Course has been identified in the Structure Plan as a potential Bushfire Relief area.

Possible Staging / Priorities

15. Additional playing field provision is dependent on relocation of the Harness Club and repurposing the area occupied by the Trotting Track.

Key Assets

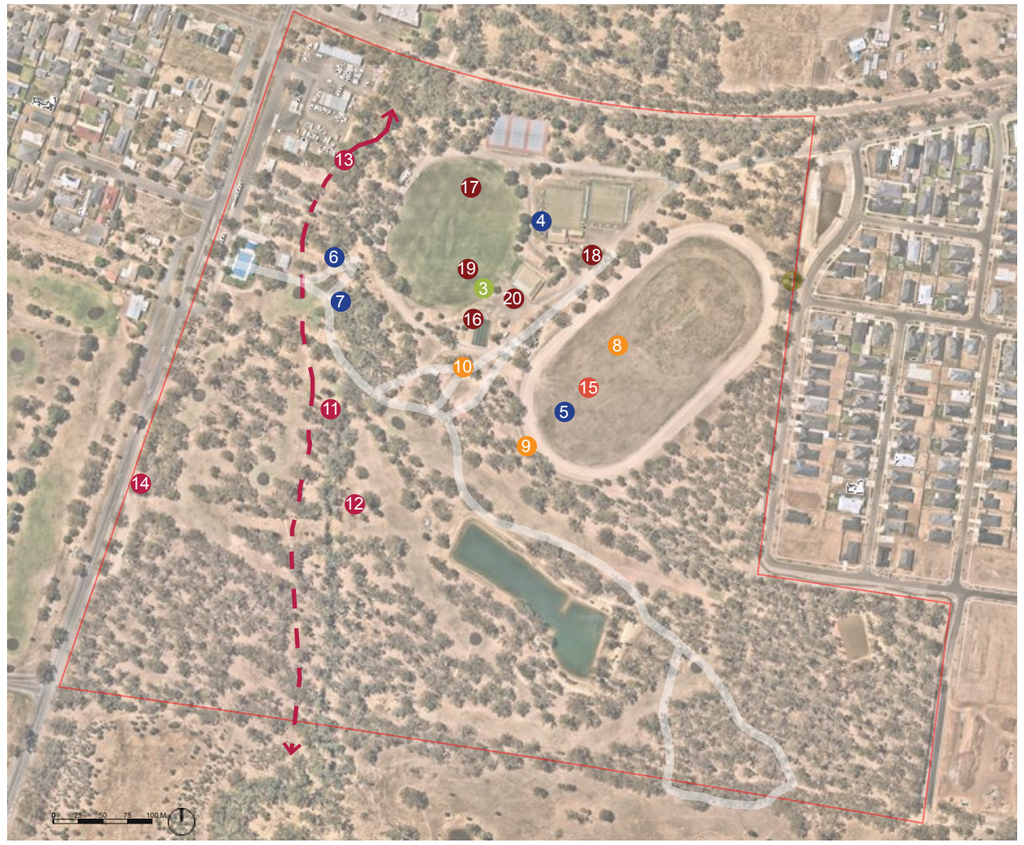
16. The majority of existing assets, including major infrastructure (i.e. sports pavilion, bowls club, public toilets) area are outdated and fail to comply with contemporary sport facility standards or guidelines (including female friendly facilities). Opportunity to consolidate and update facilities and infrastructure to current standards

17. The netball / tennis courts are not adequately serviced by support facilities (i.e. amenities, change rooms, shelter, kitchenette or storage). Opportunity to establish facilitates to support netball and tennis clubs and users.

18. The majority of ancillary infrastructure, fencing, shedding, roads, paths network and car parking, all require renewal, replacement or rationalization

19. Opportunities to either improve existing core facilities (i.e. Sports pavilion and Bowls Club) requiring substantial rennovation to each, or demolish and replace with a consolidated shared use community sporting hub facility to service all reserve users.

20. A new multi-use facility is recommended as it is likely to be more cost effective to deliver and provide an asset that will service the community for the next fifty years.



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9. Master Plan

The Master Plan

Following presentation of the initial Situation Analysis, Issues and Opportunities to the project Steering Committee and Reserve Reference Group, the following Final Master Plan has been developed which incorporates changes or suggestions from the aforementioned consultation.

The Master Plan is based on consolidating existing sporting uses/activities at Malone Park and ear-marking the proposed future Active Open Space in Marong for alternative sporting activities (e.g. Rural West Soccer Hub with potential for three full size pitches). The future site will be located adjacent to a proposed new Primary School and provide opportunities for a mix of education, community and sporting facilities in addition to those at Malone Park.

Establishment of an overarching “Marong Sports Club” is recommended for Malone Park which brings all existing clubs together under a collective governance model to help oversee implementation of the Master Plan and future management of proposed shared use facilities (i.e. new multi-use pavilion).

The Light Harness Club activities will be phased out of Malone Park and relocated to a more suitable location elsewhere in the municipality. Council will work closely with the Light Harness Club and other relevant stakeholders to explore options for a sustainable future for public harness activities across the City.











The fitness hub is intended to create a focus for individual exercise, but may also be used by sporting clubs.
(Image examples: Turruwul Park Fitness Hub, Sydney)



A multi-purpose half court and hit up wall will provide additional recreation and fitness activities as well as provide for older aged children.

The Recreation Precinct

One of the high priority action items proposed as part of the Malone Park Master Plan is the provision of a new recreation precinct. This precinct is proposed to include a ‘Township Standard’ playground, fitness stations, a multi-purpose half court/ hit up wall, shelter, picnic facilities, seating and a new toilet block. This precinct is intended to cater to people of all ages and abilities and be used by local residents, visitors and the sporting groups that use the reserve.

The images below outline some of the key facilities and materials proposed for the space including fitness equipment, multi-purpose half court, playground equipment (including swings, slides, accessible equipment, and nature play elements), shelters, paths and furniture.









The playground will cater to the needs of all ages and abilities and provide a variety of play experiences through the provision of traditional play equipment as well as nature based play elements.



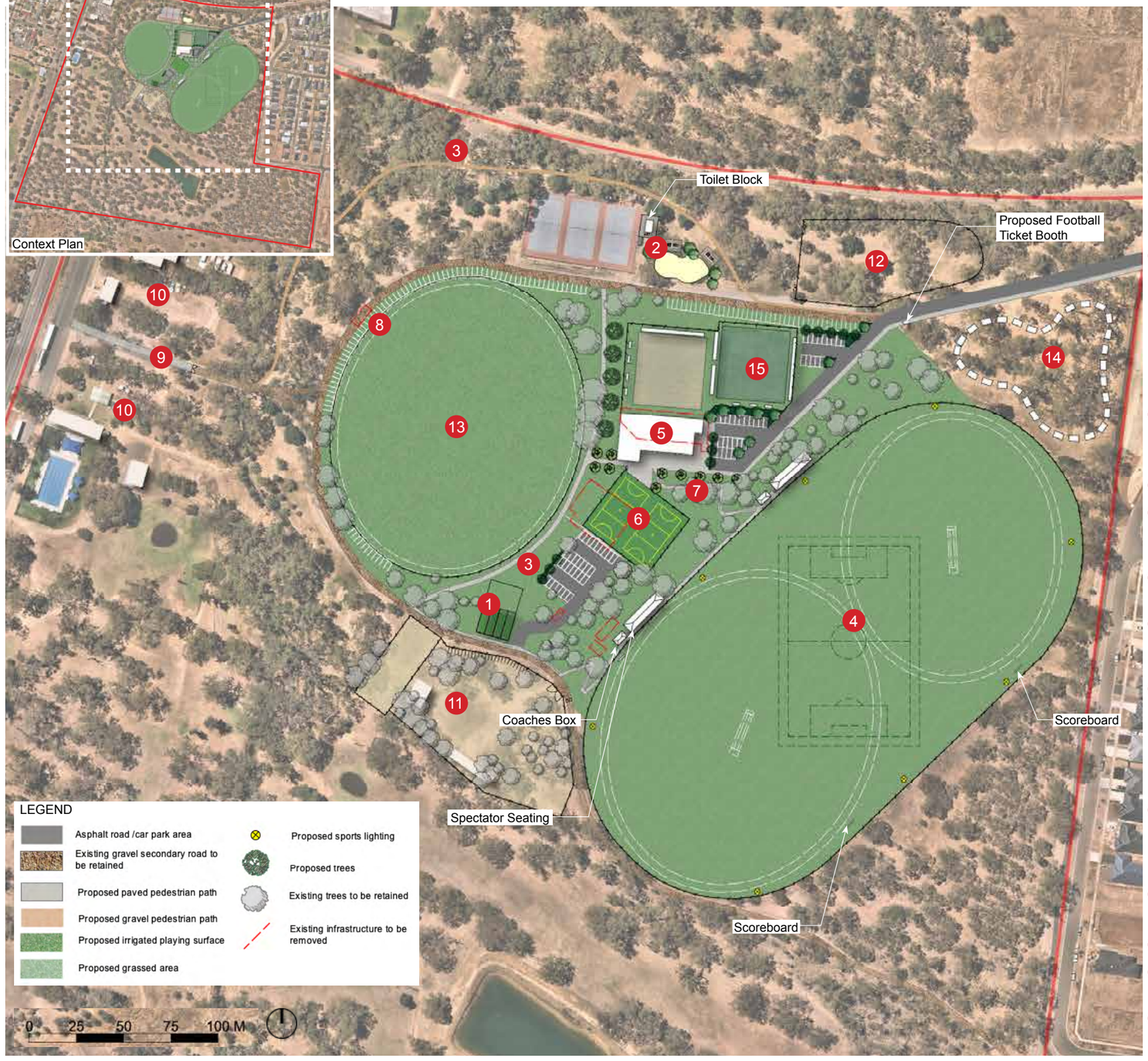




The recreation precinct is intended to be a combination of natural areas to compliment the surroundings as well as facilities that allow people to engage with this site (including paths, seats and shelter).

Malone Park
Master Plan





1. Retain existing cricket nets and provide a safety net/fence barrier.
2. Construct a new recreation precinct including 'Township Standard' playground, fitness station, multi-purpose half court/hit up wall, shelter, picnic facilities and toilet block. The toilet block will service the play space, informal users and the adjacent tennis/netball courts.
3. Provide a network of pedestrian paths throughout the reserve to connect existing and proposed facilities as well as provide recreational opportunities and improved access.
4. Provide a multi-use irrigated sports field with the capacity for 2x Australian Football League ovals (e.g. a senior oval 165m x 135m and a junior oval 135m x 110m) with the flexibility to provide line marking for soccer as required. Scoreboards, coaches boxes and spectator seating to be provided at both ends of the field, as well as sports lighting around the perimeter to support training and multi-use of the space.
5. Construct a multi-use pavilion to service the needs of all the clubs using the reserve. Pavilion works to include upgraded asphalt carpark and pedestrian forecourt.
6. Provide 2x dedicated fenced netball courts.
7. Landscape the central area around the pavilion, forecourt and car park area to provide vehicle control and improve pedestrian amenity.
8. Better define / formalise car parking spaces around the main oval.
9. Downgrade existing road and provide vehicle exclusion infrastructure to prevent through traffic whilst retaining pedestrian and emergency vehicle access.
10. Modify the existing car park, pedestrian and vehicle access, and landscaping at the western entrance to the reserve to continue to support the use and access of Men's shed, pool, playground and wayside stop. Existing playground, toilet block and pool forecourt area to be retained.
11. Construct a sand profile dressage arena (ideally 20m x 60m, subject to detailed design and site constraints i.e. trees and topography). Existing access, stables and stalls to be retained and upgraded as required.
12. Create a dedicated fenced dog off-lead area with signage, dog waste bags and dog waste disposal bins.
13. Upgrade and refurbish existing main oval as required.
14. Potential area for future BMX track subject to detailed design and vegetation considerations.
15. Consider upgrading an existing bowling green to a synthetic surface with lighting subject to future demand assessment.

10. Implementation Plan

The tables below outline the high, medium and low priorities for implementation. The order of priorities considers logistical construction sequencing, community needs and the operational capacity of Council and key stakeholders to implement actions. Priorities are provided as a guide only and will be subject to Council's annual budget considerations, competing resource demands and the capacity to attract external funding which could promote or downgrade individual actions as opportunities arise. The plan provides a framework for staged implementation within an indicative ten-year timeframe.

Prior to implementation of several key items, a number of pre-planning activities need to occur as outlined below. These items should be actioned as soon as possible to support implementation of the Master Plan.

ID	Action Item	Indicative Cost
PRE - PLANNING PRIORITIES		
i	**Club Governance:** Council to facilitate stakeholders to establish a Sports Club Governance Model and Operational Plan for the proposed new pavilion.	No cost. Complete within existing Council operational resources.
ii	**Multi-use Pavilion:** Facilitate pavilion design and tender documentation in consultation with sporting clubs. (NB: i and ii to be undertaken concurrently).	$40,000 - $50,000
iii	**Trotting Track:** Prior to modification of the existing trotting track, the City of Greater Bendigo to investigate options for relocation of the Harness Club and the future long-term provision for public harness / trotting activities across the City.	$30,000 - $50,000
iv	**Multi-purpose sports ground:** Prior to the construction of the multi-purpose sports ground, undertake design and documentation as required to ensure the space maximises future use flexibility and incorporates appropriate support infrastructure (e.g. drainage, irrigation, sports lighting, coaches boxes, etc).	$50,000 - $60,000
v	**Power supply:** Investigate and upgrade power supply/capacity to reserve	$5,000 - $10,000

High Priorities

High priorities focus on amenity improvements to encourage broader community use and appeal of the reserve, including the proposed new recreation precinct and shared path network. Establishment of the multi-use sports grounds also aims to enhance the capacity of the reserve and address community demand for playing fields. High priorities should be considered for implementation within 1-3 years from adoption.

ID	Action Item	Indicative Cost
HIGH PRIORITY		
1	**Cricket:** Retain existing cricket nets and provide a safety net/fence barrier.	$1,000 - $2,000
2	**Recreation Precinct**: Construct a new recreation precinct including 'Township Standard' playground, fitness station, multi-purpose half court/hit up wall, shelter, picnic facilities and toilet block. The toilet block will service the play space, informal users and the adjacent tennis/netball courts.	$400,000 - $500,000
3	**Path Network:** Provide a network of pedestrian paths throughout the reserve to connect existing and proposed facilities as well as provide recreational opportunities and improved access.	$500,000 - $600,000
4	**Multi-use Sports Ground:** Provide a multi-use irrigated sports field with the capacity for 2x Australian Football League ovals (e.g. a senior oval 165m x 135m and a junior oval 135m x 110m) with the flexibility to provide line marking for soccer as required. Scoreboards, coaches boxes and spectator seating to be provided at both ends of the field, as well as sports lighting around the perimeter to support training and multi-use of the space.	$2M - $2.5M

Medium Priorities

Medium priorities focus on improving facilities to support sporting clubs and increasing participation opportunities, including dedicated netball courts, equestrian dressage arena and new shared-use community sport pavilion. Medium priorities should be considered for implementation within 4-6 years from adoption, however access to external funding may influence implementation timing.

ID	Action Item	Indicative Cost
MEDIUM PRIORITY		
5	**Multi-use Pavilion:** Construct a multi-use pavilion to service the needs of all the clubs using the reserve. Pavilion works to include upgraded asphalt carpark and pedestrian forecourt.	$4M - $4.5M
6	**Netball:** Provide 2x dedicated fenced netball courts. NB: Detailed designs to consider site conditions including topography and location of existing power infrastructure. Ensure adequate circulation space and spectator amenity in addition to player/official shelters, etc.	$200,000 - $250,000
7	**Landscaping:** Landscape the central area around the pavilion, forecourt and car park area to provide vehicle control and improve pedestrian amenity.	$25,000 - $50,000
8	**Car Parking:** Better define / formalise car parking spaces around the main oval.	$5,000 - $7,500
9	**Western Entrance Access:** Downgrade existing road and provide vehicle exclusion infrastructure to prevent through traffic whilst retaining pedestrian and emergency vehicle access.	$20,000 - $30,000
10	**Existing facilities:** Modify the existing car park, pedestrian and vehicle access, and landscaping at the western entrance to the reserve to continue to support the use and access of Men's shed, pool, playground and wayside stop. Existing playground, toilet block and pool forecourt area to be retained.	$50,000 - $75,000
11	**Equestrian Facilities:** Construct a sand profile dressage arena (ideally 20m x 60m, subject to detailed design and site constraints i.e. trees and topography). Existing access, stables and stalls to be retained and upgraded as required.	$80,000 - $100,000
12	**Dog Off-lead Area:** Create a dedicated fenced dog off-lead area with signage, dog waste bags and dog waste disposal bins.	$10,000 - $20,000

Low Priorities

Low priorities reflect longer-term aspirations, including potential conversion of an existing turf bowling green to synthetic, main oval resurfacing and development of a formal BMX track. Low priorities should be considered for implementation within 7-10 years from adoption.

ID	Action Item	Indicative Cost
LOW PRIORITY		
13	**Main Oval:** Upgrade and refurbish existing main oval as required.	$250,000 - $350,000
14	**BMX:** Potential area for future BMX track subject to detailed design and vegetation considerations.	$20,000 - $30,000
15	**Bowls:** Consider upgrading an existing bowling green to a synthetic surface with lighting subject to future demand assessment.	$150,000 - $180,000

Appendix A: Community Consultation

Initial Stakeholder Consultation

The following table provides a summary of key findings, comments or suggestions from initial consultation with key stakeholders as part of the master plan project.

Group/ Club	Summary of comments, issues or suggestions	Implications for the Master Plan
CITY OF GREATER BENDIGO		
Staff Workshop & Interviews (19/8/20)	• Council took over Crown Land Committee of Management responsibilities approx. two years ago. • Main clubrooms need upgrading or replacing. Consider shared use, new community hub space. • Council is aware of increasing safety conflicts with the harness / trotting activity – i.e. horses, people, dogs etc. This will be exacerbated by increasing residential population adjacent to the reserve. • Junior football is restricted to one oval due to the poor condition of the 2nd oval inside trotting track. This is limiting participation. • The tennis/netball courts are not adequately serviced by amenities/club room. (NB: there are other tennis courts/club in Town). • There is increasing passive use of the reserve. • The Bowls Club has been growing participation and has a young member age profile. • There is limited provision for soccer west of Bendigo. • Review water and power supply security / capacity to service the reserve. • Improve way-finding, traffic management safety and functionality. City Planning: • Ultimate township population of around 8,000 people by approx. 2045. • Structure Plan outlines future open space acquisition for additional active recreation adjacent to proposed new primary school. • Future of the Golf Club is uncertain, sustainability is questionable. Future land use is uncertain. • Support walking and cycling connections. City Partnerships: • Support community hub facility models – not just catering for sport. • Potentially consolidate buildings within the reserve. • Low demand and high conflict with Trotting activity, consider possible relocation to Sebastian Reserve. • Men's Shed currently adjacent to the reserve, however would like additional space. Consider interface with the reserve. • Community Hall in Town will be retained for community use. City Engineering: • The reserve plays an important role in flood management, however the railway embankment helps limit impacts. • The current traffic/pedestrian bridge over Bullock Creek is to be retained, however could be downgraded as a thorough fare. Closure to through traffic could be considered. • Support improved shared path connections to/from the swimming pool and residential areas. Some planning has already been completed. • Any impact on significant trees will trigger off-set requirements. • The tennis/netball courts are within the flood zone, this will impact any new buildings / amenities if developed in this zone.	• Improve path safety, security, lighting, connections and opportunities for passive recreation. • Consider long-term options for soccer provision at the Reserve, or possibly at the future open space site adjacent to the Primary School. • Address asset renewal requirements. • Consider Flood Zone impacts on any proposed infrastructure. • Retain access to two ovals. Improve the condition of the 2nd oval. • Review the compatibility of uses across the site, consolidate shared use facilities - possible community hub - where appropriate. • Ensure allowance for appropriate service upgrades as required. • Low demand and high conflict with Trotting activity, consider possible relocation to Sebastian Reserve. • The traffic/pedestrian bridge over Bullock Creek is to be retained, however could be downgraded as a thorough fare. Closure to through traffic could be considered. • Improve way-finding, traffic management safety and functionality.

Group/ Club	Summary of comments, issues or suggestions	Implications for the Master Plan
SPORTS CLUBS / GROUPS		
Malone Park User Group (representative Jacquie, 19/8/20)	• The Malone Park User Group consists of representatives from the Marong Football and Netball Club, Marong Bowls Club, Marong Cricket Club, Marong Tennis Club, Marong Light Harness Club, and the Bendigo and District Family Equestrian Group. • The Group documented a submission to Council approximately 18months ago outlining key needs, issues and recommendations for improvement. These largely remain relevant and are therefore summarised below: • Redevelopment of clubhouse facilities to be inclusive of all groups within the park including: • Disabled access and facilities (disabled access and toilets) • Female Friendly sporting facilities (increased female change rooms) • Facilities for sporting officials (changing facilities for umpires) • Installation of solar power across the facility to address power issues. • Development of a new football ground/cricket pitch. • Improved lighting of existing football ground/cricket pitch. • Installation of shelter for people watching netball. • Installation of nets on the northern end goals of the football ground. • Resurfacing the Trotting track over the next 12-14 months. • Development of an undercover Equestrian arena with sand base. • New Playground and exercise park facilities within the park. • Replace all fencing across the park. • Increased storage facilities for all users within the park to support universal use. • Sealing of roads and parking areas. • Consideration of new sporting facilities such as a soccer ground and/or basketball courts. • Introduction of an Energy Efficient environment across the park including a sustainable water management plan for sporting fields and greens. • New shade infrastructure over bowling greens. • Move the existing lighting within the bowls club to meet club requirements.	• Consider options to address the recommended actions and improvement suggestions outlined in the User Group submission – as listed in the adjacent column. • NB: Options with and without the Trotting track may need to be considered.
Bowls Club	• Club has successfully increased participation in recent years, largely driven by a younger age profile – which reflects the character of the town. • Membership has increased from 45 to 77 members. The average age is approx. 40 years – considerably younger than most Bowls Clubs. • The club has members of all ages, including juniors and females. • The two greens are adequate for up to 100 members. • However, the pavilion is old and poor standard. It lacks adequate change rooms, disabled access and social facilities. • Green-side shade structures require upgrade and green lighting replaced with contemporary lighting. • The Bowls club is open to moving into a shared use facility, potentially managed under an overarching ‘sports club’ model.	• Consider options to consolidate sports club pavilion facilities into a consolidated new venue for all groups. • Retain existing bowls greens. • Upgrade support infrastructure as required, e.g. shade structures, outdoor social areas.

Group/ Club	Summary of comments, issues or suggestions	Implications for the Master Plan
Bendigo Family Equestrian Group	• Approx. 65-70 members. • Usual activities are dressage, show-jumping and trail riding. The former Cross-Country course in the reserve is not used. • The Club meets once per month for activities. • The Club has not hosted a major event (i.e. 100+ competitors) for several years due in part to the lack of adequate facilities and infrastructure. • Priorities for the club include a new large sand-based dressage area (i.e. 3 x 60m dressage areas) and access to shed/kitchen/toilet facilities. • Retain existing holding yards and drop-off area. • Support increasing use of the reserve to help casual surveillance and security. • Reserve Governance (i.e. Council and Reserve Committee) works well, however the Equestrian Group is concerned about a lack of security of tenure over facilities.	• Explore options to establish a new secure dressage area/s. • Consider options for access to appropriate shedding, kitchen and toilet facilities. • Define horse trails within the reserve. • Remove former cross-country trail jumps and infrastructure. • Retain existing holding yards and drop-off area. • Improve fencing and security throughout the reserve.
Light Harness Trotting Club	• Trotting activities have occurred on site since 1978. • Total membership is around 15-20, however only 3-5 are active or regular users of the reserve. • Members pay an annual fee of approx. $50p.a. to the club. • Formal use of the track by the club is limited to a few hours on Thursday's in summer only. • Use may involve up to 5-18 horses. • Casual use may occur outside these times. • Suggest the track in-field is too hard (unsuitable) for sports oval, however it could be an off-leash dog area. • Suggested priorities: • Ongoing track fencing replacement. • New/replace existing shed/club facility. • Better traffic management – close norther vehicle exit. • Leave us alone.	• Review the compatibility of uses across the site. • There is low demand and high conflicts associated with the trotting activity, consider possible relocation to Sebastian Reserve. • Consolidate shared use facilities - possible community hub - where appropriate.

Appendix B: Summary of feedback on Draft Master Plan

The following table provides a summary of key findings, comments or suggestions from submissions with key stakeholders on the Malone Park Master Plan Draft Master Plan.

Public Submissions		
Submission:	**Key points / feedback:**	**Implications for final Master Plan**
1. Wally Newton • President Marong Light Harness Club	• Request that Council re-consider closing the harness racing track at Marong. • The club has been happily co-existing with other sporting clubs in the precinct since its inception (1960's). • There is sufficient space to accommodate a harness racing track within Malone Park with two sporting ovals located inside the track. • The closure of the track will most likely result in the disbanding of the club and the loss of a very important facility to the greater Bendigo harness racing community. • Revised 'plan' provided by HRV for consideration.	• No change. • Support relocation of the Harness Club to an alternative (more suitable) venue – addressing safety and conflict concerns at Malone Park. • Re-purpose the area occupied by the Trotting Track to support growing community demand for active sports / playing fields. • The revised plan provided by Harness Racing Victoria (HRV) highlights that the trotting track and sports fields cannot adequately co-locate on site without significant impacts on native vegetation.
2. Vicki Moro • Secretary, Sebastian Light Harness Club Inc.	• The majority of our club members strongly oppose the loss of the Marong Harness Racing Track and the relocation of activities to Sebastian. • Many of our members currently utilise the Marong Track for the purpose of educating young horses and people in a safe and controlled environment. The majority of our members are what is known as hobby trainers. As such, they work a small number of horses each in an environment that has small numbers of horses and is not very busy. Consequently it is not safe nor in the best interests of the welfare of the horse to take them straight to busy trialing and racing environments such as Bendigo. • Rather than exclude harness sport from the redevelopment, we would much rather see a collaborative approach such as has occurred at Boort and Charlton in recent times. An upgraded facility could be another option for the recreational needs of the growing community. Harness Racing needs and wants more new and young industry participants.	• No change. • Support for retention of Harness activities at Malone Park are noted, however levels of participation demand remain extremely low. • No decision has been made about possible sites for relocation – a City-wide investigation of Harness activities and facility requirements has been recommended to guide Council future planning for such facilities.
3. Federation Veteran Vintage Classic Club	• Currently utilise Malone Park (inside the trotting track and the actual track area) for annual Picnic / Car Show Day. • The event has been running for 31 years and provides support to local clubs and service groups to raise money.	• No change. • Whilst the primary sport turf surfaces may need to be protected, there is considerable space around/within Malone Park to continue to run the event with a revised / reconsidered event layout.
4. Carl Coady • Chief Executive Officer of Trots Clubs Victoria (TCV)	• TCV is the industry body that represents the Country Harness Race Clubs in Victoria, of which Marong Light Harness Club is a member. • Marong Light Harness Club has been an integral location for the development of young harness racing participants and the education of harness horses in the region for generations. • The Club has a large supporter base, including an active committee of six members, approximately 50 paid club members, and a strong volunteer network. The Club is financially viable with excellent facilities and equipment in place for a trialing club which could not be easily transferred to a neighbouring track such as Sebastian without substantial capital investment. • The masterplan proposed presents an exciting opportunity for the local community, however TCV believe that the Marong Light Harness Club could be integrated within the masterplan which would enhance the offering as a premium sporting precinct.	• No change. • Support relocation of the Harness Club to an alternative (more suitable) venue – addressing safety and conflict concerns at Malone Park. • Re-purpose the area occupied by the Trotting Track to support growing community demand for active sports / playing fields.

Submission	Key points / feedback	Implications for final Master Plan
5. John Mamouney • Local resident, user of the Park, Founding President and Life Member of the Marong Light Harness Club.	• The draft Master Plan fails to adequately recognise and support the ongoing use of Malone Park by equine users and should be amended to provide for: • The ongoing operation of the Marong Light Harness Club. • The ability for equestrian clubs to grow and support the running of larger competitions and community events. • The support of the equine and racing industry in the Bendigo region.	• No change. • Support relocation of the Harness Club to an alternative (more suitable) venue – addressing safety and conflict concerns at Malone Park. • Re-purpose the area occupied by the Trotting Track to support growing community demand for active sports / playing fields. • The Master Plan supports ongoing use by equestrian activities (i.e. Bendigo Family Equestrian Group), including the development of a new sand profile dressage arena.
6. Heather and Rod Wearne • Local residents	• Support proposed enhancement of passive recreational assets such as a BMX track, a fenced off lead dog area and dedicated walking paths. A skateboard park and picnicking facilities along the creek may also be considered. • However, have concerns about the physical structures proposed in the Plan, particularly their location and their ability to meet the high expectations of the Marong community. • Playground – retain existing and develop new playground in the park. • Public toilets – retain and upgrade for passing traffic. Include toilets in the park to service sporting users and spectators. • Club rooms – are they big enough for all groups and community functions? • Parking - additional parking needed. • Congestion – ensure adequate space around proposed pavilion.	• Parking – explore options for additional parking near the new pavilion. • No other changes required. • Existing playground to be retained and a new playground established in the park. • Public toilets – retain existing, plus new toilets provided within the park (i.e. near tennis/netball courts, playground as well as within the new pavilion). • Club rooms – design subject to detailed design. • Congestion – subject to detailed designs, adequate space is provided in the master plan.
Council Web-based feedback:		
Thirty-eight (38) individuals provided feedback or comments utilising Council's web-based feedback form. The following section provides a summary of common comments or themes to emerge from the feedback.		
Themes:	**Key points / feedback**	**Implications for final Master Plan**
• Harness Activities	• A number of individual submissions expressed support for the existing Harness Club and ongoing use of the reserve. • The Club has strong historic links to the reserve. • If harness racing is to cease at Marong, a plan for providing these important facilities elsewhere in the region for the long term need to be made.	• No change. • Support relocation of the Harness Club to an alternative (more suitable) venue – addressing safety and conflict concerns at Malone Park. • Re-purpose the area occupied by the Trotting Track to support growing community demand for active sports / playing fields.
• Park Upgrades	• Upgrades to the reserve's power/electricity supply is urgently required. • Location of the Main oval has changed from initial consultation. • Support facilities for women's sport participation. • Consider an indoor stadium for netball, basketball and tennis. • Please consider inclusion of basketball court/ring on one of the multipurpose courts. • Consider locating proposed new public toilets and play facilities closer to the main pavilion (and away from Bowls club).	• No change. • The Master Plan already identifies the need for power upgrade. • Oval configuration has changed to maximise usage flexibility (i.e. new multi-purpose turf surface for football, cricket, soccer or 'other' activities as needed). • Indoor stadium not considered in scope of this project. • The proposed new community play precinct will service all users of the reserve – not just sports clubs.

Themes:	Key points / feedback	Implications for final Master Plan
• Main Pavilion	• Size and location of the pavilion requires further planning in consultation with user groups to ensure it is suitable for all. • Questions also remain regarding how this venue will be used/managed between groups. • Marong Community Action Group - we acknowledge that the designers of this Plan have met the basic inclusions of a future Plan for Malone Park. However, we are disappointed and feel that this Plan does not meet the high expectations of the community in terms of providing a showcase pavilion and facilities that meet the needs of a community that is expected to reach beyond 8000 residents	• No change. • Future detailed design planning will need to consider the spatial needs of individual clubs – as well as demand for 'community function' space. • Council will need to work with local clubs to establish a 'Sports Club' model and operational guidelines for the shared pavilion.
• Car Parking & Traffic	• Additional car parking is required around the main oval and to service the main pavilion area. • Concern that the exit out of Malone Park Rd will become congested particularly during football and cricket season, the intersection is a hazard for residents as it's difficult to enter and so in both directions to get onto. • County footy supporters like to park around the main oval, therefore parking on the west side of main oval is inadequate and too far from the 'action,' i.e. canteen and pavilion facilities.	• The final master plan will explore options for additional car parking around the main oval and adjacent to the main pavilion.
• Synthetic Bowls Green	• The Marong Bowls Club Board was hoping for an additional synthetic green rather than converting one grass green to synthetic to help cater for existing and future participation demand.	• No change. • The demand assessment and industry benchmarks do not support provision of a third green for a population of 8,000 people.

City of Greater Bendigo – Malone Park Master Plan
Summary of feedback on initial Draft Master Plan

Public submissions:

Submission:	Key points / feedback:	Implications for final Master Plan
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2. Vicki Moro • Secretary, Sebastian Light Harness Club Inc.	• The majority of our club members strongly oppose the loss of the Marong Harness Racing Track and the relocation of activities to Sebastian. • Many of our members currently utilise the Marong Track for the purpose of educating young horses and people in a safe and controlled environment. The majority of our members are what is known as hobby trainers. As such, they work a small number of horses each in an environment that has small numbers of horses and is not very busy. Consequently it is not safe nor in the best interests of the welfare of the horse to take them straight to busy trialing and racing environments such as Bendigo. • Rather than exclude harness sport from the redevelopment, we would much rather see a collaborative approach such as has occurred at Boort and Charlton in recent times. An upgraded facility could be another option for the recreational needs of the growing community. Harness Racing needs and wants more new and young industry participants.	• No change. ○ Support for retention of Harness activities at Malone Park are noted, however levels of participation demand remain extremely low. ○ No decision has been made about possible sites for relocation – a City-wide investigation of Harness activities and facility requirements has been recommended to guide Council future planning for such facilities.
3. Federation Veteran Vintage Classic Club	• Currently utilise Malone Park (inside the trotting track and the actual track area) for annual Picnic / Car Show Day.	• No change. ○ Whilst the primary sport turf surfaces may need to be

Submission:	Key points / feedback:	Implications for final Master Plan
	• The event has been running for 31 years and provides support to local clubs and service groups to raise money.	protected, there is considerable space around/within Malone Park to continue to run the event with a revised / reconsidered event layout.
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6. Heather and Rod Wearne • Local residents	• Support proposed enhancement of passive recreational assets such as a BMX track, a fenced off lead dog area and dedicated walking paths. A skateboard park and picnicking facilities along the creek may also be considered.	• Parking – explore options for additional parking near the new pavilion. • No other changes required. ○ Existing playground to be retained and a new playground established in the park.

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	• However, have concerns about the physical structures proposed in the Plan, particularly their location and their ability to meet the high expectations of the Marong community. ○ Playground – retain existing and develop new playground in the park. ○ Public toilets – retain and upgrade for passing traffic. Include toilets in the park to service sporting users and spectators. ○ Club rooms – are they big enough for all groups and community functions? ○ Parking - additional parking needed. ○ Congestion – ensure adequate space around proposed pavilion.	○ Public toilets – retain existing, plus new toilets provided within the park (i.e. near tennis/netball courts, playground as well as within the new pavilion). ○ Club rooms – design subject to detailed design. ○ Congestion – subject to detailed designs, adequate space is provided in the master plan.

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Thirty-eight (38) individuals provided feedback or comments utilising Council's web-based feedback form. The following section provides a summary of common comments or themes to emerge from the feedback.

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• Car Parking & Traffic	• Additional car parking is required around the main oval and to service the main pavilion area. • Concern that the exit out of Malone Park Rd will become congested particularly during football and cricket season, the intersection is a hazard for residents as it's difficult to enter and so in both directions to get onto. • County footy supporters like to park around the main oval, therefore parking on the west side of main oval is inadequate and too far from the 'action,' i.e. canteen and pavilion facilities.	• The final master plan will explore options for additional car parking around the main oval and adjacent to the main pavilion.
• Synthetic Bowls Green	• The Marong Bowls Club Board was hoping for an additional synthetic green rather than converting one grass green to synthetic to help cater for existing and future participation demand.	• No change. o The demand assessment and industry benchmarks do not support provision of a third green for a population of 8,000 people.

17. PETITIONS AND JOINT LETTERS

17.1. Petition: Hustlers Reef Reserve Path

Author:	Brian Westley, Director Presentation and Assets
Responsible Director:	Brian Westley, Director Presentation and Assets

Purpose

Petitions and joint letters with ten (10) or more signatures are presented at the Council Meeting and a Report is to be provided within two Meetings, unless otherwise resolved.

Recommended Motion

That Council receive the petition and a response prepared within two (2) meetings.

Executive Summary

The following petition has been received from residents and ratepayers, as outlined below:
“We the undersigned residents and ratepayers of Greater Bendigo City Council formally request Council to carry out the following measures (as outlined in the petition: legal liability, pathway surface, pathway route and footpath cyclic maintenance) to reduce visitor slipping/falling risks posed by the existing path within Hustlers Reef Reserve”
Signatures - 14

Background

Nil.

Report

Nil

Communications/Engagement

Nil

Financial Sustainability

Nil

Risk Assessment

Nil

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025

Outcome 1 - Lead and govern for all

Secondary Council Plan Reference(s)

Goal 1 – Accountable, financially responsible, equitable, transparent decision making

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. Petition - Hustlers Reef Reserve Path - 31 May 2022 [**17.1.1** - 5 pages]

Petition to Council May 2022 31/5/22

Initiated by Aldo Penbrook

We the undersigned residents and ratepayers of Greater Bendigo City Council formally request Council to carry out the following measures to reduce visitor slipping/falling risks posed by the existing path within Hustlers Reef Reserve.

Legal Liability

This petition has been precipitated by a recent fall on Hustlers Reef Reserve path. [redacted], a regular walker in the reserve, slipped & fell on a steep eroded section of the path. [redacted] suffered bruising and chest pains that lasted for 3 days

Fortunately for Council, [redacted] has decided not to pursue legal action

It's imperative for Council to reduce its exposure to legal liability for a similar scenario being repeated in the future

Pathway surface

Two steep slope sections of the pathway between Hustlers Rd and Niemann St., Bendigo present a high risk of slipping/falling for visitors, especially those walking downhill. These sections are eroding and covered in loose gravel and rocks.
(refer Hustlers Reef Reserve map attached)
Our preferred solution is a polymer surfaced pathway. An appropriately colored polymer path will be sympathetic to the heritage values of the reserve
(reference: Hustlers Reef Reserve Conservation Management Plan 2012)
Our least preferred option is a concrete-surfaced pathway. The raised edges of a concrete path pose an additional safety hazard for visitors. A concrete path will not be sympathetic to the heritage values of the reserve

Pathway route

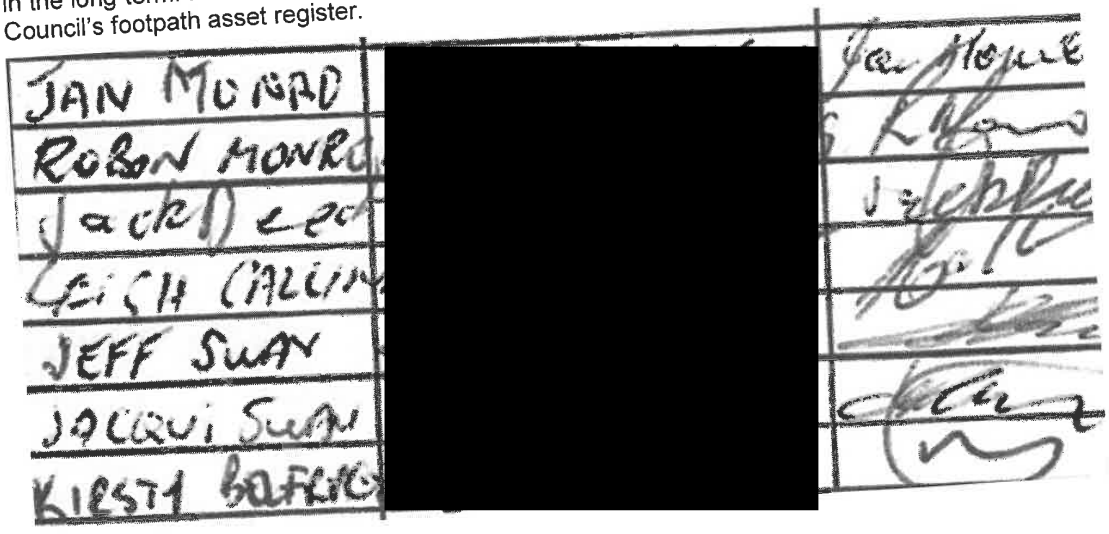
The present pathway travels in a straight line between Hustlers Rd and Niemann St

Our preferred pathway route will improve the visitor experience in the reserve by providing a gentler slope to better cater for visitors of all ages and abilities. Such a path will also provide better access to each Gold Miners Walk sign as part of their heritage experience
(refer Council Draft Concept Plan 2018 attached)

Footpath cyclic maintenance

When the reserve was under DEWLP management, annual grading of the path occurred. When Council took over the reserve's management in 2004, path grading ceased.

We ask Council to institute a path cyclic maintenance program to guarantee the path's sustainability in the long-term. For this to occur Hustlers Reef Reserve path we ask that the path be added to the Council's footpath asset register.



Petition to Council May 2022 31/5/22

Initiated by Aldo Penbrook

We the undersigned residents and ratepayers of Greater Bendigo City Council formally request Council to carry out the following measures to reduce it's legal liability regarding visitor slipping/falling risks posed by the existing path condition within Hustlers Reef Reserve.

Legal liability

This petition has been precipitated by a recent fall on the Hustlers Reef Reserve path. [redacted] a regular walker in the reserve, slipped & fell on a steep eroded section of the path [redacted] suffered bruising & chest pains that lasted for 3 days.

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Name	Address	Signature
Aldo Penbrook	[redacted]	
Lorraine Meades		
Brenton R. Thergan		
Greg J. Butler		

Petition to Council May 2022 31/5/22

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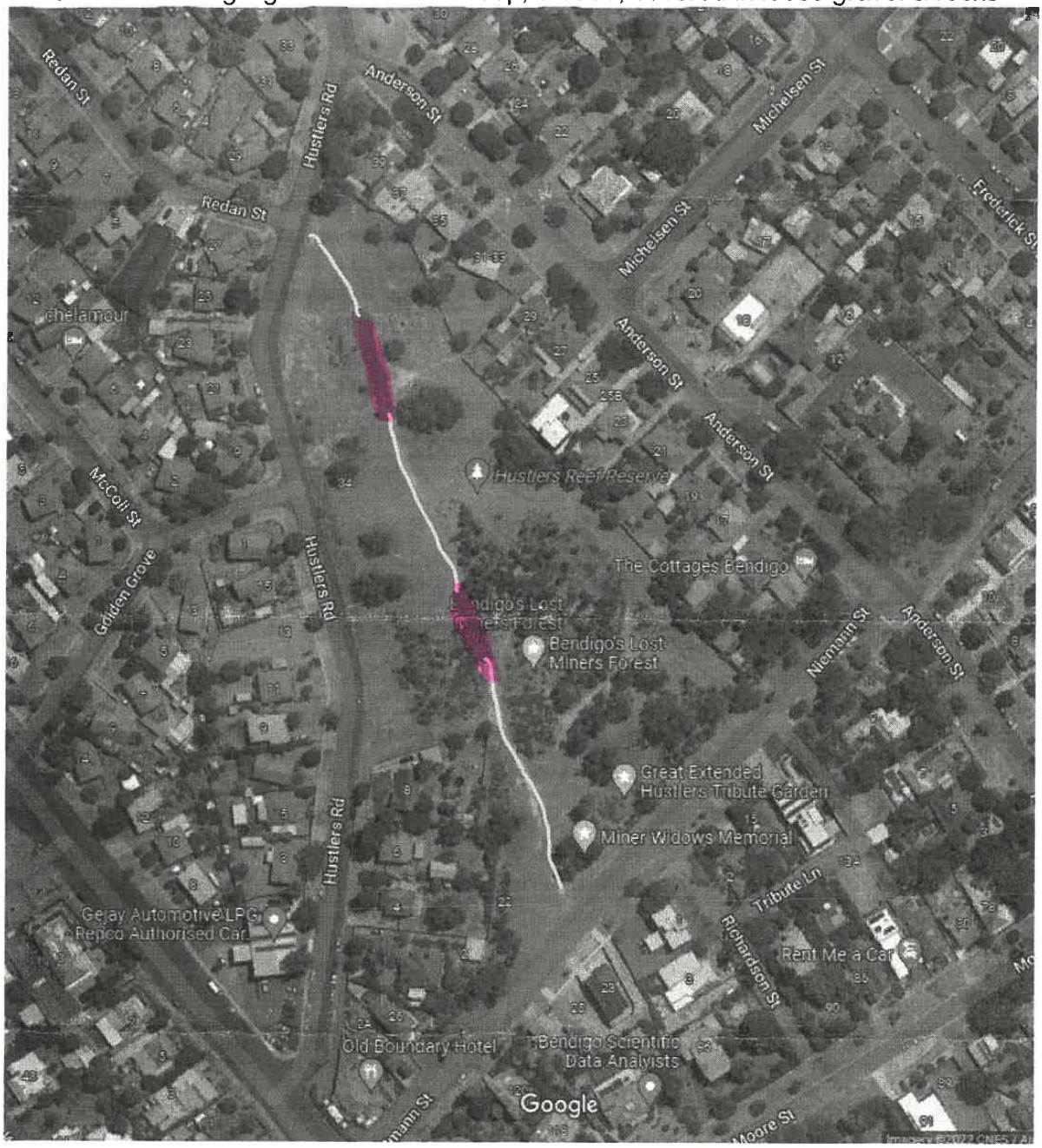
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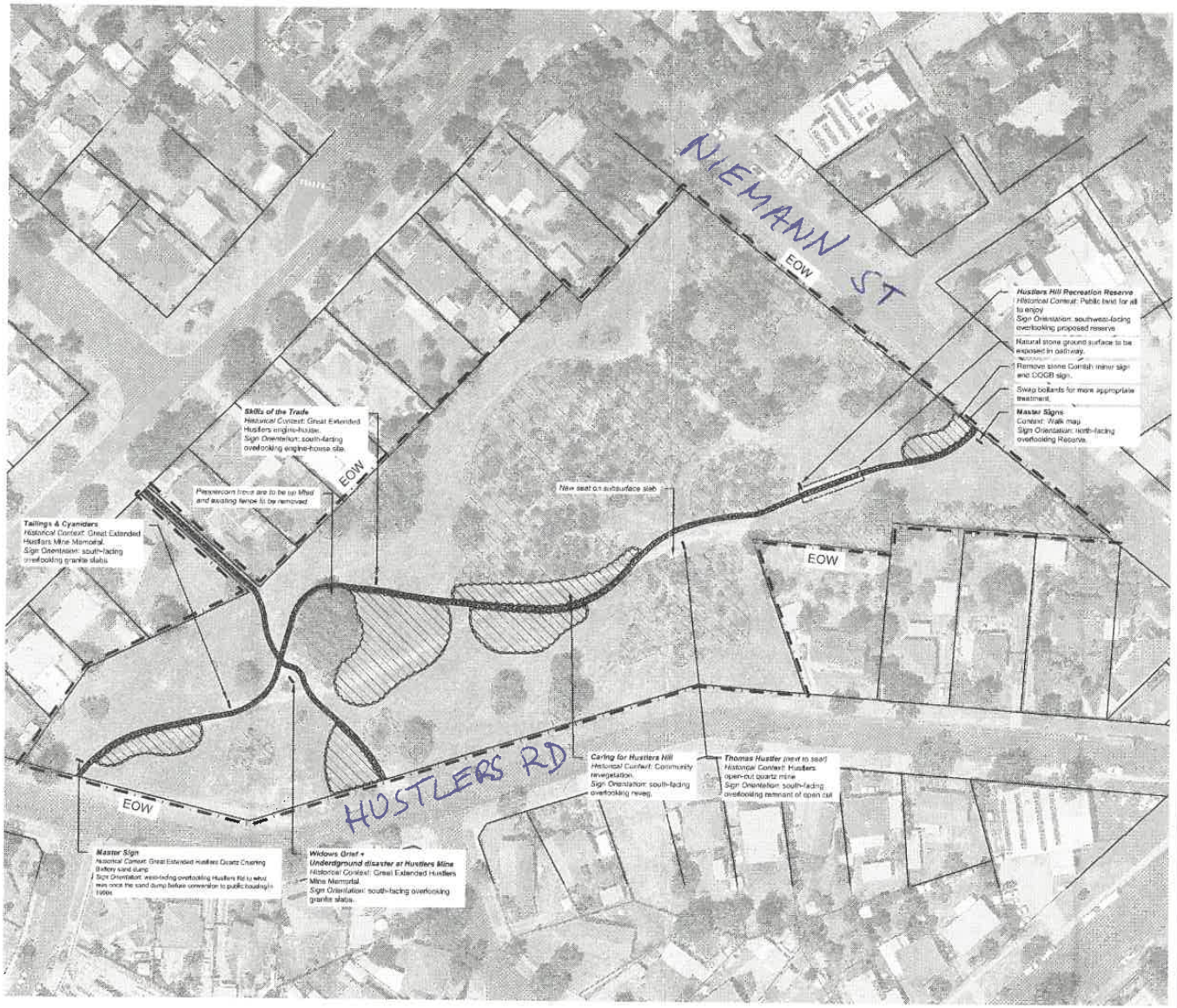
Name	Address	Signature
Aldo Penbrook	[redacted]	
Lorraine Meades		
Anne Fahey		A Fahey
Charles Fahey		C Fahey
CATHERINE CURTIS		C Curtis

Hustlers Reef Reserve 2022

Existing footpath shown in yellow

Path sections highlighted in red are steep, eroded, covered in loose gravel & rocks





NOTE:
Contractor to locate and secure all services prior to any excavation or other disturbance of the ground.

Possible additional seat, exact site location to be discussed.

CITY OF GREATER BENDIGO

GENERAL NOTE:
This drawing must be read in conjunction with all relevant contracts, specifications, reports and drawings.

ISSUE / DATE	DESCRIPTION

PROJECT
HUSTLERS REEF RESERVE

DRAWING TITLE
DRAFT CONCEPT PLAN

DRAWING STATUS
PRELIMINARY

DRAWN BY
JL

DATE
30.04.2018

CHECKED

APPROVED

DRAWING NO.
L1.1

North

Scale 0 5 15

1:500@A1
1:1000@A3

18. ABORIGINAL RECONCILIATION

Nil

19. A CLIMATE-RESILIENT BUILT AND NATURAL ENVIRONMENT

19.1. Coliban Integrated Water Management Forum's Strategic Directions Statement

Author:	Liam Sibly, Senior Water Strategy Officer
Responsible Director:	Vicky Mason, Director Health and Wellbeing

Purpose

To seek Council endorsement of the Strategic Direction Statement (SDS) for the Coliban Integrated Water Management (IWM) Forum.

Recommended Motion

That Council endorse the final draft of the Strategic Direction Statement for the Coliban Integrated Water Management Forum.

Executive Summary

The Coliban Integrated Water Management (IWM) Forum is a regional partnership focused on progressing water outcomes across central Victoria. The Coliban IWM Forum is facilitated by the Department of Environment, Land, Water and Planning (DELWP). The City has been an active member since its inception in 2018.

The Strategic Direction Statement (SDS) is the main strategic document to guide investment in the Coliban IWM Forum. Including projects in the SDS is a prerequisite for obtaining funding from DELWP's regional IWM grants.

In 2021/22, DELWP, in consultation with the partners of the Coliban IWM Forum, have been updating the Coliban forum's SDS to reflect current organisational and regional priorities. A copy of the SDS is attached.

The City is listed as the lead organisation for the following two projects in the SDS: **Implementation of Reimagining Bendigo Creek** and the **Bendigo Regional Employment Precinct**. These projects are considered the priority IWM projects to advance in the next three years, which is the lifespan of the SDS.

Background

In 2016, DELWP developed the State-wide water policy - Water for Victoria. A key policy direction was the establishment of integrated water management forums to increase collaboration and shared decision making amongst the water sector, local governments and Traditional Owners. Since this time, DELWP have established and facilitated metropolitan and regional IWM forums across Victoria. Additionally, DELWP have led the development of Strategic Direction Statements (SDS) to outline the investment priorities for each region. Three funding rounds have also been delivered to advance IWM outcomes.

The first SDS for the Coliban IWM forum was developed in 2018. It included a series of projects to advance IWM outcomes in Bendigo and the Coliban region. In 2021/22, DELWP commenced updating the SDS to reflect current and upcoming priorities. City staff in consultation with partner organisations and DELWP developed the content of the SDS including writing a case study about the co-design process for the Reimagining Bendigo Creek Plan. City staff also identified projects to include in the SDS.

In February 2022, the chair of the Coliban IWM Forum contacted Council staff about endorsing the SDS.

Report

The Strategic Direction Statement for Coliban IWM Forum is the principal investment document to attract funding from the State Government for integrated water management projects. The SDS is updated every three years to reflect local and regional priorities. The City has nominated two projects for inclusion in the draft SDS, these include:

- **Bendigo Regional Employment Precinct** – a feasibility study to investigate alternative infrastructure to manage water and wastewater from the proposed industrial precinct.

- **Implementation of Reimagining Bendigo Creek Plan** – a project to restore the health of Bendigo Creek, as well as enhance cultural values and create community connections to the creek. The following five sub-projects are identified in the SDS to progress the plan:

    1. Bendigo Creek Instream Works – a design and construction project to demonstrate the potential of the revitalised creek (now funded).
    2. Long Gully Constructed Wetlands Stage 1 - a construction project that would commence the development of a linear park with multiple environmental, cultural and community outcomes.
    3. Monitoring – implementation of a monitoring project to measure the health of creek.
    4. Re-naturalisation of Back Creek - A feasibility study to investigate this outcome.
    5. Masterplan and Business Case - A masterplan and business case for the implementation of Reimagining Bendigo Creek including the Low Line project. This would aim to make the broader project 'investment ready'.

In addition, the City is listed as a supporting partner for the following projects:

- **Wanyarram Dhelk** – a Djandak led project to heal waterways and enhance Djaara cultural values.

- **Drought Proofing Bendigo with Managed Aquifer Recharge** – a Coliban Water led project to further investigate the potential of storing surplus water from Lake Eppalock underground in an aquifer. *Note that Coliban Water has submitted a funding application to the current round of IWM grants to further explore this proposal in consultation with relevant stakeholders.*

- **Diversifying Water Supplies for Parks and Gardens** – a Coliban Water led project that will work with local governments to identify alternative water solutions for sporting and community recreational assets.

These projects will advance water security and enhance urban liveability in the Coliban region, as well as advance Djaara's self-determination.

Timelines

The SDS will be finalised following endorsement by all partner councils and agencies. It will then be submitted to the Victorian Government for approval.

Communications/Engagement

The City nominated projects within the SDS have been developed in consultation with a range of internal Council departments. Additionally, City staff worked with relevant staff from Djandak, the North Central Catchment Management Authority and Coliban Water to develop and refine projects listed in the SDS.

Financial Sustainability

The finalisation of the SDS for the Coliban IWM Forum has no direct financial impact on the City. The inclusion of the Bendigo Regional Employment Precinct and Implementation of Reimagining Bendigo Creek as priority projects in the SDS will enhance opportunities to access external funding for these initiatives.

Risk Assessment

The approval of the SDS has no operational risks.

Delivering projects identified in the SDS for the Coliban IWM Forum will contribute to mitigating the strategic risk of '*Climate induced natural disasters and legacy environmental issues impact Council's services and assets and the wellbeing of the Greater Bendigo community*.' It will contribute to risk mitigation by advancing water security, enhancing urban liveability and increasing waterway health.

Policy Context

Mir Wimbul (Council Plan 2021-25)

The SDS for the Coliban IWM Forum aligns with the following goals form the *Council Plan Mir Wimbul 2021-25*:

1. Lead and govern for all – the IWM forum is a regional governance group to decide investment priorities for water security, urban liveability and waterway health.
2. Healthy, liveable spaces and places – delivering IWM projects listed in the SDS will enhance the liveability of Greater Bendigo.
3. Strong, inclusive and sustainable economy – there is a specific project for investigating water solutions to facilitate development of the Bendigo Regional

Employment Precinct. There are also projects aimed at advancing the region's water security.
4. Aboriginal reconciliation –the SDS includes several projects to heal Country and support self-determination of Traditional Owners.
5. A climate-resilient built and natural environment – the SDS includes projects to adapt to a changing climate and restore the health of urban waterways.

The SDS also aligns with the *Climate Change and Environment Strategy 2021-2026,* specifically with the Reimagining Bendigo Creek Flagship Project and the following 2036 goals:

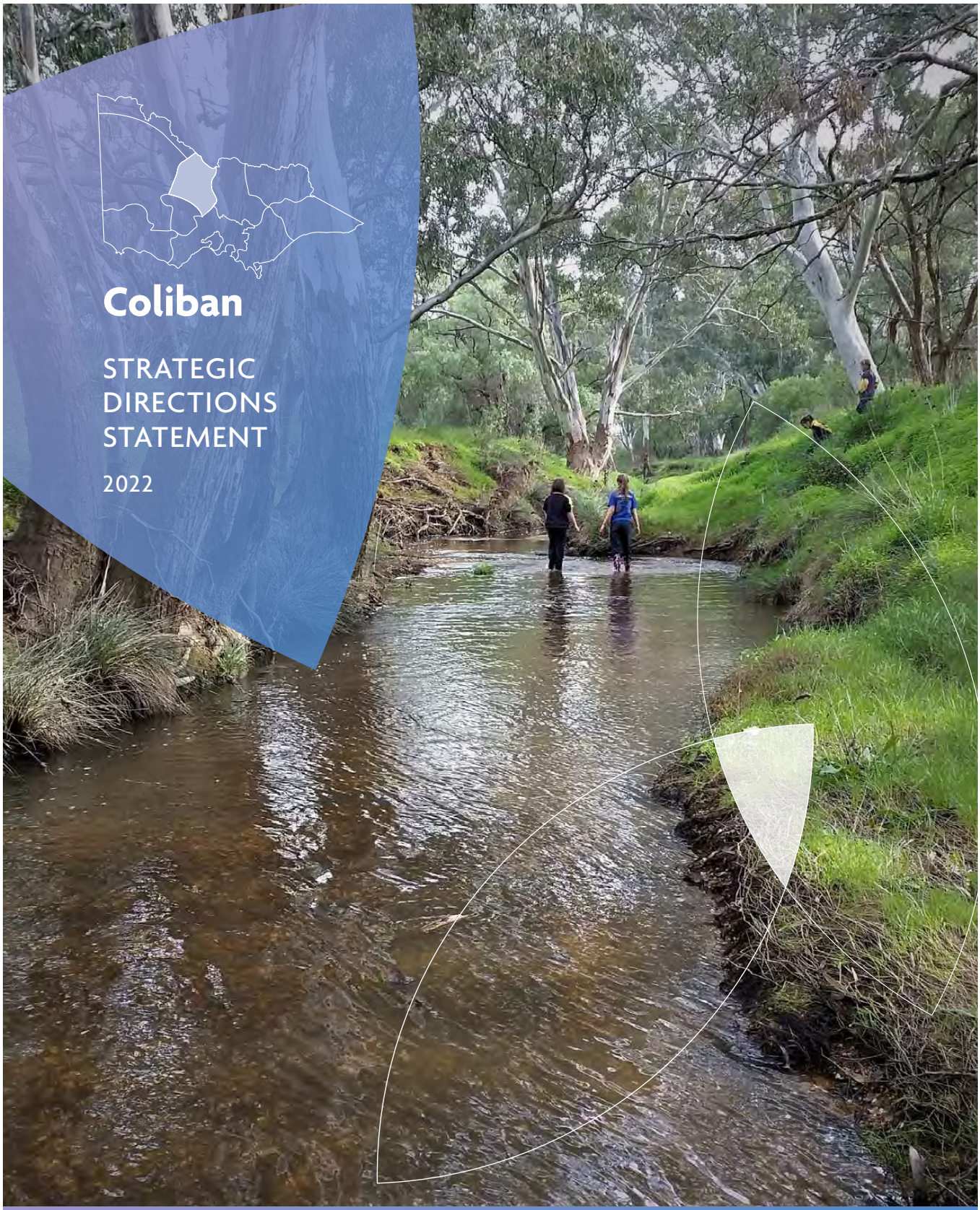
- *Goal T. Investment in water projects is secured through collaborative partnerships*
- *Goal U. Waterways in Bendigo are healthy, connected and nurturing places*

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. 2022 Coliban Strategic Directions Statement [**19.1.1** - 21 pages]


Coliban
STRATEGIC
DIRECTIONS
STATEMENT
2022
Integrated Water
Management Forums
VICTORIA
State
Government
Environment,
Land, Water
and Planning

ACKNOWLEDGEMENTS

The Coliban Integrated Water Management Forum covers Dja Dja Wurrung, Yorta Yorta, Taungurung and Barapa Barapa Country, whose ancestors and their descendants are the Traditional Owners of this Country.

The Coliban Integrated Water Management Forum proudly acknowledges Victoria's Aboriginal communities and their rich culture, and pays its respects to their Elders past and present. The forum also recognises the intrinsic connection of Traditional Owners to Country and acknowledges their contribution to the management of land, water and resources. We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us. We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

The 2022 Coliban Integrated Water Management Forum Strategic Directions Statement has been developed thanks to the contribution of forum members and practitioners. Their input has progressed through group meetings and workshops, and individual meetings with project sponsors and between collaborators. This process has allowed ideas to develop into mature project themes and initiatives.

Collaboration and cross-pollination have been key outcomes of the forum, with ideas being shared and improved by input from project partners.

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Cover photo: Bendigo Creek. Credit: Felicity Johnson

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Early morning mist on Lauriston Reservoir (2011). Courtesy: Coliban Water



FOREWORD

Water is fundamental to the people and natural environment of our beautiful region, which depend on water to grow and thrive. Ensuring that our large cities and small regional towns have the resilience needed to be healthy, active and engaged communities is part of the mission of the Coliban Integrated Water Management Forum.

For me, the defining feature of our work in the forum is the manner in which it formalises the informal mechanisms currently operating across our region. We are working together towards shared goals and responsibilities to provide sustainable and healthy water for our environment and our people, in spite of the challenges of a changing climate. The forum acknowledges these working relationships and prompts us to seek more collaborators in our community.

We remember the adversity faced during the Millennium Drought and how that period galvanised action for building infrastructure to underpin our water security. Many members of the forum have been involved with the emergency responses to flooding and storm events, such as those of early 2011 and June 2021, and the localised flash-flooding that occurs in built-up environments. Our group has first-hand knowledge of environmental degradation of our waterways and the projected impacts of a changing climate on our water resources. And, importantly, there is a deep understanding of the positive benefits that communities receive from green spaces and the presence of water in the environment.

We are blessed to have First Nations communities who have a strong knowledge of and connection to Country, and many leaders who deeply understand the challenges presented by our water variability. They are strategic thinkers who are committed both to short-term pragmatic solutions and longer-term strategic requirements to move our region to one where water is sustainably sourced, used, managed and valued. Our region benefits enormously from the leadership connections and existing working relationships between organisations, that include local government, water authorities, catchment management authorities, Traditional Owner groups and the Victoria State Government's central policy and an enabling unit in the Department of Environment Land Water and Planning. All these participants play a specific role and have a deep understanding of each element of our water cycle.

I acknowledge all the work our forum member agencies do, thank them for their involvement in preparing this Strategic Directions Statement, and wish them well in their ongoing efforts.

We are better together. My ongoing desire is that the formalised relationships and focus made possibly by the forum provides greater understanding, support and inspiration that will help us all as we work together towards a sustainable water future.



Jenny Dawson

Chair, Coliban Integrated Water Management Forum

EXECUTIVE SUMMARY

The *Integrated Water Management Framework for Victoria* (2017) is designed to help regional stakeholders work together, ensuring the water cycle contributes to the liveability of towns and cities in Victoria, with communities at the centre of decision making.

The Coliban Integrated Water Management Forum is one of 10 regional integrated water management (IWM) forums across Victoria that are realising the local implementation of the framework.

Vision

Resilient and liveable communities.

Purpose

Working together to create water cycle outcomes that support the future health and resilience of our environment and communities.

The 2018 Strategic Directions Statement (SDS) articulated the collaborative intent and shared agreement of all stakeholders involved in the Coliban IWM Forum. This 2022 SDS update provides a progress report on the forum's activity, its changing priorities, and future opportunities. It describes the water security challenges and opportunities of the region, sets the strategic direction for the next few years, and outlines the 'best endeavours' or ways in which IWM is and will be applied through projects proposed, in progress and completed for the region.

Key themes and challenges

The forum's experience since establishment has highlighted the need to focus its vision to address three key areas of greatest need:

- We need water for landscapes, for people and for the environment, and for healing Country.
- With a growing regional population in both large and small settlements, the Coliban region needs to do more with the water it has, and manage and plan accordingly.
- Hotter, drier conditions and strong community expectations for greater climate action means we need to act now to adapt to a rapidly changing climate.

The priorities and projects of the forum have been developed to meet these emerging challenges.

Section of Bendigo Creek. Credit: Bryley Savage



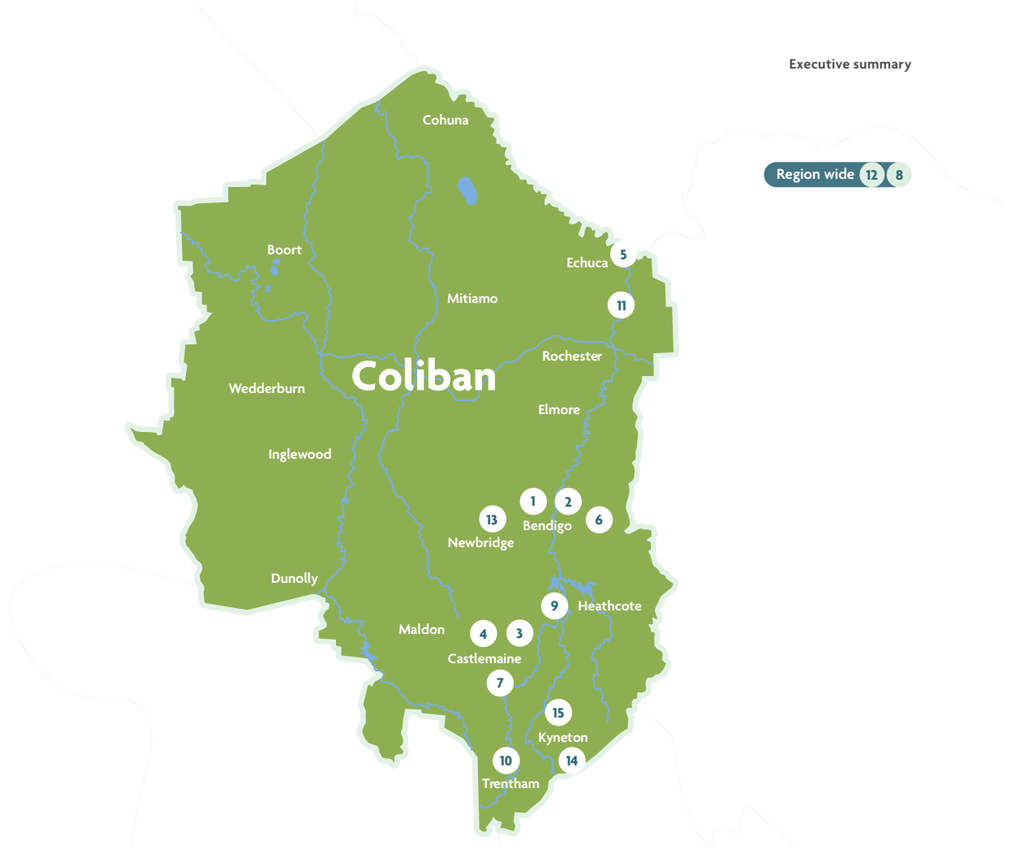


Figure 1 : Locations of IWM opportunities across the Coliban region. Locations are approximate.

IWM opportunities

Fifteen opportunities have been identified in the region and these have been grouped into three themes that respond to the above challenges:

Water for people, environment, and healing Country

1. Implementing the Reimagining Bendigo Creek Plan
2. Wanyarram Dhelk – Starting the Healing
3. Castlemaine Stormwater Outfall Retrofit Scheme and Pilot Program
4. Forest Creek Revitalisation Project
5. Echuca Aquatic Reserve

Making more of water resources in a changing climate

6. Improved Drought Resilience for Bendigo with Managed Aquifer Recharge
7. Diversifying Water Supply for the Castlemaine Botanical Gardens
8. Diversifying Water Supplies for Parks and Gardens
9. Increased Flows in the Coliban River for Cultural and Ecological Benefits
10. Managing Trentham Stormwater Quality and Quantity for Healthy Waterways
11. Recycled Water for a Greener Echuca

Integrated planning for a sustainable future

12. Water Sensitive Urban Design for New or Upgraded Developments (Land and Buildings)
13. Bendigo Regional Employment Precinct
14. Macedon Ranges North IWM Plan
15. Servicing Small Townships

Coliban Integrated Water Management Forum

Strategic Directions Statement 2022 summary

We work collaboratively with partners across the water cycle to find new ways to share resources and conserve water for multiple community and environmental benefits.

We work to meet the water needs of a changing region.

POPULATION GROWTH

199,000 (2021)

238,000 BY 2036

20% INCREASE

CHANGE IN RAINFALL BY 2040

DECREASE BY 15%

WITH MORE-INTENSE RAINFALL IN SOME YEARS

TEMPERATURE

AN INCREASE OF

0.7-1.6°C

IN COLIBAN BY 2040

* Population data: Victoria In Future 2019
* Temperature and rainfall range are highest and lowest predictions for Campaspe and Loddon catchments. Predictions represent the annual average relative to the year 1995. Source: Guidelines for Assessing the Impact of Climate Change on Water Availability in Victoria, November 2020.

1. **Implementing the Reimagining Bendigo Creek Plan**

   Further work on the revitalisation of Bendigo Creek, to heal the catchment, enhance cultural values and build connections to the creek.

2. **Wanyarram Dhelk - Starting the Healing**

   Restoring the environmental and Dja Dja Wurrung cultural values of an urban drain and peri-urban waterway guided by the Dhelkunya Dja Country Plan.

3. **Castlemaine Stormwater Outfall Retrofit Scheme and Pilot Program**

   Retrofitting stormwater outfalls around Castlemaine to prevent pollution.

4. **Forest Creek Revitalisation Project**

   Rehabilitation of a channelised section of urban Forest Creek.

5. **Echuca Aquatic Reserve**

   Program to improve the environmental and social values at the Echuca Aquatic reserve.

6. **Improved Drought Resilience for Bendigo with Managed Aquifer Recharge**

   Taking excess water from reservoirs in the Campaspe system and storing it underground for later reuse.

7. **Diversifying Water Supply for the Castlemaine Botanical Gardens**

   Exploring options to use recycled water for irrigation and other uses at the gardens.

8. **Diversifying Water Supplies for Parks and Gardens**

   Providing a wider range of water supply options – such as stormwater, recycled water and groundwater – to maintain the health of valued green spaces during dry periods.

9. **Increased Flows in the Coliban River for Cultural and Ecological Benefits**

   Increase flows in the Coliban River for cultural and ecological benefits while increasing the operational flexibility by reinstating the hydroelectric plant at Lake Eppalock.

10. **Managing Trentham Stormwater Quality and Quantity for Healthy Waterways**

    Managing threats to the catchment from urban and peri-urban development.

11. **Recycled Water for a Greener Echuca**

    Investigating the feasibility of supplying recycled water to existing and new public open spaces, to reduce the demand on potable water supplies.

12. **Water Sensitive Urban Design for New or Upgraded Developments (Land and Buildings)**

    Helping councils incorporate water sensitive urban design into new developments or upgrade projects such as roads or council-owned buildings.

13. **Bendigo Regional Employment Precinct**

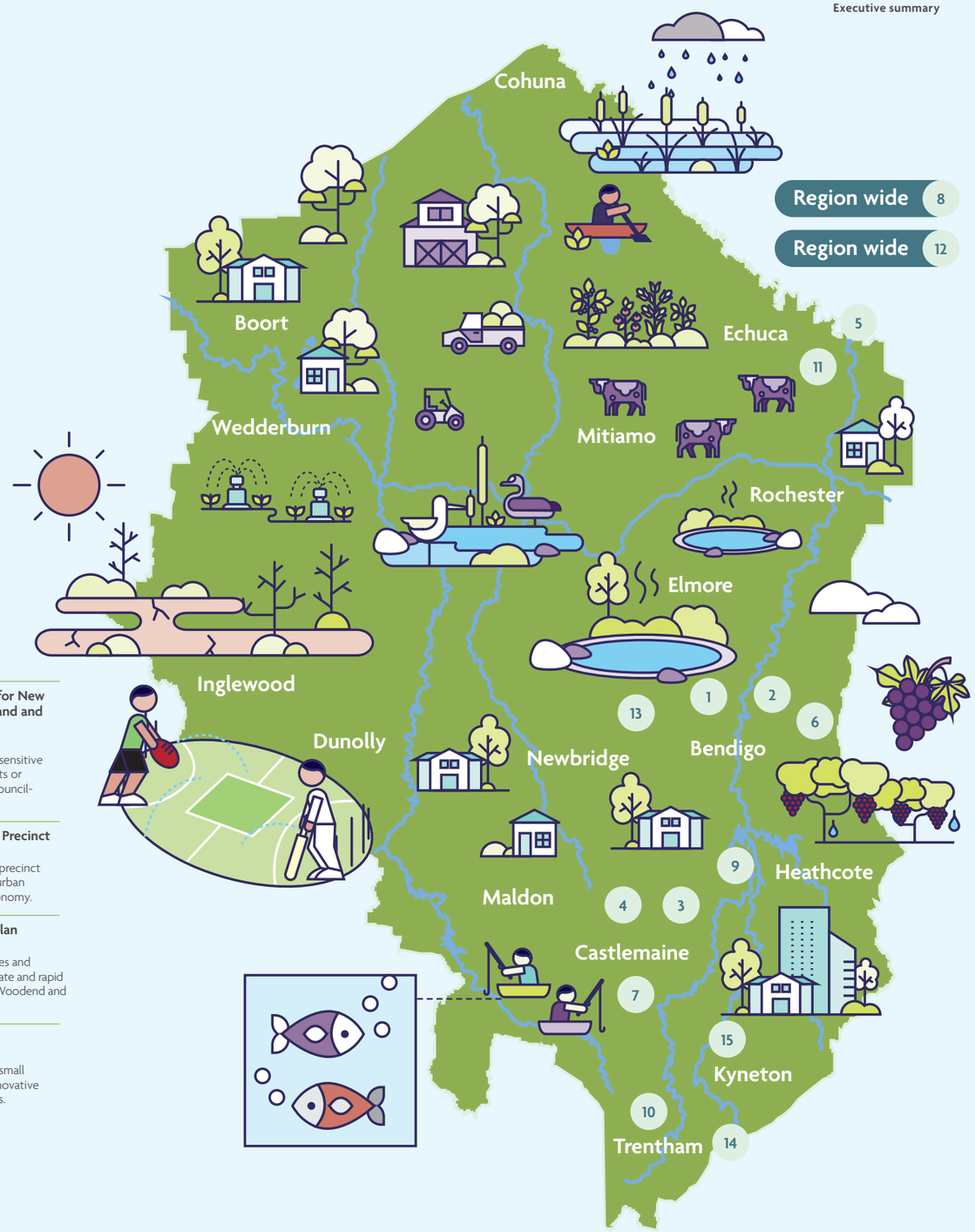
    Designing a best-practice industrial precinct that demonstrates water-sensitive urban design, zero carbon and circular economy.

14. **Macedon Ranges North IWM Plan**

    An IWM plan to explore opportunities and solutions in the face of a drying climate and rapid urban growth around the towns of Woodend and Kyneton.

15. **Servicing Small Townships**

    Facilitating the potential growth of small towns in the region by providing innovative reticulated water and sewer systems.



BETTER TOGETHER: INTEGRATING WATER MANAGEMENT ACROSS VICTORIA

The first water custodians

First Nations clans have been living in balance with the natural environment in Victoria, practising culture, caring for Country and waterways, and maintaining sophisticated water management systems for tens of thousands of years.

More than 6,000 years ago, the Gunditjmara worked with the waterways along the Budj Bim lava flow in south-western Victoria, engineering an extensive and sophisticated aquaculture system to trap, store and harvest kooyang – short-finned eel. That system still lives and operates, the Budj Bim Cultural Landscape is now an UNESCO World Heritage List site.

Within north central Victoria, the Dja Dja Wurrung (Yes Yes speaking) Jaara (people of this Country) believe that all of Country has Murrup (spirit), all things from creation are made of the same source of life. Water has spirit. For the Taungurung, the First People of the rivers and mountains, 'Our waterways are the lifeblood of Country; they are the blood and tears of our ancestors.' Yorta Yorta people conserved the landscape and waterways for thousands of generations. 'We are freshwater people that maintained and occupied a landscape containing floodplains and grasslands that continue to provide an abundance of natural resources that are easily accessible throughout the seasons.' These lands and waters are also part of the history, life and continuing and culture of the Barapa Barapa, Wamba Wemba, Wadi Wadi people and clans represented by Barengi Gadjin Land Council (Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk).

Pressures emerge and evolve

European settlement and the gold rush of the 1850s saw thousands of people flock to Victoria to seek their fortunes. This created many towns, yet also had large and long-lasting impacts on the creeks and gullies, and displaced Traditional Owners from their Country.

Victoria's regional towns and cities have thrived with the provision of urban drinking water and sanitation services. Irrigated agriculture and dryland farming have both played important roles in Victoria's history and growth. Today, Victoria is the nation's largest food and fibre exporter.[1] Much of the water flowing into the Murray-Darling Basin System comes from the Victorian High Country and underpins irrigated agriculture in several states.

The complex challenges of water management continue throughout the state: we have lived through the Millennium Drought and experienced flooding, bushfires and extreme weather. We have seen the consequences of the overuse and overallocation of water in one area affecting the availability and/or quality of water in another. Significant investment and interventions have been required to start the return of water to our rivers and floodplains, yet more remains to be done.

Water managers are now operating in an increasingly complex and uncertain environment. The drivers of change are both social and environmental. They include climate change, population growth, shifting migration patterns associated with the coronavirus pandemic, economic challenges, and policy changes. But our beautiful state remains a wonderful place to live, and we continue to see the population increase. Regional Victoria is expected to grow from 1.5 million people in 2015 to 2.2 million over the next 30 years to 2051.[2]

The liveability of our regional towns and cities, and the health of our environment and economy, depend on the availability of water. Access to water is also important for social wellbeing and holds intrinsic cultural value for Traditional Owners. Therefore, we need an integrated and collaborative approach to adapt to change and maximise value across the whole water cycle.

What is IWM? How can it help address challenges?

The current water supplies and liveability of towns and cities owe much to the collaborative work done to date by water corporations, local and state government, planning and development authorities, communities and, in recent decades, catchment management authorities. While we face the challenges of population growth, climate change and natural disasters, we can also build on the benefits of past experiences and established relationships. Together, we can make decisions today that we will celebrate in the future.

Integrated water management considers all parts of the water cycle as an integrated system to optimise the environmental, cultural, social and economic outcomes for our communities.

1 Victorian Food and Fibre Export Performance Report 2019-20
2 Victoria in Future 2019

While everyone has a responsibility to conserve and protect water, there are a number of key groups charged with making decisions about water within each region. These include:

- Traditional Owner groups, who have a deep knowledge of and connection to the region's waterways, other water resources and Country:
- water corporations, which manage the water storage, water supply, and wastewater services
- local governments, which manage surface water drainage, protect local waters from degradation and pollution, oversee onside domestic wastewater planning, regulate local development, and undertake strategic planning for future growth
- catchment management authorities, which plan for flood management and work with landholders to consider the interactions of land, water, and biodiversity.

The decisions these groups make individually, can have significant impacts on the quality and availability of the water for others in the catchment and further downstream. So, it makes sense they collaborate towards common goals to maximise water saving and reuse and share the benefits (Figure 2).

IWM is an approach that can be applied at multiple scales from water planning at the local park, right up to the whole-of-catchment. IWM can connect climate-change adaptation, planning and open space, water security and other strategies, so that collaborators can add value to each other's projects.

What is integrated water management?

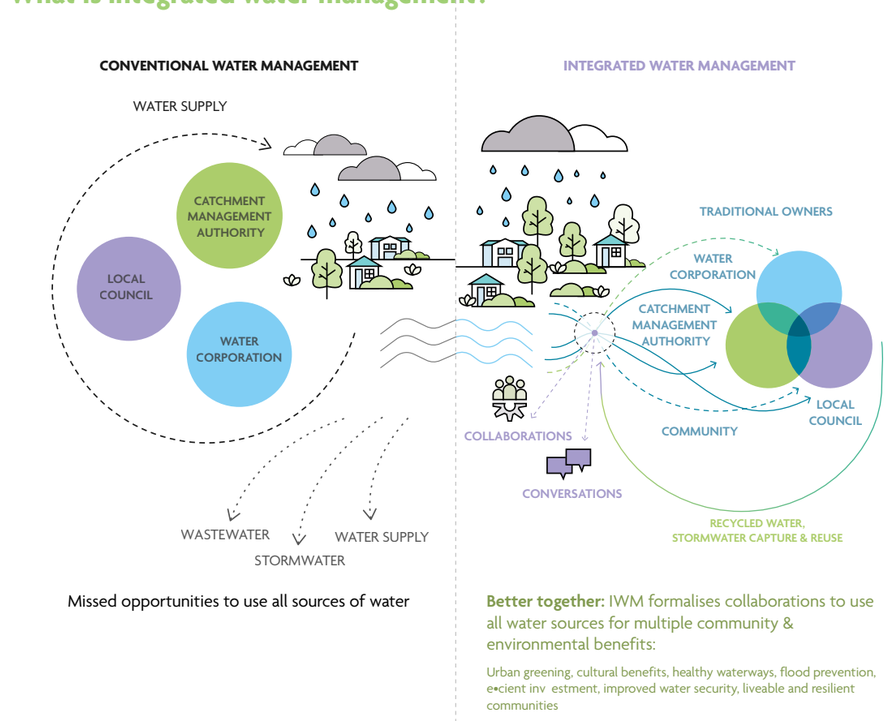


Figure 1 : How does IWM work? Conventional water management saw a more siloed approach to water management, with a single supply source and two discharge systems to move stormwater and wastewater away as quickly as possible, resulting in missed opportunities to use all sources of water. The IWM approach brings water managers together to plan and deliver new opportunities to provide broader benefits to the community. Listening to and consulting with Victorian communities about how they want water managed is critical to informing IWM decision making. Communities are directly consulted on IWM plans and through existing catchment management authority, water corporation and local government strategies.

How are we delivering IWM state-wide?

To facilitate IWM across Victoria, the Victorian Government's Department of Environment, Land, Water and Planning (DELWP) supported the establishment of IWM forums across 10 regions of Victoria (Figure 3). These forums bring together leaders of the local water sector to explore, prioritise and oversee the development of local IWM opportunities. Prioritised opportunities are managed and implemented by dedicated working groups and are captured within individual IWM plans. Where appropriate, the forums involve other organisations and groups that are not part of the water sector but have direct or indirect interests in water management and land use planning, such as community and Indigenous groups, planning authorities, Department of Transport, developers, educational institutions, or large landholders.

Being collaborative, IWM builds on existing partnerships and planning processes, and aims to break down silos between independently operating water decision-makers – encouraging forum members to consider the water cycle of their own service delivery, and the interdependencies or overlaps with other members (Figure 2). Forum members consider waters in rivers, streams and bays, wastewater, drinking water, stormwater, and water treatment processes.

While collaboration can take more time and effort, working together achieves better outcomes for the environment, society, and the economy by finding mutually beneficial ways to share water, assets, and costs.

Dja Dja Wurrung cremeony on Bendigo Creek. Credit: City of Greater Bendigo





Figure 3 : IWM forum regions of Victoria, which are based around water corporation boundaries

Strategic outcomes

The *Integrated Water Management Framework for Victoria* (2017) proposed several strategic water-related outcomes that will deliver on the vision in the State water plan, *Water for Victoria* (2016), to 'build resilient and liveable cities and towns'. These strategic outcomes provide a way to identify the multiple economic, social and environmental benefits that can come from a single initiative. The original framework included five such strategic outcomes that have since been expanded to seven. The identification of strategic outcomes will continue to evolve as the water management context changes and the sector innovates.

Proposed project opportunities are assessed and prioritised against how well and how many of these strategic outcomes they meet.

The strategic outcomes are:

- **safe, secure and affordable supplies in a changing future** – indicated by the amount of water conserved or diverse water volume supplied to meet an identified demand.
- **effective and affordable wastewater systems** – ensuring environmental and public health standards are met, while maximising resource recovery.
- **manage flood risks** – resilience to existing and future flood risk.
- **healthy and valued waterways and waterbodies** – indicated by the ecological health of riparian areas, hydrology and water quality.
- **healthy and valued landscapes** – maximising the connectivity, accessibility, greening and vegetation, cooling, aesthetic and/or recreational values of landscapes.
- **Traditional Owner and community values reflected in place-based planning** – ensuring that different communities are considered and included in planning and design, and provided with water-systems literacy to enable involvement.
- **jobs, economic opportunity and innovation** – recognising that water management is an integral part of economic growth.

Find out more about how Victoria is applying IWM through the *Integrated Water Management Framework for Victoria (2017).* Visit: www.water.vic.gov.au

Strategic Directions Statement – how IWM is happening in the region

This SDS articulates the collaborative intent and shared agreement of all stakeholders involved in the forum. It describes the water security challenges and opportunities in the region, sets the strategic direction for the next few years, and outlines the 'best endeavours' or ways in which IWM is and will be applied through opportunities that are proposed, in-progress or completed in the region.

This is the first update to the Coliban region's SDS produced in 2018, and includes:

- an update on progress to date
- case studies illustrating IWM in the region
- details of planned and potential opportunities designed to meet the strategic outcomes and key challenges over the next three to five years.

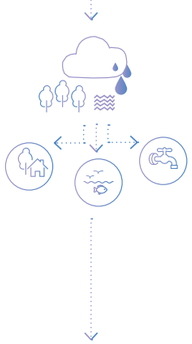
This SDS has been developed to complement the other plans and strategies that apply to the region for water, climate change, First Nations' rights and catchment management (Figure 4).

Figure 4 : The SDS and related water policies, strategies and plans of the region.



Water for Victoria

50-year State Government strategic plan for management of our water resources, now and into the future.



Integrated Water Management Framework for Victoria

Framework to help deliver the Water for Victoria plan to maintain and enhance the liveability, prosperity and resilience of Victoria's cities and towns.



2022 Coliban IWM Forum SDS

A revised statement of agreement between forum members of urban and peri-urban IWM priorities and collaborative projects.

Relevant plans and strategies in place in the region



Coliban Water 2022 Urban Water Strategy (in development)
A detailed 50-year forecast of water demands for local communities, along with supply options to meet these demands. Developed by water corporations.



Caring for Country Plans
Guiding and promoting the awareness, investment and rights of Aboriginal people and culture, working together now and for future benefits.



Northern Region Sustainable Water Strategy
Long-term plans and statutory processes for state-wide water resource planning to secure the water future of Victoria's regions.



North Central Regional Catchment Strategy
A framework for actions to improve and protect the Catchment's natural resources (water, land, biodiversity). Looking after these precious natural resources underpins the social, cultural and economic wellbeing of the diverse communities that make up the Catchment. Incorporating climate change, it is a partnership approach to catchment resilience.



Loddon Mallee Climate Ready Plan
The Loddon Mallee Climate Ready Plan aims to strengthen the resilience of our people, places and sectors to become climate ready. Uniting individual, community and agency approaches.



Local government plans and strategies
Various strategies, plans, guidelines and other documents that have connections to the water cycle. Examples include open space plans, local climate change adaptation strategies, and natural disaster management plans.

WATER IN THE COLIBAN REGION

The Coliban region is home to nearly 200,000 people, a diversity of plant and animal life, and the waters from the spring and spa region in the south to the Murray River and its floodplains on the border with New South Wales in the north.[3] The area encompasses the lands and waters of the Dja Dja Wurrung, Yorta Yorta, Taungurung and Barapa Barapa Country, whose ancestors and their descendants are the Traditional Owners of this Country.

It supports irrigated agriculture including dairy, orchards and intensive animal farming, as well as dryland cropping. Tourists and day-trippers come year-round to visit the resorts and fine-dining attractions of picturesque towns, the wonder and wildlife of the Wombat State Forest and other beauty spots, Indigenous cultural heritage sites, historical goldrush towns, popular fishing and kayaking locations, and Bendigo's many attractions.

Waterbirds of state and national significance flock to the region's wetlands, including cormorants, great egrets, herons, royal and yellow spoonbills, and brolgas. The Northern Plains Grasslands, a critically endangered ecosystem, is home to the plains wanderer. Other local wildlife includes kangaroos, squirrel gliders, growling grass frogs, Bogong moths, and other keystone and iconic species.

The health and liveability of our thriving region is underpinned by water, from the provision of safe drinking water and the management of stormwater and wastewater in urban areas to the rivers, rainfall and other environmental flows that support ecosystems, landscapes and wildlife. Important river systems include the Loddon, Campaspe, Avoca, and Murray River systems, which support the Goulburn-Murray Irrigation District.

Rainfall in the region can range from an average of more than 1000 mm annually in Trentham to less than 400 mm per year in Boort; and a drier future is predicted[4]. Consequently, water management is key to the region's long-term future.

3 Victoria in Future 2019
4 Commonwealth Bureau of Meteorology

Campaspe River, Doaks Reserve. Credit: DELWP



A CHANGING REGION

The Coliban IWM Forum has been operating for four years, providing experience to draw on and projects to build upon. In addition, major disruptions, such as natural disasters and the coronavirus pandemic, have highlighted the need for the forum to sharpen its focus, rescope projects and prioritise activities to address three key challenges or themes.

Water for people, environment and healing Country

We need water for landscapes, for people and for the environment, and for healing Country.

Victoria in Future (2019) predicted an average regional population growth of one and a half per cent annually from 2018 to 2036. The first two years of this period saw growth exceed expectations. More recently, the global coronavirus pandemic led to a substantial increase in the number of people migrating from Melbourne to Victoria's regional areas, and closed international borders have resulted in a domestic tourism boom.

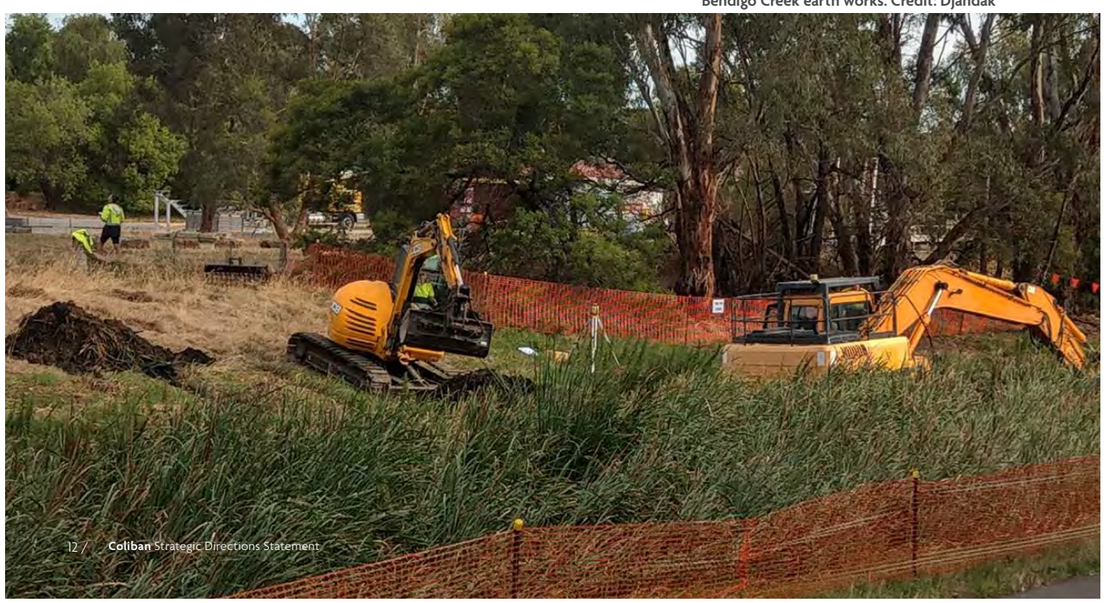
Visitors and permanent residents alike need drinking water supplies and wastewater management. Providing cost-effective water services in small towns and rural hamlets is a particularly challenging necessity. People also value healthy parks, waterways and landscapes for recreation and to improve local beauty and liveability.

Green spaces with shade and cooling vegetation are becoming vitally important as the Coliban region experiences a greater number of days of extreme heat. More Victorians died from heat-related illnesses in the fortnight leading up to the Black Saturday bushfires than the number who perished in the fires themselves.[5] This makes 'green infrastructure', such as parks, wetlands and nature reserves, potentially life-saving community assets.

More broadly, some past and current land-use practices and extreme weather events have degraded important ecosystems. IWM offers opportunities to heal Country, rehabilitate and revitalise landscapes, change flows and keep water in nature for longer. The IWM forums were formed specifically to 'build resilient and liveable cities and towns' under the *Integrated Water Management Framework for Victoria* (2017). As such, the projects focus on urban and urban-serving areas. However, the forum works in the context of recognising agricultural water needs, which are a significant contributor to the Coliban region's economy, and environmental water needs across the whole catchment. Growth impacts catchments, making the need to consider and manage its repercussions for the water cycle urgent.

5 Australian Bureau of Statistics 2010, 1301.0 - Year Book Australia, 2009–10

Bendigo Creek earth works. Credit: Djandak



Traditional Owners are taking an increasingly active and leading role in water management. There is growing recognition of the right of Traditional Owners and First Nations to self-determination and their inherent obligations to continually speak for and look after the Country of their ancestors for current and future generations. Traditional Owners in the Coliban region are taking more of a leadership role.

Victoria is the first state to progress Treaty discussions, the First Peoples' Assembly of Victoria has formed, and there is increasing understanding among Victorians of Indigenous rights, connection to Country, and the need for inclusion, consultation, and reconciliation. IWM is increasingly being considered in this context.

The following projects fall under the theme of 'water for people, environment, and healing Country':

- Implementing the Reimagining Bendigo Creek Plan
- Wanyarram Dhelk – Starting the Healing
- Castlemaine Stormwater Outfall Retrofit Scheme and Pilot Program
- Forest Creek Revitalisation Project
- Echuca Aquatic Reserve

Making more of water resources in a changing climate

A growing population and a hotter, drier future under climate change mean the Coliban region needs more water, and to do more with the water it has.

The Coliban region is already experiencing the consequences of climate change, with a 53% reduction in long-term stream flow into the upper region's storages since 1996. Further reductions are projected. Some of Coliban Water's urban-water supply systems are forecast to have a shortfall in the next 50 years. A 'business as usual' approach to water management will not allow the region's reduced supply to meet existing or growing demand.

It is also likely the effects of heatwaves, fire, flood and drought in the region will worsen and become more frequent due to climatic change. This will significantly impact ecosystems and communities in the region. Future fires will require water for firefighting. Fires and other natural disasters will demand increased capacity to manage water quality in the catchment to deal with dirty-water events. Changing weather patterns will also influence the growing seasons for agriculture and the timing of periods of high water demand.

These challenges, and approaches to addressing them, are detailed further in the North Central Regional Catchment Management Strategy, online at northcentral.rcs.vic.gov.au.

IWM will assist in monitoring and adapting to climate change as a shared responsibility.

There is also an opportunity to make better use of water resources, considering both water quality and quantity, and directing water that's fit-for-purpose to where it's needed. This involves exploring opportunities to substitute captured stormwater or treated recycled water for potable water where drinking quality is not required. It also involves seeing discharges and wastewater as opportunities to increase water in the environment, rather than just problems to solve.

The following projects fall under the theme of 'making more of water resources in a changing climate':

- Improved Drought Resilience for Bendigo with Managed Aquifer Recharge
- Diversifying Water Supply for the Castlemaine Botanical Gardens
- Diversifying Water Supplies for Parks and Gardens
- Increased Flows in the Coliban River for Cultural and Ecological Benefits
- Managing Trentham Stormwater Quality and Quantity for Healthy Waterways
- Recycled Water for a Greener Echuca

Integrated planning for a sustainable future

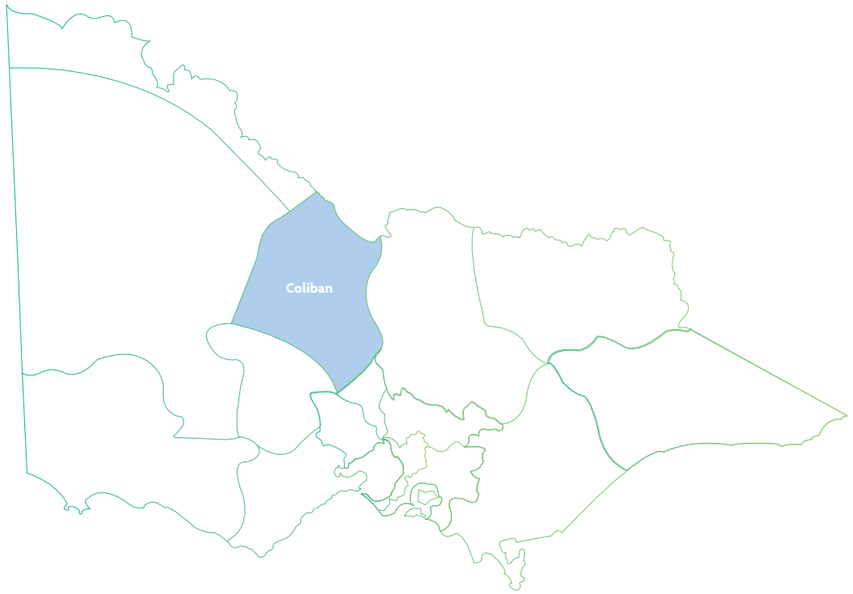
We are experiencing significant growth in both large and small settlements. We need to manage and plan accordingly

The Coliban region is experiencing industrial growth, as well as residential growth. Bendigo is expected to grow to the size of Geelong. Land is opening for residential development around Bendigo and the larger towns. The smaller towns are growing, too. Many new residents are arriving from Melbourne with expectations of urban-style water services. There is a pressing need to ensure the long-term sustainability of accommodating this growth.

The following projects fall under the theme of 'integrated planning for a sustainable future':

- Water Sensitive Urban Design for New or Upgraded Developments (Land and Buildings)
- Bendigo Regional Employment Precinct
- Macedon Ranges North IWM Plan
- Servicing Small Townships

One implication of growth is the increasing use of farm dams. The region already has a large and unsustainable number of farm dams. It's anticipated this policy challenge will be addressed through other organisations and regulations. The forum, however, will continue to have an interest in this type of water use.



POPULATION GROWTH

199,000 (2021)
238,000 BY 2036[5]

20%
INCREASE

CONDITION OF WATERWAYS

	CAMPASPE	LODDON
GOOD:	7%	0%
MODERATE:	39%	41%
POOR:	33%	26%
VERY POOR:	21%	29%

CHANGE IN RAINFALL BY 2040

DECREASE BY 15%
WITH MORE-INTENSE RAINFALL IN SOME YEARS[6]

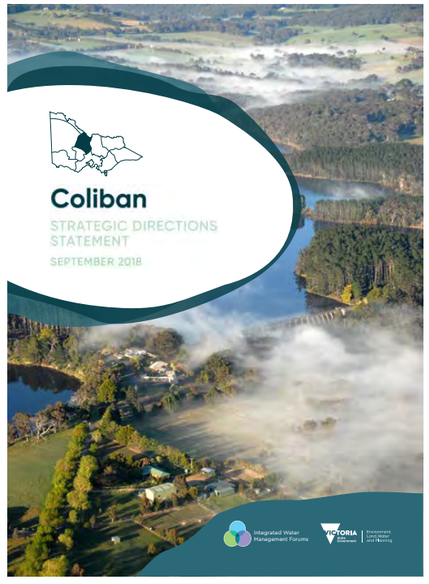
TEMPERATURE

AN INCREASE OF
0.7-1.6C
IN COLIBAN BY 2040[7]

[5] Victoria in Future 2019
[6] Third Index of Stream Condition report – ISC North Central
[7] Temperature and rainfall predictions represent the highest and lowest predictions for Campaspe and Loddon catchments. They represent the annual average relative to the year 1995. Source: Guidelines for assessing the impact of climate change on water availability in Victoria, November 2020.

PROGRESS SO FAR

The first Coliban IWM Forum SDS was published in September 2018. It articulated the regional context, the shared vision and the strategic water-related objectives for the region. It also listed IWM opportunities as ready-to-advance projects developed in collaboration by the forum partners. It can be viewed online at www.water.vic.gov.au



All of the councils and many other forum members have IWM at the forefront of their thinking and several are implementing IWM projects independently. The projects – past, current and future – listed in this document and endorsed by the forum members are those that benefit from a collaborative, multi-party approach.

Our first SDS identified 15 opportunities that reflect the Coliban IWM Forum's initial priorities. Progress made on the 2018 SDS IWM opportunities is summarised in Table 1 on page 17.

Most of these opportunities are underway or completed. Six opportunities, including the Reimagining Bendigo Creek project, have been completed. You can read more about that project on page 18. An extension of that project is also proposed in this SDS. Five more projects are well underway, including the Managed Aquifer Recharge Potential in the Coliban Region project, which serves as an important early demonstration project for other regions with highly-developed aquifers. Read about this project on page 20.

The Coliban IWM Forum is flexible and responsive to the changing needs and priorities of local governments and other members. Some projects were delayed as forum members dealt with greater than expected population growth and the impacts of the coronavirus pandemic. Two projects have been rescoped and are included in this SDS, and a final two have been set aside in order to direct resources to higher priority projects.


Lake Weeroona render – Reimagining Bendigo Creek. Courtesy: City of Greater Bendigo



Koomba Street planting, Bendigo Creek. Credit: Djandak.

Table 1 : Summary of the status of 2018 SDS IWM opportunities

IWM opportunity	Status	Notes
Reimagining Bendigo Creek	Completed	Strategic plan developed to retrofit the catchment, keeping water in the landscape longer. Received funding. See case study on page 18. Next stage proposed. See page 24
Wanyarram Dhelk	Underway	Wanyarram Dhelk means to Heal Water, and is a priority for Djaara (as defined in Delkunya Dja – Dja Dja Wurrung Country Plan). This project provided the first step in the restoration of the Bendigo Creek, removing historical silt and starting to return the creek to a more natural form. Next stage is now proposed. See page 24
Growing Newbridge Sustainably	Completed	A business case and report was prepared, outlining the feasibility of supplying the township of Newbridge with a secure water supply and associated water and sewerage infrastructure.
Water for Now and into the Future in Castlemaine	Completed	An integrated water study was completed which helped to identify opportunities for further detailed investigation as part of SDS2. These include: • Castlemaine Stormwater Outfall Retrofit Scheme and Pilot Program • Forest Creek Revitalisation Project • Developing an Alternative Water Supply for the Castlemaine Botanical Gardens See page 26 and page 29.
Aboriginal Water Assessment – Campaspe River	Underway	Measures and prioritises river and wetland health so that Traditional Owners can more effectively participate in water planning and management.
Upper Coliban Integrated Catchment Plan	Underway	Funded. Incorporated into Campaspe IWM Framework
Implementation of the Transition Strategy for a Water Sensitive Bendigo	Underway	Funded, and progressed investigation and concept into priority water sensitive urban design sites.
Campaspe: Planning for Future Water Management	Underway	Funded and underway, with community education elements ongoing.
Managed Aquifer Recharge Potential in the Coliban region	Underway	This project has produced a decision support tool. See case study on page 20. It has led to a new project: Improved Drought Resilience with Managed Aquifer Recharge for Bendigo. See page 28.
Planning for Sustainable Water Management	Underway	Working towards planning mechanisms for councils for residential and commercial/industrial developments.
Lake Eppalock Hydro-electricity Project: For Country and Environment	Underway	Assessment of cultural and environmental values and business case complete. It has led to a new project: Increased flows in Coliban River for Cultural and Ecological Benefits. See page 30
Macedon Ranges Northern Region IWM Plan	Not started	Project is included in refreshed SDS. See page 35
Greening Trentham for Water Security and Healthy Waterways	Not started	Project has been re-scoped and included in refreshed SDS See page 31
Lake Eppalock Water Quality Assessment	Not started	Superseded to direct resources to more urgent priorities
Hanging Rock Reserve Alternative Water Supply	Not started	Superseded to direct resources to more urgent priorities

Case study

Reimagining Bendigo Creek

Dja Dja Wurrung's vision

There is a rippling along the Bendigo Creek, there is now undulation. Sounds, when there was none. There is a familiar sense of reawakening as we walk along the banks. There is open, clean water, verged by grasses and reeds that are strong and healthy like us. The Creek is healing and so are we.

Activity and conversation, voices of the community, people and children, looking for and anticipating life and movement within the Creek, hoping for new interactions. We now have a place to gather, to listen and to share.

The familiar sense and smell of smoke is around us, but not heat, a sweetened cleansing smell that is recognisable to us all, not feared, but welcoming and healing. You are amongst Cultural practice.

The ground is clean, and thick with Kangaroo Grass that gently brush against our hands and feet, there are now sensations underfoot, crinkling and crunching in the new life and healing, colours are yellow and as bright as the sun, they are unavoidable in their numbers. What was lost, has now returned.

Cultural practices and ceremony supports healing, and encourages cultural interaction, facilitating reconciliation and greater returns to the community.

Collaboration to heal Country

The *Reimagining Bendigo Creek Plan* (2020) marks a turning point in the creek's history by articulating a long-term vision to revitalise the urban creek. The immediate mission is to 'change people's hearts and minds to take united action, so that in a generation's time Bendigo Creek will be a healthy, connected and nurturing place'. To guide this, the Plan focuses on the three goals of Catchment, Connections and Culture. These goals aim to restore an urban catchment to slow and heal water, create human connections to the creek, and celebrate Aboriginal and migrant cultures along the creek.

An 18-month co-design process with the Traditional Owners – Djaara (Dja Dja Wurrung Clans Aboriginal Corporation) – relevant agencies and the community developed the *Reimagining Bendigo Creek Plan*. The process enabled the Djaara to articulate their vision for Bendigo Creek, facilitated the community to identify their values and aspirations for the creek, and built collective commitment amongst key stakeholders to implement the plan.

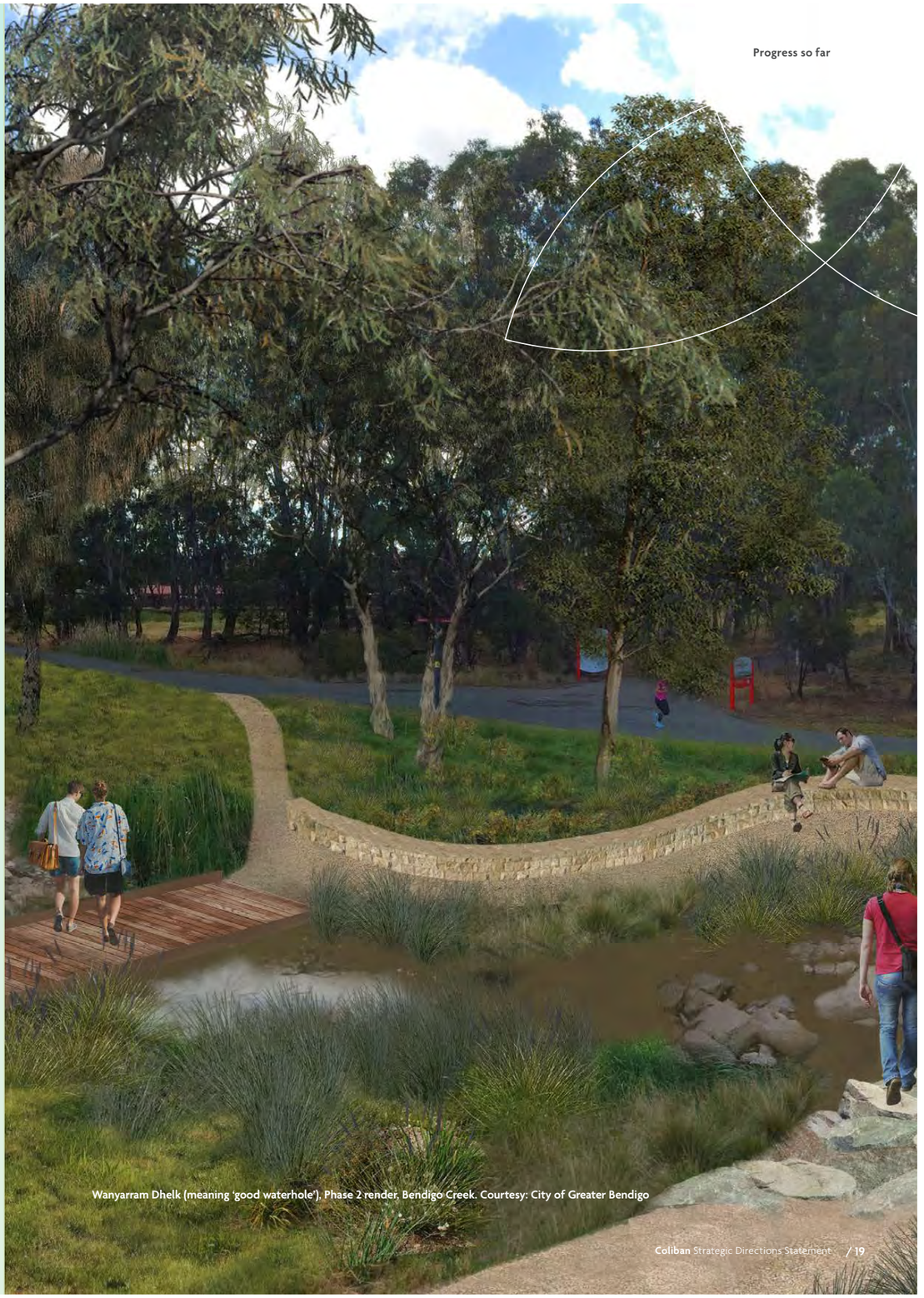
Key lessons from the co-design process include to:

- listen with an open heart and mind
- be flexible and allow plenty of time
- develop a comprehensive engagement process and trust each other to see it through
- enable culturally safe environments that allow Elders the time and space to discuss the project and their aspirations for Country deeply
- have a core team of mixed skills and backgrounds to implement the co-design process.

The project was funded via the IWM forum and supported by partner contributions. The *Reimagining Bendigo Creek Plan* (2020) is available to view online at www.bendigo.vic.gov.au



Bendigo Botanic Gardens. Credit: City of Greater Bendigo



Wanyarram Dhelk (meaning 'good waterhole'), Phase 2 render, Bendigo Creek. Courtesy: City of Greater Bendigo

Case study

Managed aquifer Recharge potential in the Coliban region

A demonstration of the technical feasibility of an approach with state-wide importance

A new assessment tool has been developed to help water corporations considering managed aquifer recharge (MAR) as an option for saving water in times of plenty - to reduce water use from rivers, dams, and lakes in times of drought. MAR is where water is purposefully put in a groundwater aquifer, with the intention of extracting and using that water later. To be successful, all MAR projects must find a source of water, an aquifer that can store the water and a use for the water when it is extracted.

Goulburn-Murray Water worked with Implementation partners Coliban Water, the North Central Catchment Management Authority, and consultants RMCG and Aquade, to develop and test the 'Managed Aquifer Recharge Decision Support Tool' for use across Victoria. The project also tested the technical feasibility of the tool, using the Lower Campaspe Valley Water Supply Protection Area as a case study.

The tool provides much-needed information and guidance to water corporations and other organisations considering MAR projects, including:

- identifying the capacity and nature of aquifers
- identifying and quantifying potential sources of recharge water
- aquifer charging strategies
- policy issues, including re-injection of treated water or water with different characteristics
- addressing the need to integrate stored water management with existing groundwater management plans.

The Lower Campaspe Valley case study aimed to find a way to safeguard Bendigo's water security in future droughts. It identified 16 possible options and shortlisted plausible approaches for more detailed assessment. The case study found that MAR is a viable means of improving Bendigo's water security during drought.

The case study recommended that a business case be developed.

The next stage of this initiative is outlined on page 28.

Ultimately, by further integrating groundwater and surface water management, this tool aims to support water corporations and other organisations to boost the reliability of urban water supplies across the state.



The Campaspe River near Goornong, overlying deeper water-transmitting sediments.
Credit: Scott Ridges, Goulburn-Murray Water.

IWM OPPORTUNITIES

IWM opportunities that link to and address challenges for the region were identified and developed by the nominated practitioners of the forum's participating organisations.

A summary of the priority IWM opportunities is shown in Table 2, with more detail in the following section. This list is dynamic and will continue to be updated to reflect the forum's priorities and opportunities as they arise.

Partners are committing their 'best endeavours' to ensure priority projects and strategies are moved forward, in line with the shared vision and strategic outcomes of the forum.

Table 2: IWM opportunities 'ready-to-advance' in the Coliban region

IWM opportunity	Strategic outcomes	Location	Scale
1. Implementing the Reimagining Bendigo Creek Plan		Marong (Bendigo)	City
2. Wanyarram Dhelk - Starting the Healing		Marong (Bendigo)	Waterway
3. Castlemaine Stormwater Outfall Retrofit Scheme and Pilot Program		Castlemaine	Town
4. Forest Creek Revitalisation Project		Castlemaine	Waterway
5. Echuca Aquatic Reserve		Echuca	Precinct
6. Improving Drought Resilience for Bendigo with Managed Aquifer Recharge		Bendigo and surrounds	Region
7. Diversifying Water Supply for the Castlemaine Botanical Gardens		Castlemaine	Precinct
8. Diversifying Water Supplies for Parks and Gardens		Coliban region	Service area
9. Increased Flows in Coliban River for Cultural and Ecological Benefits		Coliban River	Waterway
10. Managing Trentham Stormwater Quality and Quantity for Healthy Waterways		Trentham	Town
11. Recycled Water for a Greener Echuca		Echuca	Town
12. Water Sensitive Urban Design for New or Upgraded Developments (Land and Buildings)		Coliban region	Forum area
13. Bendigo Regional Employment Precinct		Marong (Bendigo)	Precinct
14. Macedon Ranges North IWM Plan		Northern Macedon Ranges	Region
15. Servicing Small Townships		Taradale and Elphinstone	Town

Shade scale



safe, secure and affordable supplies in a changing future

effective and affordable wastewater systems

manage flood risks

healthy and valued waterways and waterbodies

healthy and valued landscape

traditional owner and community values reflected in place-based planning

jobs, economic opportunity and innovation

WATER FOR PEOPLE, ENVIRONMENT AND HEALING COUNTRY

Implementing the Reimagining Bendigo Creek Plan

In 2019-2020, the City of Greater Bendigo, Djaara (Dja Dja Wurrung Clans Aboriginal Corporation), key regional agencies and the local community co-designed the Reimagining Bendigo Creek Plan. The plan provides a long-term vision for the revitalisation of Bendigo Creek by setting goals with respect to healing the catchment, enhancing cultural values along the creek and building connections to the creek.

A key strategy of the plan is to retrofit the catchment so that it acts more like a sponge, so that water is kept in the landscape longer and is cleaned via ecosystem services. To put this strategy into action, partner organisations will install water-sensitive urban-design infrastructure and reinstate riparian habitats. This will be guided by traditional ecological knowledge and underpinned with community engagement.

Priority projects include:

- detailed design and construction of instream works for Bendigo Creek
- building of the Long Gully constructed wetlands
- installation of an 'Internet-of-Things' sensor network to improve monitoring of catchment health – a prototype has been produced, a monitoring plan developed, and sensor locations will be identified
- design and investigation of the feasibility of renaturalising Back Creek
- development of the scope and masterplan for a cultural trail along Bendigo Creek, including connecting with Wanyarram Dhelk and designing the 'low-line' cycling route.

The next steps will be to develop a project brief, enable a Djaara advisory committee to lead the design process, and procure a consultant.

Status	Implementation
Lead agency	City of Greater Bendigo and Djaara (Dja Dja Wurrung Clans Aboriginal Corporation)
Implementation partners	North Central Catchment Management Authority, DELWP, Coliban Water, Parks Victoria, La Trobe University
Location	Marong (Bendigo)
Scale	City



Bendigo Creek completed instream works. Credit: Djandak

Wanyarram Dhelk – Starting the Healing

This phase of Wanyarram Dhelk will focus on sediment capture and management, to enable Bendigo Creek to start being turned from an urban drain into a valued vibrant waterway.

This project will:

- establish a chain of instream sediment ponds that will be used to capture and manage sediment entering Bendigo Creek
- design and reinstate riparian areas
- investigate, identify and reduce current sediment hotspots in the Bendigo catchment
- work with partners to develop a stormwater management plan for the surrounding areas.

This project will build on the recent work completed by Water Tech, including concept designs and site surveys. It will be an important step in the restoration of Bendigo Creek and a key first step in implementing the Reimagining Bendigo Creek Plan. It is guided by the Dhelkunya Dja Country Plan 2014-2034.

The preliminary stage will be revisiting the existing concept plans and working with key stakeholders to develop and progress to detailed design. This will include scoping the stormwater management plan, planning and approvals for the proposed works, and implementation following that. The majority of the survey, flood modelling and approvals process is well progressed as part of the preparation work already completed.

Status	Implementation
Lead agency	Djaara (Dja Dja Wurrung Clans Aboriginal Corporation) and Dja Dja Wurrung Enterprises (Djandak)
Implementation partners	City of Greater Bendigo, North Central Catchment Management Authority, Coliban Water, Environment Protection Authority Victoria
Location	Marong (Bendigo)
Scale	Waterway

Castlemaine Stormwater Outfall Retrofit Scheme and Pilot Program

Retrofitting stormwater outfalls around Castlemaine was identified as a key outcome of the Castlemaine Urban Waterways Management Plan which was completed as part of the 2018 Water for Now and into the Future in Castlemaine project.

Multiple stakeholders who attended the Opportunities Identification Workshop identified litter in the creeks, as well as erosion and sediment as key issues in Castlemaine. To mitigate this, gross pollutant traps (GPTs) and erosion remediation works are proposed in the form of rockwork and vegetation to help stabilise soil and prevent erosion.

As a pilot program, based on catchment analysis and site inspections, five sites have been identified in Castlemaine as having potential opportunities for rectifying outfalls and installing GPTs to minimise associated litter and sediment in the creek.

This could be a pilot program across the region, or specific to Castlemaine. The next steps involve securing funding for detailed design work, construction and monitoring.

Status	Identified
Lead agency	Mount Alexander Shire Council
Implementation partners	North Central Catchment Management Authority, Coliban Water
Location	Castlemaine
Scale	Town

Forest Creek Revitalisation Project

This revitalisation project is focused on the rehabilitation of a channelised section of urban Forest Creek, Castlemaine, and will:

- create a more natural stream channel while managing stormwater, flood and fire risk
- facilitate community engagement by linking key trails, interpretative signage and citizen science projects
- increase community awareness of the cultural significance of Forest Creek
- manage sediment and ongoing weed issues
- create an enhanced aquatic habitat
- improve natural habitat and create a wildlife corridor.

The project evolved from an investigation by Professor Ian Rutherfurd entitled *Options for the Management of Forest Creek in Urban Castlemaine* (2018). It provides Traditional Owner and community benefit by improving the ecology and accessibility of Forest Creek, including a link to a significant site for the Djaara people, Booladj Kiarp Bolealon.

The preliminary stage of the project is well established with the development of an options paper and convening of an Implementation Strategy Group with representatives of Djaara (Dja Dja Wurrung Clans Aboriginal Corporation), Mount Alexander Shire Council, DELWP, North Central Catchment Management Authority, Castlemaine Landcare and Friends of Campbells Creek.

The next stage involves concept and detailed designs, Traditional Owner and community consultations, gaining required approvals and refining costings. The following implementation phase will include preparatory works such as reed and weed removal, creation of a natural stream morphology, installation of litter controls, revegetation, interpretive signage and associated works. There will be on-going monitoring of completed works.

Status	Committed
Lead agency	Djaara (Dja Dja Wurrung Clans Aboriginal Corporation)
Implementation partners	Mount Alexander Shire Council, North Central Catchment Management Authority, Friends of Campbells Creek, Castlemaine Landcare Group
Location	Castlemaine
Scale	Waterway

Echuca Aquatic Reserve

The redevelopment of the Echuca Aquatic Reserve is a three-year program to improve its environmental and social values. The reserve offers nature and parklands with a wetland overlooking the Murray River and supports regional tourism with event opportunities (such as the Riverboats Music Festival), ecology education excursions, passive recreation and small functions (such as wedding ceremonies).

The redevelopment includes rehabilitation of the wetlands to treat urban stormwater, construction of shared pathway compiant with the *Disability Discrimination Act 1992*, native vegetation planting, protection of existing large River Red Gum trees, the addition of further public use facilities such as seating and BBQs, and a proposed Indigenous trail.

The design phase is underway and will be followed by the construction of pathways, redevelopment of parkland area and rehabilitation of wetlands. The final phase is the development and construction of the proposed Indigenous trail. Given that the Murray River is part of NSW, the project will continue to work with WaterNSW, which operates NSW's river systems.

Status	Implementation
Lead agency	Campaspe Shire Council
Implementation partners	Yorta Yorta Nation Aboriginal Corporation, Coliban Water
Location	Echuca
Scale	Precinct



Forest Creek, Castlemaine. Credit: DELWP

MAKING MORE OF WATER RESOURCES IN A CHANGING CLIMATE

Improved Drought Resilience for Bendigo with Managed Aquifer Recharge

This project will develop a business case for a managed aquifer recharge (MAR) project, which aims to improve Bendigo's water security during drought. The proposed MAR project aims to take excess water from reservoirs (available under Coliban Water's bulk entitlement) in the Campaspe water supply system and store up to 15 gigalitres of it underground for later reuse. The benefits of the proposed project include:

- providing water for critical green spaces in Bendigo, Huntly, Axedale, Marong, Heathcote and surrounds, to support regional liveability during dry periods
- supporting the health of the Campaspe River by reducing the potential for leakage to the groundwater and potentially providing a source of supply to the Campaspe River in addition to existing environmental flows
- supporting groundwater users in the Lower Campaspe Valley by maintaining groundwater levels and reducing the potential for saline groundwater intrusion
- providing a more reliable water supply for Bendigo, Huntly, Axedale, Marong, Heathcote and surrounds during drought.

This initiative builds on previous work that developed a Managed Aquifer Recharge Decision Support Tool, which was tested on a Lower Campaspe Valley case study (see page 20). The case study found that managed aquifer recharge is a viable means of improving Bendigo's water security during drought and recommended that a business case be developed.

Status	Identified
Lead agency	Coliban Water
Implementation partners	Goulburn-Murray Water, City of Greater Bendigo, North Central Catchment Management Authority, Environment Protection Authority Victoria
Location	Bendigo and surrounds
Scale	Region

Aquifer recharge, Campaspe River near Goornong. Credit: Scott Ridges, Goulburn-Murray Water



Diversifying Water Supply for the Castlemaine Botanical Gardens

Diversifying water supply for the Castlemaine Botanical Gardens is identified as a key outcome of the *2018 Castlemaine Urban Waterways Management Plan* which was completed as part of the 2018 Water for Now and into the Future in Castlemaine project.

The industrial district of Castlemaine is a concentrated area of industrial and open space, making it ideal for recycled water. Class A or B recycled water can substitute for a potable water supply for the irrigation demands of the Botanical Gardens and non-potable uses in commercial buildings such as toilet flushing.

The proposed assets investigated for this district were a:

- pipeline of at least 3.5 km for recycled water for non-potable uses
- supply of recycled water for non-potable uses.

The alignment from the Castlemaine Waste Water Treatment Plant to the industrial district provides opportunity for other areas of Castlemaine to be connected to the recycled water network.

Further investigation is needed to determine the viability of the recycled water scheme, exploring the availability and timing of likely recycled water, potential users, treatment requirements, the location of a storage tank and alignment of the recycled water main, and the pumping requirements needed. Finally, the financial feasibility of this option would depend on the outcome of a cost-benefit analysis of the proposed recycled water scheme compared to the stormwater harvesting opportunities.

The next steps involve scoping of the project with collaborative partners and confirmation of commitment, followed by securing funding and commitment to implement the feasibility study.

Status	Identified
Lead agency	Mount Alexander Shire Council, Coliban Water
Implementation partners	To be determined
Location	Castlemaine
Scale	Precinct

Diversifying Water Supplies for Parks and Gardens

This project aims to identify and aid in securing a variety of water supplies for priority community assets, allowing water security during dry periods.

A diverse range of water supply sources (e.g. stormwater, recycled water, groundwater) can provide greater water security for highly valued green spaces (such as ovals, public open spaces, gardens, recreational water bodies) during drought, and reduce the pressure on potable water supplies.

The objectives are to engage with local governments to identify priority community assets that use potable water during periods of water shortage, assess water use requirements, consider and compare diverse water sources and demand saving initiatives, and provide support to community groups to secure funding and implement works.

Status	Identified
Lead agency	Coliban Water
Implementation partners	Local government
Location	Coliban region
Scale	Service area



Castlemaine Botanical Gardens. Credit: DELWP

Increased Flows in Coliban River for Cultural and Ecological Benefits

This project aims to increase flows in the Coliban River for cultural and ecological benefits while increasing the operational flexibility of managing water resources by reinstating the hydroelectric plant at Lake Eppalock.

The Coliban River flows are limited to passing flows and spills from Malmsbury Reservoir. *North Central CMA Region Environmental Water Management Plan for the Coliban River* (2016) notes that the river is flow stressed and does not have sufficient water for the environment to maintain and improve its ecological values.

There is an opportunity for Coliban Water to release water from Malmsbury Reservoir to increase flows to Lake Eppalock, and then pump water from Lake Eppalock to Bendigo via the Goldfields Superpipe. To off-set pumping costs and avoid carbon emissions it is proposed to reinstate the hydroelectric plant at Lake Eppalock.

This initiative builds on previous work undertaken through the Coliban IWM Forum, which developed a business case for the project Lake Eppalock Hydroelectricity Project: For Country and Environment. This work also found that an agreement between Coliban Water, the North Central Catchment Management Authority and the Victorian Environmental Water Holder would need to be established and that the project would be a significant cost for Coliban Water.

However, if capital funding could be secured for the project on the basis of environmental, cultural and renewable energy benefits then it would be more favourable.

The next stage is to establish the required agreement, then secure funding, followed by the construction of the hydroelectric plant.

Status	Identified
Lead agency	Coliban Water
Implementation partners	North Central Catchment Management Authority, Victorian Environmental Water Holder, Djaara (Dja Dja Wurrung Clans Aboriginal Corporation), Goulburn-Murray Water
Location	Coliban River
Scale	Waterway

Managing Trentham Stormwater Quality and Quantity for Healthy Waterways

The township of Trentham, in the peri-urban boundary of Melbourne, is facing high population growth in the coming years. The upper Coliban catchment supplies drinking water for Trentham and is the subject of significant investment for Coliban Water, North Central Catchment Management Authority, DELWP and local government.

The Trentham Stormwater Quality and Quantity for Healthy Waterways project aims to make informed decisions about managing threats to the catchment resulting from urban and peri-urban development now and into the future. The approach is based on assessing the likelihood of drivers of change, for example, urban development influencing streamflow, and the consequence of these changes, such as degraded waterway health and water quality.

The outcome will be the development of a stormwater management plan for the residential and urban areas of the Trentham township. It is expected that the plan will inform water planning for urban growth for similar townships across the region.

The steps for this project include:

1. narrow down the extent of assessment (i.e. township boundaries) based on the *Upper Coliban Land Use Risk Assessment Scoping Study* (2020)
2. engage with the Trentham Sustainability Group to identify community aspirations
3. confirm funding requirements for proposed project phases and any in-kind contribution opportunities
4. commit to the project and start briefings.

Status	Identified
Lead agency	Coliban Water, North Central Catchment Management Authority
Implementation partners	Hepburn Shire Council, Goulburn-Murray Water
Location	Trentham
Scale	Town



Quarry Street Reserve Lake, Trentham. Credit: DELWP

Recycled Water for a Greener Echuca

With a changing climate the long-term security of potable water supply is becoming a major issue. Coliban Water projections for Echuca show that under high climate change supply scenario, there is a potential for a shortfall in potable water supply as soon as 2028.

The aim of this project is to investigate the feasibility of supplying recycled water to existing and new public open space to reduce the demand on potable water supplies. It recognises the value of diverse water to reduce the reliance on drinking water and continue to irrigate key public open spaces for a greener, healthier Echuca.

The developing Echuca West precinct has been selected as a feasibility test site. It is close to the Echuca West Water Reclamation Plant and the potential reduction in demand for potable water could allow the area to accommodate up to 5,000 new homes.

The feasibility study will:

- develop a concept design plan for a staged recycled water scheme based on priorities, resources and demand nodes
- modify existing Coliban Water agreements to allow for an allocation of recycled water to be available for use by Council
- investigate upgrades to the Echuca West Water Reclamation Plant, to enable the supply of fit-for-purpose recycled water.

Status	Implementation
Lead agency	Campaspe Shire Council
Implementation partners	Coliban Water, Yorta Yorta Nations Aboriginal Corporation
Location	Echuca
Scale	Town

INTEGRATED PLANNING FOR A SUSTAINABLE FUTURE

Water Sensitive Urban Design for New or Upgraded Developments (Land and Buildings)

Population growth in the region has occurred more rapidly than projected, particularly during the coronavirus pandemic. This more-urgent demand for new housing places pressure on councils. This project aims to provide support and assistance for councils to incorporate water sensitive urban design (WSUD) into new developments or upgrade projects (such as roads or council-owned buildings).

Examples include:

- passive irrigation of street trees - saves other water for irrigation and supports long-term health of the trees to provide better urban heat reduction and amenity, while also reducing stormwater runoff
- porous pavements - allows water to seep into the ground, reducing surface runoff and helping prevent flooding. It also keeps moisture in the soil profile for longer, reducing the need for supplementary watering and helping with urban cooling
- capturing rainfall at the lot level - using tank or grey water for flushing toilets reduces demand on the potable system
- planning and developing wetlands and other WSUD assets utilise developer contributions.

It is anticipated that a consultant would be procured to help councils identify and implement the required steps to increase uptake of WSUD. The scope of works will be dependent on participating councils and their level of experience in implementing WSUD. One potential output is the preparation of a business case for councils to submit to their own organisations to increase WSUD into their operations.

This project is included as a statement of the Coliban IWM Forum's recognition of the importance of WSUD and supporting councils as they embed this approach into their planning and operations.

Status	Identified
Lead agency	To be determined
Implementation partners	To be determined
Location	Coliban region
Scale	Forum area

Bendigo Regional Employment Precinct

The City of Greater Bendigo is proposing to create the Bendigo Regional Employment Precinct. The project aims to create a large industrial precinct (280 hectare), attract new industries and create regional jobs. The initiative will see the City of Greater Bendigo partner with the private sector and government agencies to drive an innovative model of finance and delivery.

The city will utilise an environmentally sustainable approach to design a best-practice industrial precinct that demonstrates water-sensitive urban design, zero carbon and circular economy. To support this, a detailed investigation and plan is required to identify and develop innovative IWM options. This will include identifying and evaluating options for:

- diverse water supply, including stormwater harvesting and/or wastewater reuse
- retaining, treating and reusing wastewater and biosolids onsite
- flood management and reducing water quality impacts on the local waterway
- reducing urban heat generated from the industrial precinct.

The preferred options will then be progressed into planning policy, precinct design controls, infrastructure funding models, concept design and preliminary costings.

Status	Committed
Lead agency	City of Greater Bendigo
Implementation partners	Victorian Planning Authority, Coliban Water, North Central Catchment Management Authority
Location	Marong (Bendigo)
Scale	Precinct



Golden Square render. Courtesy City of Greater Bendigo

Macedon Ranges North IWM Plan

This project is the development of an IWM plan for the northern part of the Macedon Ranges Shire Council area. The IWM plan will explore opportunities and solutions to meet IWM objectives in this region in the face of a drying climate and rapid urban growth around the towns of Woodend and Kyneton.

The region covers a significant portion of the upper Campaspe River catchment. A key focus will be the protection and enhancement of waterway and catchment health whilst servicing the water and sewerage needs of the local communities.

The region overlaps the jurisdictions of two water authorities, Coliban Water and Greater Western Water. This joint IWM plan will allow for collaboration to determine and progress the best outcomes for the region and the community regardless of jurisdictional boundaries.

A working group will be formed to confirm the scope and structure of the plan and funding will be identified.

Status	Identified
Lead agency	Macedon Ranges Shire Council
Implementation partners	Greater Western Water, Coliban Water, North Central Catchment Management Authority, Djaara (Dja Dja Wurrung Clans Aboriginal Corporation), Taungurung Land and Waters Council
Location	Northern Macedon Ranges
Scale	Region

Servicing Small Townships

Small towns need modern domestic water supplies and wastewater and sanitation services to ensure protection of environmental and public health, by reducing the risks that come with unsafe drinking water and poorly managed sewage. Limitations in these services is an issue for local governments.

Smaller townships are also potential growth areas, that can accommodate new housing both for residents and 'tree changers' moving away from cities. However, these small towns need reticulated water supplies and wastewater and sanitation services provided to facilitate growth. There is an opportunity to do this in an innovative manner through IWM.

Taradale and Elphinstone, with populations of about 450 and 550 people respectively, are two such towns and are the subjects of an initial scoping project to explore cost-effective provision of water to townships of this size.

The forum recognises this need, and that the Taradale and Elphinstone project will need to be broadened to other towns too. Fortunately, there are examples of such projects in the Goulburn Broken and North East IWM regions that the Coliban IWM Forum can draw on.

This project is included here as the forum's statement of intent to address this challenge collaboratively as opportunities become available. It is anticipated this project will be driven by local governments, with the support of an IWM Officer, currently being recruited.

Status	Identified
Lead agency	Local governments
Implementation partners	To be determined
Location	Taradale and Elphinstone
Scale	Town



Integrated Water
Management Forums

VICTORIA
State
Government

Environment,
Land, Water
and Planning

19.2. Elevating ESD Targets in the Planning System

Author:	Simon Francis, Environmental Sustainable Design Officer
Responsible Director:	Vicky Mason, Director Health and Wellbeing

Purpose

The purpose of this report is to:

- Present the findings of Stage 1 of the Elevating Environmentally Sustainable Design (ESD) Targets Planning Project which developed the evidence base to support improved sustainable design performance standards within the Greater Bendigo Planning Scheme, in conjunction with the Council Alliance for a Sustainable Built Environment (CASBE) and a group of 31 Victorian councils.

- Seek a Council resolution to participate in Stage 2 which involves initiating a planning scheme amendment alongside other participating councils. The amendment will seek to introduce a new single ESD 'Particular Provision' into the Greater Bendigo Planning Scheme through a collaborative joint planning scheme amendment process.

Recommended Motion

That Council:

1. Request that the Minister for Planning authorise Council to prepare and exhibit Amendment C276gben to the Greater Bendigo Planning Scheme.
2. If authorised by the Minister, exhibit Amendment C276gben to the Greater Bendigo Planning Scheme, giving notification as required for an extended statutory exhibition period given the number of participating councils.
3. Request that the Minister for Planning establish an Advisory Committee to consider Amendment C276gben.
4. Write to the relevant Ministers advocating for elevated ESD policy in the planning scheme.
5. Authorise the Director Strategy and Growth to make minor changes to Amendment C276gben where the changes do not affect the purpose or intent of the Amendment.

Executive Summary

The Elevating Environmentally Sustainable Design (ESD) Targets Planning Project aims to introduce revised and elevated ESD targets into the Grater Bendigo Planning Scheme, including targets for zero carbon development. This project has grown to involve 31 urban and regional Victorian councils and is being led by the Council Alliance for a Sustainable Built Environment (CASBE) who are auspiced by the Municipal Association of Victoria (MAV). It demonstrates a growing understanding across the state of the need for stronger planning policy to drive a gas-free, zero-carbon built environment.

Stage 1 of the project has been completed which comprised substantial research as well as development of proposed planning provisions.

Stage 2 of the project seeks to implement the policy into the planning schemes of the participating councils in a collective manner.

To participate in Stage 2, Council needs to sign a Memorandum of Understanding along with a letter seeking the support of the Minister for Planning to authorise the amendment.

If Council resolves to proceed with Stage 2, the next steps will involve:

1. Signing the Stage 2 MoU and contributing required funds (approximately $7,000).
2. Seeking authorisation from the Minister for Planning to prepare and exhibit a Planning Scheme amendment to introduce the new ESD Particular Provision.
3. Commencing an informal community awareness raising and advocacy campaign, centrally led by CASBE.
4. Undertaking further supporting analysis, as required, to support the amendment including a more detailed cost benefit assessment of the social, environmental and economic implications of the proposed planning provisions.

Background

Council in 2018 successfully introduced an ESD policy into the Greater Bendigo Planning Scheme, becoming the first regional council in Victoria to have ESD policy considerations at the planning stage. These requirements have helped to minimise energy use, water and waste, improve environmental and amenity outcomes for occupants and reduce ongoing running costs for our community. The planning policy was introduced into the Planning Scheme via a collaborative process between several councils.

The City of Greater Bendigo is now collaborating with the Council Alliance for a Sustainable Built Environment (CASBE) and its member councils to pursue a planning scheme amendment that builds on the existing local ESD policies held by 20 Victorian councils.

Stage 1 project outcomes

A working group comprising officers from several participating councils and CASBE representatives developed a set of elevated ESD objectives and standards that are designed to achieve new buildings which are net-zero carbon, healthy, sustainable and resilient. Feedback sought from officers from within CASBE’s 31 member councils in November 2021 was used to further refine the draft requirements.

CASBE then engaged several expert consultants to independently peer-review the draft ESD requirements and options for implementation. Fifteen case studies were selected from participating councils to inform baseline development conditions and test the technical and development feasibility of the requirements. A preliminary Cost Benefit Analysis was prepared that assessed the costs and benefits for developers.

Collectively, the findings and recommendations of the expert reports have been used to inform and refine the development of a new 'Particular Provision' to be inserted into the planning schemes of participating councils (**Attachment 1**). The reports effectively provide the strategic justification and evidence base to underpin a joint planning scheme amendment request to the Minister for Planning to implement the proposed provision and associated advocacy to State Government (Stage 2 of the Project).

The reports are as follows:

1. Part A. Technical ESD and Development Feasibility.
2. Part B. Planning Advice; and
3. Part C. Economic Cost-Benefit Analysis.

Part A: Technical ESD and Development Feasibility

ESD technical consultant, Hip v Hype concluded that no major technical barriers exist to achieving the proposed standards and objectives. They recommended that some of the new standards would be best located in the Built Environment Sustainability Scorecard (BESS) tool rather than in a planning control.

A full version of the Hip v Hype Technical ESD and Development Feasibility report is provided as **Attachment 2** to this report.

Part B: Planning Advice Planning

Consultant, Hansen Partnerships were engaged to undertake a peer review of draft objectives and standards, analyse available policy tools and identify and prepare the planning policy mechanism to implement the elevated ESD objectives and standards. Hansen Partnerships recommended that the 31 participating councils pursue an amendment to introduce a new Victoria Particular Provision (VPP) and request that the Minister for Planning establish an Advisory Committee to review the Amendment.

A full version of the Hansen report is available as **Attachment 3** to this report.

Part C: Economic Cost-Benefit Analysis

Economist Consultant, Frontier Economics undertook a cost benefit analysis that was primarily focused on the direct costs to developers associated with addressing the standards for a range of development typologies. Their analysis demonstrated that the new proposed objectives and standards may deliver broad value to the community where sufficient scale is achieved.

Frontier Economics methodology primarily took into consideration the quantifiable costs and benefits to developers. The analysis indicated that the quantifiable costs exceeded the quantifiable benefits across some development typologies.

Their analysis did not take into account the financial savings associated with the ongoing operation of buildings such as reductions in energy and utility bills, which would directly benefit residents and businesses. The 31 participating councils have, therefore, decided to pursue a more detailed cost-benefit analysis prior to any independent panel and advisory committee hearing.

A full version of the Frontier Economics report is available at **Attachment 4** to this report.

Victorian Government ESD Roadmap

In 2020 the Victorian Government released their ESD Roadmap which outlined a program to introduce new ESD policies and standards into planning schemes across Victoria. The Roadmap did not include the specific provisions proposed which were to be developed following the consultation process.

On Friday June 10, 2022, the Minister for Planning introduced Planning Scheme Amendment VC216 resulting in changes to the Planning Policy Framework of all Victorian planning schemes. The changes support improvements in energy and water efficiency for new buildings and subdivisions with an increased focus on water management, cooling and greening, air and noise pollution, and recycling and resource recovery.

Via CASBE, councils collaborating to introduce and ESD Particular Provision, regularly consulted with the Department of Environment, Land, Water and Planning (DELWP) to seek support and advice and provide progress updates. CASBE and the City of Greater Bendigo also made a submission to the ESD Roadmap requesting that the Victorian Government integrate ‘net zero carbon development’ requirements into its planned changes in response to the climate emergency.

The changes implemented as a part of VC216 are broadly consistent with the ESD Particular Provision proposed by collaborating councils which will set out more specific objectives and measurable standards for new development.

Report

The key conclusion of Stage 1 was that the technical reports justify a planning scheme amendment to require increased environmental standards in new buildings.

Proposed planning controls

The proposed planning controls are in the form of a ‘Particular Provision’ as recommended by the planning consultants engaged on the project. Although a departure from previous approaches to introducing local planning controls, the Particular Provision has the added benefit of being standardised across councils wanting to introduce it, providing consistency and certainty for developers working across multiple municipalities. Finally, the planning advice concluded that a Particular Provision would streamline many existing planning permit controls, reducing the burden on, and increasing clarity for, applicants.

The Particular Provision addresses the following ESD themes which align with Council’s existing ESD policy and Council strategies:

- **Operational Energy** (design buildings to be all electric, avoid connection to gas and other fossil fuels, achieve 7 stars NatHERS rating, energy efficiency, ensure on-site renewable energy generation, and purchase offsite renewable energy with the aim of achieving net zero operational carbon emissions).

- **Sustainable Transport** (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).

- **Integrated Water Management** (reducing potable water consumption through efficiency measures, using non-potable water sources where appropriate and improving the quality of stormwater discharging from site).

- **Indoor Environment Quality** (improving the comfort of building occupants including internal temperatures, air quality and daylight access).

- **Circular Economy** (improving rates of resource recovery during both construction and operation and closing the loop by encouraging the use of materials with recycled content).

- **Green Infrastructure** (increasing the number of trees and other green infrastructure to provide a range of ecosystem service benefits and reducing the contribution of the built environment to the urban heat island effect).

The proposed Particular Provision is provided at **Attachment 1.**

Each theme contains a series of detailed objectives and standards designed to achieve performance-based outcomes. The objectives describe desired outcomes which must be achieved in new development. The standards contain discretionary requirements to meet a stated objective. A standard should normally be met, but they are not mandatory. That is, alternative design solutions can be acceptable provided they deliver outcomes that still meet the overall objective/s. This approach provides flexibility in the design and assessment stage, and accounts for opportunities and constraints of a particular site and its surrounds.

What applications will the Particular Provision apply to?

As detailed in **Attachment 1**, the Particular Provision will only apply to new developments of a certain size that are located within predominantly urban land use zones. Affected developments would include residential, commercial and industrial development that involve:

- Works that increase the floor area of an existing building by more than 1,000m²; and
- New buildings or works with a gross floor area greater than 50m².

Importantly, the requirements will not apply to single dwellings, and they will not apply retrospectively to existing buildings.

Similarly, VicSmart applications and applications for development associated with the use of land for agriculture or earth and energy resources would also be exempt.

The proposed provision also includes 'transitional arrangements' that exempt applications for changes to an existing planning permit, if the original permit application was lodged before the Particular Provision is approved.

Relationship to Council's current ESD local planning policy

Council's current ESD local planning policy applies to the following planning permit applications:

- 3 or more new dwellings on a lot
- Development of non-residential buildings with a gross floor area greater than 500m²

If the proposed application triggers are adopted the following applications would be required to address ESD considerations would result:

- 2 or more new dwellings on a lot
- Development of a non-residential building with a gross floor area greater than 50m²

Implications for planning permit applications

The proposed provisions will not change which developments require planning permission and, therefore, will not result in an increase in planning permit applications submitted. Instead, they will change the type of developments which need to address ESD requirements.

Based on data from 2019 to 2021, the proposed provisions are likely to result in an additional 36 to 51 residential planning permit applications for two dwellings on a lot that would need to address ESD requirements.

The proposal to apply the new Particular Provision to developments with a floor area over 50m² is also likely to increase the number of commercial and industrial buildings needing to address ESD requirements. The number of additional applications in this category requires further investigation.

By increasing the number of planning permit applications that need to address ESD requirements, the proposed Particular Provision will significantly improve the environmental performance of the built environment in the City.

Example application – two dwellings on a lot

For an application for two or more dwellings on a lot, the provisions are likely to result in the following additional ESD requirements:

- Achieve 7-star energy rating for the home
- Include solar panels relative to the number of bedrooms proposed
- Installation of a rainwater tank for reuse in toilets and watering of gardens
- Avoiding the use of gas appliances
- Be electric vehicle ready by installing necessary infrastructure
- Consideration of the materials selected with the intention of reducing embodied carbon and enabling reuse or recycling at end of the building's lifespan

- Incorporate necessary infrastructure to facilitate the waste minimisation and recycling.
- Identification of measures to minimise waste during construction.

They are also likely to require inclusion of the following elements required by the existing planning scheme and Council's current ESD policy:

- Installation of water efficient taps, toilets and appliances to reduce use of drinkable water
- Consideration of the development's risk to climate change impacts such as the urban heat island effect, flooding and the management of stormwater
- Retention and / or planting of appropriate trees and vegetation to positively contribute towards biodiversity and urban cooling
- Demonstrate natural ventilation and access to clean, fresh air, with minimal exposure to harmful indoor air pollutants, access to daylight and sunlight to improve amenity, liveability ensuring thermal comfort and safety

Guidelines for Sustainable Building Design

To guide discretion in applying the ESD standards, new 'Guidelines for Sustainable Building Design' are being prepared as part of the Project.

The Guidelines will consist of case studies, templates, performance criteria, and expectations to ensure that the development community is able to address the objectives and standards outlined within the amendment. The Guidelines should also reduce costs for certain development types (i.e. small scale residential) minimising the need to engage expert consultants in order for a development to demonstrate that it meets the objectives and standards detailed within the amendment.

Stage 2 planning scheme amendment

Stage 2 of the project includes three key parts.

Part 1: Joint planning scheme amendment

The new Particular Provision is proposed to be introduced via a planning scheme amendment common to all participating councils. Each council will make its own amendment request and subsequently request for the amendments to be joined to become a group amendment (a 'GC' amendment) coordinated by CASBE on behalf of all participating councils.

The City's amendment is to be known as 'Amendment C276gben'. Documentation required to support the amendment request is being prepared by CASBE with the assistance of participating councils. To date, the draft Particular Provision and Explanatory Report have been prepared along with expert technical reports. Additional documentation yet to be prepared includes:

- Any draft consequential changes to the Municipal Planning Strategy at Clause 2 of the Greater Bendigo Planning Scheme, or new local content to be added at Clause 15.02-1L (Sustainable Development) (if to be retained) regarding Objectives, Strategies and Policies related to ESD requirements, net zero outcomes and climate change adaptation.

- Guidelines for Sustainable Building Design which will be listed as a background document at Clause 72.08.
- Additional supporting documents including an updated and more detailed financial feasibility assessment.

A full version of the Planning Scheme Amendment Explanatory Report is provided as **Attachment 5** to this report.

Part 2 Advocacy

This includes advocating for support from the Minister for Planning to authorise the amendment and facilitate the Advisory Committee process. To assist, an advocacy letter (**Attachment 6**) which presents evidence-based arguments to justify support has been prepared. It is proposed that the letter be signed by the Mayor and Deputy Mayor of each participating council.

Part 3 Memorandum of Understanding (MOU) and community consultation

The Draft MoU provides a governance framework for a collaborative and cooperative partnership between CASBE and participating councils. It establishes the commitments, roles and responsibilities of each party, including operational activities, financial contributions and the decision-making framework.

The MoU for Stage 2 allows for a party to exit the project and the amendment at any time for any reason, provided notice of withdrawal is given in writing with 28 days' notice.

Should Council decide to withdraw, or the MoU is terminated, any due but unpaid funding contributions will be payable, but no future funding contributions will be payable. Any remaining balance will be returned to the parties based on their commensurate contribution to the Project.

Priority/Importance

High – The Elevating ESD Targets Project contributes to achieving several goals and objectives specified in Council's strategic documents as outlined below. Stage 2 of the project is also the culmination of many years of collaborative work between participating councils.

Options considered

1. **Participate in Stage 2** - Council resolves to seek authorisation from the Minister for Planning to prepare and exhibit the amendment. This option is aligned with Council's strategic priority to achieve an energy efficient and sustainable built environment. This is the recommended option.

2. **Do not participate in Stage 2** - Council resolves to withdraw from the collaborative planning scheme amendment process and seek a refund of funds previously committed to Stage 2 of the project. This option would fail to progress Council's strategic priorities and would not capitalise on the City's previous investment in collaborating with other councils on the project.

Timelines

The process for progressing Stage 2 is consistent with most planning scheme amendments:

1. **Seek authorisation - July 2022** – this will occur once all participating councils have decided whether to participate in Stage 2 of the project.

2. **Public exhibition** – the timeframes for public exhibition will depend on if and when Council receives authorisation from the Minister for Planning. It is noted that this process may take some time given the extent and scope of the proposed provisions and the relationship to the Victorian Government's ESD Roadmap program.

3. **Request Panel or Advisory Committee** – Council meeting to consider submissions and decide whether to refer submissions to a Panel and / or Advisory Committee.

4. **Seek adoption** – Council meeting to consider the Panel or Advisory Committee's recommendations and decide whether to adopt the amendment.

Progression of the amendment is highly dependent on DELWP and the Minister for Planning's timeframes for determining their support. This may take several months to confirm.

Communications/Engagement

Formal exhibition will occur as a part of the planning scheme amendment process giving community, industry and others the chance to express opinions, concerns or support for the amendment. Considering the importance, scale and complexity of this project, an extended exhibition period is proposed.

Feedback will be reported back to Council for consideration, and then potentially considered by a Planning Panel or Advisory Committee appointed by the Minister for Planning. It is likely that participating councils will share the costs and resources to facilitate the exhibition process which will be led by CASBE.

Informal community awareness raising is proposed to occur following lodgment of the authorisation request. This is indicated in an advocacy and engagement plan which also proposes that an advocacy letter be sent from the Mayor and Deputy Mayor of participating councils to relevant State Ministers regarding this amendment. This phase of engagement will occur prior to the formal exhibition phase.

I**nternal consultation with City officers'**

Internal consultation has occurred with strategic and statutory planning officers who support the elevated ESD planning controls proposed as well as the collaborative planning scheme amendment.

Financial Sustainability

The City has already contributed $18,600 towards development of the proposed planning controls. It is likely an additional $7,000 may be required to participate in Stage 2 depending on the final number of councils that decide to continue to participate. Overall, the

collaborative approach which results in cost-sharing across multiple councils will provide a considerable saving to the City.

Risk Assessment

The supporting documents detail the legal risks associated with pursuing a Particular Provision as opposed to a local policy or other planning tool to achieve ESD outcomes.

The other risk is the potential that the Minister for Planning does not authorise the preparation of the amendment. The financial impact associated with this possible outcome is reduced as a result of the collaborative process which spreads the financial risk across all participating councils. Should this occur, the project and proposed planning controls will still be used to advocate for improved ESD planning provisions at a state level.

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 5 - A climate resilient and healthy landscape

Secondary Council Plan Reference(s)

Goal 1 - Zero carbon 2021-2022 Action: Utilise the planning system to advance zero carbon developments as part of a planning scheme amendment

Other Reference(s)

Climate Change and Environment Strategy 2021-2026

The planning scheme amendment will contribute to the following goal and targets:

- Zero carbon
- Biodiversity and regeneration
- Circular economy
- Sustainable and active transport
- Water sensitive Bendigo

Climate and biodiversity breakdown resolution

Council passed a resolution on August 21, 2019 that recognises we are in a state of climate and biodiversity breakdown. Council acknowledges the need to contribute to global efforts to reduce greenhouse gas emissions, ensure Bendigo is a resilient city and conserve biodiversity in the region. Improving sustainability controls in the planning scheme and encouraging zero carbon development outcomes constitutes a significant climate change action that will reduce the use of fossil fuel-based energy by households, businesses and for transport within the Greater Bendigo municipality.

Victorian Charter of Human Rights and Responsibilities Act 2006

The implications of the report have been assessed and are not considered likely to breach or infringe upon, the human rights contained in the Victorian Charter of Human Rights and Responsibilities Act 2006.

Policy with the Greater Bendigo Planning Scheme

ESD is already embedded in the Greater Bendigo Planning Scheme. The Planning Policy Framework at Section 10 of the Scheme includes an 'Energy and resource efficiency' policy at State level at Clause 15.02-1S, which seeks to:

- Encourage land use and development that is energy and resource efficient and minimises greenhouse gas emissions
- Improve energy, water and waste performance of buildings and subdivisions via ESD
- Reduce the urban heat island effect through retention of existing vegetation, and additional vegetation and greening in urban areas
- Facilitate a greater use of renewable energy technologies.

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. Attachment 1 Elevated ESD Particular Provision [**19.2.1** - 14 pages]
2. Attachment 2 Technical ESD and Development Feasibility Report Hip v Hype [**19.2.2** - 81 pages]
3. Attachment 3 Hansen Partnership Elevating ESD Targets Planning report [**19.2.3** - 51 pages]
4. Attachment 4 Frontier Economics Elevating ESD Targets CBA Report [**19.2.4** - 81 pages]
5. Attachment 5 Elevating ESD PSA Explanatory Report [**19.2.5** - 16 pages]
6. Attachment 6 Advocacy Letter to Ministers [**19.2.6** - 4 pages]

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53.XX ELEVATED ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

Purpose

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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.

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

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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

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An application to construct a building or construct or carry our 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

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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.

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 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.

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.

- 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.

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.

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.

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 carparks 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).

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.

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.

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.

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.

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 Two or more dwellings on a lot (other than apartments)	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.

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.

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.

53.xx-12 Decision guidelines

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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.*

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

HIP V. HYPE

WHO WE ARE

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

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

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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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HIP V. HYPE

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HIP V. HYPE

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 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).	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. 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).	All electric alternatives with the exception of electric instaneous offer an operational energy and corresponding cost saving. Smaller residential typologies also offer the benefit of avoiding a supply charge for gas. 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. Gas alternatives lock in fossil fuel dependence and do not allow for zero carbon in operation without offsets. 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.	The standard has strong justification based on a range of benefits and manageable cost impacts. 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 discetion should be applied in very limited circumstances. We recommend that the proposed Guidelines for Sustainable Building Design apply discretion for electric instanteous systems for taller residential buildings and non-residential buildings.

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
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).	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.	Capital cost impact is now less than $1,000 per kWp at this scale.	Solar energy generation offsets on site consumption of electricity creating an operational saving (with a return on investment of generally less than 5 years). There is a corresponding carbon reduction benefit.	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. 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. We believe this standard could apply to single dwellings as well as medium density.
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	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.	Capital cost based on industry standards remains below $1,000 per kWp, but may be higher in certain circumstances.	Benefits are as above for all solar PV standards.	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. 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. 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. Standard S7 would drive optimisation of roof capacity to ensure the best available space for solar PV. Where apartments are a mixed use building (e.g. have ground floor retail), the standard for the predominant use in the development should apply.

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use: Industrial & warehouse only 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	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. 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. 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.	Not able to be determined as it is not clear whether the base cases would have required alteration.	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. This increases the feasibility of new solar being able to be accommodated.	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. 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. We recommend awaiting the outcome of the NCC 2022 provisions before confirming a decision.

Operational Energy

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use: Industrial & warehouse only Include a solar PV system that is: - 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. The system should be designed to optimise use of on-site generated electricity.	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. The standard which would apply when no industrial process is proposed represents approximately 10% of available roof space. 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.	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.	As above.	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.
S6 Maximise onsite renewable energy generation to meet or exceed predicted annual energy use: Office, educational buildings, health facilities, aged care, student accommodation, commercial and other non-residential buildings Should install onsite renewable energy generation up to or exceeding predicted annual energy consumption	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. 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.	Capital cost based on industry standards remains below $1,000 per kWp, but may be higher in certain circumstances.	Benefits are as above for all solar PV standards.	We recommend that the standard be modified for consistency with the apartment standard. 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".

Operational Energy

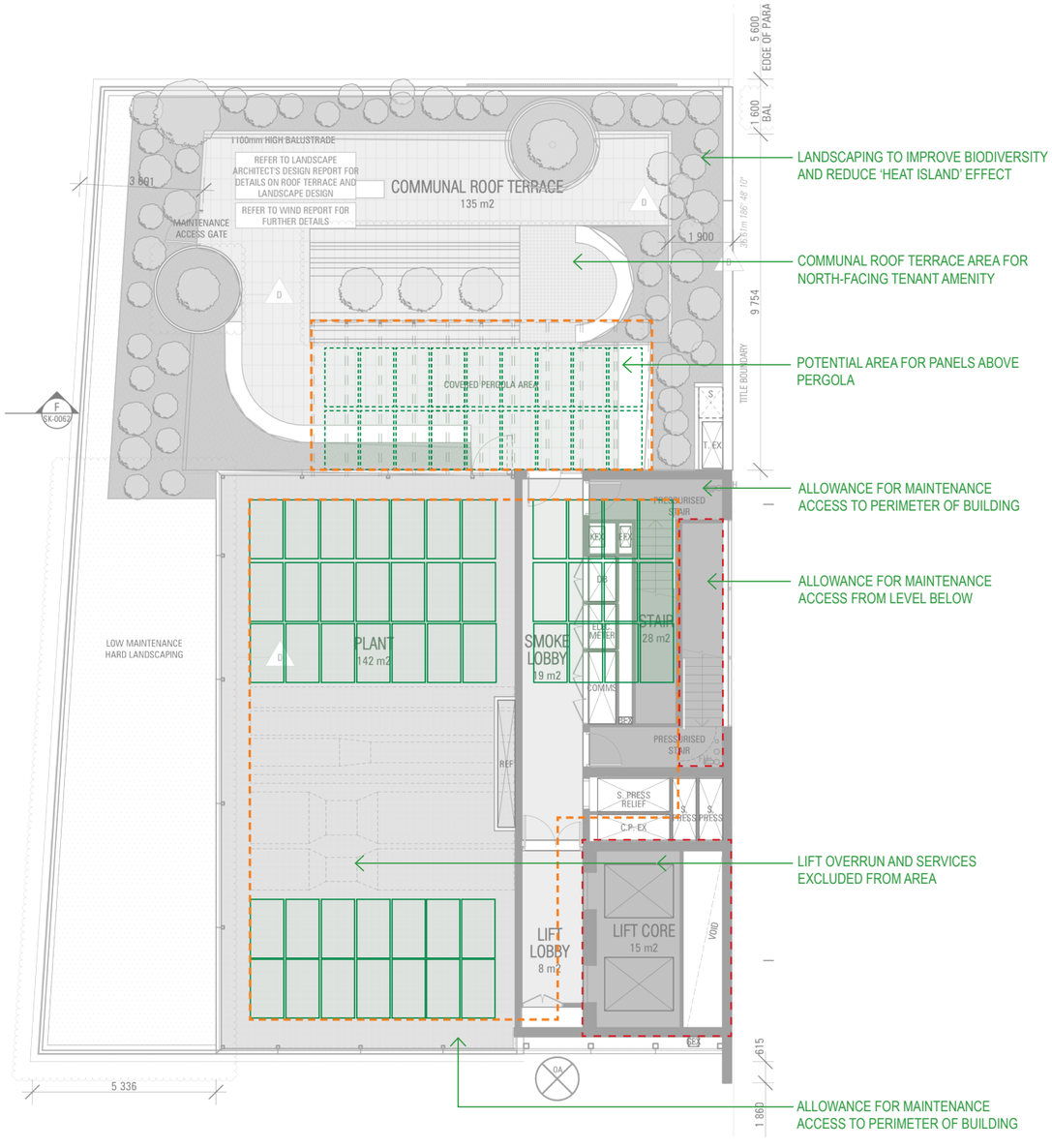


Diagram demonstrating potential solar photovoltaic capacity for the rooftop of an office case study. The image demonstrates 19.5kWp of solar. Image by JCB Architects

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 though 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.	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. We do not recommend inclusion in Guidelines for Sustainable Building Design or BESS.

Operational Energy

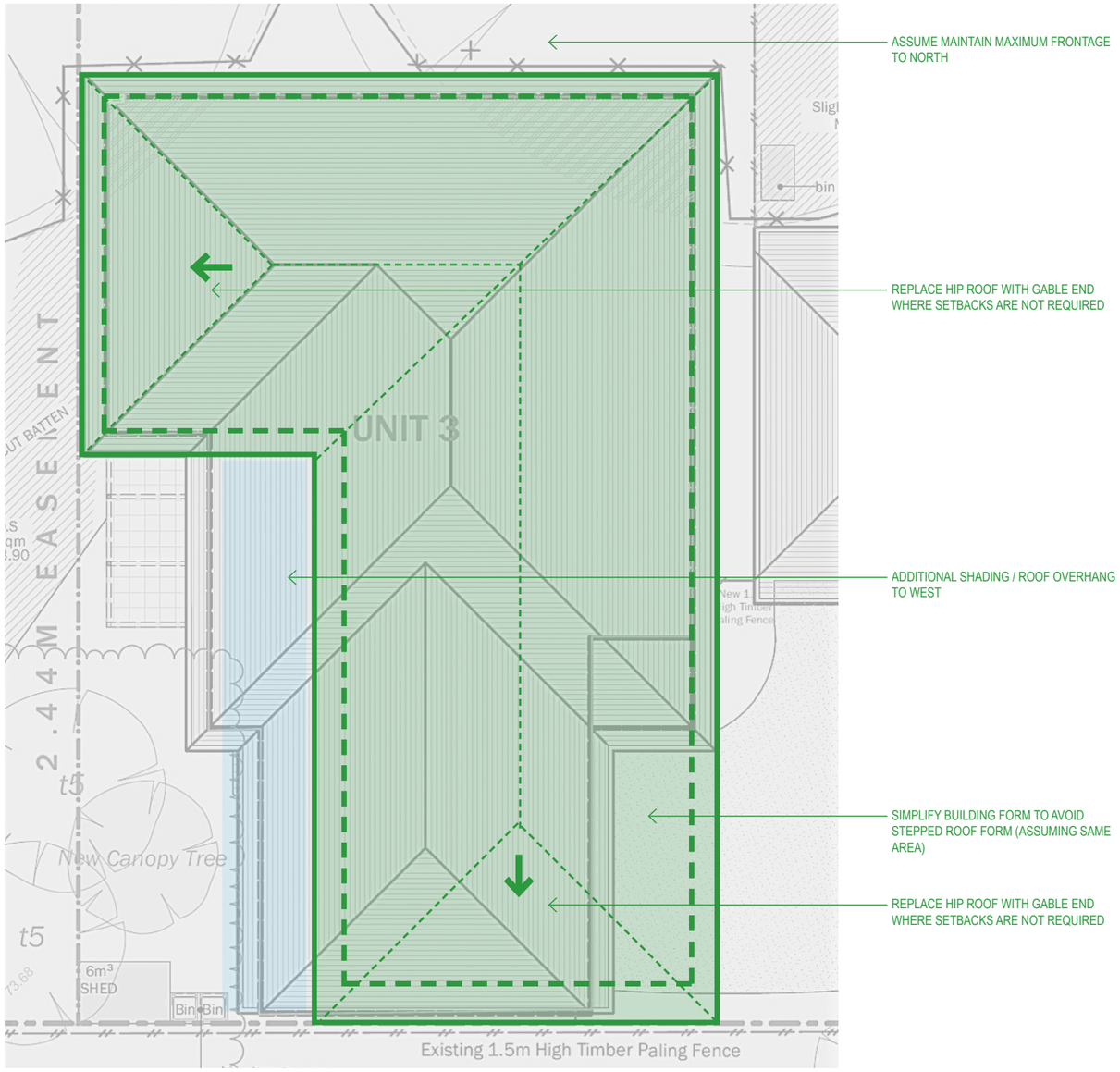


Diagram demonstrating the possibilities for simplification of a single dwelling pitched roof to increase opportunities for solar photovoltaic panels.
Image by JCB Architects

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
S11 Developments should provide the following rates of bicycle parking and associated facilities: New residential development ▪ A minimum of one secure undercover bicycle space per dwelling ▪ A minimum of one visitor bicycle space per 4 dwellings	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. 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.	The capital cost impact related to infrastructure ranges between $410 and $1,640 per space depending on the solution. The capital cost of the additional space is estimated at $1,630 per sqm.	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. Whilst there is confidence that the impact exists, modelling the benefit is complex as outlined in the Cost Benefit Analysis.	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.
S11 Developments should provide the following rates of bicycle parking and associated facilities: New retail development ▪ 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	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.	As per above.	As per above.	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.

Sustainable Transport

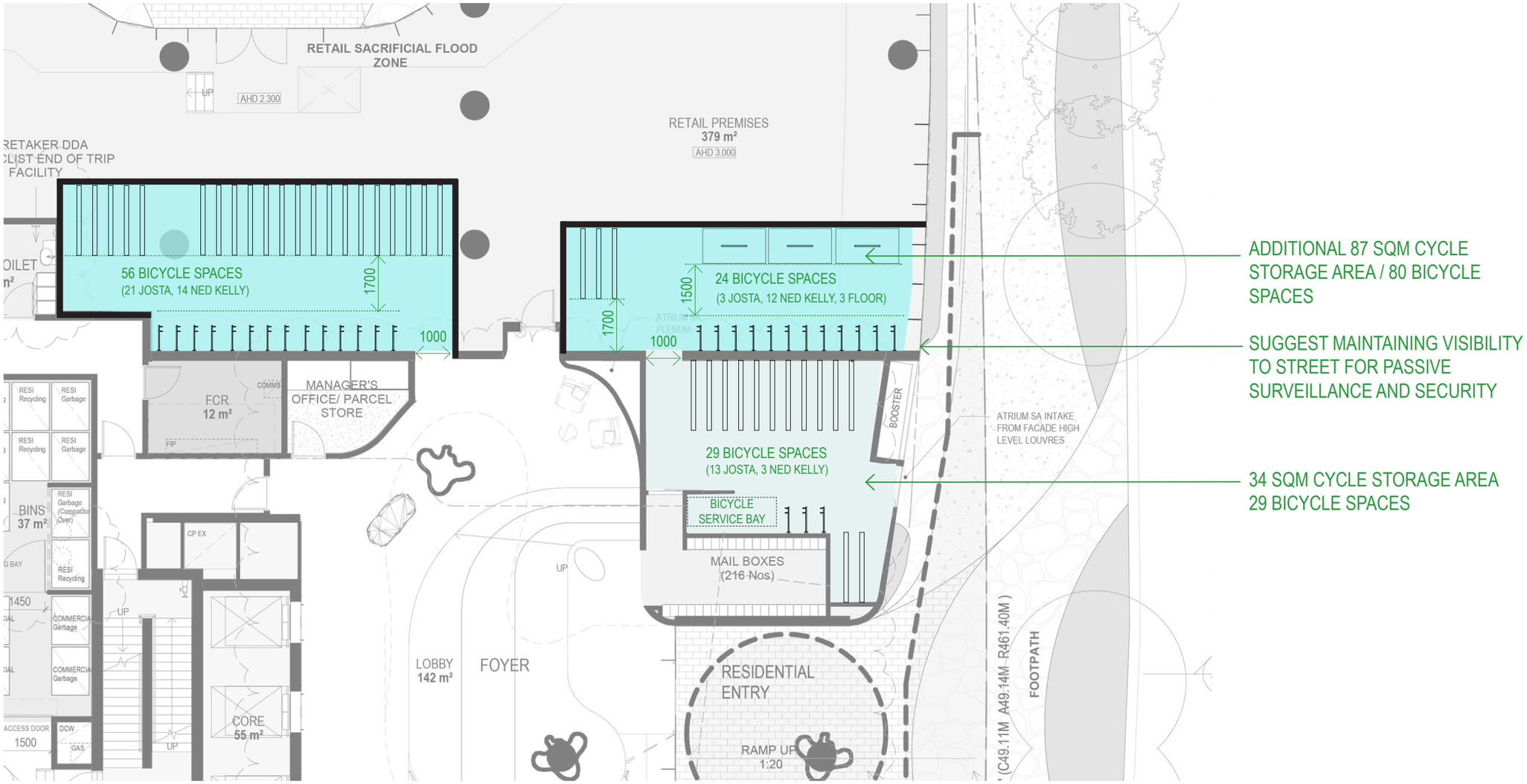


Diagram highlighting the impact of the bicycle parking standards as a suite of measures for a mixed use development. Image by JCB Architects
Note: The following storage types have been utilised - two tier system (Josta), hanging rack (Ned Kelly) and hoop (floor).

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
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 ▪ 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	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.	As per above.	As per above.	Recommendation is as per the retail standard.
S11 Developments should provide the following rates of bicycle parking and associated facilities: For all other non-residential ▪ Provide bicycle parking equal to at least 10% of regular occupants	The design impact of this standard is similar to other non-residential bicycle standards.	As per above.	As per above.	Recommendation is as per the retail standard.
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.	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.	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.	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.	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.

Sustainable Transport

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S13 Bicycle Parking - Convenience. All bicycle parking facilities must be convenient and accessible, and: ▪ 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 carparks 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	The design impact of some elements of the proposed standard is very significant as outlined below. 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. 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). 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. 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.	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. 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. Other cost impacts (lift size and ground level preference) were not quantified as the majority met the standard already.	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.	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. 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. 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. We recommend this standard be modified to encourage design that can see particularly non-residential car space reallocated to bicycle parking over time.
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: ▪ 12kWh of energy for charging during off peak periods; and ▪ A 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 interchangably. 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	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. 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). 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%. 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. CASBE will need to define 'equivalent standard development'.
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.	High efficiency fixtures, fittings and appliances result in an operational water saving. 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.	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. Further detail on strategies to reduce potable water consumption can be included in Guidelines for Sustainable Building Design.

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.	Inclusion of rainwater tanks result in an operational water saving, largely through reuse in toilet flushing and irrigation. Use of rainwater tanks also helps deliver improvements to stormwater quality. Improved resilience during intense rainfall events.	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. 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. We also recommend this standard highlight the need for filtration from rainwater harvested surfaces.
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.	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. 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.
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.	We recommend retaining but modifying the standard to sit as a potential strategy for using water resources efficiently. 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).

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.	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. 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). 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. Further detail on strategies to reduce potable water consumption can be included in Guidelines for Sustainable Building Design.
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	This standard was flagged for removal by Hansen in a preliminary review of the standards, and was therefore not measured in detail. We do note however that when a NatHERS FirstRate file for an 8.2 Star dwelling was interrogated it did not meet the standard.	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	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: _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) _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) 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). 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.	The capital cost impact of the standard is highly variable depending on the base case design. 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. If redesigned from the 'ground up' then design responses to meet the proposed standard may result in a reduced yield impact.	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).	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. We do not consider that the standard as written is appropriate unless BESS guidelines for definition of single sided ventilation are relaxed. 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.

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.	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. Whilst this plant room impact is minor it will impact the net lettable area from a developer perspective. The standard also prescribes a specific solution to improved ventilation when alternatives such as Heat Recovery Ventilation may be preferable.	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.	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. 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.
S38 Buildings should achieve effective external shading to west, north and east facing glazing and skylights.	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. 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.	The capital cost impact of shading is significant. The implication for a single residential dwelling was $9,000 and in the large residential case study this was over $3,500 per dwelling. 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).	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. The average NatHERS improvement attributed to externally shaded windows is in the order of 0.2 Stars (or 10 mj/m2 per year)	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. Alternatives include; reducing east and west glazing ratios, spandrels, balconies with wing wall protection etc. This could be integrated with other passive design principles). The updated standard by Hansen allows for the flexibility in approach to reducing heat gain.

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)	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. 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.	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.	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. As all but one base cases had specified double glazing already, the operational savings and health benefits associated with the standard were not calculated.	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. The PMV standard may be appropriate to reference in Guidelines for Sustainable Building Design. Double glazing can be highlighted in Guidelines for Sustainable Building Design as a key strategy to improve thermal performance and comfort.
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.	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. We suggest including a reporting requirement in BESS which doesn't impact scoring, but allows for the gathering of an evidence base.

Indoor Environment Quality (IEQ)

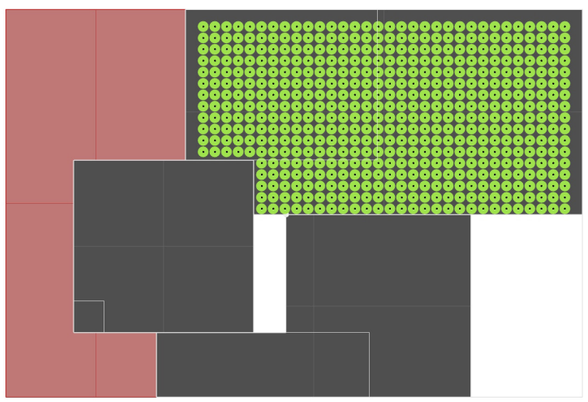
STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S42 Buildings must achieve a daylight level of minimum 200 lux for at least half of daylit hours each day to at least half the area of every habitable room and regularly occupied space.	The impact of this standard as written will be varied 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. 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. Refer to daylight modelling outputs on following page.	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.	The benefit (over current standards) is primarily restricted to improved daylight amenity for second bedrooms, where a 'battle axe' arrangement restricts daylight amenity. 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.	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. 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. 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.
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).	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. If the 50 lux level is applied to habitable rooms of dwellings, then all rooms which meet standard S42 will pass this standard already. Refer to daylight modelling outputs on following pages.	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..	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. We also recommend that a standard to minimise use of artificial light may be appropriate.

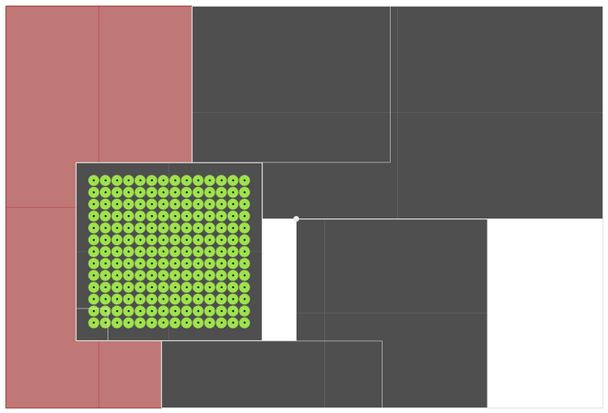
Indoor Environment Quality (IEQ)

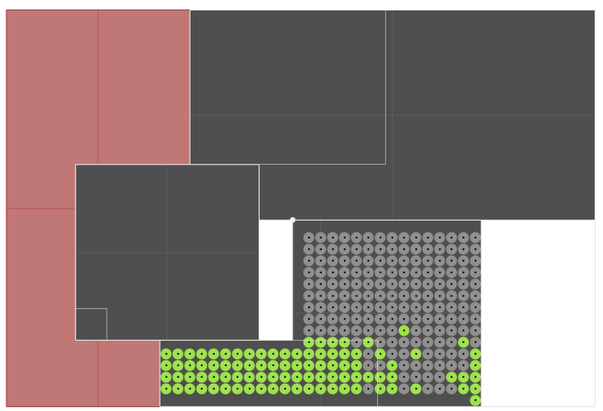
PROPOSED ELEVATED STANDARD 1

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%).

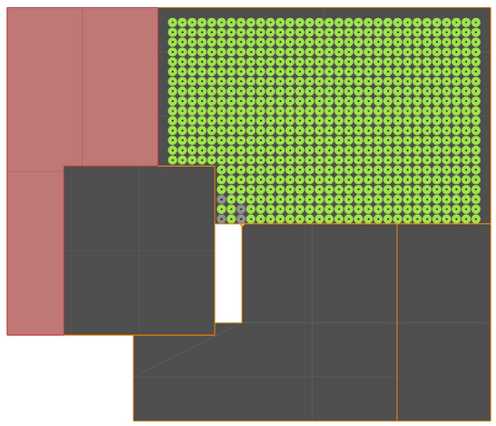
Refer to Appendix C for full daylight modelling results.

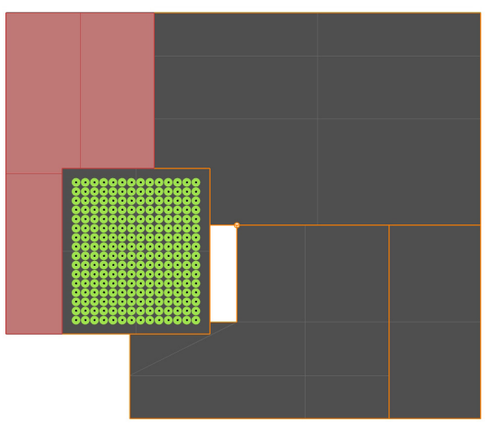


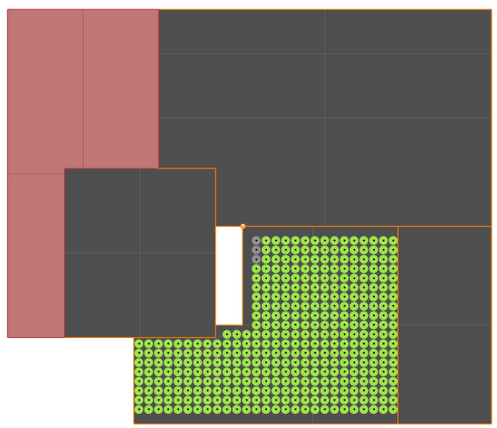




Original apartment layout







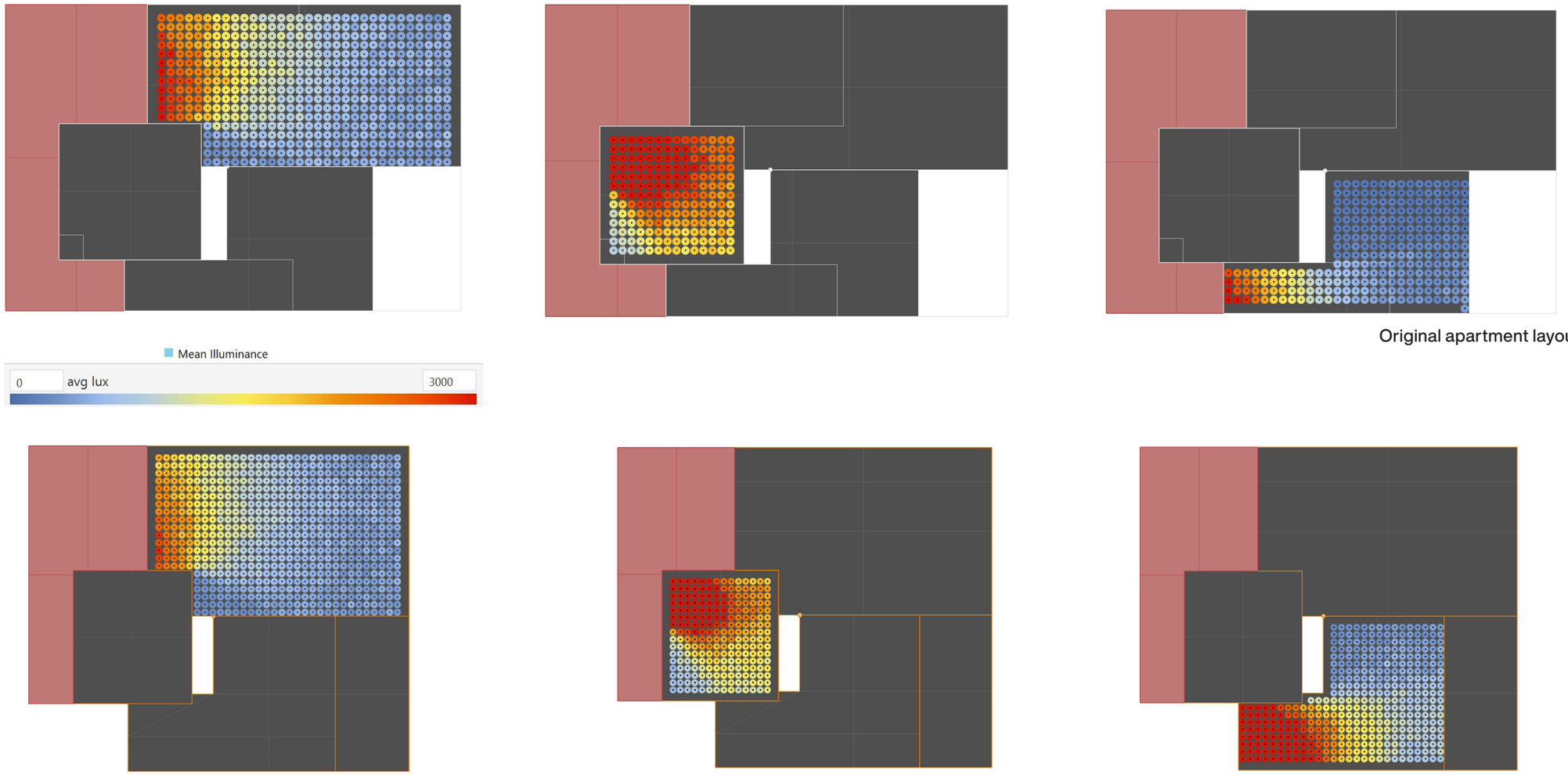
Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to Better Apartment Design Standards (BADS))

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)

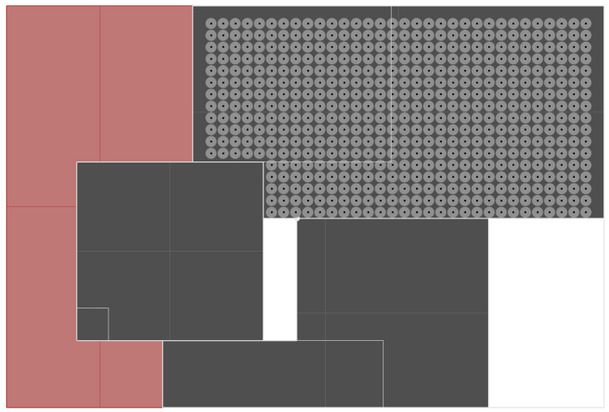
STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
S44 Buildings should achieve direct sunlight to all primary living areas for 2 hours on June 21 to at least 1.5 m deep into the room from glazing.	The design impact of this standard as written would rule out the development of any southern-only 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. 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). Refer to daylight modelling outputs on following page.	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.	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). 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. We support a sunlight standard being pursued, but further work beyond our scope is required.
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.

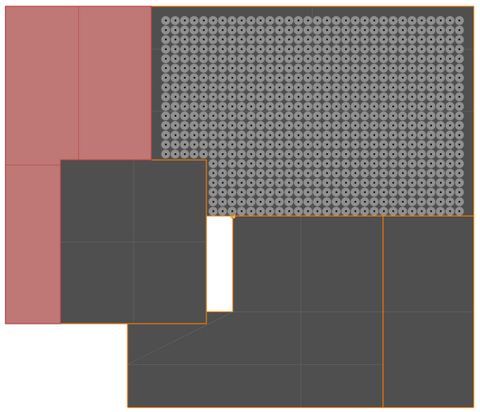
Indoor Environment Quality (IEQ)

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.

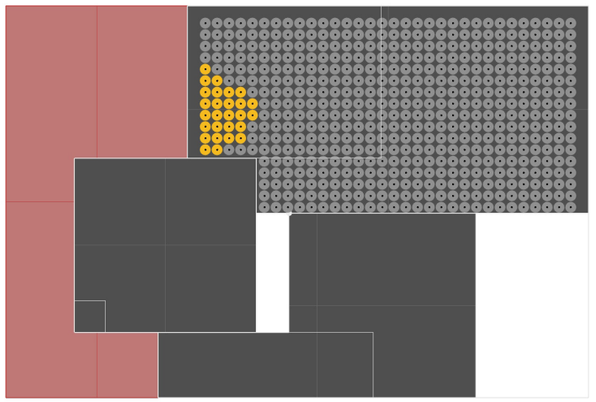




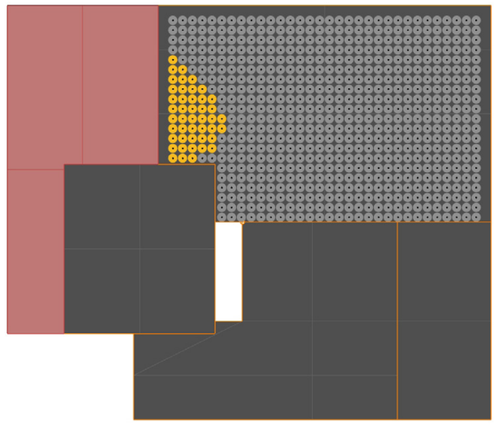
ADJUSTED ELEVATED STANDARD 3

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.	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. 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. 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. Depending on the floor layout, meeting the standard may impact on yield (in one of the base cases, approximately 16 sqm per level).	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. There is also a cost impact to increase thermal fabric of the walls abutting the corridor space.	The benefit of the standard is to deliver improved amenity outcomes (reduced odours, improved health etc).	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. 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 builings.

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: Resoure 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
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.	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).	Cost implication has not been measured, as this will be a result of State policy rather than this standard directly.	Carbon benefit due to avoided CO2e emissions of organics in landfill. 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.	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. 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.
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.	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).	Capital cost is none/negligible.	Potential to improve waste separation at the source and improve resource recovery.	We recommend that this standard be consolidated into a broader/ overarching standard relating to waste collection and management.
S67 Consolidated/ Centralised Management Developments should include dedicated facilities for the collection, separation and storage of waste and recyclables; which are: – 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	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).	Capital cost is none/negligible.	Potential to improve waste separation at the point of disposal and improve resource recovery.	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.

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 modificiation 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: – 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 considerthat 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.

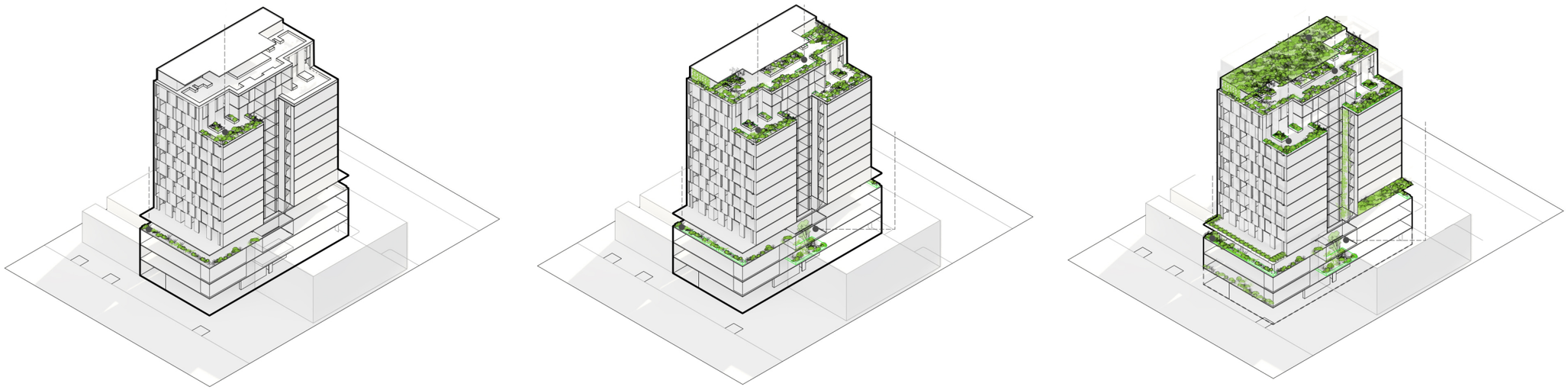


Landscaping on the rooftop of Nightingale 2 development. Photography by Rory Gardiner

Green Infrastructure

STANDARD	DESIGN IMPACT	CAPITAL COST IMPACT	BENEFITS	RECOMMENDATION
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: 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: ▪ 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.	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. 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. 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.	Capital cost varies significantly between green infrastructure types. The following are approximate rates: $200/m2 - inground landscaping $1,640/m2 - planter $596/m2 - green facade $808/m2 - green roof 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.	The incorporation of green infrastructure has a range of ecosystem service benefits including: 1. Urban Temperature Regulation (Cooling Effect) 2. Habitat for Biodiversity 3. Run Off Mitigation 4. Recreation 5. Place Values and Social Cohesion 6. Aesthetic Benefits 7. Food Supply	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. 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. 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.

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.	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. 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.	Not measured however would impact on development yield.	Benefits include habitat for biodiversity and urban cooling benefits.	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. 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.
S78 Developments should: – 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: ▪ 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: ▪ 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: ▪ $1m^2$ for each of the first 50 occupants ▪ Additional $0.5m^2$ for each occupant between 51 and 250 ▪ Additional $0.25m^2$ 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

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.

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.

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.

NEXT STEPS

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.

We anticipate that decisions on next steps will be made by CASBE on the basis of all reports, rather than this report alone.

If following the conclusion of all parts, a planning scheme amendment is pursued, we anticipate further work may be required to:

- 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.

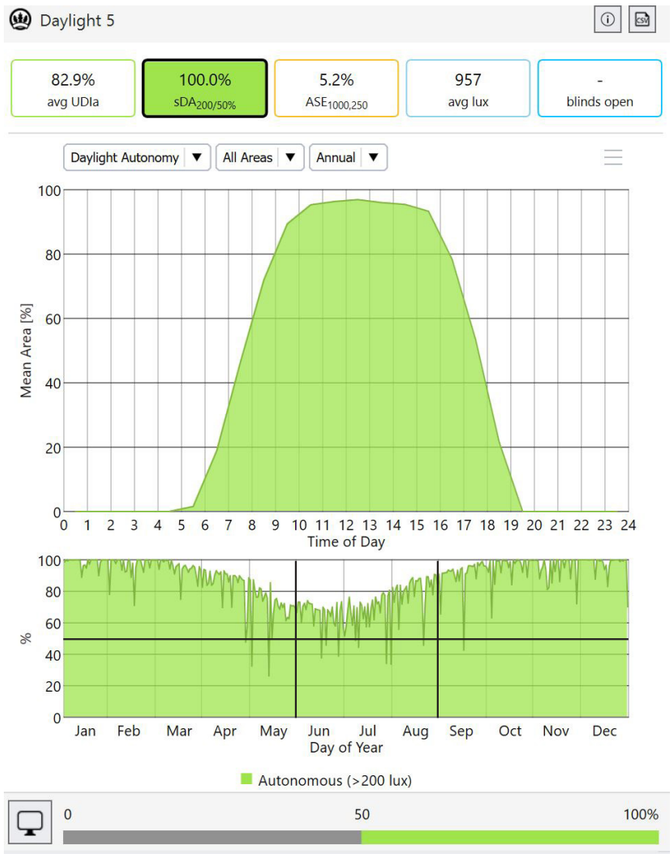
ITEM	COST ($)	PER	SOURCE / REFERENCE
Dishwasher: 3 Star	799	unit	https://www.thegoodguys.com.au/bosch-stainless-steel-freestanding-dishwasher-sms40e08au
Dishwasher: 4 Star	1049	unit	https://www.thegoodguys.com.au/bosch-60cm-freestanding-dishwasher--sms4hvi01a
Dishwasher: 5 Star	1299	unit	https://www.thegoodguys.com.au/bosch-60cm-freestanding-dishwasher-sms6hai01a
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

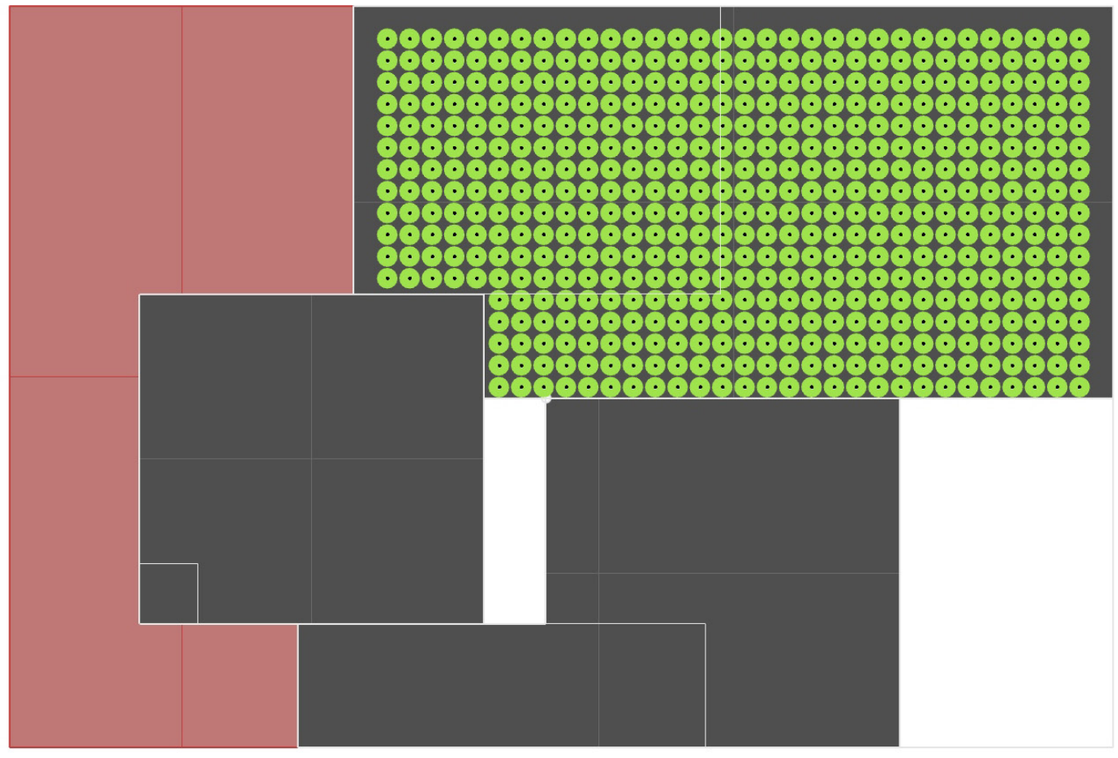
Appendix C

Spatial Daylight Autonomy

Buildings must achieve a daylight level of minimum 200 lux for at least half of daylit hours each day to at least half the area of every habitable room and regularly occupied space.

(sDA200,50%)





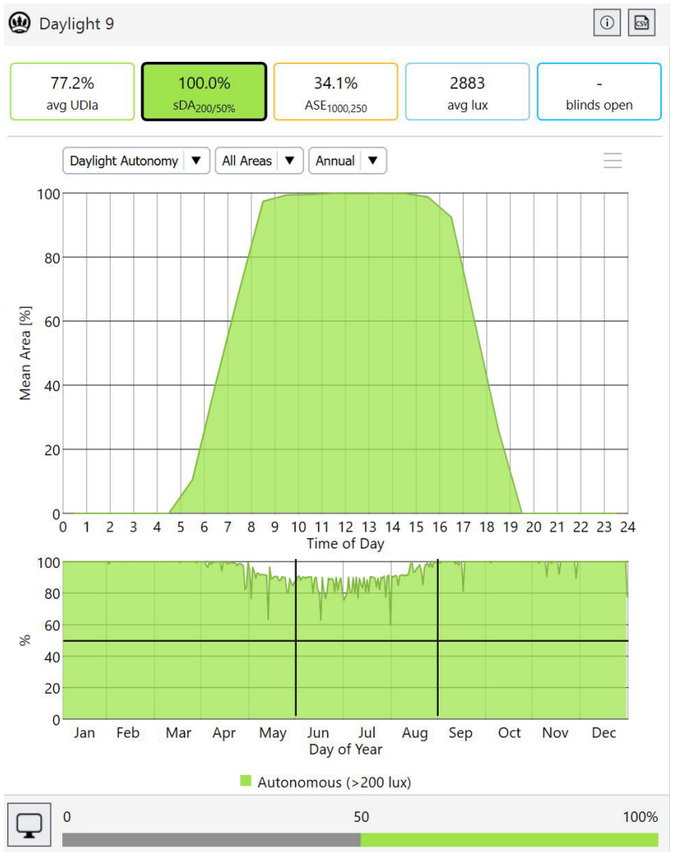
Original apartment layout

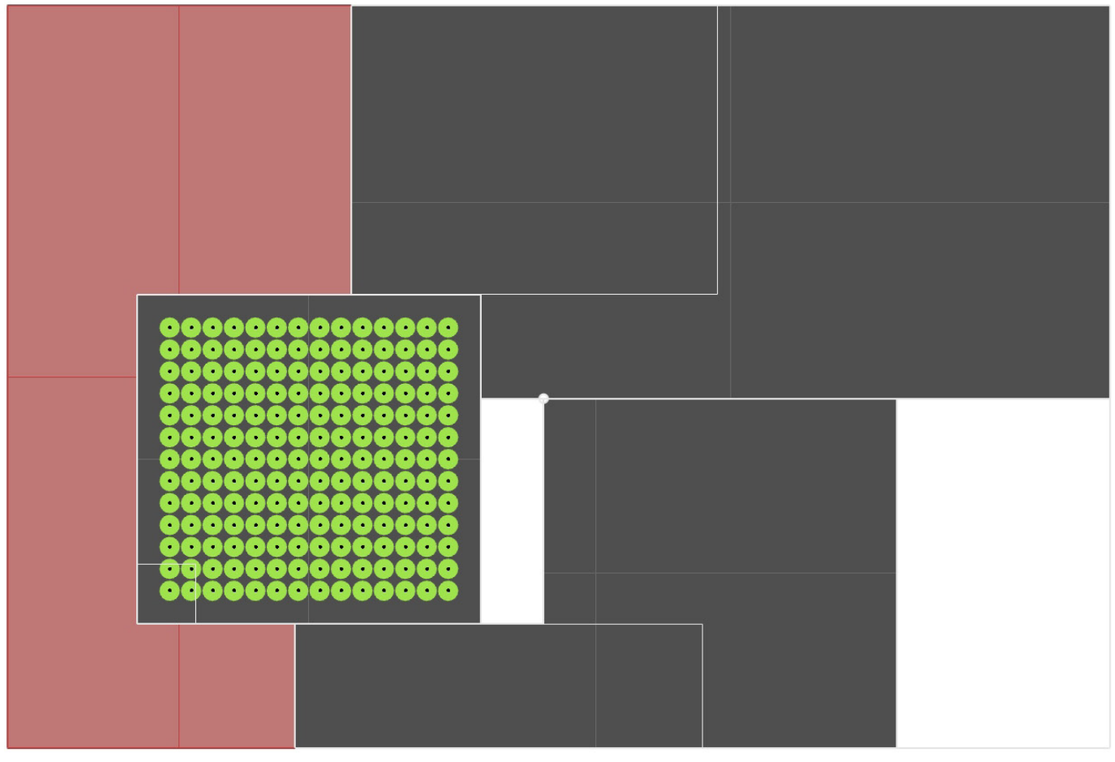
HIP V. HYPE

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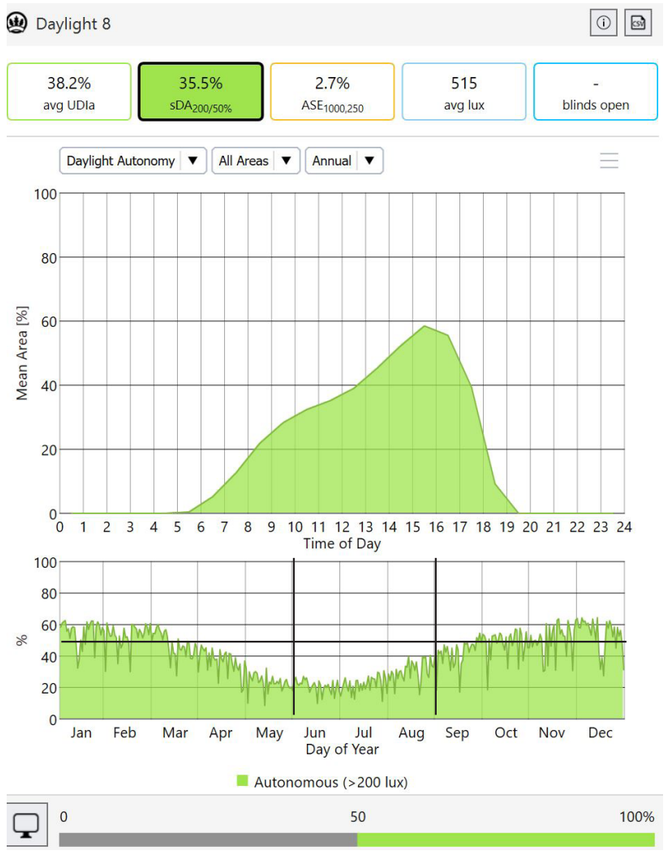


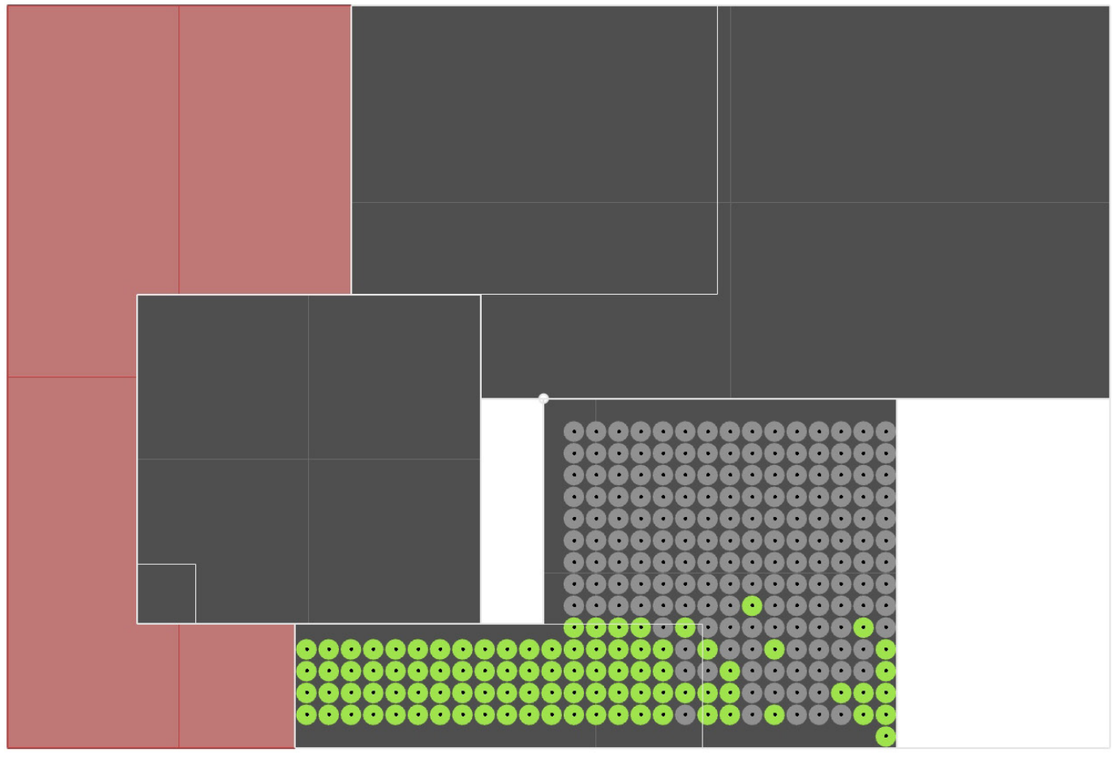
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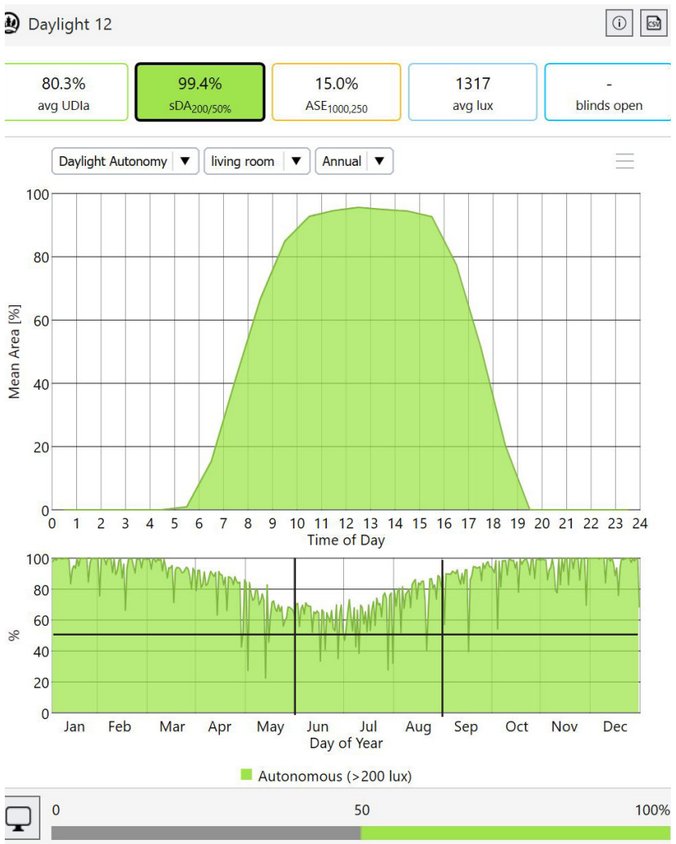
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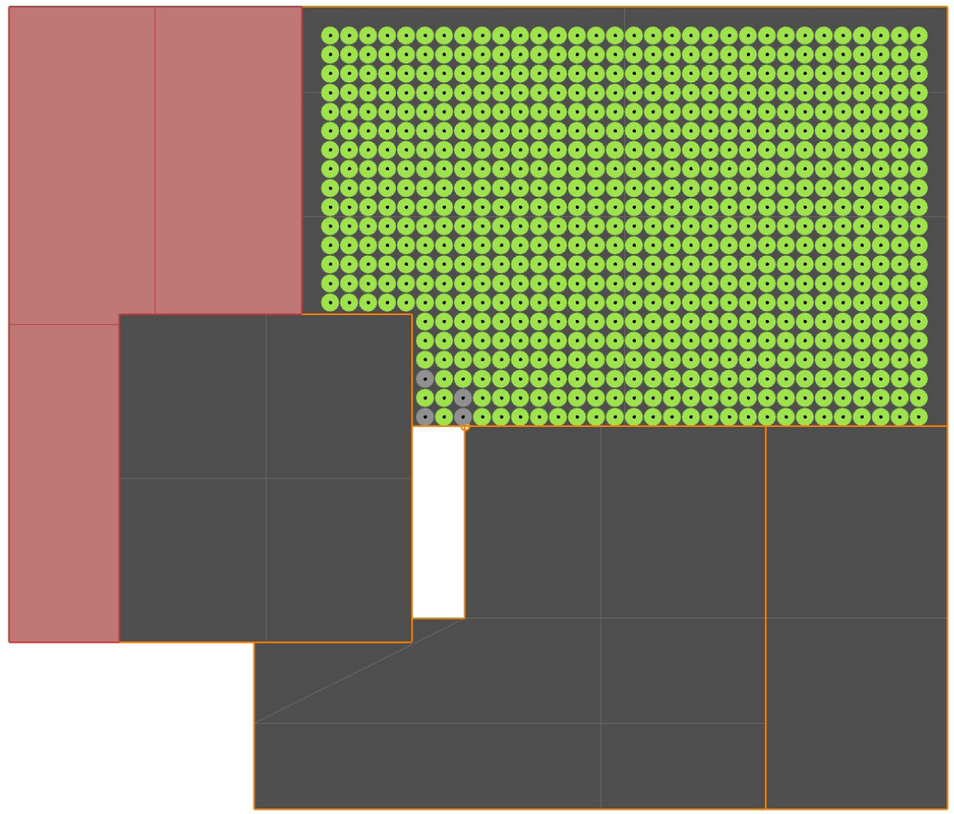
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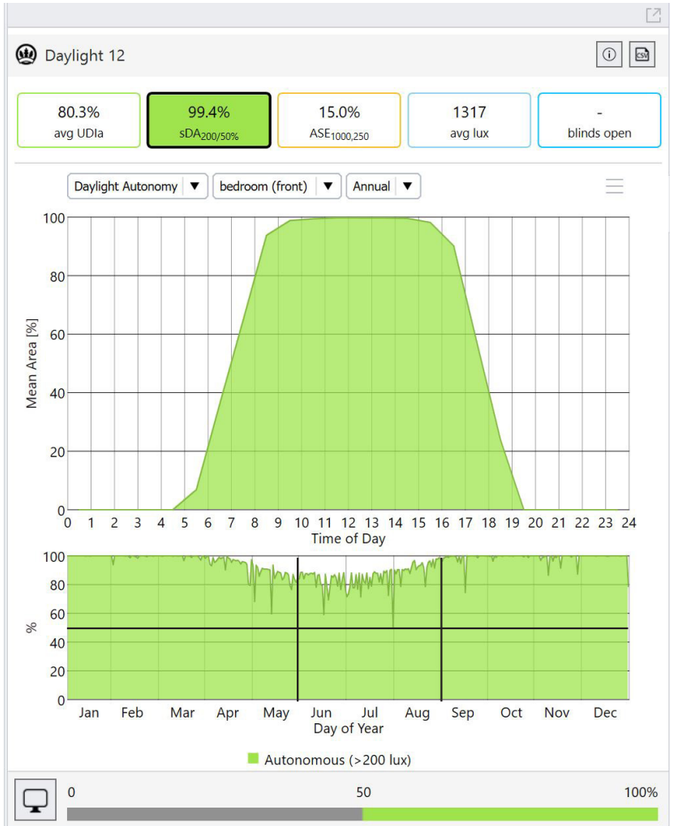


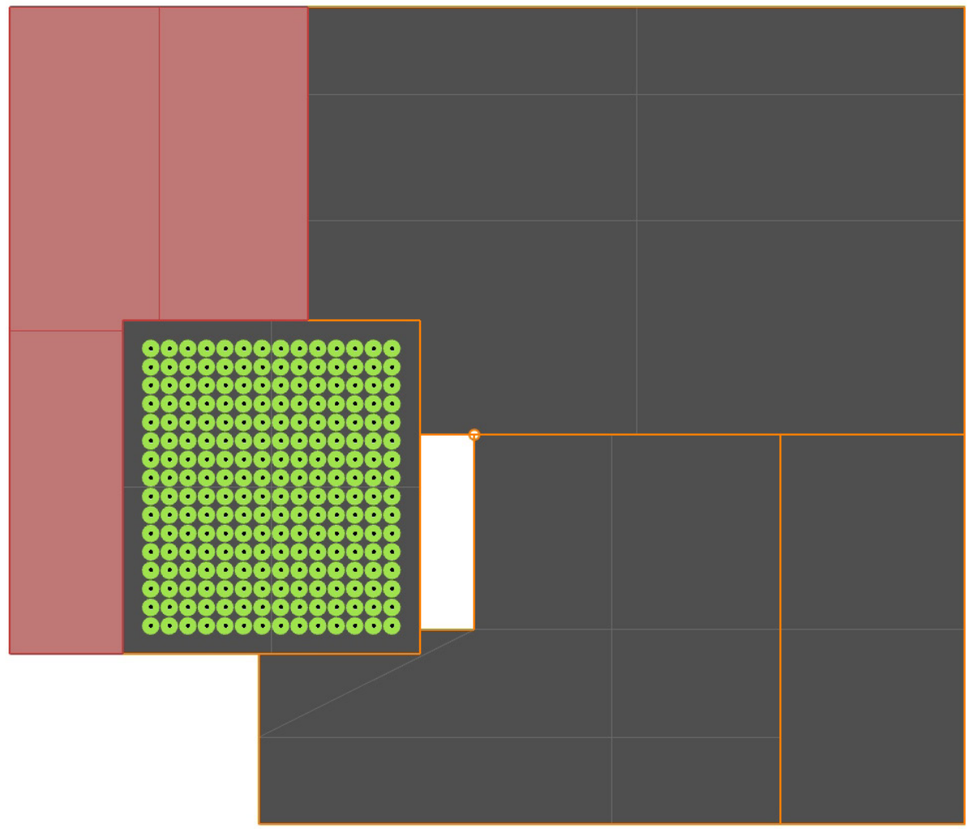
Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to Better Apartments Design Standards (BADS))

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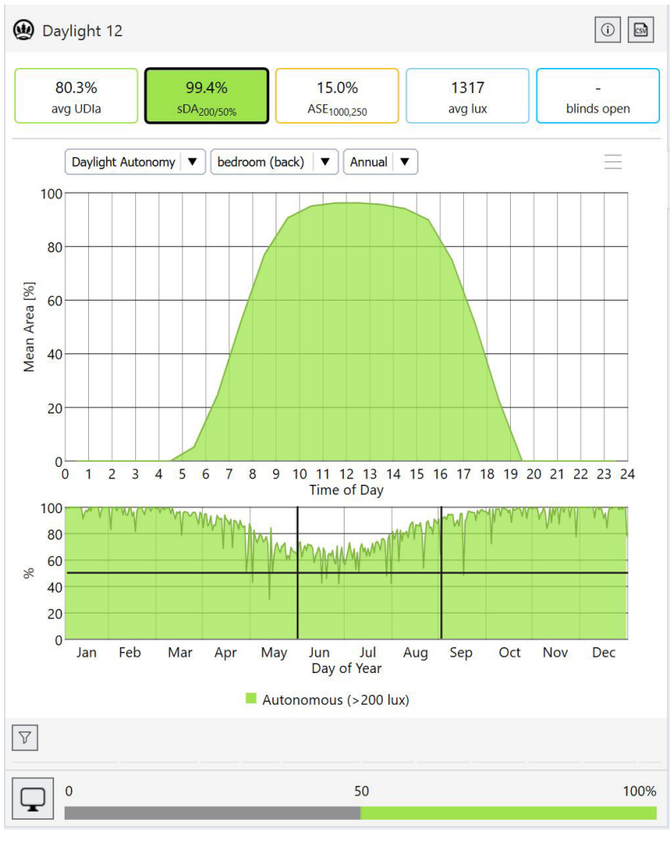


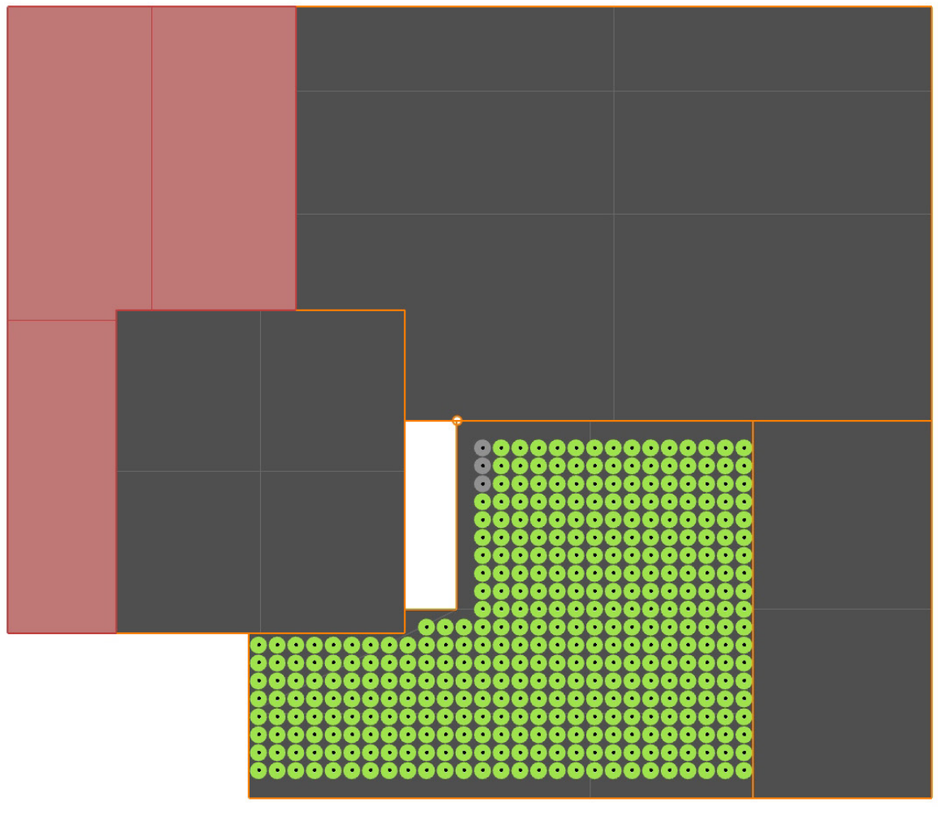
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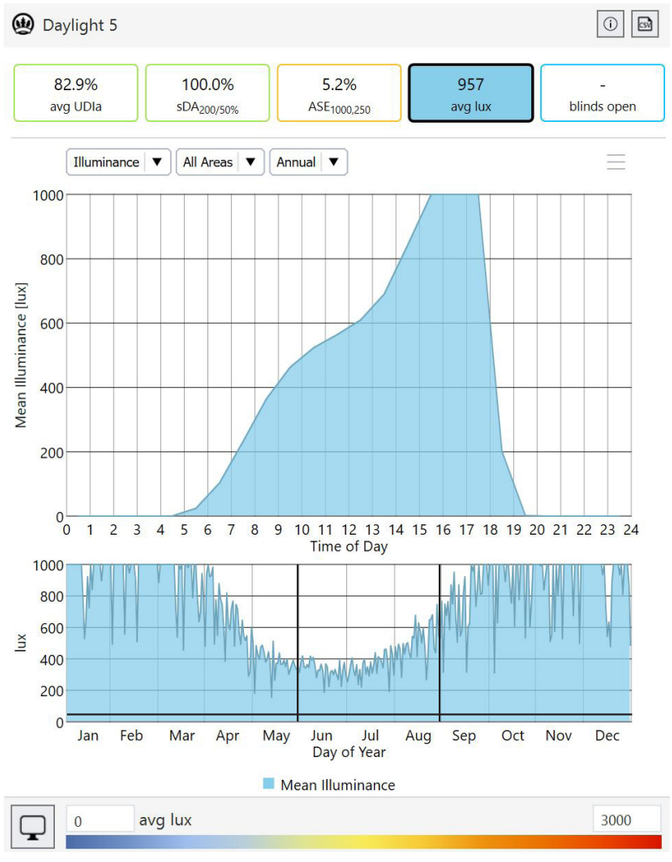


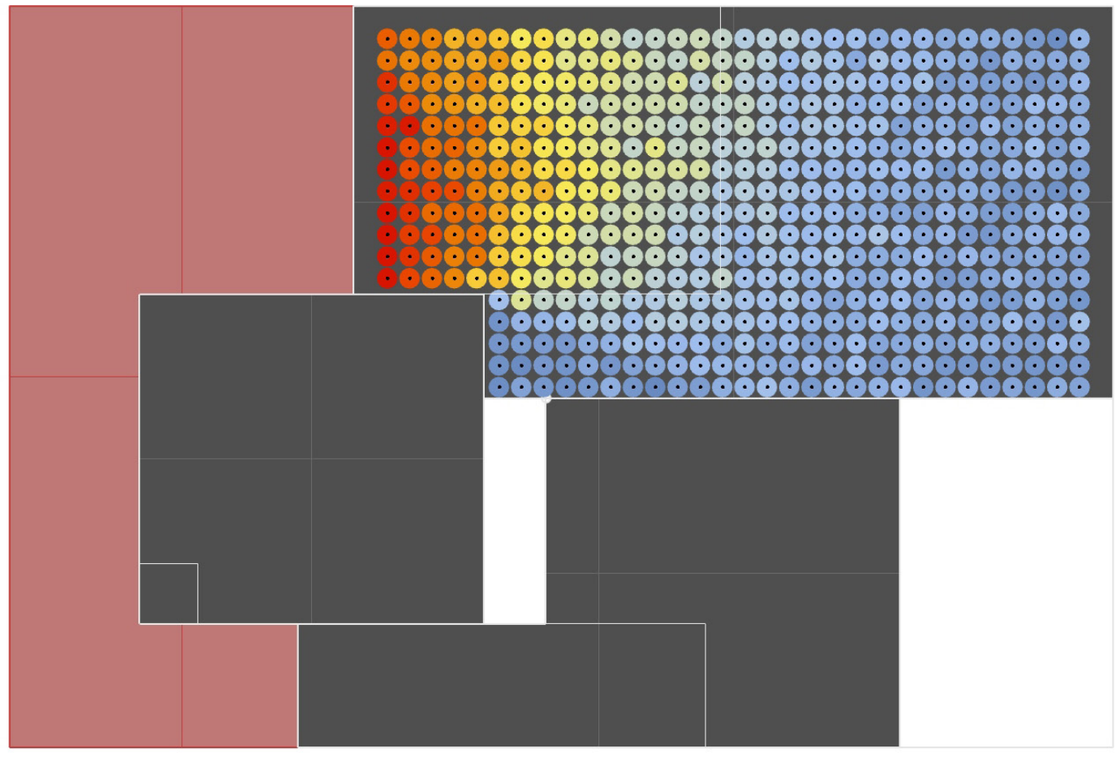
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HIP V. HYPE

Daylight Illuminance

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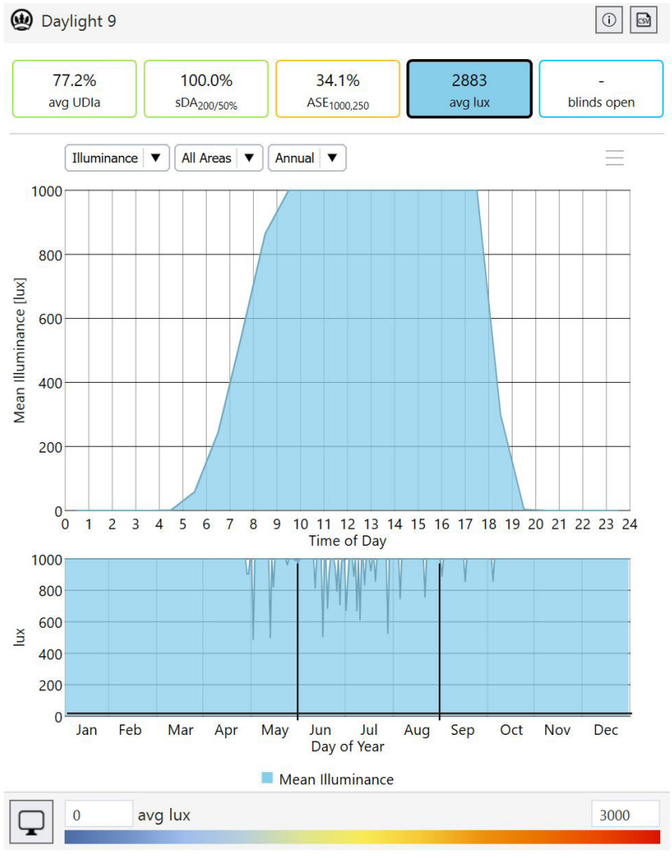


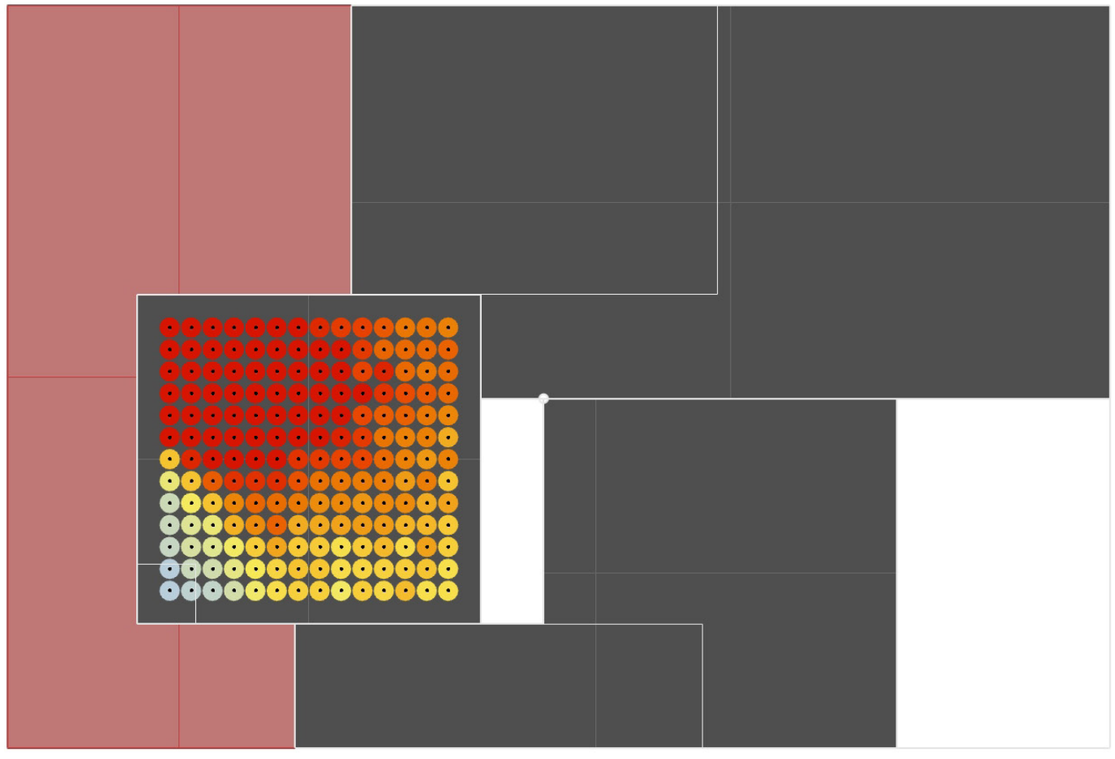
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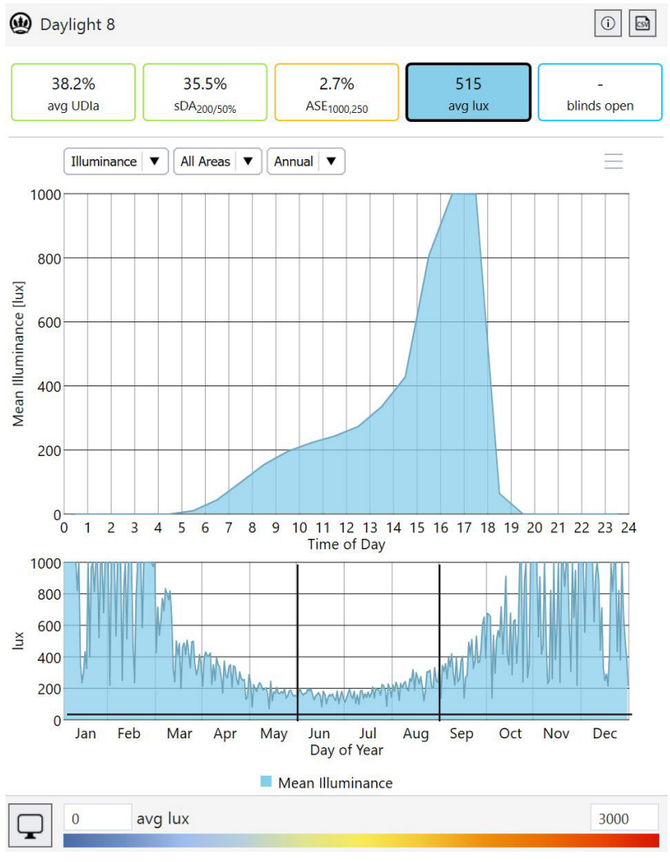


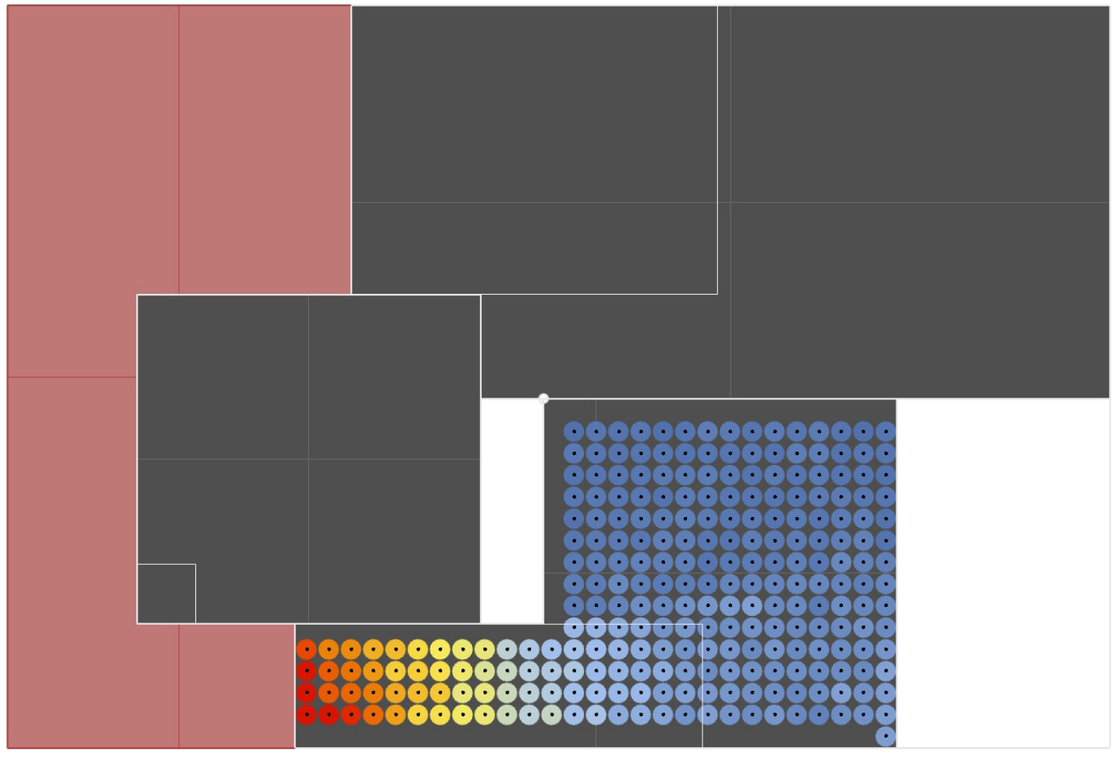
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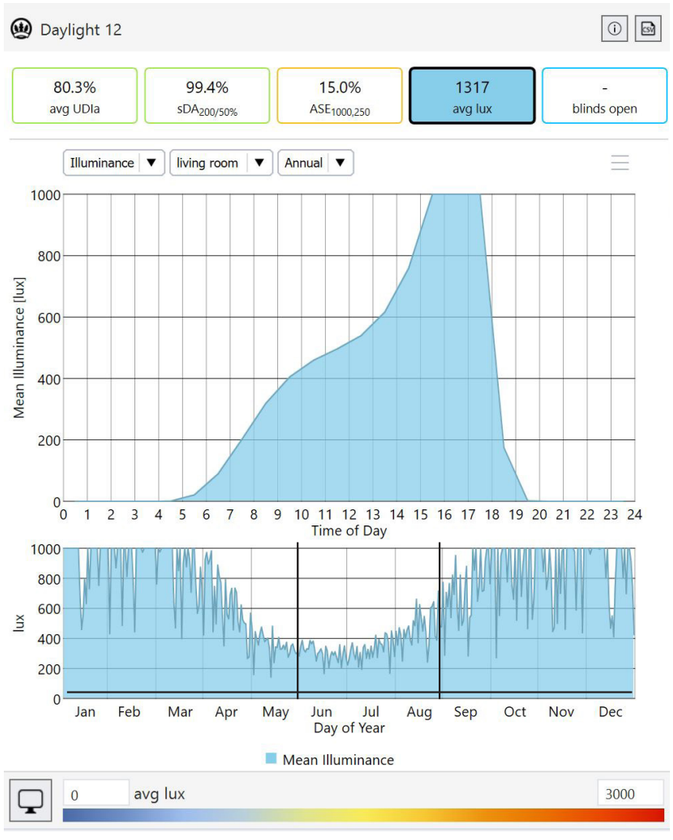


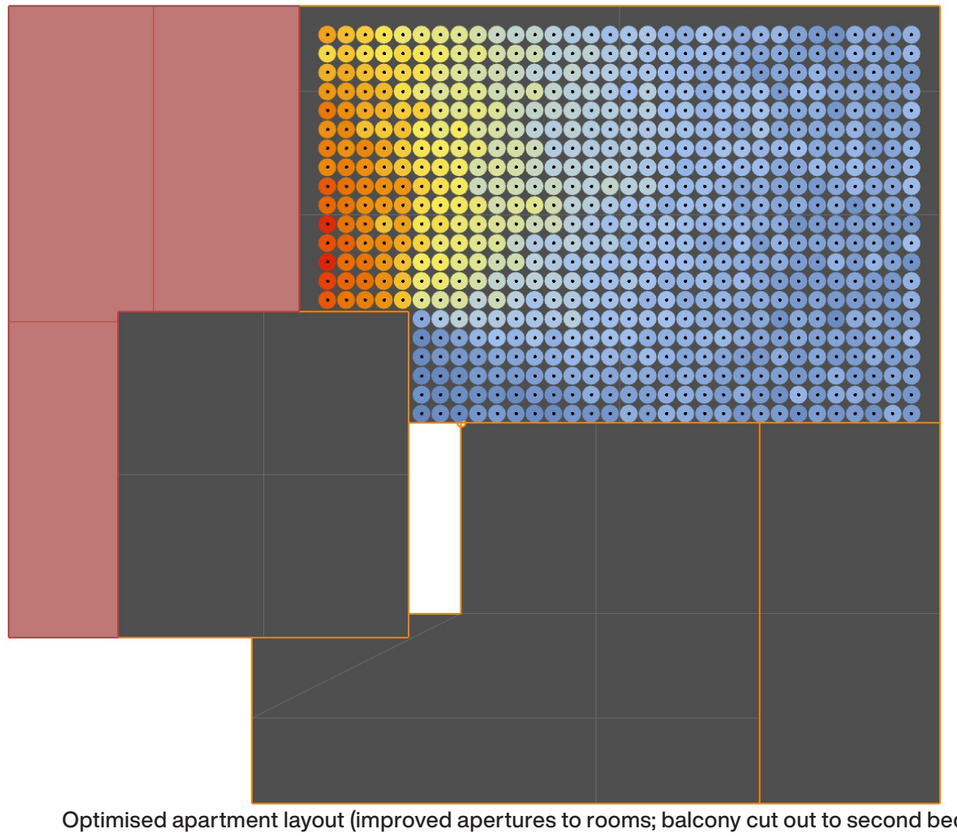
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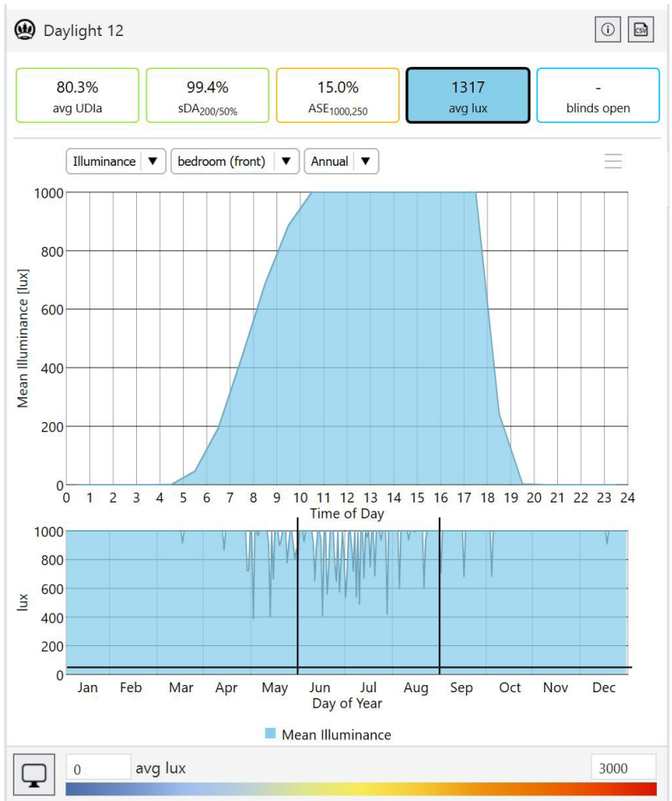


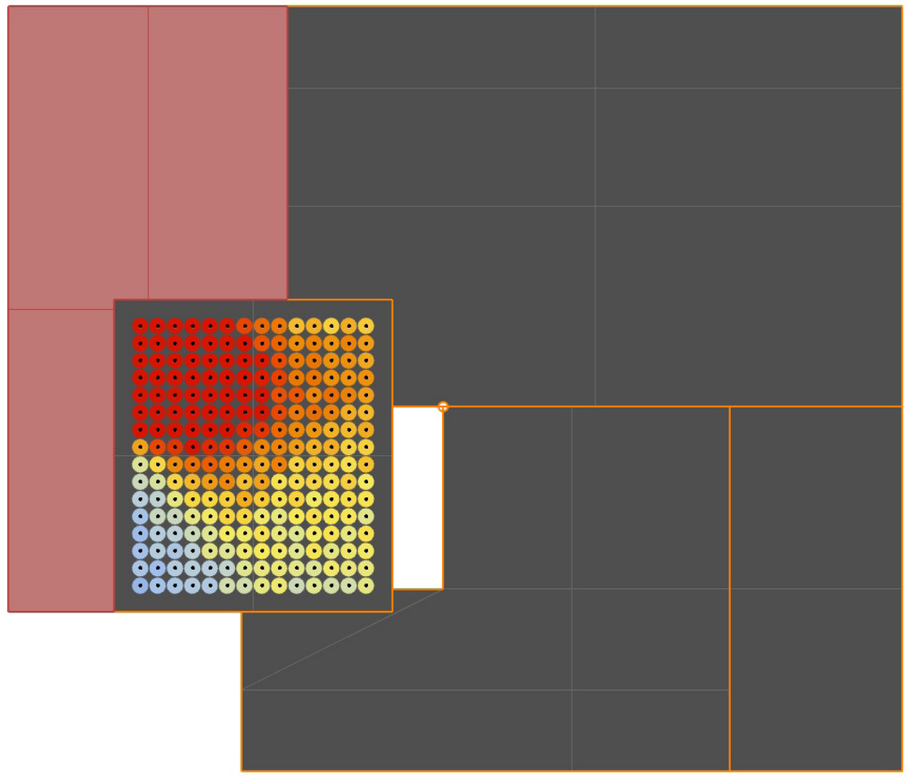


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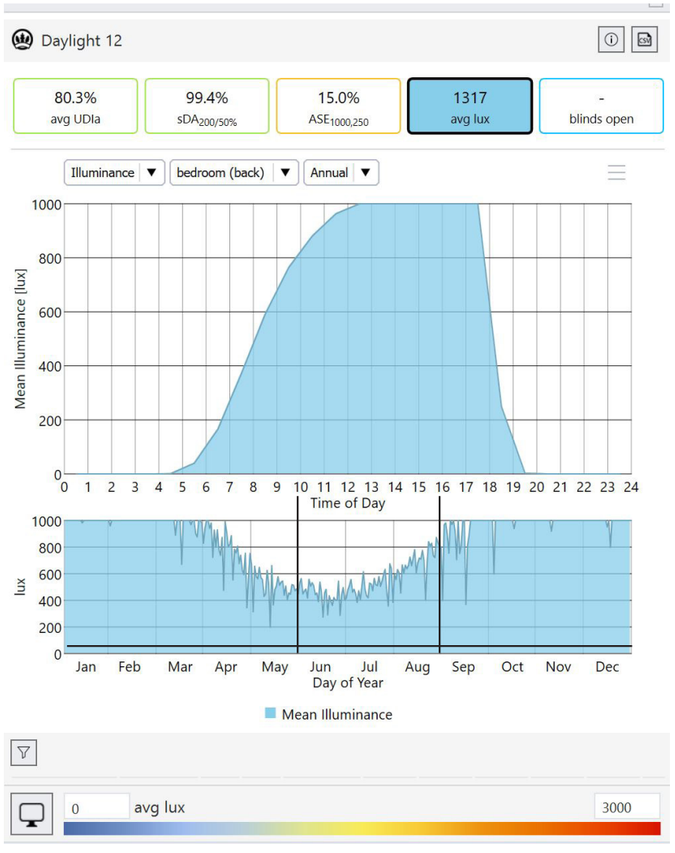


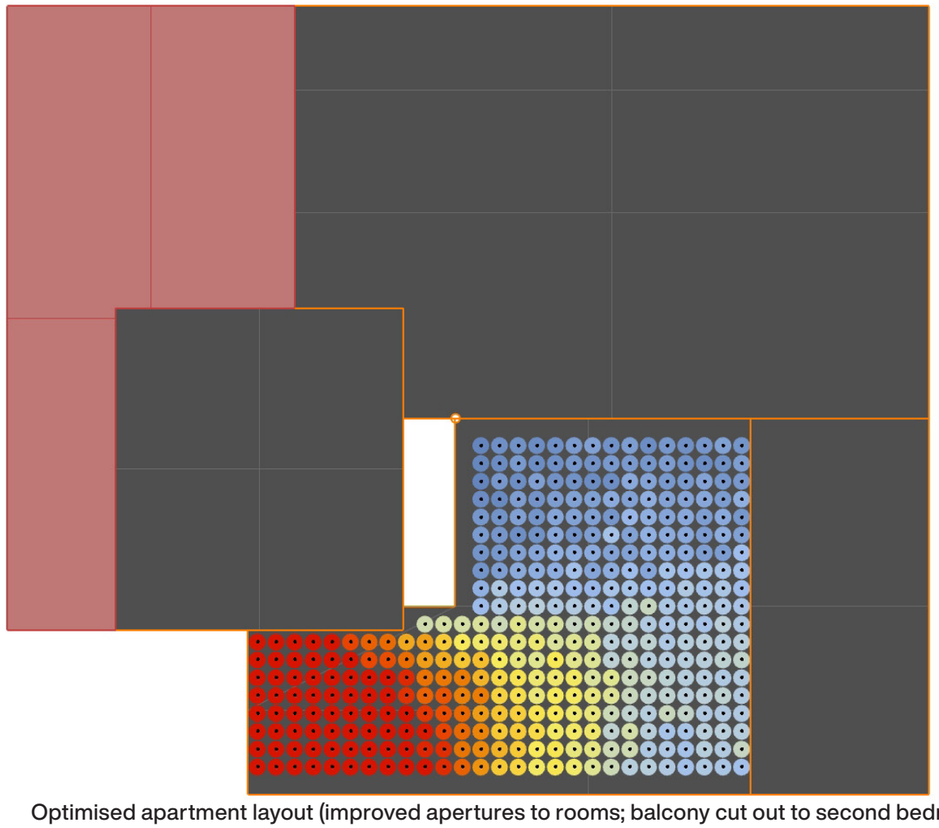


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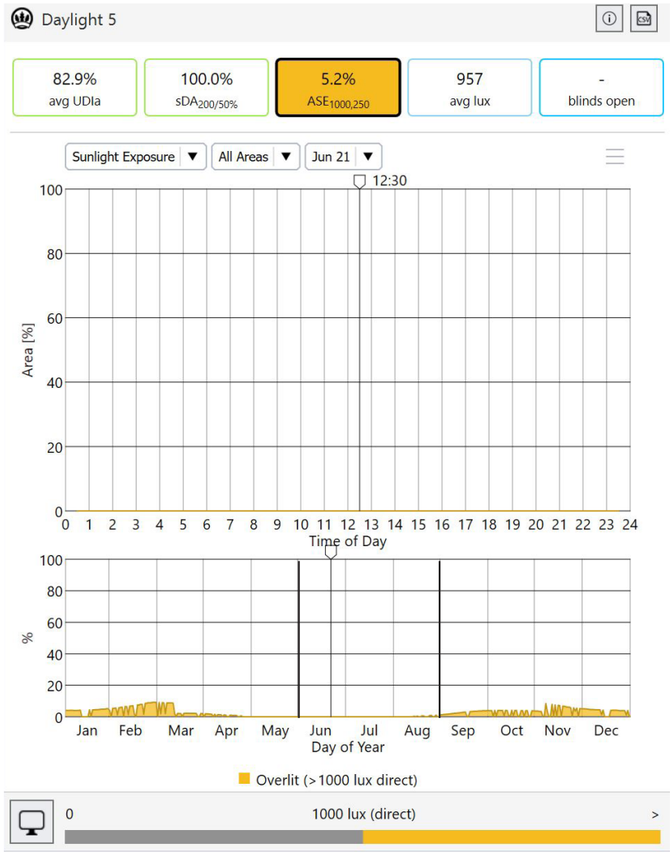


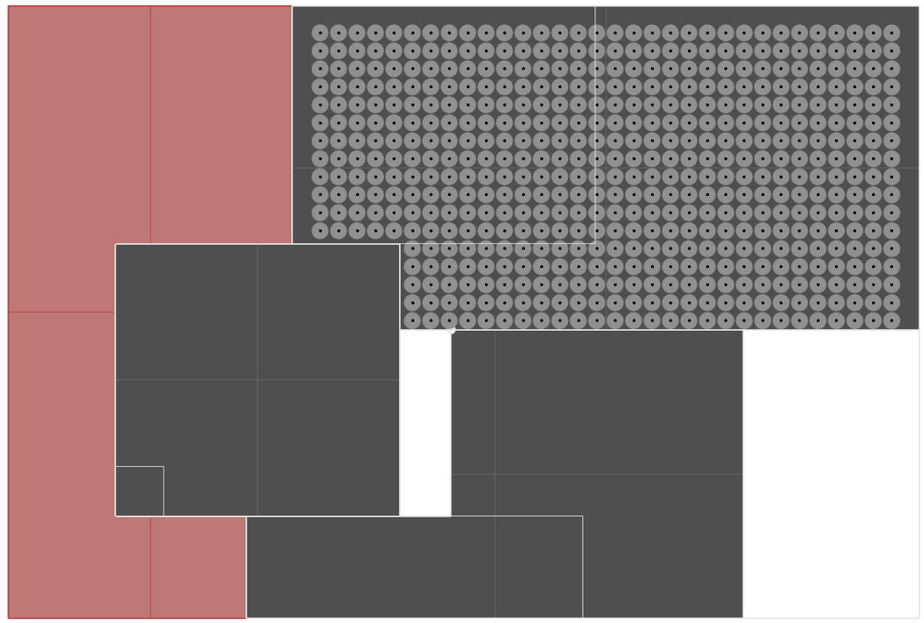


Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

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.



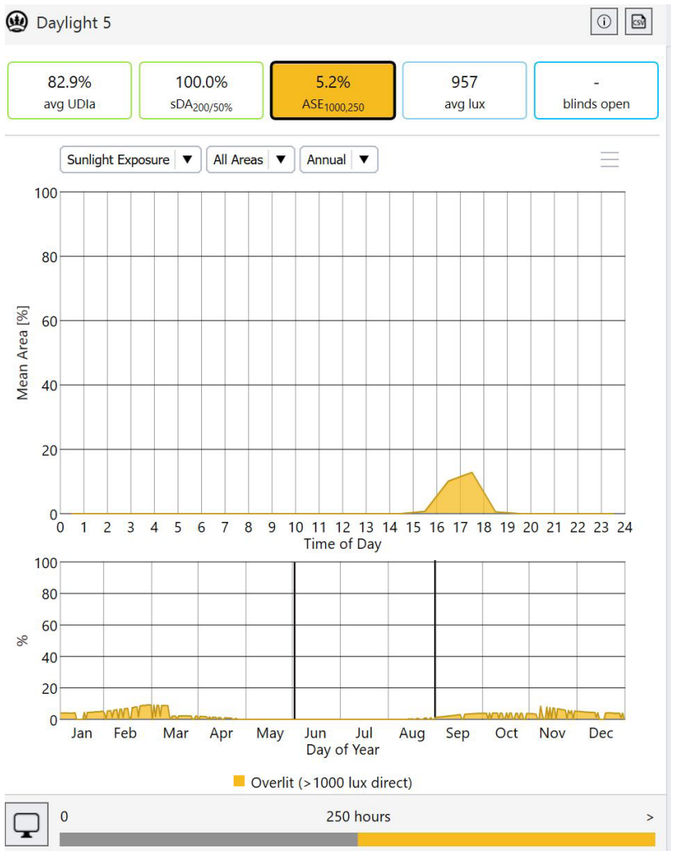


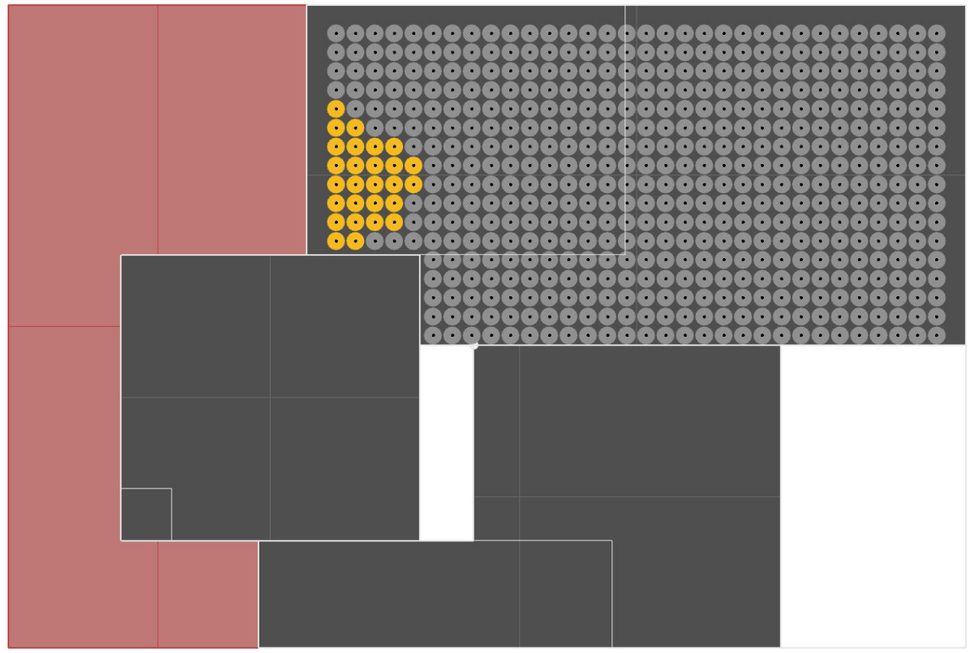
Original apartment layout

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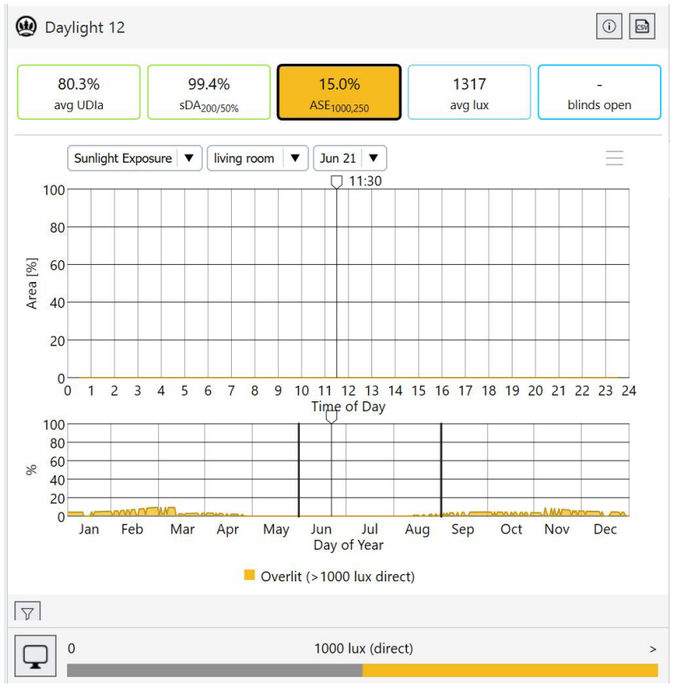


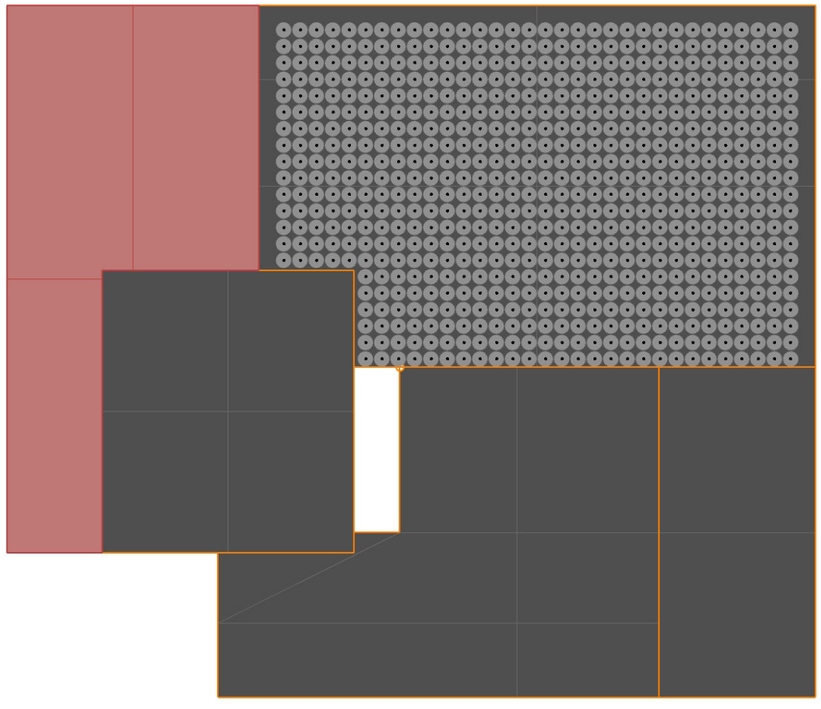


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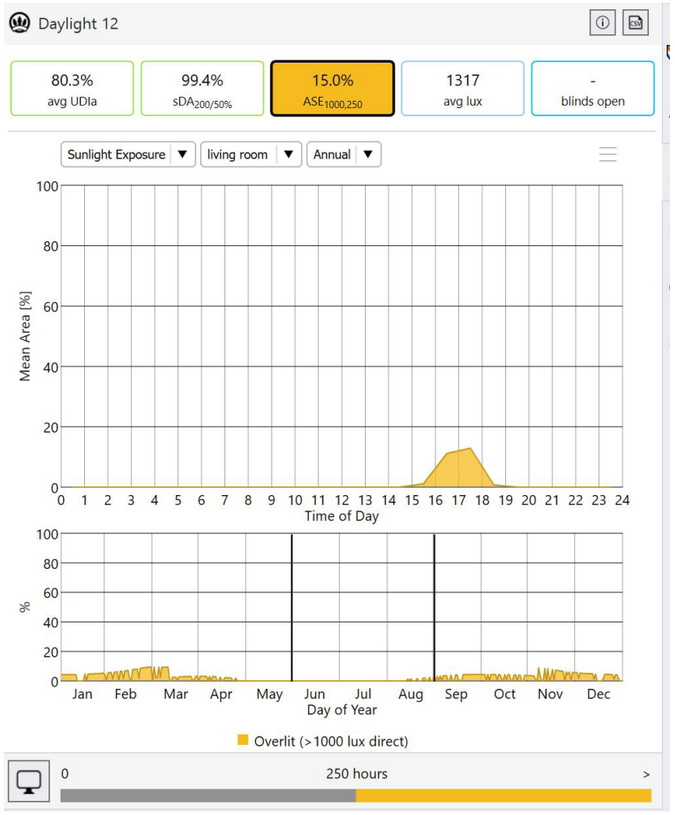


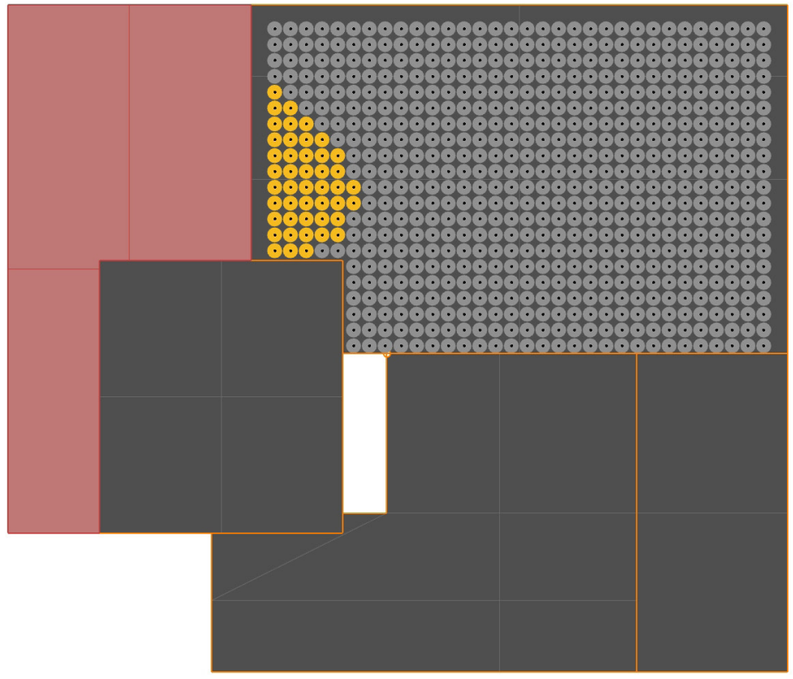


Optimised apartment layout (improved apertures to rooms; balcony cut out to second bedroom aligned to BADS)

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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.

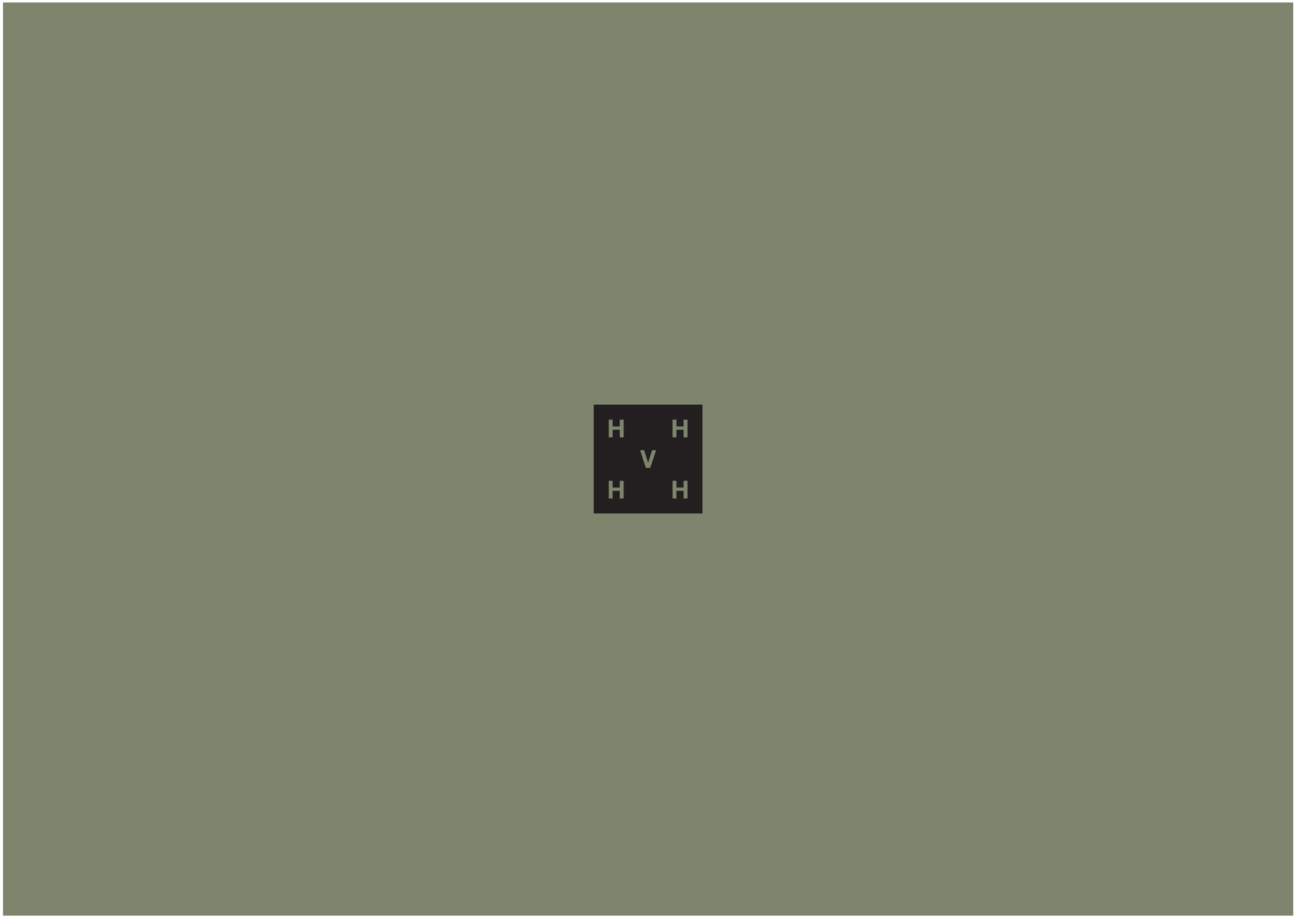
293 Barkly Street
Brunswick VIC 3056
T. (03) 8060 1252

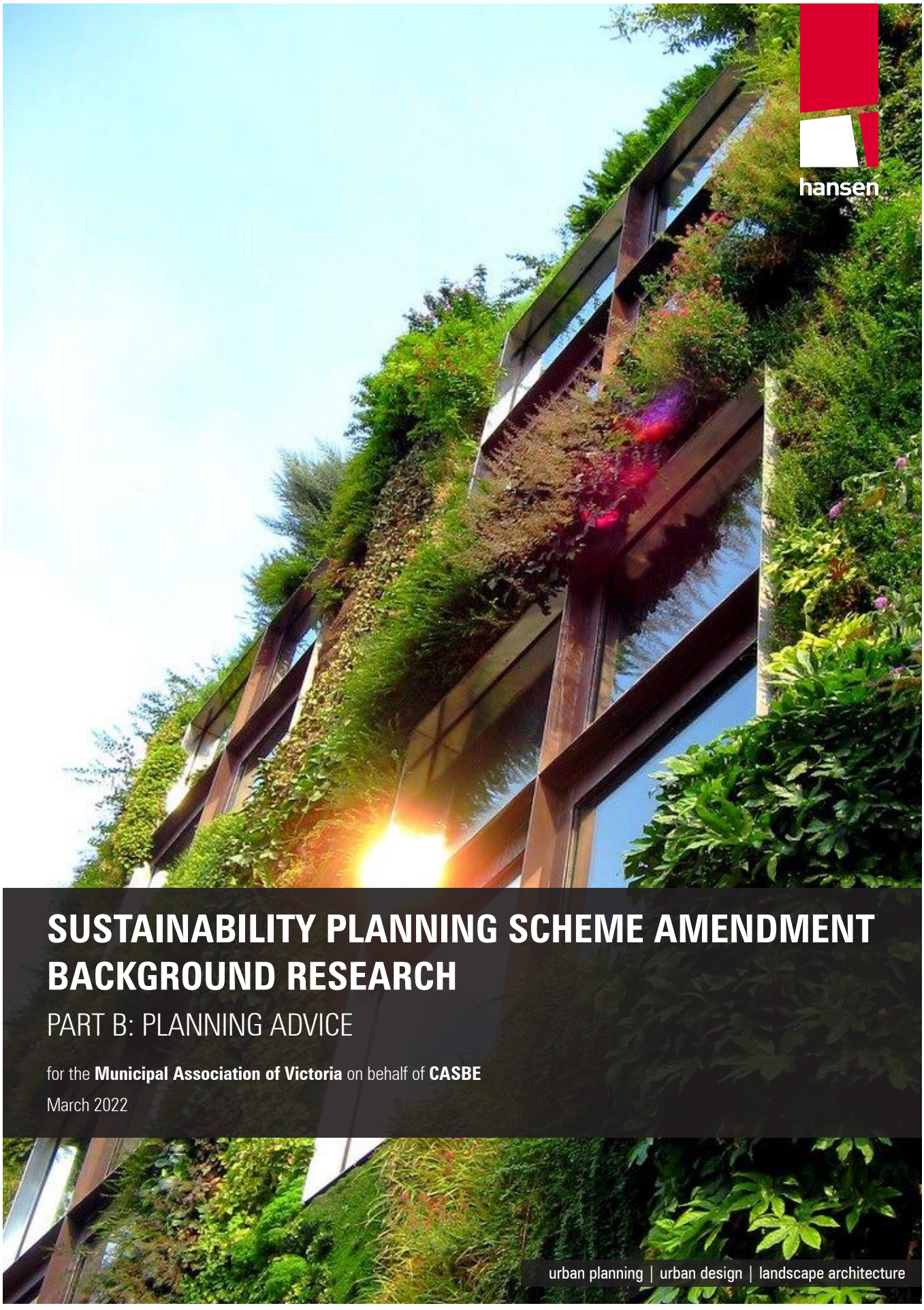
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T. (03) 8060 1252

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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

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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.



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.

THEMES

ENERGY

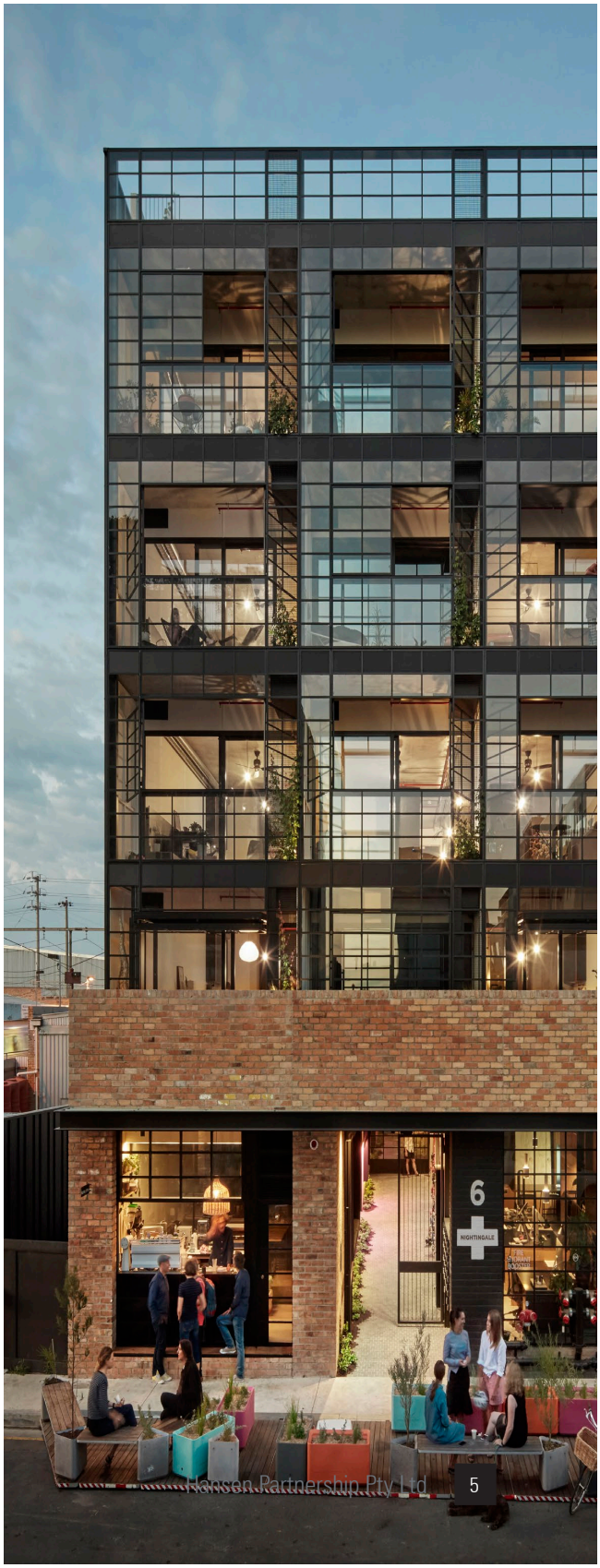
This theme has been split into Operational Energy and Embodied Carbon. This allows for the splitting of objectives related to these two matters. The introduction of a new Embodied Carbon theme allows for an increased emphasis on this and to provide a logical 'home' for Standards which are seeking to 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.



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**
S1 All development should be designed to reflect the following hierarchy in achieving net zero carbon performance 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, equiptment and appliances; 4. Onsite generation of renewable energy; 5. Purchase of offsite renewable energy.	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.	1, 2, 3, 4, 5.

Standards	Assessment process	Objectives
S2 All new development should be designed to avoid consumption of natural gas or other onsite fossil fuels.	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. 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.	1
S3 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.	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.	3
S4 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.	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.	3, 4
S5 All residential developments should achieve an average 7 Star NatHERS rating.	Relevant NatHERs modelling reports would be incorporated into the SMP. 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.	1, 3, 4

Standards	Assessment process	Objectives
S6 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.	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. 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. 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.	1, 2, 4



<table>
<tr><th>Standards</th><th>Assessment process</th><th>Objectives</th></tr>
<tr><td>S7
All developments should provide the following minimum requirements for onsite renewable energy generation:
<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></td><td>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.
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.</td><td>1, 2</td></tr>
<tr><td>S8
All residual operational energy should be 100% renewable, purchased through government accredited off-site Green Power, power purchasing agreement or similar.</td><td>See Section 3.7 for more in depth discussion of how this Standard could be implemented and assessed.</td><td>1</td></tr>
</table>

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**
S9 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.	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.	1
S10 Development should demonstrate consideration of the potential for future adaptation and / or alternate uses where relevant, in the design of buildings.	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. The relevant section of the Guidelines could provide best practice case study examples.	1
S11 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.	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. Guidelines again could provide locally relevant case studies and ideas that could be considered by applicants.	1

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
S12 All development should provide the following rates of bicycle parking:	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).	**1, 2, 4**

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.

Standards	Assessment process	Objectives
S13 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.	As above, this could be included as a table to fill out in any SMP template, and should be marked on relevant plans.	**1, 2, 4**
S14 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 meters of vertical pedestrian access ways (i.e. lifts, stairs). • Providing safe access to bicycle parking facilities in basement carparks 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).	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.	**1, 2, 4**

<table>
<tr><th>Standards</th><th>Assessment process</th><th>Objectives</th></tr>
<tr><td>S15
All development should be designed to support the use of electric vehicles through the provision of:<table><tr><th>DEVELOPMENT</th><th>REQUIREMENT</th></tr><tr><td>Single dwellings / Two or more dwellings on a lot</td><td>Appropriate infrastructure and cabling to support at least moderate speed, efficient EV charging (without the EV charger unit) in each garage/ carport.</td></tr><tr><td>Apartment development</td><td>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.</td></tr><tr><td>Non-residential development under 5,000 sqm gross floor area</td><td>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.</td></tr><tr><td>Non-residential development over 5,000 sqm gross floor area</td><td>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.</td></tr></table></td><td>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.</td><td>2, 3, 4, 5</td></tr>
</table>

Standards	Assessment process	Objectives
S16 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).	As with above this information could 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.	2,3,4,5
S17 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.	As above.	2, 3, 4
S18 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.	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.	1, 2, 4 ,5

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

Standards	Assessment process	Objectives
S19 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.	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.	1, 4
S20 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.	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.	1, 3, 4
S21 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.	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.	2
S22 Improve the quality of stormwater discharging from the site by meeting best practice urban stormwater standards.	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.	2

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
S23 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.	If using the Green Factor Tool (GFT), the final score report which is generated would be provided allowing the Standard to be easily assessed. 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).	1, 2, 3, 5

S24 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.	As per some earlier standards, a 'checkbox' approach within the SMP template could provide an easy mechanism for assessment.	1, 2, 3, 5
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.	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.	1, 2, 3
S26 Development should ensure appropriate measures are integrated to support the establishment and ongoing maintenance of landscaping	Review of landscape plans and any associated material should detail proposed measures (noting crossover with IWM requirements).	5



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**
S27 New development should demonstrate that future climate impacts have been considered and addressed in any design response.	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.	1, 2
S28 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.	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.	1,2
S29 Pedestrian pathways should be designed with thermal comfort in mind. This includes incorporating landscaping (tree canopy and other vegetation), shading and covered structures.	Plans would allow easy assessment of whether pedestrian paths incorporate responses to urban heat.	1,2

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.

<table>
<tr><th>Standards</th><th>Assessment process</th><th>Objectives</th></tr>
<tr><td>S30
Buildings should be designed to be able to provide appropriate levels of thermal comfort without reliance on mechanical heating and cooling systems, as follows:
<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></td><td>Plans should document proposed flow paths allowing for assessment of ventilation. Guidelines should make definitions of cross and single side ventilation clear.</td><td>1</td></tr>
<tr><td>S31
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.</td><td>Proposed lux levels should be documented in the SMP. For larger and more complex development, application requirements would include specialist reporting.</td><td>1</td></tr>
<tr><td>S32
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.</td><td>Standard application plans such as elevations would be used to assess this Standard.</td><td>1</td></tr>
</table>

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.	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.	1
S34 Development should include openable external windows to circulation corridors and lift lobbies to facilitate natural ventilation for residential development below six storeys.	Plans notate openable windows.	1, 2
S35 Development should use materials which are low toxicity in manufacture and use, and that do not cause harm to people or ecosystems.	Guidelines would list materials to be avoided and cross references could occur with Materials and Finishes specification.	1



THEME: WASTE & RESOURCE RECOVERY		
Objectives		
.1 To facilitate development that supports functional waste recovery and management. **.2 To enable the continuous improvement of sustainable waste management and resource recovery**		
Standards	**Assessment process**	**Objectives**
S36 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.	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.	1
S37 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.	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.	1
S38 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.	The required CMP, and associated template would support assessment.	1

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.

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 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.

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.

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.

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.

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.

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.

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.

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.

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**	10 or less	More than 10
		Multi-dwellings – other than apartments		**Multi-dwellings – other than apartments**		
		Multi-dwellings - apartments		**Multi-dwellings – apartments**		
		Other accommodation i.e. 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** – includes 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					

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



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.

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.



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 to 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 duplation 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

Location in the VPPs	Comments
Local Planning Policy	Similar to the way existing sustainability requirements are implemented into many municipal schemes. A policy has less statutory weight than a requirement that is contained within a planning control, such as a DDO or a particular provision. A policy cannot be applied as a mandatory requirement or include mandatory standards. 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. An aim of this project is to move beyond the current policy approach and to give greater statutory weight to elevated sustainability requirements. Application requirements, definitions and decision guidelines cannot be included in Local Policy the new PPF format
Design and Development Overlay	A municipal wide DDO would be a mechanism that could be used to introduce elevated sustainability standards into planning schemes. 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. Both discretionary and mandatory requirements can be included in a DDO. 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. 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. 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). 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.
Particular Provision	A particular provision would be an appropriate mechanism by which to introduce elevated sustainability standards into planning schemes. 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. 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. 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. 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. 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.

Location in the VPPs	Comments
All standards in the one place in the planning scheme or spread throughout the scheme.	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. 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. 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. 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. 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. 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.
Special Control Overlay	Inconsistent with the stated purpose of the overlay.
Incorporated document	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. 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. 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.

Table 2: Potential implementation options

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.

- 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

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.

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.



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.

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.

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'

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 if 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.

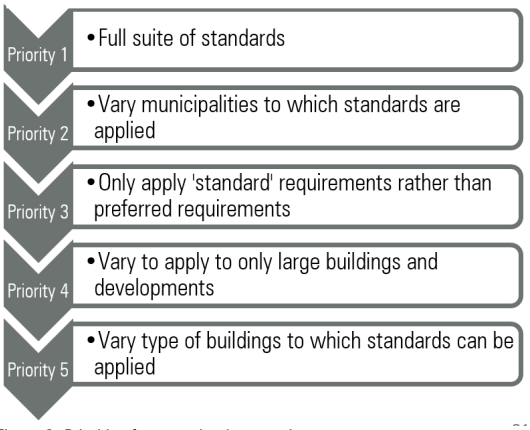


Figure 2: Priorities for stage implementation

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.

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 discuss in Section 2 of this report. This section further discusses the issue, assuming that a one-off certificate of compliance is are 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 as 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 requirement of the Sustainability Management Plan relevant to the ongoing operation of the building are complied with (subject to further legal opinion).

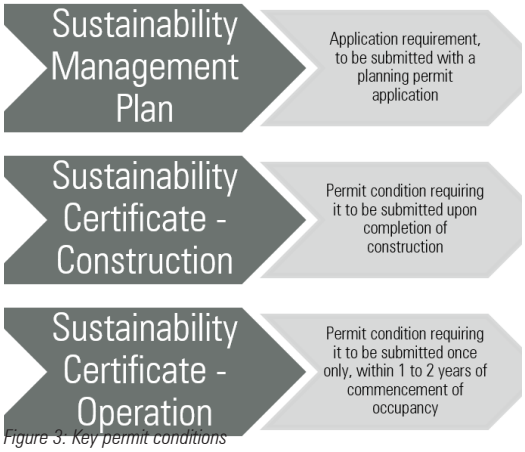


Figure 3. Key permit conditions

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.

- 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.

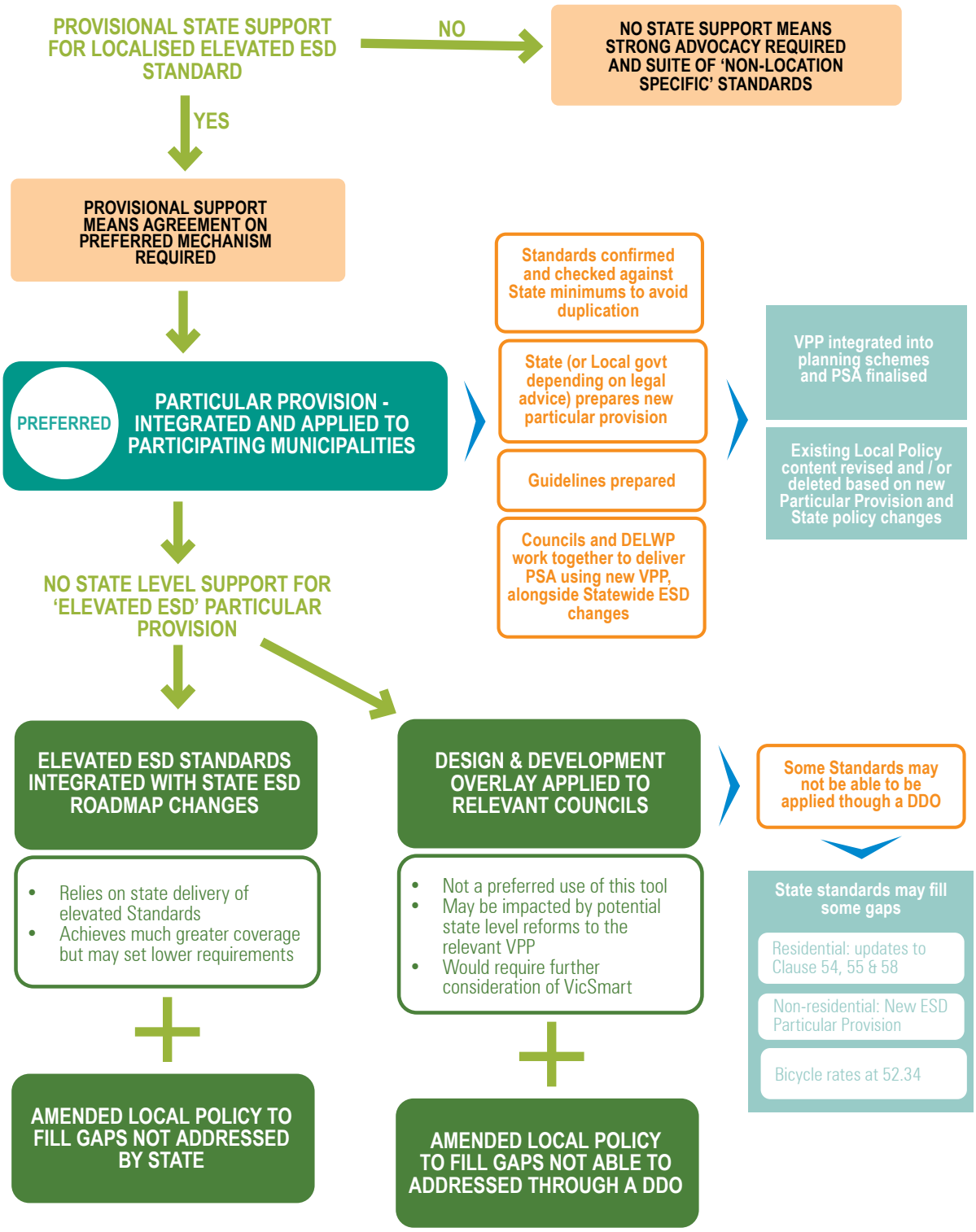


Figure 4: Alternate implementation pathways



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Sustainability Planning Scheme Amendment – Cost-Benefit Analysis

A report for the Municipal Association of Victoria on behalf of CASBE | 28 March 2022



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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

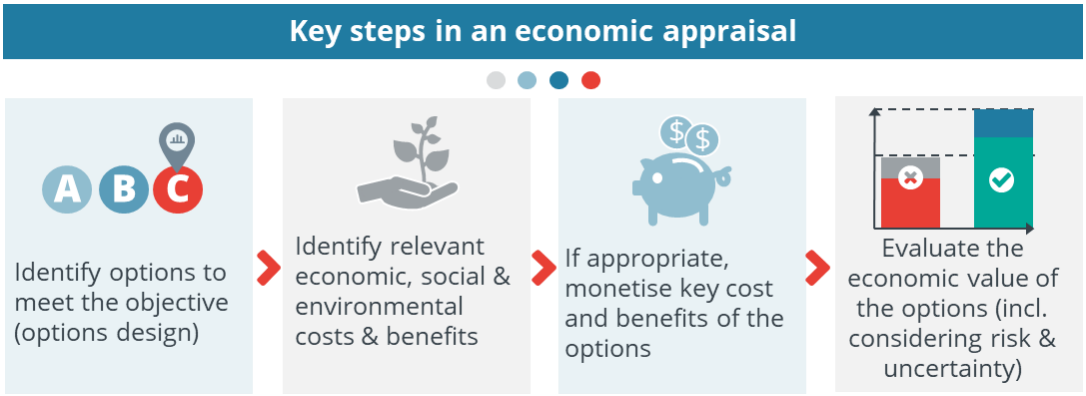
A cost-benefit analysis (CBA) provides a robust framework to assess the impacts of an intervention. A CBA is an assessment tool that compares the costs associated with a potential intervention with the benefits. The analysis is incremental in that it looks at additional costs and benefits over and above 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).

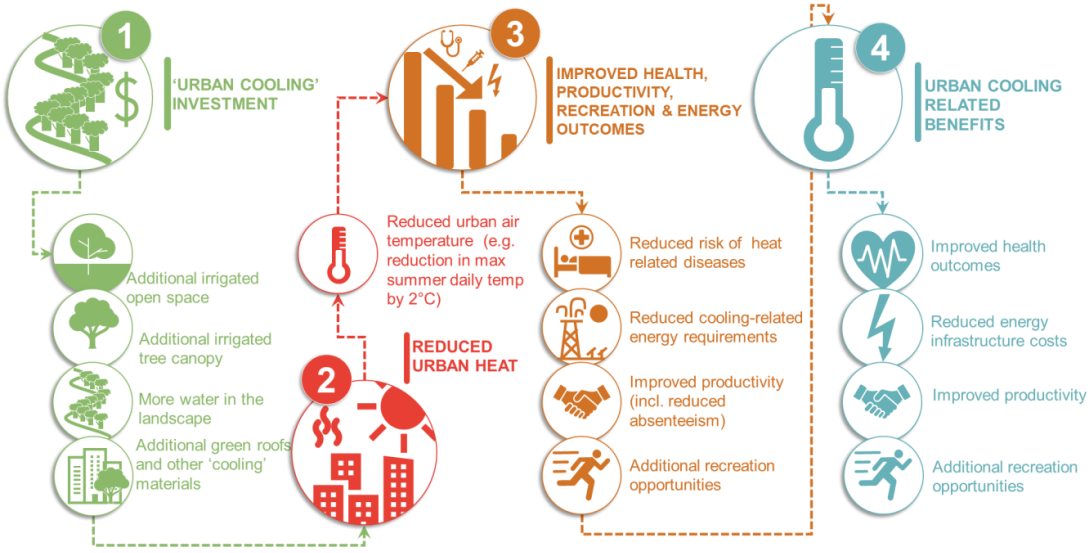
Our logic mapping and potential impacts is shown below in **Table 2**. Importantly, it is the end outcome that are being identified and, if appropriate, valued in the CBA (where possible) as opposed to the initial step in the causal chain or the overall objective.

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).

Table 2: Logic mapping

Theme	Objectives	Implication	Potential impacts
Operational energy	Net zero operational carbon	• 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	• **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)	• Provide for bicycle parking (increase likelihood of residents and workers riding bikes) • Provide EV charger outlets • Shared space EV charging	• 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	• Provide efficient fitting, fixtures and appliances • Provide for rainwater harvesting (rainwater tanks)	• **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)**

Theme	Objectives	Implication	Potential impacts
Indoor Environment Quality	Improve the comfort of building occupants including internal temperatures, air quality and daylight access	• Improved external shading • Improved ventilation • Improved daylight	• 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	• Provide a Construction and Demolition Waste Management Plan that sets a landfill diversion target • Utilise low maintenance, durable, reusable, repairable and recyclable building materials	• **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	• All new developments to meet target Green Factor score • Improved green cover (leading to reduced urban heat island effect)	• 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 un-bolded 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	Our valuation includes the following steps: • 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)	We have estimated the resource cost savings associated with reduced electricity and gas consumption, including reduced network and wholesale costs: • 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) See Appendix B for further discussion on why we have not applied a retail bill (representing financial savings) in our approach.

Benefit category	Valuation approach
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 avoided coal and gas-fired electricity at $1.78/MWh. See Appendix B for information.
Reduced potable water use	Our valuation approach involves: • 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 LRMC of water supply based on the value advised by Melbourne Water ($2,450/ML).
Reduced embodied carbon	Estimates of reduced embodied carbon obtained from the ESD technical workstream were multiplied by the social cost of carbon discussed above.
Reduced waste to landfill/value of recovered materials	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.
Recovery of organic waste	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.
Residual value	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.

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 LRMC 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

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, AK., 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[1].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.

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.

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

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 my 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.

A Detailed results

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

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

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

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

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

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

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

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

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

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

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

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 providers further information on our approach to valuing benefits in the CBA.

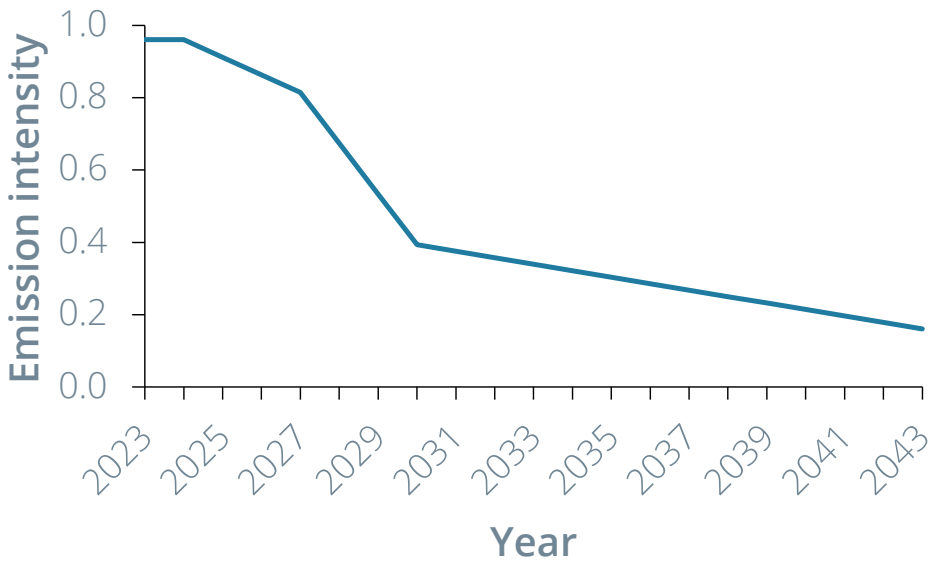
Avoided GHG emissions

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:

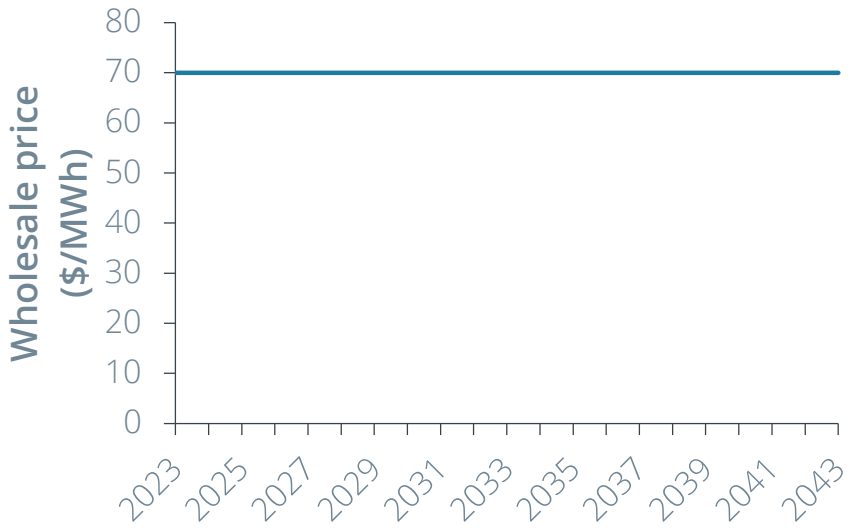
- variable costs avoided (estimated through wholesale market prices) and
- reduced capacity needed in the long run for electricity and gas network infrastructure.

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)



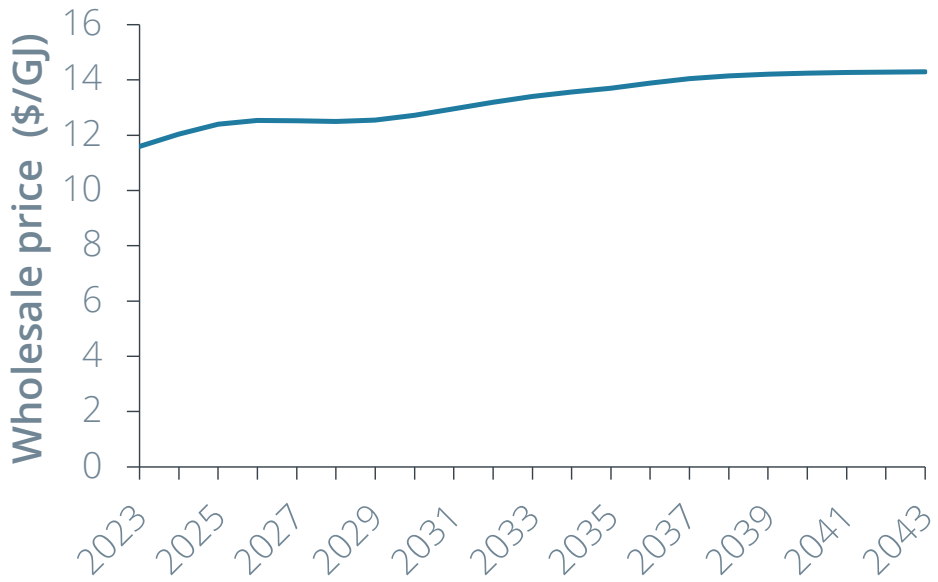
Source: Frontier Economics

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://jemena.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 2022[16]. 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

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

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

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

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

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>	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>	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

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..	Improved natural environments and UHI effect	The average temperature reduction in the day was 0.94 degrees C between the urban temperature and the park temperature.	Spain, Italy, Mexico, Japan, Taiwan, Singapore, Sweden, Botswana, USA, Germany, Israel, Russia, Canada, UK and Greece
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.	Improved natural environments and UHI effect	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).	Portugal, Lisbon

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	Concluded that the bluespaces studied could provide a cooling effect of 2.5 K on average. Wetlands showed the strongest effect (ΔT=5.2 K, min=4.8 K, max=5.6 K, n=2) and ponds the least (ΔT=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).	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	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)	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	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.	United Kingdom

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://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

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

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>	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

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 Lafortezza (2017) found that urban trees and other vegetation provides cooling through shade and evaportranspiration, 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. Older people with physiological cardiovascular impairment are more sensitive to heat waves	Slovenia
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>	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

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.	Improved natural environments and all health risk factors All health risk factors and health outcomes	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. Association between excess heat and disease susceptibility due to reduced 'adaptation capacity of human thermoregulation' (may exacerbate existing chronic conditions). Moderate to strong evidence of positive association between green space and all-cause mortality	Global
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 >	Health outcomes and economic outcomes	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	Global

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>	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.SAFEWORKAUSTRALIA.GOV.AU/SYSTEM/FILES/DOCUMENTS/1702/THEHEALTHOFNATIONS_VALUE_STATISTICALLIFE_2008_PDF.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/MORTALITYRISKVALUATIONINENVIRONMENTHEALTHANDTRANSPORTPOLICIES.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 ZOONOTIC DISEASES. AUSTRALIAN CENTRE OF EXCELLENCE FOR RISK ANALYSIS. AUSTRALIA. AVAILABLE AT: <HTTPS://CEBRA.UNIMELB.EDU.AU/__DATA/ASSETS/PDF_FILE/0008/2220875/1002BOID1FR.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



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Planning and Environment Act 1987

GREATER BENDIGO PLANNING SCHEME

AMENDMENT C

EXPLANATORY REPORT

Who is the planning authority?

This amendment has been prepared by the Greater Bendigo City Council, which is the planning authority for this amendment.

The amendment has been made at the request of Greater Bendigo City Council.

Land affected by the amendment

The amendment applies to all land in the municipality of Greater Bendigo City Council.

What the amendment does

The amendment introduces a new Particular Provision relating to Environmentally Sustainable Development (ESD) into the planning scheme and makes changes to existing local policy. The Particular Provision contains ESD Objectives and Standards which implement measures that facilitate best practice ESD and support zero carbon development outcomes.

The ESD Objectives and Standards address:

- Operational Energy (energy efficiency, performance and greenhouse gas emission reduction)
- Embodied Carbon (greenhouse gas emission reduction and resource efficiency)
- Sustainable Transport (electric vehicles and bicycles)
- Integrated Water management (water efficiency and integration)
- Green infrastructure (lot scale vegetation and urban ecology)
- Climate resilience (climate change adaptation, urban heat mitigation)
- Waste & Resource Recovery (recycling and waste management)

The amendment includes the following changes to the planning scheme:

	Brief description/overview of the proposal	List of the proposed changes to the planning scheme
Insert	• Insert a new Elevated Environmentally Sustainable Development particular provision into the planning scheme containing Objectives and Standards relevant to the delivery of ESD.	• Amend Clause 53 to insert the new ESD Objectives and Standards.
Insert	• Insert a new Background Document titled *"Guidelines for Sustainable Building Design"* in the planning scheme to assist in understanding the rationale behind the proposed Standards and to support application of the proposed Decision Guidelines.	• Amend Clause 72.08 to include the *Guidelines for Sustainable Building Design* as a Background Document within the planning scheme.
Amend	• Amend the existing, local ESD Policy to provide strategic justification for the requirements contained in the proposed particular provision.	• Remove clause 15.02-1L in Planning Scheme (Environmentally sustainable development) (if required to be removed).

	Brief description/overview of the proposal	List of the proposed changes to the planning scheme
Amend	• Amend the Municipal Planning Strategy / to identify municipal outcomes which provide the basis for ESD requirements and the facilitation of zero carbon development in the planning scheme.	• Amend <Insert relevant clause in Planning Scheme clause eg. Clause 2 / Clause 21> to include Objectives, Strategies and Policies related to ESD requirements, net zero outcomes and climate change adaptation.

Strategic assessment of the amendment

Why is the amendment required?

Function and intent

The amendment introduces ESD planning measures into the planning scheme. The measures notably include a series of Objectives and Standards that are detailed within a stand-alone clause within the Particular Provisions of a council's planning scheme.

No new permit triggers are proposed as part of this amendment. Existing permit triggers provide the basis for a planning permit application that is then assessed against the proposed Objectives and Standards outlined within the Particular Provision.

This includes new development incorporating ESD measures that further enhance energy efficiency and performance, water efficiency and integrated water management, low carbon and sustainable transport, circular economy, materials and sustainable waste management, urban greening, biodiversity and green infrastructure, and climate resilience and adaptation.

With a development incorporating the ESD measures in order to meet the detailed objectives and standards, a development should also be able to demonstrate and achieve a reduction in overall greenhouse gas emissions, a response to climate resilience and risk minimisation, and a pathway towards achieving zero carbon development exercised via the planning framework.

Existing environmental and sustainability requirements

This amendment improves existing environmental and sustainability requirements within the planning scheme.

The existing requirements are detailed primarily within the Victoria Planning Provisions, directed towards residential development (i.e. ResCode), and the Planning Policy Framework more broadly.

Council has an existing, local, ESD Policy within the local provisions of the Planning Policy Framework. The existing local ESD Policy was gazetted in October 18, 2018. The ESD requirements reflected in the local ESD Policy served as baseline standards when preparing this amendment. This amendment incorporates, updates and refines the existing, local, ESD Policy requirements to ensure greater ESD outcomes that support the transition towards zero carbon development and industry best practice. Requirements detailed within the existing local ESD Policy have been incorporated within the Particular Provision that serves as a part of this amendment

In order to facilitate clearer and more precise development outcomes, the ESD requirements have been articulated within the Victoria Planning Provisions, Particular Provisions of the planning scheme.

This is to also ensure that all ESD requirements are consolidated and detailed within a specific and tailored area of the planning scheme which supports user familiarity and efficient navigation to the respective requirements.

Net community benefit

The amendment delivers a net community benefit ensuring that planning achieves positive environmental, societal and economic outcomes through:

- Providing direct and indirect community benefits which address climate change mitigation and adaptation through building climate resilience and future proofing future development and housing;
- Reducing greenhouse gas emissions and the management of climate change risk within the built environment system;
- Cost savings by improving climate resilient housing now, rather than retrofitting later at a higher cost;
- Ensuring that 'best practice' policies and expectations continue to be addressed over time, with the 'elevation' of ESD policy requirements that may already exist throughout the scheme;
- Providing greater certainty, consistency and delivery of ESD outcomes and towards net zero carbon development;

This amendment in conjunction with proposed NCC 2022 changes supports energy efficiency and the Victorian State government's proposed 7-star energy efficiency rated homes by:

- Maximising the benefits of solar panels;
- Supporting all-electric homes; and
- Facilitating economic, health and climate benefits from ambitious energy efficiency standards.

This amendment delivers outcomes that support and align with Local and State government climate change pledges, the State Climate Change Strategy, and Adaptation Action Plans pursuant to Part 5 of the *Climate Change Act 2017* (Vic). Furthermore, this amendment supports council's obligation under the *Local Government Act 2020* (Vic) and the overarching governance principle to ensure economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks.

These legislative requirements are necessary for council to support and promote net community benefit.

Purpose

This amendment has been prepared and pursued for the following reasons with particular respect to the built environment:

- To support council's endorsed and seriously entertained collection of Environmental, Sustainability and/or Climate Change Strategies, Policies and Action Plans:
    - Council Plan 2021-2025 (Mir wimbul)
    - Climate Change and Environment Strategy 2021-2026
    - What other strategies should be included in this?
- To address Council's Climate and Biodiversity Breakdown declaration.
- To enable council, in the performance of its statutory role, to have appropriate and demonstrated regard to economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks pursuant to the overarching governance principles under the *Local Government Act 2020* (Vic);
- To ensure that ESD requirements within the planning system are continually reviewed to align with and articulate best practice industry measures for development to address;
- To assist Victorian government frameworks that require reducing greenhouse gas emissions and preparing for climate change impacts, that result from and affect, the built environment. This acknowledges that, within Australia, the built environment accounts for approximately 20% of the nation's emissions (Australia's Emissions Projections 2018 (Department of the Environment and Energy, 2018)). The Victorian government framework requires that the State address an overarching emissions reduction target of carbon neutrality by 2050;

- To aid the Victorian government's sustainable transport directives which includes the uptake of zero emission vehicles (ZEVs), active transport and supporting infrastructure. This also entails supporting further reforms to make new buildings ZEV-ready and setting a target of 50% of new light vehicle sales to be zero emissions by 2030 (Victoria's Zero Emissions Vehicle Roadmap (Department of Environment, Land, Water and Planning, 2021));

- To promote the Victorian government's circular economy directives that seek to divert waste from landfill and ensure resource recovery and efficiency (Recycling Victoria – A New Economy (Department of Environment, Land, Water and Planning, 2020));

- To complement the Victorian government's framework towards urban greening, cooling and enhancing biodiversity; and

  To further appropriate practices in waste avoidance, reduction, and recycling, the management and treatment of stormwater including integrated water management, and reduce emissions to air from development and associated activities. This includes having regard to the Environmental Reference Standard (ERS), environmental values, beneficial uses and community impacts in support of the General Environmental Duty (GED) and environment protection principles outlined under the *Environment Protection Act 2017* (Vic).

Strategic studies and reports

Several studies were commissioned to inform and support the development of the objectives and standards included within this amendment. A list of the relevant studies and reports and accompanying synopses include:

Study/ Report	**Synopsis**
Sustainability Planning Scheme Amendment Background Research – Part A: Technical ESD and Development Feasibility (Hip v. Hype Partnership, 2021)	A technical analysis that tests each proposed standard on various development typologies to determine their practical suitability and functionality and indicative capital cost impact.
Sustainability Planning Scheme Amendment Background Research – Part B: Planning Advice (Hansen Partnership, 2021)	An urban planning review of the proposed objectives and standards which takes into consideration the technical feasibility and cost-benefit viability studies. Recommendations were also put forward to ensure the standards are fit for planning purposes within the Victorian planning framework.
Sustainability Planning Scheme Amendment – Cost-Benefit Analysis (Frontier Economics, 2021)	A cost-benefit analysis of the standards that have been incorporated as part of this amendment. This includes direct costs as well as a preliminary review of direct and indirect economic and societal benefits.
Moreland City Council Renewable Energy Standard (Low Impact Development, 2021)	A study conducted into the development of metrics and standards for new development to incorporate minimum amounts of solar photovoltaic systems and relevant design considerations. The metrics and standards have been adopted as a part of this amendment.
Moreland City Council Low Emissions and Electric Vehicles Standard (Low Impact Development, 2021)	A study conducted into the development of metrics and standards for new development to incorporate electric vehicle infrastructure and relevant design considerations. The metrics and standards have been adopted as a part of this amendment.
The Advisory Committee and Panel Report for Environmentally Efficient Design Local Policies (Planning Panels Victoria, 2014)	The Advisory Committee and Panel report for the original planning scheme amendment that introduced a local ESD Policy within the planning scheme of six councils in Victoria.

Study/ Report	Synopsis
	Since this planning scheme amendment, several councils have used this report to serve as the evidentiary basis to support the introduction of their own local ESD Policy within their planning scheme. A total of 20 councils throughout Victoria have a local ESD Policy within their planning scheme.
Greenhouse Alliance Planning and Environment Act Report	An independent report commissioned by the Victorian Greenhouse Alliances and CASBE has identified a raft of reform opportunities for Victoria's planning system, to ensure it is aligned with the State's legislated emission reduction targets and supports climate resilient communities. It also identifies opportunities to ensure the delivery of zero-carbon infrastructure, building on Victoria's leadership role on taking action on climate change. The report –Climate Change and Planning in Victoria: Ensuring Victoria's planning system effectively tackles climate change-recommends a suite of reforms that: - Recognise the fundamental role the Planning Scheme and Planning and Environment Act 1987 play in guiding decision-makers, and their weight as statutory law instruments - Ensure that the scheme and its application of controls is consistent with the scientific evidence base on climate change and best practice - Focus on changes that will assist in getting the fundamentals of future development areas right

Appropriate jurisdiction

The appropriateness of addressing ESD considerations within the planning framework have been well established.

Six councils originally pursued a planning scheme amendment to incorporate a local ESD Policy within each council's planning scheme. The Advisory Committee and Panel Report for Environmentally Efficient Design Local Policies (Planning Panels Victoria, 2014) resolved that the planning framework, as distinct from the building framework, is suitable and equipped to require that development incorporate ESD measures through the planning permit application process. The original six local ESD Policies were gazetted in 2015.

Since the gazettal of the original six local ESD Policies, a total of 20 councils throughout Victoria have a local ESD Policy within their respective planning scheme.

Additional planning scheme amendments have also been successfully pursued that require the integration and adoption of ESD outcomes within development proposals. For example, Amendment C190more Better Outcomes for Two Dwellings on a Lot whereby ESD requirements serve as a part of the City of Moreland's VicSmart application process, and Amendment GC81 whereby detailed, precinct wide, ESD measures are required for development within Fishermans Bend, located within the City of Port Phillip and the City of Melbourne.

In addition, the Victoria Planning Provisions have also introduced heightened ESD measures within the planning framework beyond that of the standard ResCode requirements. This is primarily demonstrated through the introduction of the Better Apartments Design Standards (BADS) in 2017. Performance measures detailed within BADS, in relation to energy efficiency and cooling load requirements for apartments, similarly cover thermal performance requirements detailed within the National Construction Code (NCC) that is administered under the building framework.

With the planning framework serving as a precursor to the building framework, the Objectives and Standards outlined within this amendment continue to affirm ESD's fundamental role ensuring resilient

future development. ESD considerations should be embedded as a part of the initial design process within the planning framework, prior to undertaking detailed design as occurs within the building phase. This is to ensure ESD benefits can be maximised by embedding holistic design considerations early in the design process rather than retrofitting ESD at a later stage in the development process. The benefits of this approach include:

- This process aims to limit increased costs by having clear ESD expectations for the development at the commencement of the development process and as a part of planning process.

- ESD outcomes are optimised, as ESD measures are considered alongside development site constraints and limitations are carefully considered and integrated into the initial design, avoiding costly retrofits at a later stage.

Whilst the NCC is tailored towards establishing the minimum energy efficiency requirements for a development to address, the ESD requirements detailed within the planning framework and as a part of this amendment include much broader coverage of ESD. The amendment has been carefully drafted to continue to complement the NCC through higher order planning framework requirements rather than conflict with the building framework for complementary aspects. This enables the building framework to continue to administer detailed design elements, building services and construction techniques.

In addition to energy efficiency, the ESD measures within the planning framework and part of this amendment address thematic categories such as integrated water management, indoor environmental quality, sustainable transport, green infrastructure, waste and resource recovery, climate resilience, embodied carbon. These thematic categories are not covered in detail within the NCC or building instruments. The planning framework has been recognised as the more suitable and established jurisdiction that has successfully been endorsed by authorities as the appropriate arena to 'cover the field' with respect to holistically address ESD requirements.

How does the amendment implement the objectives of planning in Victoria?

The amendment implements the objectives of planning in Victoria given that ESD fundamentally addresses key foundational principles of sustainability which underpin the objectives of planning. ESD requires consideration of the triple-bottom-line – environmental, societal and economic impacts, as well as, balancing the needs of the present with that of future generations; particularly when determining environmental impact by applying the precautionary principle.

The delivery of more robust ESD outcomes through the planning scheme strongly align with the objectives of planning in Victoria which include:

- To provide for the development of land with fair, orderly, economic and sustainability considerations (see Section 4(1)(a) of the *Planning and Environment Act 1987* (Vic) ('*P&E Act*'). This includes considering the equity of planning decisions, economic and societal functions as well as matters regarding the inherent sustainability of development. It is noted that the facilitation of development in Victoria is only supported where in alignment with specified objectives.

- To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity, noting the current threats to these resources and processes posed by climate change and the contribution that improved ESD outcomes can make to the protection of resources and ecological processes (see Section 4(1)(b) *P&E Act*).

- To secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria, noting specific consideration of climate change adaptation and indoor environmental quality though this amendment (see Section 4(1)(c) *P&E Act*).

- Seeking the delivery of affordable housing, noting the application of affordability in its broadest sense, encompassing more than just the purchase price of an individual property, and including not only homeowners but also renters (see Section 4(1)(fa) *P&E Act*).

- Balancing the present and future interests of all Victorians, particularly regarding environmental impact and minimising greenhouse gas emissions, as well as, addressing climate resilience and the adaptability of new development within the built environment (see Section 4(1)(g) *P&E Act*).

More specifically, the objectives of planning in Victoria are supported in the following areas having regard to the Objectives and Standards included in this amendment:

- Energy and water efficiency, as well as, and waste and resource recovery Standards support waste minimisation, reduction, reuse and recycling and therefore promote the protection of natural and man-made resources (see Section 4(1)(b) *P&E Act*).

- Integrated Water Management and Green Infrastructure Standards support both the protection of natural resources and ecological processes, as well as, contributing to the delivery of a pleasant and safe environment for Victorians and visitors to Victoria (see Section 4(1)(b), (c) *P&E Act*).

- Improved energy efficiency through passive design standards and measures such as natural ventilation and promoting energy efficiency through a hierarchy. This hierarchy prioritises the importance of energy efficient design first and foremost though thermal performance and comfort, followed by onsite then offsite renewable energy generation. This fosters a pleasant, efficient and safe working, living and recreational environment within development (see Section 4(1)(c) *P&E Act*).

- Energy and water efficiency and the adoption of broader integrated water management measures, as well as, the utilisation of on-site renewable energy systems minimises the strain placed on public utilities and other assets given reduced resource and utility demand and promotion of a development's self-sufficiency. This also enables the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community (see Section 4(1)(e) *P&E Act*).

- Recognition and consideration of the capital cost expenditure involved in addressing the Standards as part of their development whilst also recognising the overall benefit with reduced operating costs of development experienced by future residents, owners or tenants having due regard to housing affordability matters (see Section 4(1)(fa) *P&E Act*).

How does the amendment address any environmental, social and economic effects?

The amendment enhances ESD requirements and importantly, ensures new development advances the ambitions of zero emissions outlined in Victoria's *Climate Change Act 2017* (Vic), ensuring the built environment contributes appropriately to the legislated target of zero emissions. It also assists council supporting its community by planning for the adaptation of these communities to climate changes, and the delivery of adopted and community endorsed council goals related to emissions reduction. Such measures deliver significant environmental benefits and effects, as well as direct and indirect social and economic outcomes.

The amendment included consideration of the economic effects in a number of ways. The Technical Assessment of the amendment tested the proposed Standards against a range of typologies and contexts to determine their practical suitability and functionality and indicative capital cost impact. The Cost Benefit Analysis focused on the direct costs associated with addressing the Standards against the same development typologies which was accompanied by a breakeven analysis to demonstrate value to the community.

The assessments considered the individual development costs and the potential impact on the purchase component of housing affordability. This was in conjunction with the broader economic development costs of delivering more sustainable development which addresses climate change adaptation and mitigation, as well as social effects; many of which require deeper analysis and investigation to quantify and measure at lot scale. The assessments underpinned a number of changes made to ensure that the Standards proposed did not impact on development viability.

The effects of this amendment were also tested through a series of internal and external consultation sessions. Internal consultation was scoped to include authorities comprising 31 councils throughout Victoria, the Municipal Association of Victoria (MAV) and the Council Alliance for a Sustainable Built Environment (CASBE) that collectively support this amendment. This included the authorities providing input and feedback to deliverables that serve this amendment. Officers that provided input and support from these authorities included individuals from multi-disciplinary teams and skillsets (e.g. strategic and statutory planning, urban context, sustainability, transport, waste, stormwater, and landscape).

External consultation was scoped to include key industry practitioners from architectural, ESD and urban planning backgrounds through targeted stakeholder engagement. This supported the consideration of effects from a wide variety of perspectives and resulted in further refinement of Standards as initially drafted.

Environment effects

Key environmental areas or thematic categories addressed via this amendment include a development directly responding to and incorporating:

- **Operation Energy** – which entails development prioritising energy efficiency initiatives in line with the following hierarchy:
    - Thermal performance and passive design measures;
    - Energy efficient systems (e.g. heating, cooling and ventilation) and appliances;
    - Onsite renewable energy generation;
    - Offsite renewable energy purchasing and/or carbon offsets.

  These measures address and aim to minimise a development's demand on the energy grid and peak energy, as well as, emissions to air through fossil fuel reduction which is attributed towards greenhouse gas emissions and climate change impacts.
- **Embodied carbon** – which entails the use and sourcing of materials and design techniques to reduce the amount of embodied carbon embedded in Victoria's buildings.
- **Sustainable transport** – which entails the adoption of sustainable transport and low emission vehicle measures such as electric vehicle infrastructure and car parking spaces, as well as, an increase in active transport and end of trip facilities such as bicycle parking and storage spaces;
- **Integrated water management** – which includes water efficiency and potable water demand reduction, as well as, the management to holistically address stormwater quantity and quality onsite prior to stormwater discharge from the development to local waterways;
- **Climate resilience** – which includes considering a development's risk to climate change impacts such as the urban heat island effect, flooding and the management of stormwater, as well as, peak energy and potable water demand
- **Green infrastructure** – which involves the implementation of green infrastructure design measures, including tree canopy retention, amelioration and plating of appropriate species, to positively contribute towards the ecological value, biodiversity, health, and public realm amenity of a development, as well as, societal and communal impacts;
- **Indoor environment quality** – which comprises thermal comfort and safety requirements, natural ventilation and access to clean, fresh, air, with minimal exposure to harmful indoor air pollutants, as well as, ensures that key areas of a development have access to daylight and sunlight to improve amenity, liveability and workability functions; and
- **Waste and resource recovery** – which entails the consideration and selection of appropriate materials which have limited environmental and transportation impact, as well as, support the waste hierarchy through waste avoidance, minimisation, reuse, recycling and recovery.

Social effects

In addition, the Objectives and Standards included within this amendment indirectly promote and number of outcomes which relate to social effects including:

- High quality and commensurate urban design and architecture outcomes;
- Greenhouse gas emission reduction, mitigation and adaptation approaches towards climate change impacts that respond to associated risks including societal, liveability, human health, financial and economic impediments;

- Self-sufficient and reliable development by reducing a development's demand on local utilities and associated infrastructure such as energy and water resources through the uptake of renewable energy systems, rainwater harvesting and stormwater treatment methods;
- A reduction in the operative and running costs for residents, owners, and tenants associated with the development. This also supports housing affordability and maintaining quality of living standards for low income or financially strained individuals. For example first home buyers, retirees and disadvantaged community members;
- Communal and societal benefits through the incorporation of green infrastructure design measures that enhances public realm amenity within development;
- The general health and wellbeing of occupants and users through increased consistency and levels in access to fresh air, natural ventilation, daylight and direct sunlight where appropriate;
- A cleaner energy mix in terms of Victoria's energy grid and transportation methods which is associated with a reduction in air quality emissions and supports broader community health benefits.

Economic effects

The requirement for development to address the Objectives and Standards detailed within this amendment supports economic development via:

- Value to the community when considered at a broader scale;
- Growth of specialised and skilled services;
- Knowledge and educational development in an already established yet rapidly growing market;
- Job creation and employment in new and emerging fields, including current workforce and youth employment prospects;
- Innovation and technology growth to support development with addressing the relevant objectives and standards where reasonable; and
- Holistically serving as a part of a local and whole of government COVID-19 / post COVID-19 response plan to support economic stimulus.

Does the amendment address relevant bushfire risk?

The amendment affects any areas within a Bushfire Management Overlay or designated bushfire prone area and bushfire risk has been considered in preparation of the amendment.

More broadly, it is noted that the proposed means of increasing green infrastructure on sites is through a tool (the Green Factor Tool) which includes inbuilt flexibility to allow an applicant to deliver green infrastructure in a manner which can respond to the constraints of a site, including bushfire risk, rather than through prescriptive measures. In addition, the current hierarchy of planning in Victoria is such that responses to bushfire risk, where relevant, would continue to have precedence over that proposed Standards.

The amendment however includes objectives and standards that supports and encourages development to address minimising greenhouse gas emissions and incorporate climate resilience and adaption design principles and/or measures. These measures are aimed at curtailing a development's direct and indirect societal risk to climate change sensitivities such as urban heat and climate change induced bushfire risk.

Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?

The amendment is consistent with the following Ministerial Directions:

- Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) *P&E Act*;
- Ministerial Direction No.9 Metropolitan Strategy (Plan Melbourne 2017-2050) under Section 12(2)(a) *P&E Act;*

  Ministerial Direction No. 9 – Metropolitan Planning Strategy seeks to ensure that planning scheme amendments have regard to *Plan Melbourne 2017-2050: Metropolitan Planning Strategy* (Department of Environment, Land, Water and Planning, 2017) *and Plan Melbourne 2017-2050: Addendum 2019* (Department of Environment, Land, Water and Planning, 2019).

  The amendment is in line with relevant directions within the strategy, in particular:

  - Outcome 3: Melbourne has an integrated transport system that connects people to jobs and services and goods to market
    - Direction 3.1 – Transform Melbourne's transport system to support a productive city with particular respect to cycling infrastructure
  - Outcome 4: Melbourne is a distinctive and liveable city with quality design and amenity
    - Direction 4.3 – Achieve and promote design excellence
  - Outcome 5: Melbourne is a city of inclusive, vibrant and healthy neighbourhoods
    - Direction 5.2 – Create neighbourhoods that support safe communities and healthy lifestyles.
  - Outcome 6: Melbourne is a sustainable and resilient city
    - Direction 6.1 – Transition to a low-carbon city to enable Victoria to achieve its target of net zero greenhouse gas emissions by 2050
    - Direction 6.2 – Reduce the likelihood and consequences of natural hazard events and adapt to climate change
    - Direction 6.3 – Integrate urban development and water cycle management to support a resilient and liveable city
    - Direction 6.4 – Make Melbourne cooler and greener
    - Direction 6.5 – Protect and restore natural habitats
    - Direction 6.6 – Improve air quality and reduce the impact of excessive noise
    - Direction 6.7 – Reduce waste and improve waste management and resource recovery

  Outcome 6 and the listed Directions are of significant relevance to the amendment.
- Ministerial Direction No.11 – Strategic Assessment of Amendments under Section 12(2)(a) *P&E Act*;

  Ministerial Direction No. 11 – Strategic Assessment of Amendments seeks to ensure a comprehensive strategic evaluation of a planning scheme amendment and the outcomes it produces. A strategic assessment of the proposed amendment has been undertaken in accordance with this Ministerial Direction in this Explanatory Report.
- Ministerial Direction No.19 – Preparation and content of Amendments that may significantly impact the Environment, Amenity and Human Health under Section 12(2)(a) *P&E Act*;

  Ministerial Direction No. 19 – Preparation and content of Amendments that may significantly impact the Environment, Amenity and Human Health requires planning authorities to seek the views of the Environment Protection Authority (EPA) in the preparation of planning scheme that could result in use or development of land that may result in significant impacts on the environment, amenity and human health due to pollution and waste.

The Direction does not specifically apply to an amendment to the Victoria Planning Provision however significantly and positively impacts the Environment, Amenity and Human Health. The proposed amendment seeks to promote waste avoidance, reduction, and recycling, improve the management and treatment of stormwater on development sites, and reduce emissions to air. This requires having regard to the Environmental Reference Standard (ERS), beneficial uses and community impacts in support of the General Environmental Duty (GED) principle and principles of environment protection, exercised under the *Environment Protection Act 2017* (Vic).

How does the amendment support or implement the Planning Policy Framework and any adopted State policy?

The amendment supports and gives effect to the Objectives and Strategies of the Planning Policy Framework (PPF). The PPF at Clause 10 includes the following components of relevance:

- Clause 11 Settlement, whereby planning is to recognise the need for, and as far as practicable contribute towards a high standards of urban design and amenity, energy efficiency, prevention of pollution to land, water and air, and protection of natural resources with Strategies including to provide for the development of sustainable and liveable areas;

- Clause 12 Environmental and landscape values, whereby planning should help to protect the health o ecological systems and the biodiversity they support, including its protection;

- Clause 13.01-1S Natural hazards and climate change, whereby the Objective includes to minimise the impacts of natural hazards and adapt to the impacts of climate change which requires the consideration of climate change risks in planning;

- Clause 15.02-1S Energy and resource efficiency, whereby the Objective seeks to eencourage land use and development that is energy and resource efficient and minimises greenhouse gas emissions via:

    - Improving energy, water and waste performance of buildings and subdivisions via ESD;

    - Reducing the urban heat island effect through retention of existing vegetation, and additional vegetation and greening in urban areas;

    - Facilitating a greater use of renewable energy technologies;

    - Support low energy forms of transport such as walking and cycling;

    - Reduce the urban heat island effect by greening urban areas, buildings, transport corridors and open spaces with vegetation;

    - Encourage retention of existing vegetation and planting of new vegetation as part of development and subdivision proposals.

- Clause 18.02-1S Sustainable personal transport, whereby the Strategies include development providing adequate bicycle parking and related facilities, as well as, encouraging the use of walking and cycling;

- Clause 19.01-2S Renewable energy, whereby the provision of renewable energy development is promoted and facilitated;

- Clause 19.03-3S Integrated water management, whereby the Objective involves managing water supply, water resources, drainage and stormwater through an integrated water management approach. This includes minimising stormwater quality and quantity related impacts; and

- Clause 19.03-5S Waste and resource recovery, whereby the Objective details to reduce waste and maximise resource recovery, diverting waste from landfills and in the process minimising environmental, community and public health impacts.

The amendment also supports the following policies released and adopted by the State government and associated authorities:

- The Environmentally sustainable development of buildings and subdivisions: A roadmap for Victoria's planning system (Department of Environment, Land, Water and Planning, 2021) ('ESD Roadmap') the details proposed ESD changes to the PPF;
- The State government's overall and interim greenhouse gas emission reduction targets, Climate Change Strategy, Sector Pledges, and Adaptation Action Plans that have been made pursuant to the *Climate Change Act 2017* (Vic);
- Victoria's Zero Emissions Vehicle Roadmap (Department of Environment, Land, Water and Planning, 2021) the supports further reforms to make new buildings ZEV-ready and setting a target of 50% of new light vehicle sales to be zero emissions by 2030);
- Victoria's Recycling Victoria – A New Economy policy (Department of Environment, Land, Water and Planning, 2020) that outlines the Victorian government's circular economy directives that seek to divert waste from landfill and ensure resource recovery and efficiency); and
- The fundamental General Environmental Duty principle detailed within the *Environment Protection Act 2017* (Vic) and further integrated within supporting instruments such as the Environment Reference Standard (ERS).

How does the amendment support or implement the Municipal Planning Strategy?

The Greater Bendigo City Council has a longstanding commitment to environmental sustainability. This commitment is embodied in Council's August 2019 Climate and Biodiversity Breakdown Declaration which compels recognises that we are facing the loss of a safe climate with devastating implications for all life, and that a large-scale rapid response is required to tackle climate change

The Planning Policy Framework and Municipal Planning Strategy support sustainability through environmentally focused land use and development planning. Clause 02.02 (Vision) includes seeking to create 'The World's Most Liveable Community' with a future that:

- Is increasingly self-sufficient in energy generation, food and water production, and generally have a lighter impact on the environment.
- Effectively respond to new and emerging issues including adaptation to climate change.
- Plan and facilitate development and infrastructure projects that increase liveability and pride of place

The amendment is consistent with and supports the Municipal Planning Strategy. The proposed new ESD Particular Provision reinforces the ESD policy at Clause 15.02-1L, the need for future development to respond to sustainable development principles, providing guidance in achieving sustainability in the most efficient way. The Particular Provision provides a specific framework for the consideration of ESD during the planning permit process, specifying what types of development should implement ESD measures and to what degree.

Does the amendment make proper use of the Victoria Planning Provisions?

A municipal council and/or planning authority is entitled to prepare an amendment, for authorisation by the Minister, to the Victoria Planning Provisions (VPP)that involves the inclusion of a provision in the State standard provisions (see Sections 4B(2), 10(1) *P&E Act*).

The amendment makes proper use of the VPP as the appropriate tool to achieve the ESD and zero carbon development outcomes.

The supporting studies and reports recommended that Council seek a single ESD Particular Provision in a new clause under Clause 53 of the planning scheme. A provision of this nature does not currently exist within the suite of the VPP, however, this is considered to be the most appropriate planning mechanism to implement the Elevated ESD Objectives and Standards.

In determining suitability and propose use of the VPP, a range of planning mechanisms were considered to implement the elevated ESD Standards including a Local Planning Policy and Design and Development Overlay (DDO).

A Local Planning Policy was not considered an appropriate tool as it cannot include detailed and mandatory requirements, does not move beyond the current policy approach and give greater statutory weight to elevated sustainability requirements.

A DDO was not considered an appropriate tool as they 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.

The Particular Provision, as the appropriate tool outlined in the amendment, provides for greater direction, certainty and clarity for the development community to address the expectations held for development. This is provided through a format that allows for mandatory Objectives and discretionary Standards, operational instructions and definition of key terms, as well as, a consistent and standardised format aligned with other Particular Provisions such as Clause 53.18 Stormwater Management in Urban Development.

The amendment is supported by Guidelines for Sustainable Building Design, a Background Document that will assist development to address the Objectives and Standards as a part of the amendment.

In preparation of the amendment, there has been adherence to Ministerial Direction on the Form and Content of Planning Schemes under Section 7(5) *P&E Act*.

How does the amendment address the views of any relevant agency?

Pre-amendment consultation was not undertaken. The views of relevant agencies will be formally considered as part of any exhibition process.

Does the amendment address relevant requirements of the Transport Integration Act 2010?

The amendment is not expected to have any significant impact on the transport system.

The amendment however supports the objectives of the *Transport Integration Act 2010* (Vic) ('*TIA*'). This is in relation to the objectives and standards that are introduced by this amendment requiring development to incorporate electric vehicle infrastructure and low emission forms of transport, as well as, increase the amount of facilities for bicycles and other sustainable transport modes.

The *TIA* objectives of relevance to this amendment, by way of association with the 'physical components' of the transport system which include motor vehicles and bicycles, include:

- Environmental sustainability (see Section 10 *TIA*) through:
    - Protecting, conserving and improving the natural environment;
    - Avoiding, minimising and offsetting harm to the local and global environment, including through transport-related emissions and pollutants and the loss of biodiversity;
    - Promoting forms of transport and the use of forms of energy and transport technologies which have the least impact on the natural environment and reduce the overall contribution of transport-related greenhouse gas emissions;
    - Improving the environmental performance of all forms of transport and the forms of energy used in transport; and
    - Preparing for and adapting to the challenges presented by climate change.
- Integration of transport and land use (see Section 11 *TIA*) through:
    - Maximising access to residences, employments, markets, services and recreation;
    - Planning and developing the transport system more effectively;

  - Reducing the need for private motor vehicle transport and the extent of travel;
  - Facilitating better access to, and greater mobility within, local communities;
  - Having regard to the current and future impact on land use, development and operation of the transport system; and
  - Supporting the changing land use and associated transport demand.

- Economic prosperity through increasing efficiency, reducing costs, improving timeliness, and fostering competition by providing access and growth of new and innovative markets, particularly the electric vehicles sector, and, as a result, facilitating investment in Victoria that supports the financial sustainability and viability of such emerging markets (see Section 9 *TIA*); and
- Safety and health and wellbeing through promoting forms of transport and the use of forms of energy which have the greatest benefit for, and least negative impact on, health and wellbeing (see Section 13(2)(c) *TIA*).

In addition, the *TIA* decision making principles have been applied when preparing the objectives and standards related to this amendment. This includes:

- Integrated decision making with relevant internal and external government stakeholders including interdisciplinary transport, sustainability and planning departments, as well as, private industry through stakeholder engagement (see Sections 15 and 20 *TIA*);
- A triple bottom line assessment having considered environmental and cost-benefit outcomes through relevant studies (see Section 16 *TIA*);
- Consideration of equity and user perspectives across varying demographic profiles (see Section 17 and 18 *TIA*);
- The precautionary principle in relation to reducing vehicle and greenhouse gas emissions for the betterment of Victorians (see Section 19 *TIA*);

Additionally, this amendment aligns and assists with the commitments detailed within the Victorian Transport Sector emissions reduction pledge, which serves a part of Victoria's Climate Change Strategy, pursuant to Part 5 of the *Climate Change Act 2017* (Vic). Details within the pledge include the promotion of zero emission vehicles (ZEVs) and active transport throughout Victoria.

Resource and administrative costs

What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The amendment is not expected to increase the number of planning permit applications as it does not propose to introduce any new planning permit triggers. However, the amendments require development applications to be assessed against the Objectives and Standards detailed within the Particular Provision.

The Particular Provision will apply to applications under a provision of a zone to construct a building, or construct or carry out works, with a few specified exemptions (including VicSmart applications, works associated with one dwellings on a lot and works associated with a relatively small floor area). Applications lodged prior to the approval date of any amendment that introduces the provision are exempt from assessment, including amendments to an existing planning permit. As such transitional provisions do apply.

Additionally, the amendment is not expected to unreasonably increase resource requirements or administrative costs for permit applicants to undertake ESD assessments. Supporting material is prepared to support this amendment that may reduce costs for some applicants. This is by providing easy to use guidelines and templates which allow for smaller development to more easily generate information required by council to respond to the Objectives and Standards detailed within the Particular Provision.

For example, the Guidelines for Sustainable Building Design will support applicants by providing consistency across councils applying the elevated ESD Standards. The Guidelines for Sustainable Building Design will be included as a Background Document within the planning scheme. This will provide more explicit technical information, appropriate alternatives for responding to performance criteria, real-life case studies/examples, standardised templates and application requirements.

The Guidelines for Sustainable Building Design are an important resource which will support better regulations and a consistent approach between councils. The guidance and supporting materials will clearly articulate expectations and ultimately reduce delays and costs for both applicants and councils; ensuring that the required information can be provided efficiently.

The Guidelines for Sustainable Building Design and accompanying templates will support council staff to covey and request upfront that the correct information is provided, reducing the need for Requests for Further Information. It will also assist applicants; particularly those who may not be frequent users of the planning system, to understand what information and support material needs to be provided to support council decision making. This will ultimately allow council to assess applications more efficiently.

Examples of these templates to support applicants include:

- Sustainable Design Assessments (SDAs) and Sustainability Management Plans (SMPs) templates that outline content and expectations of a SDA and SMP, including the level of detail required for different development typologies;

- Waste Management Plan (WMP) templates for smaller developments conveying ‘best practice’ to applicants and building capacity with effective ways for development to manage their waste. For larger scale developments more typical WMPs will still be required, with relevant updates and endorsement to follow as per planning permit requirements which is reflective of current practice; and

- Construction waste management templates that are similar to the approach for WMPs however will assist smaller developments, including tips for best practice.

The amendment also proposes the introduction of a requirement to deliver zero carbon emissions at operation stage. This will be achieved through Permit Conditions requiring Sustainability Certificates at Construction and Operational stages. The Sustainability Certificate – Operation is required once, 12 months after the occupation of the development. These certificates confirm that the requirements of the endorsed sustainability management plan are met. This approach provides consistency across all councils applying the Elevated ESD Standards.

It is anticipated that planning permit applications, that are required to address the Objectives and Standards included in this amendment, are assessed by council’s planning officer/s and/or Environmental, Sustainability or ESD officer/s.

For larger scale developments or where resources exist, to assist council’s planning officer with efficient assessment, referrals will be issued to council’s Environmental, Sustainability or ESD Officer(s) given their technical expertise and efficiency to assess the ESD commitments and design measures proposed as a part of the development application.

Given the existing allocation of council resources and council’s familiarity with ESD processes within the planning framework, this may result in an additional day a week in officer time to manage planning permit application referrals and undertake ESD assessments against the measures outlined in this amendment. Further time allocation will be considered, should assistance be required, to manage an increase in the amount of referral numbers and associated workload.

Opportunities exist for the funding and use of shared resources to support the provision of referral comments. Funding of such a role/s could also support increased capacity of planning staff to undertake relevant assessments independently.

Where you may inspect this amendment

The amendment can be inspected free of charge at the Greater Bendigo City Council website at (would I use the lets talk page or somewhere else?)

The amendment is also available for public inspection, free of charge, during office hours at the following places:

- **Location**. What locations are we using at the moment? Heathcote and Hopetoun Street

The amendment can also be inspected free of charge at the Department of Environment, Land, Water and Planning website at www.planning.vic.gov.au/public-inspection.

Submissions

Any person who may be affected by the amendment may make a submission to the planning authority. Submissions about the amendment must be received by **TBC subject to authorisation.**

A submission must be sent to City of Greater Bendigo by:

Amendment CXXX Strategic Planning Unit Moreland City Council Locked Bag 10 MORELAND VIC 3058	Or via email: strategicplanning@moreland.vic.gov.au

Panel hearing dates

In accordance with clause 4(2) of Ministerial Direction No.15 the following panel hearing dates have been set for this amendment:

- Directions hearing: **TBC subject to authorisation.**
- Panel hearing: **TBC subject to authorisation.**

By email:
richard.wynne@parliament.vic.gov.au
lily.dambrosio@parliament.vic.gov.au
shaun.leane@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 Changes 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 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,

20. A VIBRANT, CREATIVE COMMUNITY

Nil

21. A SAFE, WELCOMING AND FAIR COMMUNITY

Nil

21.1. Draft Social Justice Framework, 2022-2032

Author:	Ruth Ford, Inclusive Communities Officer - Access & Equity
Responsible Director:	Vicky Mason, Director Health and Wellbeing

Purpose

For Council to review the final draft Social Justice Framework, 2022-2032 with a view to adopting it as a Council framework.

Recommended Motion

That Council adopts the attached, final draft of the Social Justice Framework, 2022-2032 as a Council framework.

Executive Summary

The City has drafted a **Social Justice Framework, 2022-2032, (Attachment 1)** to support equity, inclusion and human rights.

- It aims to provide Council and the City with principles to guide decisions, planning and actions to improve social justice in the community over the next ten years.
- The value and purpose of a Social Justice Framework is to:
    - Ensure Council meets its obligations of progressing equity, inclusion and human rights, as required by State legislation
    - Provide a mandate for Council to embed social justice principles of equity; access and inclusion; community participation in decision making; and human rights in all of Council's policies, plans, strategies, programs and services
    - Enable Council to take a position of leadership by establishing clear positions on equity, access and inclusion, participation, human rights and social justice
    - Support the City's social justice advocacy across Government, industry, business and community
    - Enable City partnerships with key stakeholders to leverage assets and resources to address social and structural barriers to achieving equity, access and inclusion and social justice.
- The Social Justice Framework is a set of principles, based on Greater Bendigo's community vision and values, that will guide the City's work enabling Greater Bendigo to fulfil its vision of celebrating our diverse community and being welcoming, sustainable and prosperous, while walking hand-in-hand with the Traditional Custodians.

- Development of equity impact assessment processes and a social justice action plan alongside the Social Justice Framework, will assist in ensuring a whole-of-Council integrated planning approach to progress equity, inclusion and human rights.

Background

The draft Social Justice Framework was developed following an evaluation of the City of Greater Bendigo Human Rights Charter (2014) in 2021; a review of relevant Local, State and Federal government legislation; analysis of local data; and assessment of social justice and human rights best practice within other local governments.

The Draft Social Justice Framework responds to State and Federal government policies and legislation, including the *Victorian Local Government Act 2020; Gender Equality Act 2020; and* the Victorian *Charter of Human Rights and Responsibilities Act 2006.*

The draft Social Justice Framework was approved by the Equity and Disadvantage Working Group on 30 March 2022, after a process of extensive feedback from City staff. Youth Council considered the draft Social Justice Framework on 12 April 2022 and provided their support of the framework.

Previous Council decision dates: 22 October 2014: Council adopted the City of Greater Bendigo Human Rights Charter.

Report

The City of Greater Bendigo's draft Social Justice Framework (2022-2032) aims to provide Council and the City of Greater Bendigo (the City) with principles to guide decisions, planning and actions to improve equity and inclusion, and support human rights in the community over the next ten years.

The draft Social Justice Framework was developed following an evaluation of the City of Greater Bendigo Human Rights Charter (2014); a review of relevant local, State and Federal government legislation; analysis of local data; assessment of social justice and human rights best practice within other local government authorities; and engagement with the community and key stakeholders.

The draft Social Justice Framework builds on the previous Greater Bendigo Human Rights Charter to support a continuing culture of human rights, while drawing on both the Charter evaluation; Greater Bendigo's Community Vision and Values; and new legislative requirements, to create a broader social justice framework which will progress equity, fairness and inclusion in Greater Bendigo.

The shift from a narrower focus on protecting human rights to a broader emphasis on addressing social justice responsibilities is a significant change which has occurred across local government. This shift is reflected in the Victorian *Local Government Act's* requirement of equitable service provision responsive to community diversity, but also under the *Public Health and Wellbeing Act 2008*.

The City has a responsibility to ensure all the community has equitable access to services, opportunities and every person is treated fairly, equitably and with respect. The City has a strategic responsibility to plan, lead, advocate for and work with the local community for

social justice, as it is the level of government closest to the community and has legislated requirements.

Addressing inequity through local policies, plans and programs is key to furthering inclusion and social justice. Local government is well placed to provide infrastructure, resources, services, support and advocacy to enable people to lead healthy, happy and prosperous lives.

Social, Economic and Environmental issues
As well as the need to more effectively meet the requirements of recent State legislative change (*Victorian Local Government Act 2020* and *Gender Equality Act 2020)*, five other contexts make a social justice framework in 2022 important:

1. Incidents of racism against culturally diverse residents and communities in Greater Bendigo increased during COVID-19
2. COVID-19 has contributed to increased inequity and disadvantage in Greater Bendigo
3. Climate change (including issues of rising energy costs and heat health) will affect socio-economic disadvantaged families more severely
4. The ongoing social change required to address violence against women and children; address gender power disparities; and advance gender equity
5. A growing population who may bring different values and perspectives and increasing diversity in Greater Bendigo, makes a statement outlining what Council stands for, incredibly valuable.

Greater Bendigo's demographic profile reveals marginalised or discriminated groups who are affected by barriers to social justice. It also reveals areas of extremely high socio-economic disadvantage. The Economic Development Strategy 2020-2030 pointed to 'a growing geographical and social gradient across Greater Bendigo expressed in measures of wealth, access to facilities and services, health outcomes, and participation levels in education and employment'. It emphasised that disadvantage had 'become intergenerational and entrenched' for many people.

Having an unequal community, impacts on the whole community, as a steep social gradient has an overall impact on community health and wellbeing; on the liveability of a community; and on the local and regional economy.

Principles of Social Justice Framework
A Social Justice Framework is crucial in providing a set of principles, which can guide Council and the City, as the previous City of Greater Bendigo Human Rights Charter did. The key principles of the Social Justice Framework are:

- Human Rights
- Equity
- Access and Inclusion
- Participation in decision-making

These core principles are supported by seven pillars of action:

1. Recognise Aboriginal and Torres Strait Islander Peoples/First Nation's peoples
2. Uphold Human Rights
3. Champion Social Justice
4. Advance Equity
5. Support Access and Inclusion

6. Enable Engagement and Participation
7. Support Environmental Justice

Implementation
Embedding effective processes alongside the Social Justice Framework, will assist in ensuring a whole-of-Council integrated planning approach to progress equity, inclusion and human rights. A social justice action plan and report card will provide an overview of actions that will be led or supported by the City (across multiple Council plans) to ensure an integrated whole-of-Council systems change approach to advance social justice.

Priority/Importance

The implementation of the draft Social Justice Framework (2022-2032) is of high importance as it demonstrates the City's ongoing commitment to equity, inclusion and human rights, as required by State legislation. The Social Justice Framework also responds to *Mir wimbul* Council Plan's desired outcome of 'a safe, welcoming and fair community' through achieving:

Goal 2: 'A community that promotes equity and addresses poverty and disadvantage' via Objective 1: 'Implement the recommendations of the Bendigo Human Rights Charter evaluation'

Action 1: 'Develop a Social Justice Framework'.

Options considered

Option 1: Do not endorse the framework

Implications

- Objective in Council Plan not met
- Reduces the likelihood of achieving equity and inclusion goals in the Council Plan and equity requirements under State legislation

Option 2: Partially endorse the framework (excluding Action Plan and Equity Impact Assessment process)

- Reduced effectiveness and impact in equity and human rights through only having principles Social Justice Framework which can guide decision making

Implications

- Implements only one recommendation from the Bendigo Human Rights Charter evaluation
- Reduces the impact of the framework in achieving equity and inclusion goals in the Council Plan and repeats the problems of the Human Rights Charter not being operationalised across the City
- Without and Action Plan and Equity Impact Assessment process, it will be more difficult to measure success and the framework may appear tokenistic

Option 3: Fully endorse the framework

- Greatest impact in achieving equity and inclusion goals in the Council Plan
- Fully implements recommendations of the Bendigo Human Rights Charter evaluation.
- The City will be able to demonstrate/measure implementation

Timelines

The implementation of the Social Justice Framework (2022-2032) is planned to commence following Council endorsement in 2022 and continue until 2032.

Communications/Engagement

INTERNAL

- The draft Social Justice Framework drew on the Evaluation of the City of Greater Bendigo's Human Rights Charter (2014) by the Human Rights Charter Project Working Group (2021). The evaluation process involved surveys of City staff which led to the report evaluating the effectiveness of the 2014 Human Rights Charter.
- The draft Social Justice Framework was approved by the City's Equity and Disadvantage Working Group on 30 March 2022, after a process of extensive feedback from City staff and development of draft versions since 2021.
- Youth Council considered the draft Social Justice Framework on 12 April 2022 and supported it (see **Attachment 2: Youth Council Letter of Support for the Social Justice Framework**).
- Youth Council feedback and recommendations for minor revisions were partially incorporated into the revised draft Social Justice Framework (see **Attachment 3: Response to Youth Council recommendations on draft Social Justice Framework**).

COMMUNITY ENGAGEMENT

- This is an internal framework, which will assist in decision making, so no external community engagement was required.
- Stakeholder organisations were surveyed as part of the Evaluation of the City of Greater Bendigo's Human Rights Charter (2014) by the Human Rights Charter Project Working Group (2021).

Financial Sustainability

The introduction and operation of the draft Social Justice Framework will be covered by the current budget of the Community Partnerships Unit and existing staff resources.
No further budget required at this stage (prior to the development of the action plan).

Risk Assessment

Operational, Strategic and Reputational Risks

- A possible operational risk is that the draft Social Justice Framework is not operationalised through the whole organisation. This can be mitigated through the associated Equity Impact Assessment process and the creation of a Social Justice Action Plan (which incorporates education and capacity building on equity, inclusion and human rights).
- Another possible risk is that passing the draft Social Justice Framework could create backlash from individuals or minority groups within the community. This can be mitigated through effective communication of Council's strong commitment to equity,

inclusion and human rights as per the Council Plan, *Mir wimbul* and the Municipal Health and Wellbeing Plan (Healthy Greater Bendigo 2021-25) and as required under State legislation. Other strategies to mitigate the potential risk of community backlash include consistent messaging, which would also have the effect of engaging and educating the broader community.

Risk of doing nothing

- Outdated Human Rights Charter (2014) does not address the equity requirements of recent legislation (Victorian *Local Government Act 2020* and *Gender Equality Act 2020*).
- Outdated Human Rights Charter (2014) does not incorporate the significant shift across local government from a narrower focus on protecting human rights to a broader emphasis on addressing social justice responsibilities.

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 7 - A safe, welcoming and fair community

Secondary Council Plan Reference(s)

Goal 1 - A community that values gender equity and is free from violence against women
Goal 2 - A welcoming community that understands and respects cultural and religious differences and supports multiculturalism
Goal 3 - Young people are supported to explore, engage and be empowered to shape the world they live in
Goal 4 - A community that values and engages with people of all ages, abilities, genders and sexualities
Goal 6 - A community that promotes equity and addresses poverty and disadvantage

Other Reference(s)

This project also aligns to other outcomes and goals in the Council Plan 2021-2025 *Mir Wimbul*

Outcome 1: Lead and Govern for All

A community that works together to achieve our shared vision.

1. Goal 1 - Accountable, financially responsible, equitable, transparent decision making

Outcome 2: Healthy Liveable Spaces and Places

A community where all people can live healthy, safe, harmonious lives in affordable and accessible settings.

2. Goal 2 - A healthy, equitable and sustainable food system.
3. Goal 4 -The supply and quality of affordable housing is increased.
4. Goal 8 - Targeted investment in service, facilities, and programs to communities most in need

Outcome 4: Aboriginal reconciliation
A community that recognises and respects Aboriginal people and culture and enables the self-determination of Traditional Owners.

The draft Social Justice Framework links to other Council Strategies and Plans including:
Healthy Greater Bendigo 2021-2025
Barpangu Build Together: City of Greater Bendigo Reconciliation Plan, 2021-2025
Cultural Diversity and Inclusion Plan, 2021-2025
Equity for All (E4A) Gender Equity Action Plan, 2021-2025
Affordable Housing Action Plan, 2021
A Stronger Greater Bendigo 2030 (Economic Development Strategy)
Greater Bendigo's Food System Strategy 2020-2030
Greening Greater Bendigo 2020 - 2070
Climate Change and Environmental Strategy 2021-2026

The draft Social Justice Framework addresses obligations in the Charter of Human Rights and Responsibilities Act 2006 and other State and Federal legislation (see Appendix 1: Policy Context, pp.23-25).

The draft Social Justice Framework was also informed by *Pride in our future: Victoria's LGBTIQ+ strategy 2022-32*.>

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

1. Draft Social Justice Framework 2022 2032 [**21.1.1** - 24 pages]
2. Youth Council Letter of Support draft Social Justice Framework 26 April 2022 [**21.1.2** - 2 pages]
3. Response to Youth Council Recommendations on draft Social Justice Framework [**21.1.3** - 2 pages]
4. Mayor Message SJF [**21.1.4** - 1 page]

City of Greater Bendigo
Social Justice Framework (2022-2032)
Supporting Equity, Inclusion and Human Rights



Acknowledgement of Country

The City of Greater Bendigo is on Dja Dja Wurrung and Taungurung Country. We would like to acknowledge and extend our appreciation to the Dja Dja Wurrung and Taungurung Peoples, the Traditional Owners of the land. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture and the hopes of all Dja Dja Wurrung and Taungurung Peoples. We express our gratitude in the sharing of this land, our sorrow for the personal, spiritual and cultural costs of that sharing, and our hope that we may walk forward together in harmony and in the spirit of healing.

Acknowledgement of First Nations People

The City recognises that there are people from many Aboriginal and Torres Strait Islander communities living in Greater Bendigo. We acknowledge and extend our appreciation to all First Nations Peoples who live and reside in Greater Bendigo on Dja Dja Wurrung and Taungurung Country, and we thank them for their contribution to our community.

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Message from Mayor

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"Social justice is an underlying principle for peaceful and prosperous coexistence... We uphold the principles of social justice when we promote gender equality or the rights of indigenous peoples and migrants. We advance social justice when we remove barriers that people face because of gender, age, race, ethnicity, religion, culture or disability."[1]

Introduction

The City of Greater Bendigo's Social Justice Framework (2022-2032) aims to provide Council and the City of Greater Bendigo (the City) with principles to guide decisions, planning and actions to improve equity and inclusion and support human rights in the community over the next ten years. The Social Justice Framework was developed following an evaluation of the City of Greater Bendigo Human Rights Charter (2014); a review of relevant Local, State and Federal government legislation; analysis of local data; assessment of social justice and human rights best practice within other local government authorities; and engagement with the community and key stakeholders. Embedding effective processes alongside the Social Justice Framework, will assist in ensuring an integrated planning whole-of-Council approach to progress equity, inclusion and human rights. A social justice action plan and report card will provide an overview of actions that will be led or supported by the City (across multiple Council plans) to ensure an integrated whole-of-Council systems change approach to advance social justice.

The City of Greater Bendigo has a long-standing commitment to human rights. It developed and adopted the City of Greater Bendigo Human Rights Charter in 2014. In 2020, the City was the first local government in Australia to gain accreditation from Welcoming Cities. This recognised the City's commitment to embracing diversity and building on the communities' strengths to create a social, cultural, economic and civic cohesion within a sustainable natural environment.

In 2021, Greater Bendigo developed its community vision:
"Greater Bendigo celebrates our diverse community. We are welcoming, sustainable and prosperous. Walking hand-in-hand with the Traditional Custodians of this land. Building on our rich heritage for a bright and happy future."
The Greater Bendigo community vision is underpinned by values strongly connected to social justice, including:

- **Equity** – provide support and give opportunity to others to be part of this community
- **Inclusion** – capturing our cultural and community diversity

The Greater Bendigo Community Vision and Values (2021-2030) are the basis of the Council Plan 2021-2025 *Mir wimbul*, which embeds the social justice principles of equity, fairness and inclusion as a priority in Council's planning, policies, programs, and services. One specific objective in *Mir wimbul* was to "Implement the recommendations of the Bendigo Human Rights Charter evaluation" (Objective 7.6.1, p.26) and one action was to "Develop a Social Justice Framework" (Action 7.6.1, p.26). The Municipal Health and Wellbeing Plan (Healthy Greater Bendigo 2021-25) has a guiding principle to 'promote social justice'.

Alongside this local context is Council's responsibilities under State and Federal government legislation (See Appendix 1: Policy Context). For example, the Victorian *Local Government Act 2020* legislates that "services should be provided in an equitable manner and be responsive to the diverse needs of the municipal community" (section 106 (2) a and b).

[1] United Nations, World Day of Social Justice.

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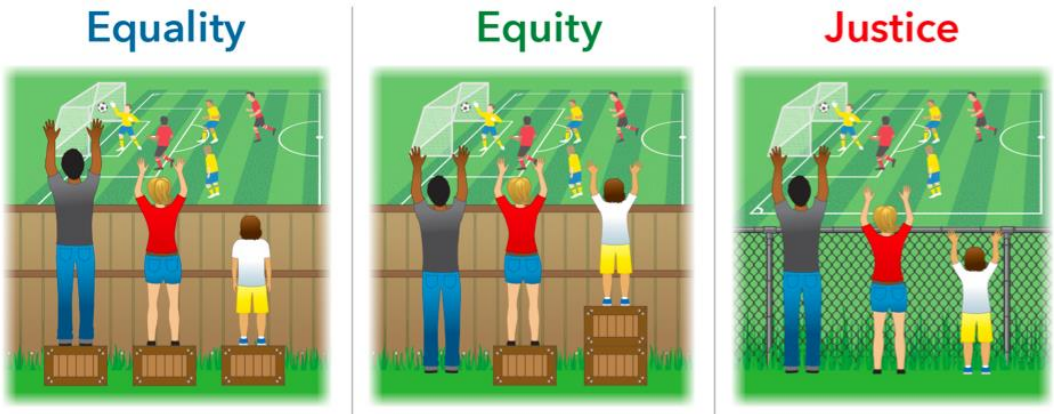
This Social Justice Framework is the outcome of these four elements. It builds on the previous Greater Bendigo Human Rights Charter to support a continuing culture of human rights while drawing on both the Charter evaluation; Greater Bendigo's Community Vision and Values; and new legislative requirements, to create a broader social justice framework which will progress equity, fairness and inclusion in Greater Bendigo.

"It has become increasingly evident that inequality manifests itself most clearly at the local level."[2]

Addressing inequity through local policies, plans and programs is key to furthering inclusion and social justice. Local government is well placed to provide infrastructure, resources, services, support and advocacy to enable people to lead healthy, happy and prosperous lives. The City is committed to supporting people to achieve their full potential and to ensure all the community has equitable access to services, opportunities and every person is treated fairly, equitably and with respect.

What is Social Justice?

Social justice is the pursuit of equal rights, equal opportunity and human rights for all people in our community. Social justice embraces the concept of social inclusion and the principles of providing access, equity, participation and human rights to all people in our community. Social Justice acknowledges diversity, discrimination and disadvantaged groups in the community. Social justice principles address the impact that social and economic inequalities have on both the people experiencing them and on the wider community. Social justice incorporates community participation in decision making that impacts on their lives.

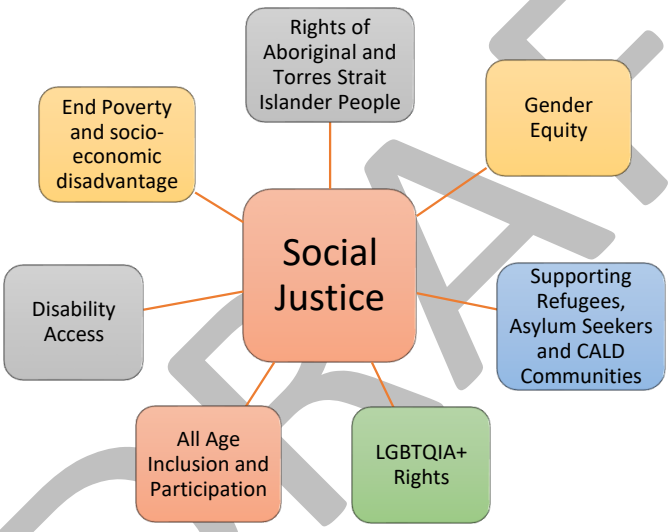


The shift from a narrower focus on **protecting human rights** to a broader emphasis on addressing **social justice responsibilities** is a significant change which has occurred across local government. This shift is reflected in the Victorian *Local Government Act's* requirement of equitable service provision responsive to community diversity, but also under the *Public Health and Wellbeing Act 2008*. Under this Act, Parliament recognises that 'public health interventions are one of the ways in which the public health and wellbeing can be improved and inequalities reduced'. One responsibility of councils under the Act, is 'to create an environment that supports the health of members of the local community and strengthens the capacity of the community and individuals to achieve better health'.

[2] Benoy Jacob, *Governing for Equity: Implementing an Equity Lens in Local Government*, ICMA, 2020.



Fulfilling the Greater Bendigo community vision of celebrating our diverse community and being welcoming, sustainable and prosperous, requires a commitment to social justice.



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Evaluation of City of Greater Bendigo Human Rights Charter

The City of Greater Bendigo Human Rights Charter (2014) reflected the Victorian *Charter of Human Rights and Responsibilities Act 2006.* It was formulated during a time of protests for and against Council's decision to grant a planning permit to build the Bendigo Islamic Community Centre. The Charter developed a framework for the City and Council to meet its responsibilities under State and Federal government legislation and promote human rights via three areas: Compliance, Culture and Advocacy. The Charter focussed on four key areas: Freedom, Respect, Equality and Dignity.

In 2021, the evaluation of the Human Rights Charter noted the positive impact of the Greater Bendigo Charter in:

- Guiding Council when making decisions, adopting resolutions and making public statements
- Serving as a valuable guide to Council when promoting human rights to the Greater Bendigo community
- Aiding the City when advocating the region's interests to State and Federal authorities

- Setting standards for City staff to adhere to when performing their duties
- Contributing to a human rights culture in Greater Bendigo

The Evaluation also noted that since the Council adopted the Human Rights Charter:

"The understanding of human rights has evolved, as has the community with respect to demographics and community attitudes. An updated Charter will ensure it maintains relevance to current community issues. Also, the new Local Government Act (2020) states that: 'Councillor Codes of Conduct must comply with the Victorian Human Rights Charter'. The Act has increased requirements for community engagement using the principles of deliberative engagement. These align with the values of equity and social justice."

The evaluation concluded that:

"Based on benchmarking the approach taken by other local governments, a focus on social justice provides clearer guidance to policy and strategy formulation, positioning the local government to directly redress vulnerabilities within their constituency. The social justice approach builds upon human rights with a focus on reducing vulnerabilities through addressing the barriers to equality in the economic, environmental, social and cultural domains."

The two primary recommendations were:

1. *"To update the Human Rights Charter to be the City of Greater Bendigo Social Justice Framework"*
2. *"Develop an Action Plan to embed the Social Justice Framework throughout the City's operations".*

Why is a Social Justice Framework important now?

The value and purpose of a Social Justice Framework for Council is to:

- Ensure Council meets its obligations of progressing equity, inclusion and human rights, as required by State legislation
- Provide a mandate for Council to embed social justice principles of equity; access and inclusion; community participation in decision making; and human rights in all of Council's policies, plans, strategies, programs and services
- Enable Council to take a position of leadership by establishing clear positions on equity, access and inclusion, participation, human rights and social justice
- Support the City's social justice advocacy across Government, industry, business and community
- Facilitate the City bringing together key stakeholders to address discrimination and inequity
- Enable City partnerships with key stakeholders to leverage assets and resources to address social and structural barriers to achieving equity, access and inclusion and social justice.

As well as the need to more effectively meet the requirements of recent State legislative change (*Victorian Local Government Act 2020* and *Gender Equality Act 2020)*, five other contexts make a social justice framework in 2022 important:

- Incidents of racism against culturally diverse residents and communities in Greater Bendigo increased during COVID-19
- COVID-19 has contributed to increased inequity and disadvantage in Greater Bendigo
- Climate change (including issues of rising energy costs and heat health) will affect socio-economic disadvantaged families more severely

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- The ongoing social change required to address violence against women and children; address gender power disparities; and advance gender equity
- A growing population who may bring different values and perspectives, and increasing diversity in Greater Bendigo, makes a statement outlining what Council stands for valuable

A Social Justice Framework is crucial in providing a set of principles, which can guide Council, as the previous City of Greater Bendigo Human Rights Charter did.[3]

Social Justice Framework Principles

The Social Justice Framework is a set of principles, based on Greater Bendigo's community vision and values, that will guide the City's work enabling Greater Bendigo to fulfil its vision of celebrating our diverse community and being welcoming, sustainable and prosperous, while walking hand-in-hand with the Traditional Custodians. The key principles are:

- Human Rights
- Equity
- Access and Inclusion
- Participation in decision-making

These core principles are supported by seven pillars of action:

1. **Recognise Aboriginal and Torres Strait Islander Peoples/First Nation's peoples**: The City of Greater Bendigo acknowledges the Dja Dja Wurrung and Taungurung Peoples as the Traditional Owners of the land and recognises other Aboriginal and Torres Strait Islander people as First Nations Peoples; and values their traditions, knowledge and culture.
2. **Uphold Human Rights***:* The City of Greater Bendigo is bound by the provisions of the *Victorian Charter of Human Rights and Responsibilities Act 2006*. The City's actions ensure a welcoming community, where dignity, equality and mutual respect are shared across cultures, religions, and beliefs.
3. **Champion Social Justice:** The City of Greater Bendigo advocates for equity, access and inclusion for all people in our community, acknowledging diversity and discrimination and disadvantage due to factors such as race/ethnicity, gender, class, age, sexuality, gender identity, disability and religion, or a combination of these factors.
4. **Advance Equity:** The City of Greater Bendigo addresses inequity by dealing with the impact that social and economic inequalities have on the municipal community and prioritising the available economic, social and political resources to those who are most disadvantaged.
5. **Support Access and Inclusion***:* The City of Greater Bendigo services, programs and facilities are designed and delivered in a way that is available to all and incorporates diverse perspectives and skills, with a focus on reducing the barriers which may prevent access.
6. **Enable Engagement and Participation:** The City of Greater Bendigo engages the community to enable meaningful, equitable and informed input into decisions which affect their lives.

[3] For example, in 2020, Mayor Cr Margaret O'Rourke spoke out publicly against COVID generated racism and abuse against Karen and other Asian-Australian residents in Greater Bendigo, declaring it to be "deeply disappointing and unacceptable". "It is not who we are and it is not who we want to be. We are a welcoming, inclusive and safe community that celebrates our growing diversity." "The commitment to equity and respect as outlined in our Humans Rights Charter, means we wholeheartedly reject racism and discrimination of any sort. There is no room for racism or discrimination here."

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7. **Support Environmental Justice***:* The City of Greater Bendigo commits to tackling 'environmental and climate breakdown' (recognising the serious risks to the health and wellbeing of residents, especially those who are socially and economically disadvantaged) alongside enhancing the natural environment through minimising the ecological footprint and rehabilitating natural ecosystems. [4]

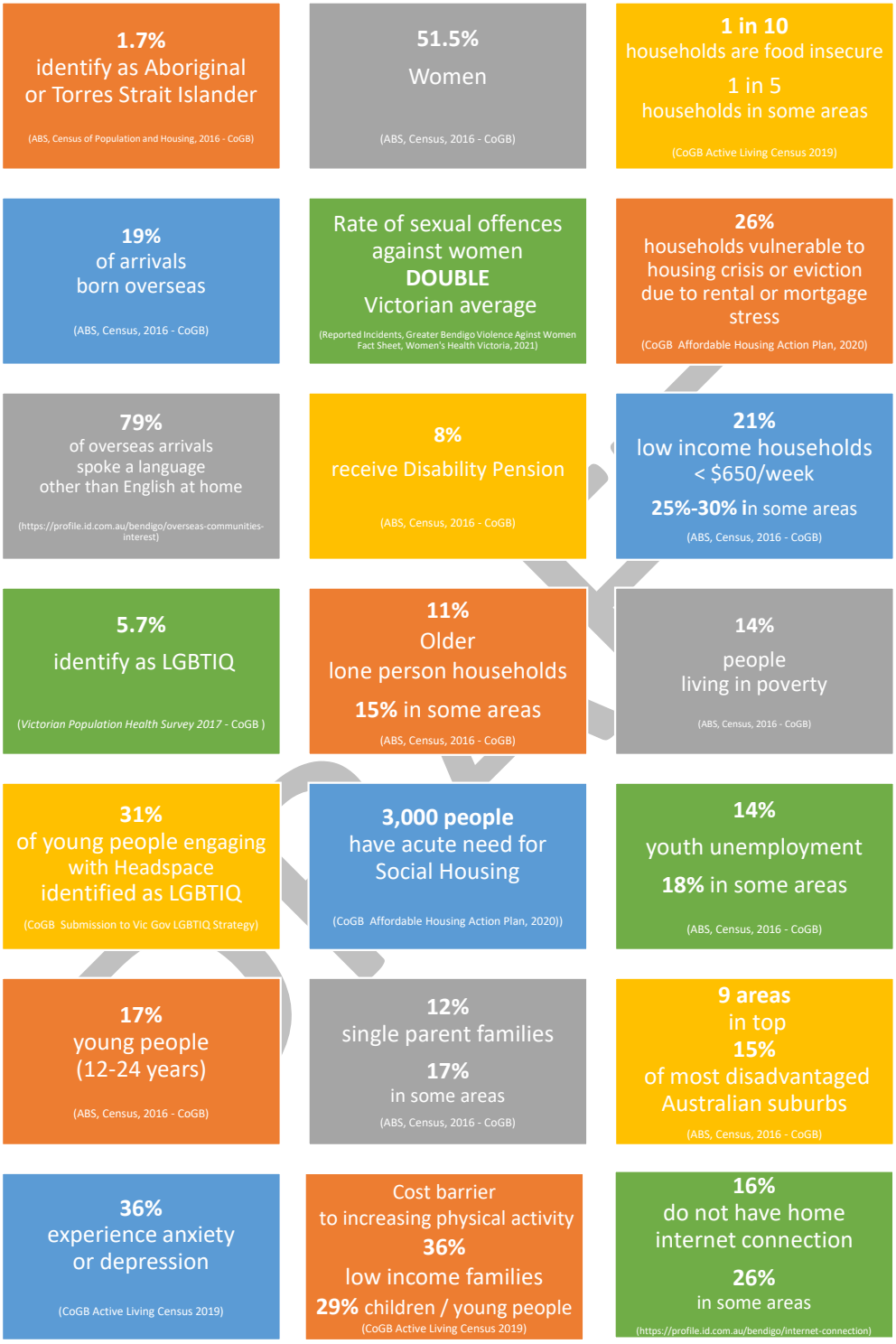
Why is Social Justice important for Greater Bendigo?

As the state's fourth largest city, Greater Bendigo's demographic profile reveals marginalised or discriminated groups who are affected by barriers to social justice. It also reveals areas of extremely high socio-economic disadvantage. A Stronger Greater Bendigo pointed to 'a growing geographical and social gradient across Greater Bendigo expressed in measures of wealth, access to facilities and services, health outcomes, and participation levels in education and employment'.[5] It emphasised that disadvantage had 'become intergenerational and entrenched' for many people.

Having an unequal community impacts on the whole community, as a steep social gradient has an overall impact on community health and wellbeing; on the liveability of a community; and on the local and regional economy.

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[4] The climate motion was passed by Council in August 2019 (referenced in Climate Change and Environment Strategy, 2021-2026 and also the One Planet Report 2019-20).
[5] A Stronger Greater Bendigo p. 58.


1.7%
identify as Aboriginal or Torres Strait Islander
(ABS, Census of Population and Housing, 2016 - CoGB)
51.5%
Women
(ABS, Census, 2016 - CoGB)
1 in 10
households are food insecure
1 in 5
households in some areas
(CoGB Active Living Census 2019)
19%
of arrivals
born overseas
(ABS, Census, 2016 - CoGB)
Rate of sexual offences against women
DOUBLE
Victorian average
(Reported Incidents, Greater Bendigo Violence Aginst Women Fact Sheet, Women's Health Victoria, 2021)
26%
households vulnerable to housing crisis or eviction due to rental or mortgage stress
(CoGB Affordable Housing Action Plan, 2020)
79%
of overseas arrivals
spoke a language
other than English at home
(https://profile.id.com.au/bendigo/overseas-communities-interest)
8%
receive Disability Pension
(ABS, Census, 2016 - CoGB)
21%
low income households
< $650/week
25%-30% in some areas
(ABS, Census, 2016 - CoGB)
5.7%
identify as LGBTIQ
(Victorian Population Health Survey 2017 - CoGB)
11%
Older
lone person households
15% in some areas
(ABS, Census, 2016 - CoGB)
14%
people
living in poverty
(ABS, Census, 2016 - CoGB)
31%
of young people engaging with Headspace identified as LGBTIQ
(CoGB Submission to Vic Gov LGBTIQ Strategy)
3,000 people
have acute need for
Social Housing
(CoGB Affordable Housing Action Plan, 2020))
14%
youth unemployment
18% in some areas
(ABS, Census, 2016 - CoGB)
17%
young people
(12-24 years)
(ABS, Census, 2016 - CoGB)
12%
single parent families
17%
in some areas
(ABS, Census, 2016 - CoGB)
9 areas
in top
15%
of most disadvantaged
Australian suburbs
(ABS, Census, 2016 - CoGB)
36%
experience anxiety
or depression
(CoGB Active Living Census 2019)
Cost barrier
to increasing physical activity
36%
low income families
29% children / young people
(CoGB Active Living Census 2019)
16%
do not have home
internet connection
26%
in some areas
(https://profile.id.com.au/bendigo/internet-connection)

Role of the City of Greater Bendigo

The City of Greater Bendigo has a strategic responsibility to plan, lead, advocate for and work with the local community for social justice, as it is the level of government closest to the community and has legislated requirements. It will do this through the following roles:

Planner: Developing plans and strategies which proactively address barriers that entrench disadvantage and inequality and focus on improving equity; access and inclusion; community participation in decision making; and human rights.

Leader: Establishing a clear position on equity, access and inclusion, participation and human rights and building an increased understanding of social justice issues.

Advocate: Advocating across all levels of Government, industry, business and community to improve outcomes in all areas relating to social justice.

Facilitator: Connecting groups and bringing them together to build tolerance and understanding of difference and celebrate diversity; as well as bringing together key stakeholders to address discrimination and inequity and facilitate improved outcomes in social justice.

Partner: Partnering with key stakeholders to leverage assets and resources to address social and structural barriers to achieving social justice.

Engager: Engaging with the local community to ensure that those experiencing disadvantage, inequity and discrimination have a voice and input into proposed plans and priorities for programs and services which affect them.

Key strategies, such as the Council Plan 2021-25 *Mir wimbul* and Healthy Greater Bendigo 2021-2025, reflect the principles of social justice. These are further supported by other strategies which have included a social justice approach and address some of the different barriers to experiencing equity, access, community participation in decision making and human rights. For example: *Barpangu* Build Together: City of Greater Bendigo Reconciliation Plan, 2021-2025; Cultural Diversity and Inclusion Plan, 2021-2025; Equity for All (E4A) Gender Equity Action Plan, 2021-2025; and Affordable Housing Action Plan, 2021. The Social Justice Framework can already be seen to have links to the following strategies and plans:



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Social Justice Commitments of City of Greater Bendigo

Emerging from its community vision principles of equity and inclusion, the City of Greater Bendigo can already be seen to have a commitment to social justice through multiple plans and strategies, ensuring a 'whole-of-Council' approach to social justice.

For example, one of the principles of Healthy Greater Bendigo 2021-2025 is to "promote social justice" (p.4). "Everyone deserves equal rights and opportunities, including the right to good health. Many people in our community face barriers to good health that are avoidable and unjust. We need to adopt a social justice approach to address these barriers and focus on access, equity, inclusion and human rights" (p.21).

An internal Social Justice Framework Action Plan will be developed to accompany the Social Justice Framework (as recommended by the Human Rights Charter Evaluation). This Social Justice Action Plan will detail existing actions within different Council Plans, which address social justice goals and objectives, as well as include new actions focused on strengthening other policy, developing tools and building staff capability to apply the social justice principles. The Action Plan will bring together all of Council's different social justice commitments and the measures of their successful implementation.

Social Justice in Action in the City of Greater Bendigo

The City of Greater Bendigo's commitment to social justice and human rights is evident in its actions across multiple areas of its operations, not just in its policies, plans and commitments. These are a few examples of social justice in action in Greater Bendigo, of 'walking the talk' (see annual Social Justice Report Card for more details).

Traditional Owners and Aboriginal and Torres Strait Islander Peoples

- ✓ Embedding Welcome to Country and Acknowledgement of Traditional Owners
- ✓ Recognising traditional owners and supporting their language and culture by Aboriginal place naming.
- ✓ Providing Aboriginal Cultural Awareness Training and On-Country Training sessions to staff.

Cultural Diversity

- ✓ First local government in Australia to be accredited as a Welcoming City
- ✓ Implemented Intercultural Ambassador Pilot Program
- ✓ Facilitated Cultural Diversity and Inclusion Sports Action Group
- ✓ Supported emergency preparedness with refugee communities.

Gender Equity

- ✓ Introduced Gender Impact Assessments
- ✓ Introduced Gender Equality Workplace Action Plan.

Families in Poverty

- ✓ Developed social housing target to increase current supply of social housing.

Disadvantaged Places

- ✓ Healthy Heart of Victoria Kitchen Garden project established in two disadvantaged areas, Long Gully and Kangaroo Flat
- ✓ Prioritising socio-economic disadvantaged areas by investing resources in Heathcote Civic Precinct Project.

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Hardship and Resource decisions

- ✓ Introduced a Budget principle of hardship
- ✓ Implemented Financial Hardship Guidelines.

People with Disability

- ✓ Released Access Keys (accessibility guides with information about accessing venues, events and programs).
- ✓ Disability Inclusion Reference Committee ensured people with a disability could provide advice to Council on access and inclusion priorities.

Young People

- ✓ Youth Council enabled young people to have a voice and provide advice to Council on plans, strategies, policies and projects so that they better aligned to the needs of young people

LGBTQIA+ Community

- ✓ Celebrated LGBTQIA+ community through Progress Pride Flag mural; the raising of the Pride Flag on IDAHOBIT and the Transgender flag on International Trans Day of Visibility; and the support of Bendigo Pride Festival.

Social Justice Commitments

City of Greater Bendigo's Social Justice Framework focuses on **people** and their **experiences** and on **place and is** facilitated by systems change; integrated planning; and being strengths-based. This approach enables the framework to be responsive to the diverse needs of the community; engage effectively with different groups in the community; and provide services equitably (all required under Victorian *Local Government Act 2020).* Under the Social Justice Framework, the City of Greater Bendigo makes:

- ✓ Commitment to the **Dja Dja Wurrung** and **Taungurung Peoples** as the **Traditional Owners** of the land and to other **Aboriginal and Torres Strait Islander people** in Greater Bendigo (underpinned by *Barpangu* Build Together: City of Greater Bendigo Reconciliation Plan, 2021-2025)
- ✓ Commitment to **culturally and religiously diverse people** and supporting **refugees and asylum seekers** by taking a stand **against racism** and being a **welcoming community** that respects cultural and religious differences and supports **multiculturalism** (underpinned by the Cultural Diversity and Inclusion Plan, 2022-2026).
- ✓ Commitment to **gender equity** and **preventing violence against women** (underpinned by Gender Equity Action Plan, 2021-2025 and our legal obligations under the *Gender Equality Act 2020**).***
- ✓ Commitment to **people with a disability** and improving disability access across Greater Bendigo (underpinned by Healthy Greater Bendigo 2021-2025, and our legal obligations under the *Disability Discrimination Act 1992).*
- ✓ Commitment to **people experiencing mental ill health** supporting them to participate, engage and be empowered to live well (underpinned by Healthy Greater Bendigo 2021-2025).
- ✓ Commitment to **children**, supporting them as citizens with rights in a **Child-Friendly City** and being a 'Child Safe' organisation (underpinned by Healthy Greater Bendigo 2021-2025, and working to being compliant with the Victorian Child Safe Standards).
- ✓ Commitment to **young people,** supporting them to explore, engage and be empowered to shape the world they live in (underpinned by Healthy Greater Bendigo 2021-2025 and the Youth Strategy).

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- ✓ Commitment to **older people** and strengthening Greater Bendigo as an **Age-Friendly City** where older people are valued, supported to engage and empowered to live well (underpinned by Healthy Greater Bendigo 2021-2025).
- ✓ Commitment to **lesbian, gay, bisexual, transgender, gender diverse, queer and intersex people** and to celebrate our **LGBTQIA+** community and **stand up against homophobia, biphobia, transphobia and intersex discrimination** (underpinned by Council Plan 2021-2025 *Mir wimbul* and Healthy Greater Bendigo 2021-2025).
- ✓ Commitment to **people in poverty**, **low-income families**, or people experiencing economic hardship, **homelessness** or intergenerational social-economic disadvantage by addressing poverty and disadvantage (underpinned by Affordable Housing Action Plan, 2021 and Healthy Greater Bendigo 2021-2025).
- ✓ Commitment to suburbs and regional areas where members of the community experience the most disadvantage by prioritising resources including infrastructure, services and programs to reduce disadvantage - and redress historical inequity in community infrastructure investment.

Approach

The approach to social justice is four-fold.

1. People, Places and Experiences Equity Lenses
2. Systems Change
3. Strengths-based
4. Integrated planning

People, Places and Experiences Equity Lenses[6]

The Social Justice Framework uses three evidence-based lenses to understand the risk of lack of access, exclusion, discrimination and disadvantage:

- People
- Places
- Experiences

People

To determine who in Greater Bendigo might be more likely to be at risk of lack of access, exclusion, discrimination and disadvantage, the framework applies:

- A **First Nations** lens, with attention to Dja Dja Wurrung and Taungurung Peoples as the Traditional Owners of the land and to other Aboriginal and Torres Strait Islander people in Greater Bendigo
- a **gender** lens, with attention to how people of different genders experience gender inequality differently.
- a **lifespan** lens, with attention to children, young people and older people
- a **culture** lens, with attention to culturally and religiously diverse people, including recently arrived migrants from non-English speaking countries, asylum seekers and refugees, international students, people of diverse faiths and people who experience language barriers
- an **abilities/access** and **inclusion** lens, with attention to the risk of lack of access, exclusion, and discrimination experienced by people with a disability

[6] The people, place and experiences framework was adopted from the City of Darebin's *Towards equality: equity, inclusion and human rights framework 2019-2029*.

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- a **class/socio-economic** status lens, with attention to poverty and its impacts, people on low incomes and/or in housing stress and intergenerational disadvantage
- a **sexual orientation, gender identity and intersex** lens, with attention to the risk of discrimination experienced by lesbian, gay, bisexual, trans and gender diverse, queer or intersex people (LGBTQIA+)

NOTE: Not everyone who identifies as belonging to one of these groups will experience disadvantage, discrimination or injustice.

Places

To assess where people might be most at risk of lack of access, exclusion, discrimination and disadvantage, the framework looks at place and location, applying a place-based lens. A place-based approach is important in identifying inequality across Greater Bendigo, identifying neighbourhoods, areas or regions that experience greater levels of socio-economic disadvantage. A place-based approach can:

- Provide an understanding of structural disadvantage within particular neighbourhoods, areas or regions
- Enable residents, groups and stakeholders to engage in a collaborative process, to address issues as they are experienced, within a neighbourhood, area or region, ensuring their strengths, connections and insights inform project, service and infrastructure development
- Assist Council to address inequities in the distribution of resources and infrastructure and other issues as they are experienced within particular neighbourhoods, areas or regions
- Increase social networks and community connections and reduce inequity between and within communities
- Improve residents' daily experiences, shaped by the locations where they live, work or play

A place-based approach is important in assisting Council to prioritise resources (for infrastructure, programs and services) in the context of limited financial resources and rate-capping.

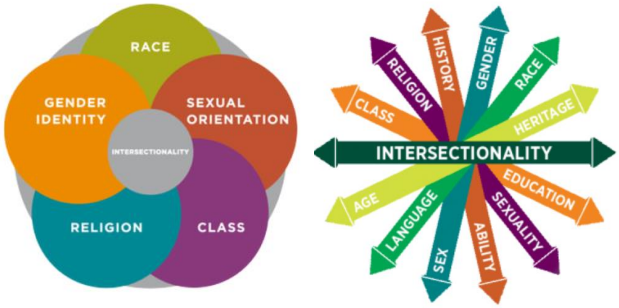
Experiences

The Framework also considers experiences or additional factors that might contribute to exclusion, disadvantage and inequality. These include:

Employment status (job insecurity, unemployment or underemployment)	Housing tenure or housing stress	Homelessness	Poverty or low income	Food insecurity
Migration, including being refugee or seeking asylum	Low level of English proficiency	Low level of literacy	Education level	Access to internet or technology
Family violence and violence against women	Violence or discrimination against LGBTQIA+	Carer role	Pregnancy and breastfeeding	Household composition (sole person, sole-parent families, families with young children)
Trauma and intergenerational trauma	Community safety	Faith	Wellbeing and physical health	Mental health
Social isolation	Out of home care	Engagement with the justice system	Adoption, foster care or institutionalisation	Access to transport

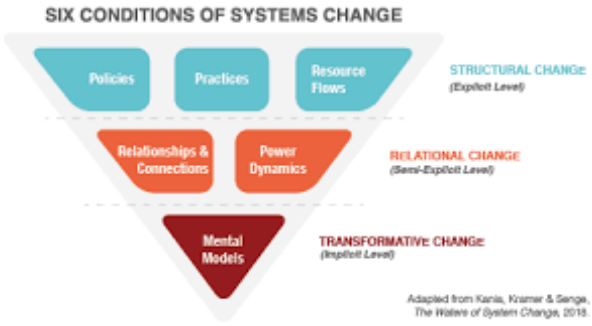
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In considering both people and experiences, the idea of intersectionality is invaluable. *Intersectionality* understands how a person's identity is shaped by multiple realities (such as gender, race/ethnicity, class, age, sexuality, geographic location, age, disability, religion). These factors can help identify multiple contributors to disadvantage and advantage, which impact on people's experiences.



Systems Change

Systems change is about addressing the barriers that keep the current conditions in place. They can be structural, relational and attitudinal. It identifies that for substantive and long-lasting change, change needs to occur at a variety of levels. This methodology is integral to the Social Justice Framework. It aims to address policies, practices and resource flows to achieve structural change; while simultaneously focussing on relationships, connections and power dynamics to obtain relational change; and also focusses on attitudes, beliefs and culture to achieve attitudinal change. The systems change approach is integral to both Healthy Greater Bendigo 2021-2025 and the *Gender Equality Action Plan, 2022-2027*.



Strengths-based

Strengths-based is an approach that looks for opportunities to complement and support existing community and individual strengths and capacities as opposed to focusing on problems, vulnerabilities and deficits. Like asset-based community development, a strengths-based method identifies and mobilises community and individual assets including:

- Local knowledge
- Local culture
- Local resources
- Local skills
- Local processes

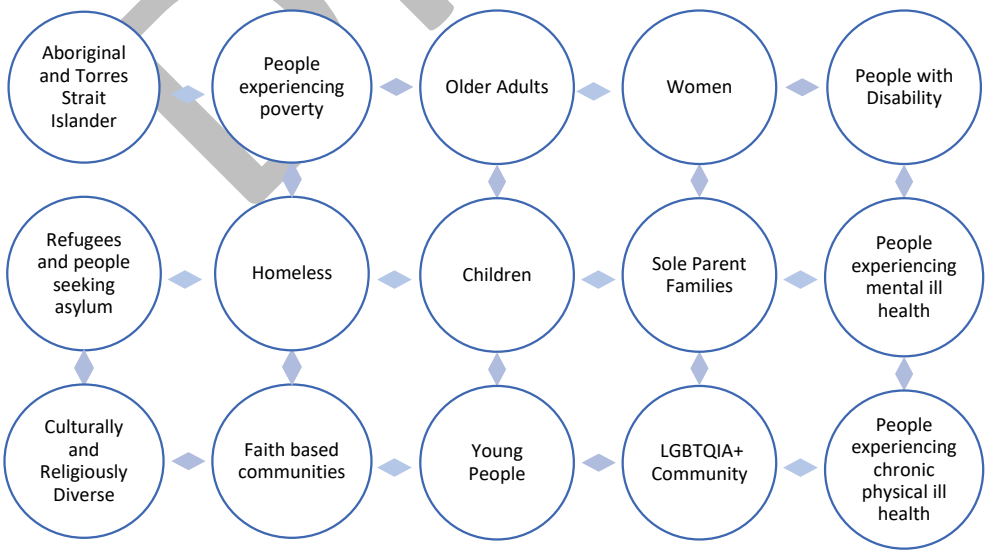
A strength-based approach will enable community aspirations, strengths, resources, connections and insights to inform policy, project, service and infrastructure development, while simultaneously supporting capacity building contributing to community and individual resilience and the ability to recover from adversity. A strength-based approach recognises the ways the City can learn a lot from different groups within the community (although they might initially be considered groups at risk) such as the holistic approach to health and wellbeing adopted by Aboriginal and Torres Strait Islander communities and the importance of extended family to both culturally and religiously diverse communities and First Nations people.

Integrated planning

Integrated planning is a whole-of-council approach which determines the most appropriate course of action to equitably work toward the Community's vision in alignment with their values. It guides use of a whole of community approach when preparing and delivering plans, policies and projects and incorporates monitoring and evaluation.



Groups at Risk of Discrimination or Disadvantage



Note:

- Not everyone who identifies as belonging to one of these groups will experience disadvantage, discrimination or injustice.
- People who do not identify with one of the groups, may experience disadvantage, discrimination or injustice.
- People who identify with one or more of these groups, can experience a higher level of discrimination or disadvantage.
- These groups will change over time.

Barriers to Social Justice

Racism	Social marginalisation	Food insecurity	Mental ill-health	Poor access to education
Sexism	Lack of access to services and facilities	Limited transport options	Poverty	Intergenerational disadvantage
Homophobia, biphobia, transphobia and interphobia	Ageism	Limited access to communication technologies	Low income and unemployment	Climate change

Outcomes

The Social Justice Framework will lead to achieving the following outcomes through all levels in the organisation.

Structural Change	**Policies, Programs and Services**: City policies, strategies, plans, programs and services are inclusive and accessible, meeting the rights and requirements of our diverse community.	**Practices**: The City's governance, leadership, organisational culture and practices display the principles and ethos of equity, access and inclusion and social justice.	**Resources**: City resources are oriented towards reducing barriers to increase equity and access and inclusion.
Relational Change	**Working together**: The City supports engagement and partnerships with community members, community groups, agencies, business and tiers of government to create social justice for all.	**Power and Participation:** The City enables diverse community participation in decision-making.	**Advocacy**: The City advocates for people in the community who face discrimination, disadvantage and barriers to equity.
Transformative Change	**Attitudinal Change:** Shifts in City staff and culture mindsets by developing individual, team and organisation adaptive capacity for equity impact assessment, systems thinking and strengths-based approaches.	**Training and HR practices**: City staff are equipped to support human rights; enable access and inclusion; and enhance relations with diverse communities seeking equity.	

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Implementation

The Social Justice Framework will be implemented through the City of Greater Bendigo in an integrated 'whole-of-Council' approach through:

- Policies, strategies and plans
- Services and programs
- Advocacy
- Partnerships
- Resources
- Governance and organisational culture practices
- Staff awareness and training
- Equity Impact Assessments (EIA)

A Social Justice Framework Action Plan (as per recommendation 2 of the Human Rights Charter Evaluation, 2021, p.3) with a Social Justice Report Card will ensure implementation occurs effectively. The Equity and Disadvantage Working Group, with representation across the organisation, will assume responsibility for developing and overseeing the Social Justice Framework Action Plan and monitoring the implementation of actions. In developing actions to develop tools and build staff capability to apply social justice principles, the Working Group will draw on the learnings from the Human Rights Charter Evaluation, 2021, which identified City's staff's commitment to social justice principles but the challenge of application. The Working Group will also develop strategies to bring the voices of people with lived experience to the City's social justice work over the life of the framework.

Equity Impact Assessments (EIA), which emerged from the City's pilot Gender Impact Assessments (GIA), required under the *Gender Equality Act 2020*, will ensure that all City policies, programs and services which have a direct and significant impact on the public consider equity (while also helping meet the different needs of different genders, eliminating barriers to gender equality; and actively promoting gender equality).

The Social Justice Framework will support Council to work towards equity, access and inclusion, and human rights being a priority in all of Council's business. The Social Justice Framework will be championed across the organisation by:

- The Executive Management Team (Chief Executive Officer and Directors)
- The Organisation Leadership Team
- Members of the Equity and Disadvantage Working Group
- Members of the Gender Equity Working Group
- Equity Champions (staff from all levels and different units)

These Equity Champions will enable the City of Greater Bendigo to promote the Social Justice Framework throughout the organisation and the community. The Equity Champions would align with, and build on, the work of Gender Equity Champions, which has a strong intersectional focus and also connect with other Champions (such as Reconciliation Champions).

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Evaluation and Monitoring

The evaluation of the Social Justice Framework will adopt the measurement, evaluation and learning (MEL) approach as a way of providing detail of strengths and areas for improvement. This process will help identify the impact of the Social Justice Framework and Equity Impact Assessment Tool; develop best practice case studies; and identify areas for development. The monitoring and evaluation measurements will be used to determine whether the City is on track to achieving the Social Justice Framework Action Plan objectives and if actions need updating to respond to changes in Government policy or legislation and new issues or opportunities.

A Social Justice Framework Action Plan will provide a structure for monitoring progress and outcomes across the whole organisation. The Social Justice Action Plan will be monitored and reviewed by the Equity and Disadvantage Working Group. Best practice community engagement will enable community/stakeholder input on existing and emerging issues related to social justice, equity, access and inclusion and human rights which need to be included in other Council plans or the Social Justice Framework Action Plan. This community/stakeholder feedback will enable ongoing engagement to ensure the Social Justice Framework and Action Plan remains relevant to the community.

Changes in social justice and equity issues may occur over a longer period of time. Although the impact of the Social Justice Action Plan will be measured regularly, change may be incremental in the short term, however when viewed over the long term it is expected to be substantial and lasting.

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Appendix 1: Policy Context

The Social Justice Framework has been developed in the context of the Bendigo Human Rights Charter evaluation (2021) and City of Greater Bendigo policies and plans but also from State and Federal government legislative requirements and from Australia's – and Greater Bendigo's - commitment to United Nations declarations and agendas. State and Federal legislation recognises that some people are at increased risk of discrimination or disadvantage. The protections in the legislation require Council to have an understanding and knowledge of which people, or groups of people, in the Greater Bendigo community may be more vulnerable to discrimination, marginalisation and exclusion, including systemic and structural discrimination.

Local

The Social Justice Framework builds on earlier and existing City of Greater Bendigo policies and plans, particularly the principles, values, outcomes, goals and objectives in:

- City of Greater Bendigo Human Rights Charter (2014)
- Greater Bendigo Community Vision and Values (2021-2030)
- Council Plan 2021-2025 *Mir wimbul*
- Healthy Greater Bendigo: Municipal Public Health and Wellbeing Plan 2021-2025
- *Barpangu* Build Together: City of Greater Bendigo Reconciliation Plan, 2021-2025
- Cultural Diversity and Inclusion Plan, 2021-2025
- Equity for All (E4A) Gender Equity Action Plan, 2021-2025
- Affordable Housing Action Plan, 2021
- A Stronger Greater Bendigo 2030 (Economic Development Strategy)
- Connecting Greater Bendigo: Integrated Transport and Land Use Strategy (ITLUS), 2015
- Climate Change and Environmental Strategy 2021-2026
- Community Engagement Policy, 2020

State

In Victoria, the principles of social justice and human rights are protected by law as described in the following legislation:

Victorian Local Government Act 2020
Section 8 of Victorian *Local Government Act 2020* states that Council must act "for the benefit and wellbeing of the municipal community", by:

- ensuring that "services should be provided in an equitable manner and be responsive to the diverse needs of the municipal community" (section 106 (2) a and b)
- achieving the best outcomes for the community, including future generations (section 9 (2) b)
- engaging with the community (sections 9 (2) d and 56) and being transparent, and by providing understandable and accessible information (section 58 a and c), as well as collaborating with others (sections 9 (2) f)
- promoting economic, social and environmental sustainability, including planning for climate change (section 9 (2) c)

Victorian Charter of Human Rights and Responsibilities Act 2006
Council is bound by the Victorian *Charter of Human Rights and Responsibilities Act 2006* (the Charter). The Charter sets out the basic rights, freedoms and responsibilities of all people in Victoria and requires:

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- local government to take human rights into consideration when making laws, setting policies and providing services
- all public authorities to act in a way that is compatible with human rights

Under the Charter, local councils have an obligation to respect, and act compatibly with, human rights in the way they go about their work and deliver their services. They have a responsibility to demonstrate how all of their decisions align with the Charter and how they're not only upholding but also promoting human rights.

Victorian Gender Equality Act 2020

In accordance with the *Gender Equality Act 2020,* Council must:

- improve and promote gender equality, both as a workplace and through the policies, programs and services developed for the Greater Bendigo community
- support better outcomes for people of all genders
- address gender inequality in Greater Bendigo and publicly report on our progress

The *Gender Equality Act* adopts an intersectional approach, recognising that for many Victorians, "gender inequality may be compounded by other forms of disadvantage or discrimination that a person may experience due to other characteristics, such as race, Aboriginality, religion, ethnicity, disability, age, sexual orientation, gender identity." The *Gender Equality Act* requires organisations to consider these when developing strategies and measures to promote gender equality.

Multicultural Victoria Act 2011

- Recognises and values the cultural, religious, racial and linguistic diversity of the people of Victoria

Victorian Equal Opportunity Act 2010

As an employer, a service provider and in all of its operations, Council is bound by the *Equal Opportunity Act 2010*, which prohibits discrimination. Under the *Act,* Council must:

- Promote the elimination of discrimination, sexual harassment and victimisation and work towards the gradual realisation of equality.
- Protect people from discrimination and harassment in areas of public life including local government, workplaces and places that provide services.

The *Equal Opportunity Act 2010* aims for greater equality and the prevention of discrimination by placing a "positive duty" on local government to take proactive, reasonable and proportionate measures to eliminate discrimination, sexual harassment and victimisation. This includes being an equal opportunity employer, and reviewing Council policies, practices, services, programs, places and spaces to prevent discrimination.

Victorian Family Violence Protection Act 2008

Victorian Public Health and Wellbeing Act 2008

- Local government has a role in supporting community members to achieve optimal health and wellbeing (section 24*)*.

Victorian Disability Act 2006

Victorian Racial and Religious Tolerance Act 2001

- Promotes racial and religious tolerance in Victoria
- Emphasises "the democratic value of the equal participation of all citizens in society"

The Social Justice Framework was also informed by *Pride in our future: Victoria's LGBTIQ+ strategy 2022-32*.

DRAFT

Federal

Under federal law, people are protected from discrimination on the grounds of race, sex, disability, age, sexual orientation, gender identity and intersex status. Legislation includes:

- *Australian Human Rights Commission Act 1986* (Cth)
- *Age Discrimination Act 2004* (Cth)
- *Disability Discrimination Act* 1992 (Cth)
- *Sex Discrimination Act* 1984 (Cth)
- *Racial Discrimination Act 1975* (Cth)
- *Fair Work Act 2009* (Cth)

International

Australia is signatory to several United Nations Declarations and Agendas related to human rights and social justice, including:

- *The Universal Declaration of Human Rights* (1948)
- *The United Nations Convention on the Rights of the* Child (1990)
- *The United Nations Declaration on the Rights of Indigenous Peoples* (2007)
- *The United Nations Convention on the Rights of Persons with Disabilities* (2007)
- The United Nations *2030 Agenda for Sustainable Development* (2015)

The *Agenda for Sustainable Development* pledges "No one will be left behind" and the goals were developed to provide a roadmap for all countries to work toward a better world for current and future generations. All stakeholders, including local government, are expected to contribute to the realisation of these goals. Greater Bendigo committed to address the 17 goals in the Council Plan 2021-2025 *Mir wimbul*. The goals "recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change". The goals most relevant to the Social Justice Framework are:



Enquiries: Youth Mayor Victoria Tangey
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26 April 2022

City of Greater Bendigo Council
PO Box 733
Bendigo, VIC 3552

Dear City of Greater Bendigo Councillors,

Re: Social Justice Framework (2022-2032) Youth Council Letter of Support.

The City of Greater Bendigo Youth Council would like to express our wholehearted support for the endorsement of the *Social Justice Framework (2022-2032) Supporting Equity, Inclusion and Human Rights.*
Demographics or identity should not affect the quality of one's life. Every resident of Greater Bendigo should have the chance to live their best life, no matter their identity. However, in the current day, we see disadvantage, discrimination, and injustice levelled at many members of our community.
The Youth Council believes the Draft Social Justice Framework is an essential tool in The City of Greater Bendigo's efforts to address equity, inclusion, and human rights.
Furthermore, we would like to place our support behind the development of an Equity Impact Assessment Tool and Social Justice Framework Action Plan to articulate and give form to the City's commitments to its residents.

To best apply the commitments outlined in the Draft Framework, the Youth Council recommends the following:

- *Framework Principles 7.*: *Support Environmental Justice* should reflect the role of young people in combating environmental and climate breakdown, specifically the trauma of growing up with the climate crisis, and how it may affect the future of our young people and future generations.

- *Role of the City of Greater Bendigo*: Condensing the first paragraph to read: *The City of Greater Bendigo has a strategic responsibility to plan, lead, advocate for and work with the local community for social justice, as it is the level of government closest to the community and has legislated requirements.*

Hearing or speech impaired?
Call us via the National Relay Service on 133 677 or www.relayservice.com.au and ask for 03 5434 6000

Greater Bendigo City Council
Address: 15 Hopetoun Street, Bendigo
Postal Address: PO Box 733, Bendigo VIC 3552
T: 03 5434 6000
E: requests@bendigo.vic.gov.au
W: www.bendigo.vic.gov.au
ABN 74 149 638 164

- *Social Justice in Action*: Addition of current commitments to the LGBTQIA+ community and what's been done so far e.g., Pride Progress Flag Mural, ongoing support and advertising of annual Pride Festival, strategic support in *Healthy Greater Bendigo 2021-2025* and development of a dedicated LGBTQIA+ Committee.

- *Social Justice Commitments*: Each Commitment requires an explicit reference to the relevant community group, the issues they face, and a clear path for action. Some Commitments in the framework have this, but others do not. It would be best if these are all worded consistently. Ideally, all Commitments would share the same structure as the *Commitment to culturally and linguistically diverse residents.*

- *Barriers to Social Justice*: Addition of *biphobia* to *Homophobia and transphobia*.

- *Additional Content*: Addition of a glossary of terms used in Framework to further the accessibility of the document. These could include the already defined *Equity* and *Inclusion and* a condensed definition of *Social Justice.*

Thank you for your time and consideration of our recommendations. The Youth Council looks forward to seeing how this Framework informs the City's work toward social justice over the coming years.

If you would like to discuss this further or have any questions, please feel free to contact me.

Yours sincerely,



Victoria Tangey

City of Greater Bendigo Youth Mayor

Response to Youth Council Recommendations on Draft Social Justice Framework

Recommendation	Response	Original Wording	Amended Wording
p.8: Framework Principles 7.: Support Environmental Justice should reflect the role of young people in combating environmental and climate breakdown, specifically the trauma of growing up with the climate crisis, and how it may affect the future of our young people and future generations	YC makes a very important point about both the role of young people in combatting climate change and the impact on them. While recognising the specific and severe impact and stress on young people, we're concerned about using the word 'trauma', which is predominantly used for Indigenous child removal, stolen generations, sexual assault, forced displacement or war.	The City of Greater Bendigo commits to tackling 'environmental and climate breakdown' (recognising the serious risks to the health and wellbeing of residents, especially those who are socially and economically disadvantaged) alongside enhancing the natural environment through minimising the ecological footprint and rehabilitating natural ecosystems.	The City of Greater Bendigo commits to tackling 'environmental and climate breakdown' (recognising the serious risks to the health and wellbeing of residents, especially those who are socially and economically disadvantaged **and young people**) alongside enhancing the natural environment through minimising the ecological footprint and rehabilitating natural ecosystems **for future generations**.
p.10: Role of the City of Greater Bendigo Condensing the first paragraph to read: The City of Greater Bendigo has a strategic responsibility to plan, lead, advocate for and work with the local community for social justice, as it is the level of government closest to the community and has legislated requirements.	YC's proposed wording maintains the meaning and is more concise.	The City of Greater Bendigo is in a strategic and responsible position to plan, lead and advocate on behalf of, and in partnership with, the local community for social justice, as it is the level of government closest to the community and has legislated requirements.	The City of Greater Bendigo **has a strategic responsibility** to plan, lead, advocate **for and work with** the local community for social justice, as it is the level of government closest to the community and has legislated requirements.
p.11-12: Social Justice in Action Addition of current commitments to the LGBTQIA+ community and what's been done so far e.g., Pride Progress Flag Mural, ongoing support and advertising of annual Pride Festival, strategic support in Healthy Greater Bendigo 2021- 2025 and development of a dedicated LGBTQIA+ Committee	YC makes a very good suggestion about adding the City's recent actions in relation to the LGBTQIA+ community and what's been done so far. The development of a LGBTQIA+ Advisory Committee, while mentioned by the Mayor publicly, has not yet been approved or established.		**LGBTQIA+ Community** ✓ Celebrated LGBTQIA+ community through Progress Pride Flag mural; the raising of the Pride Flag on IDAHOBIT and the Transgender flag on International Trans Day of Visibility; and the support of Bendigo Pride Festival.
pp.12-13 Social Justice Commitments	We appreciate YC feedback on the		

Each Commitment requires an explicit reference to the relevant community group, the issues they face, and a clear path for action. Some Commitments in the framework have this, but others do not. It would be best if these are all worded consistently. Ideally, all Commitments would share the same structure as the Commitment to culturally and linguistically diverse residents.	desirability of a consistent structure identifying the issues different groups face and a clear path for action. In this instance, we feel that constantly repeating the phrase 'taking a stand against' (sexism, ageism or ableism for example) would sound repetitive or like ideological jargon. The Social Justice Framework Action Plan will explicitly identify clear actions, which for some groups cannot be easily summed up in a few words.		
p.17: Barriers to Social Justice Addition of biphobia to Homophobia and transphobia	YC makes a very good point about adding biphobia (which was accidentally omitted) to the table.	Homophobia and transphobia	Homophobia, **biphobia,** transphobia and interphobia
Additional Content Addition of a glossary of terms used in Framework to further the accessibility of the document. These could include the already defined Equity and Inclusion and a condensed definition of Social Justice.	We greatly appreciate YC feedback on possible options for furthering the accessibility of the document. If the framework is approved, we will work with Coms to produce a 1-2-page accessible summary of the Social Justice Framework, using infographics and condensed definitions (which we could seek Youth Council feedback on) We are not keen to increase the length of the Framework by adding a glossary, unless EMT or Council recommends it.		

Message from the Mayor

The City of Greater Bendigo is pleased to present its Social Justice Framework - Supporting Equity, Inclusion and Human Rights (2022-2032).

The Social Justice Framework builds on the City's earlier Human Rights Charter (2014) and will assist our work over the next 10 years to achieve our community vision of:

Greater Bendigo celebrates our diverse community. We are welcoming, sustainable and prosperous. Walking hand-in-hand with the Traditional Custodians of this land. Building on our rich heritage for a bright and happy future.

Fulfilling the community vision also requires a commitment to social justice.

The Social Justice Framework seeks to ensure that as Greater Bendigo develops as a community it is equitable and fair, dedicated to inclusion and embraces diversity.

The City is committed to supporting all people to achieve their full potential and to ensure they have equitable access to services and opportunities and are treated fairly, equitably and with respect.

Local government is well placed to provide infrastructure, resources, services, support and advocacy to enable people to lead healthy, happy and prosperous lives.

Embedding social justice principles of equity; access and inclusion; community participation in decision making; and human rights in all of Council's policies, plans, strategies, programs and services is key to furthering inclusion and social justice.

I look forward to the implementation of the Social Justice Framework as we support equity, inclusion and human rights, and ensure Greater Bendigo is a fair and welcoming city for all.

Mayor Cr Andrea Metcalf

22. STRONG, INCLUSIVE AND SUSTAINABLE ECONOMY

Nil

22.1. Bendigo Airport Lease of Lot L3

Author:	Vicki Bayliss, Bendigo Airport Manager
Responsible Director:	Steve Hamilton, Director Strategy and Growth

Purpose

This report seeks Council's consideration on the granting of a lease at the Bendigo Airport to Dr David Goode who has requested a lease of 25 years for Lot L3, commencing 1 July 2022, at a starting rent of $1,705 per annum, plus GST, with rent review every three years thereafter.

Recommended Motion

That Council,

1. Notes this report
2. having complied with sections 190 and 223 of the Local Government Act 1989 (the Act) by having given public notice in the Bendigo Advertiser on 29 December 2021 and that no submissions were received, grants a lease to Dr David Goode for 216 square metres of land, being part of the land in certificate of Title Part Lot 3 PS 422204F, Volume 10557, Folio 954, known as Lot L3 at the Bendigo Airport situated on 35 Victa Road, East Bendigo, (Land) for the purposes of an airport hangar, a space to operate his recreational aviation school and storage of related equipment and consumables (Lease Proposal), for a term of 25 years, with a commencing rent of $1,705 per annum, plus GST

Executive Summary

The City has completed the statutory procedures under sections 190 and 223 of the Local Government Act 1989 regarding the lease proposal. Public notice was given in the Bendigo Advertiser on 29 December 2021 giving Council's intention to enter a lease on the following terms:

- Dr David Goode
- 25 year lease term commencing 1 July 2022
- Commencing rent of $1,705 plus GST per annum.
- Market rent reviews every three years.
- Permitted use of the premises is for an airport hangar, a space to operate his recreational aviation school, and storage of related equipment and consumables.

At the close of the submissions period on 25 February 2022 no written submissions were received. Council can now decide whether or not to grant a lease to the tenant.

Background

Council is the owner of the land known as the Bendigo Airport which is located on 35 Victa Road, East Bendigo (being part of the land in certificate of Title Part Lot 3 PS 422204F, Volume 10557, Folio 954).

Dr David Goode has sought a lease of the part of the land which is known as Lot L3 (Premises). Dr David Goode proposes to use the premises for the purposes of storage of aircraft for private (non-paying) operations only, and storage of related equipment and consumables, over a lease term of 25 years. The premises comprises of approximately 216 square metres. The City has assessed the annual market rental for the premises at $1,705 per annum, plus GST. City officers have proposed an annual rental of $1,705 per annum, plus GST, upon the basis that a market review is undertaken every three years and the lease is compliant with the Lease Policy approved in 2019.

A previous report was presented to Council for Dr David Goode to lease Lot N3 at the Bendigo Airport. The tenants (under lease) of L3 decided to not proceed and therefore Dr David Goode has asked to change the lot that he is leasing due to L3 being available again.

Previous Council decision dates: 13 December 2021.

Report

The Bendigo Airport is located at 35 Victa Road, East Bendigo (being part of the land in certificate of Title Part Lot 3 PS 422204F, Volume 10557, Folio 954 (Land).

The Bendigo Airport has two (2) vacant hangar sites available to lease. The uptake has been very strong over the last few years with 20 leases commencing in the last two years.

Public notice was given in The Bendigo Advertiser on 29 December 2021 indicating Council's intention to enter a lease with this new tenant. No written submissions were received.

The costs associated with the negotiation and development of the lease documentation can be absorbed in the Economic Development Unit operational budget. There will not be an increase in ongoing maintenance or operational expenses as a result of this lease.

If Dr David Goode's lease is approved an additional $1,705.00 per annum, plus GST revenue will be made. The revenue will increase annually as per the Bendigo Airport Lease Policy.

Policy Context

Primary Council Plan Reference

City of Greater Bendigo Council Plan *Mir wimbul* 2021-2025
Outcome 3 - Strong, inclusive and sustainable economy

Secondary Council Plan Reference(s)

Goal 1 - Inclusive employment opportunities for all, sustainable jobs and investment and a diverse economy

Other Reference(s)

Strategic Direction 2: Effectively Manage and Maintain Bendigo Airport Assets.

Conflict of Interest

No officer involved in the preparation or approval of this report declared a general or material conflict of interest.

Attachments

Nil

23. URGENT BUSINESS

Nil

24. NOTICES OF MOTION

Nil

25. COUNCILLORS' REPORTS

26. MAYOR'S REPORT

27. CHIEF EXECUTIVE OFFICER'S REPORT

28. CONFIDENTIAL (SECTION 66) REPORTS

RECOMMENDED MOTION

That Council close the meeting to members of the public pursuant to Section 66(2) of the Local Government Act 2020, which permits the meeting to be closed to the public for business relating to the following confidential information defined as:

> (f) personal information, being information which if released would result in the unreasonable disclosure of information about any person or their personal affairs;