



# Montreal Commons

One Planet Living® leadership review  
June 2022



MONTREAL  
— COMMONS  
FREMANTLE

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# Project overview



# Project overview

## Project name:

Montreal Commons

## Project type:

Real estate

## Developer:

OP Properties

## Description:

Montreal Commons is a 5-storey multi-residential project, comprising 39 apartments, a ground floor café tenancy and underground parking. Located in the coastal port town of Fremantle, Western Australia

## Reviewer:

Phil Donaldson

## Sign-off and quality review:

Nicole Lazarus

## Date of review:

August 2022



Render of an apartment block and the Café Corner © Montreal Commons

## Leadership status:



One Planet  
Living®

Leader  
2022

# Bioregional and One Planet Living

# Bioregional and One Planet Living

## About Bioregional Australia

Bioregional Australia Foundation is a for-purpose organisation dedicated to the challenges raised by the UN Sustainable Development Goals and the global climate and ecological emergencies. Bioregional Australia works with partners to create better, more sustainable places to live, work and do business.

Formed in 2014, Bioregional Australia has been involved in promoting One Planet Living in Australia. In 2021 Bioregional Australia signed a 10-year collaborative agreement with Bioregional to facilitate the delivery of One Planet Living across the Oceanic and Australian region.

## About Bioregional

Bioregional is an international, purpose-led sustainability consultancy. It has worked in over 20 countries on sustainable development, working with local communities, cities, and companies.

Bioregional devised the One Planet Living framework in 2003 with WWF, based on its experiences creating the multi-award-winning BedZED in South London, the UK's first large-scale sustainable community. One Planet Living has guided the development of real estate across the world, shaping exemplar communities that enable sustainable living.

## About One Planet Living

One Planet Living® is a vision of a world where it is easy and attractive to live happy, healthy lives within the limits of our Earth's resources.

We need this vision because if everyone lived as we do in Australia, we would need more than four planets to support us. The measure of this is called 'ecological footprinting'. Meanwhile, many lack what they need for a good life, and wildlife is being pushed out to make room for our demands.

The One Planet Living framework consists of 10 principles which cover the activities that drive resource consumption, and the elements that form the basis of a good life for everyone. The principles are used to identify the needs in a local area, to relate these to the planetary bottom-line, and then to structure responses to those needs.

-  Health and happiness
-  Equity and local economy
-  Culture and community
-  Land and nature
-  Sustainable water
-  Local and sustainable food
-  Travel and transport
-  Materials and products
-  Zero waste
-  Zero carbon energy



# What is a One Planet Living leadership review?

# What is a One Planet Living leadership review?

**A review is when you open your action plan to scrutiny from a suitable qualified expert from Bioregional Australia. It will include:**

- Reviewing the action plan as a whole and providing advice and suggestions on how it might be improved,
- Evaluating it against several criteria including impact, systems change, ambition and delivery,
- Assessing the action plan against the One Planet Living goals and guidance and local industry best practice,
- You can then discuss whether your action plan could be a candidate for leadership recognition.

This document reviews the One Planet Living action plan created for Montreal Commons by OP Properties. The action plan has been publicly available in Australia since the JDAP (Development Approval) meeting agenda was issued in December 2020 when it went through the development approval processes. The action plan can be downloaded from the [Montreal Commons website](#).

The review has taken place at design and planning approval stage. A Construction stage review will follow in 2023. This review provides the baseline against which future performance is compared through the leadership review process.

This leadership review has been conducted by an independent assessor on behalf of the Bioregional Australia Foundation. The report has then been reviewed and signed off by both the Bioregional Australia Board and by Bioregional's One Planet Living Board.





# Review summary and highlights

# Review summary

Montreal Commons is a superb example of the use of Bioregional's International One Planet Living framework in the built environment. It is to be commended on its Australian industry leadership, especially against the financially challenging backdrops that all construction projects currently face.

The Montreal Commons action plan is comprehensive across all ten One Planet Living principles. It offers exciting opportunities for ongoing industry leadership and knowledge sharing. Use of community level battery storage and Power Ledger rebates that reward residents financially for greener living will demonstrate both technical and business-model leadership. The aspiration for carbon neutral certification in operations also demonstrates a pioneering, long-term commitment to performance.

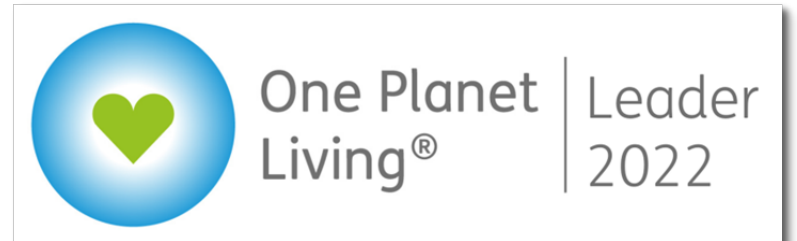
**Following a detailed review of the One Planet Living Action Plan, we are pleased to endorse Montreal Commons as a One Planet Living Leader for 2022.**

Going forward, it is important that the evidence of having achieved or partially achieved these aspirations is gathered for the next review period. A data management plan for the action plan is recommended so that it can help in demonstrating its impact.

There are currently many supply chain challenges affecting construction costs around the world. If the project team can find a way through these challenges, gather impact data and deliver on its action plan targets, remaining on track for certification as a carbon neutral scheme in operation, then Montreal Commons is well-placed to be endorsed as a One Planet Living Global Leader 2023.



Communal area level © Montreal Commons



# Message from Luke Parker, Director of OP Properties

“ **Montreal Commons is a 5-storey multi-residential project, with a ground floor café tenancy and underground parking, comprising 39 apartments and catering to a variety of residents of different walks of life. Located in the coastal port town of Fremantle, Western Australia and adjacent to Fremantle Golf Course and Booyeembara nature reserve, the development has a strong foundation in sustainability and has been designed around a strong sense of community.**”

With communal green spaces, outdoor BBQ area and courtyards, Montreal Commons not only fosters a sense of community within the building and its residents, but actively encourages residents to bond with their surroundings and extend beyond the development boundary for a wider sense of community. This integration with the immediate East Village Knutsford community will be bolstered by Montreal Commons’ ground floor café, as well as their shared local community food garden for the use of residents.

Montreal Commons aims to set a new benchmark for residential apartments across Australia and globally, being one of the first apartment developments in Australia endeavouring to be certified carbon neutral for operational energy. A low carbon lifestyle for all residents will be delivered through renewable energy power-sharing between neighbouring residences in the East Knutsford precinct, rainwater collection and cross-ventilation.

With the onsite renewable energy for all apartments, utilising a developer funded 70KW Solar Photovoltaic (PV) system (reduced from 75KW due to roof limitations however, subject to review), renewable energy will be provided via a unique power trading arrangement where the benefit of power consumed is collected by the strata company to reduce owners’ levies by 50% and deliver a financial benefit for living low carbon.

## Why the One Planet Living action plan?

One Planet Living provides a simple framework for sustainability within a project, across a broad range of areas including health and happiness, community, economic and environmental. The action plan enables clear and measurable targets to be established and implemented, providing a means to achieve real outcomes against these targets and positively influence the community and environment within which Montreal Commons sits.



Luke Parker, Director, OP Properties

## Message from Luke Parker, Director of OP Properties (continued)

“ In addition, Montreal Commons is situated in the East Village Knutsford precinct, which had already adopted the One Planet Living framework and has since achieved international recognition. Further, the local authority, the City of Fremantle, has been using the One Planet Living framework since 2014 to both influence and track the sustainability of its operations and how it works with the community.

Accordingly, One Planet Living was considered highly appropriate for Montreal Commons and the buyer demographic.

### What have been the challenges?

The main challenges have been related to the significant changes in economic conditions since the site was secured (pre-COVID), resulting in the need to work considerably harder than originally intended to maintain the integrity of the One Planet Living Action Plan items.

Although anticipated, when employing more progressive construction techniques or items that required Government authority ‘buy in’, this creates challenges that needed to be overcome that took significant effort and focus to resolve.

### How has the review informed OP Properties and the project for the future?

The learnings from the Montreal Commons One Planet Living action plan will be able to be directly transferred to future developments undertaken by OP Properties. This will enable us to further our vision for sustainability in projects and realise positive outcomes.

### OP Properties’ approach to sustainability

OP Properties’ passion is to improve the built environment that we live, work, learn and play in, with sustainability being a key pillar of this. Our approach to sustainability is to deliver real outcomes that push the boundaries of environmental and social outcomes, that can be implemented in a way that creates real world change and complements the commercial outcomes of a project, such as was achieved with Montreal Commons.



Luke Parker, Director, OP Properties



# Project highlights

**Despite a range of challenges in 2020-2021, the Montreal Commons Action Plan provides a comprehensive guide for the construction and operational phases, across three areas of technical performance, culture of sustainability and wider influence.**

## 1. Technical performance:

Montreal Commons incorporates numerous eco features including smart metering for water and energy use, water efficient appliances and a higher standard of thermal rating per apartment. The development will be one of the first certified Carbon Neutral in Operation apartment buildings in Australia, with the internal power trading generating passive income to offset owners' strata levies by 50%.

With a commitment to 100% renewable energy and no operational gas, it embodies the principles of Zero carbon energy and transition to a low-carbon lifestyle. Provision for electric vehicle charging, car sharing and bike bays for apartments shows the integrated nature of One Planet Living can provide multiple benefits. The unique arrangement of integrating with a community battery storage in the precinct and the power sharing arrangement across the precinct also provide an insight to a sharing economy that benefits all parts of the energy value chain.

Collaboration with Curtin University demonstrates circular economy principles using the principles of disassembly and the action plan commits to 100% of timber being either reused, recycled or FSC certified. The project uses Water Sensitive Urban Design (WSUD) principals and bore water will be reused in landscape irrigation.

## 2. Culture of sustainability:

OP Properties is developing a sustainability culture that aims to carry from design and planning through to construction and community occupation, with outcomes across all principles. Already, Montreal Commons and OP Properties are engaging with the existing community in sharing their One Planet Living journey.

During construction, the project is committed to local contractors and suppliers. It integrates a community garden and the formation of a precinct-wide community gardening group. It includes apartments specifically designed for National Disability Insurance Scheme (NDIS) recipients. Green corridors link with the rest of East Village and to local green spaces and the adjacent golf course.

An online web platform called 'res-vu' will empower all residents to share information and create a sense of community.

## 3. Wider influence:

The Montreal Commons action plan includes inductions on One Planet Living for all participants in the construction supply cycle.

The team are planning more information sharing forums and site visits to promote the benefits of the project. Two key subjects for information sharing will be:

- The first apartment buildings in Australia, if not globally, to be certified carbon neutral in operation
- The planning and leveraging of renewable energy infrastructure to reduce costs, strata fees and utility bills to residents.



# Suggestions from the reviewer

Now that the project is moving to the design and construction stage, it is suggested that there is a specific emphasis on the following issues arising out of this review.

## 1. Communications and marketing

- Provide communication material highlighting key criteria onsite via temporary signboards / signage to remind builders, their subcontractors and incoming residents of the obligations and commitment to each other as part of the Montreal Commons One Planet Living action plan
- Provide induction programmes for the builder and subcontractors to further understand and support the Montreal Commons One Planet Living action plan
- Undertake further industry engagement sessions to demonstrate wider industry impact and transformation
- Develop a case study so the project can be widely acclaimed after leadership recognition has been confirmed
- Build case studies on specific principles or initiatives such as the induction process for builders and workers onsite.

## 2. Outcomes and indicators

Create a data management system that tracks the following project data to support the targets and aspirations, and report progress directly to stakeholders and transparently to Bioregional Australia:

- Recycled material use
- Recycled material from construction and demolition waste
- Water use, electricity and greenhouse emission waterfall charts that demonstrate operations beyond business as usual
- Surveys of future residents' expectations to create a baseline of experience of One Planet Living
- Number of plants and edible plants purchased and planted
- The feedback from community and engagement sessions.

# Suggestions from the reviewer (continued)

## 3. Things to consider

- Enhance cultural understanding and local acknowledgement of the custodians of the land, the Whadjuk Noongar people
- Facilitate regular stakeholder engagement and communication for purchasers/incoming residents, including online and face to face community events, fact sheets, and updates on digital platforms
- Engage residents in active participation of the Montreal Commons One Planet Living community including community coordination of actions and events that progress the action plan; and to develop a strategy for use of the community garden
- Engage all purchasers/residents in pre-move surveys to gather benchmarking data for comparison in occupancy surveys and engage all residents in ongoing occupancy reviews by communicating outcomes
- Utilise strategic partnerships with Bioregional Australia Foundation, research/tertiary institutes, local government, or organisations to assist in these suggestions.



Render of an apartment block © Montreal Commons

# Action plan summary

# Overall leadership qualities

## Scope

### Highlights

- All 10 principles are well addressed
- Design, construction and occupancy phases all well addressed

### Opportunities

- Monitoring of the impacts of initiatives
- Enhance cultural understanding and local acknowledgement of the custodians of the land, the Whadjuk Noongar people
- Further integration with other parts of East Village Knutsford

## Transformation

### Highlights

- Montreal Commons creates the opportunity to influence and transform industry norms through its demonstration of carbon neutral certification, its community-wide power management and its comprehensive approach to One Planet Living.
- The team plans an education programme to share knowledge and learning, including site visits and forums to further both community and industry interactions on One Planet Living

### Opportunities

- Increase focus on understanding embodied energy impacts in building supply products and services.
- Undertake further industry engagement sessions to demonstrate wider industry impact and transformation



Close-up render of an apartment block © Montreal Commons



# Overall leadership qualities

## Ambition

### Highlights

- That a One Planet Living designed and built apartment building doesn't cost any more than a BAU scheme and provides significant benefits to the future residents and our planet.

### Opportunities

- Utilise strategic partnerships with Bioregional Australia Foundation, research /tertiary institutes, local government, or organisations to assist in providing evidence of impact of the project

## Implementation

### Highlights

The reviewers have confidence in the team's ability to deliver this action plan. This is for a number of reasons.

- The excellent track record of OP Properties and its consultant team
- The site is in Fremantle, a city that has implemented One Planet Living since 2014, and it forms part of the wider East Village, Knutsford development project which is already an endorsed OPL Global Leader and enjoying government support.
- The City of Fremantle's development approval requirements insist on appropriate OPL documentation before a building permit can be issued and before occupation is permitted.

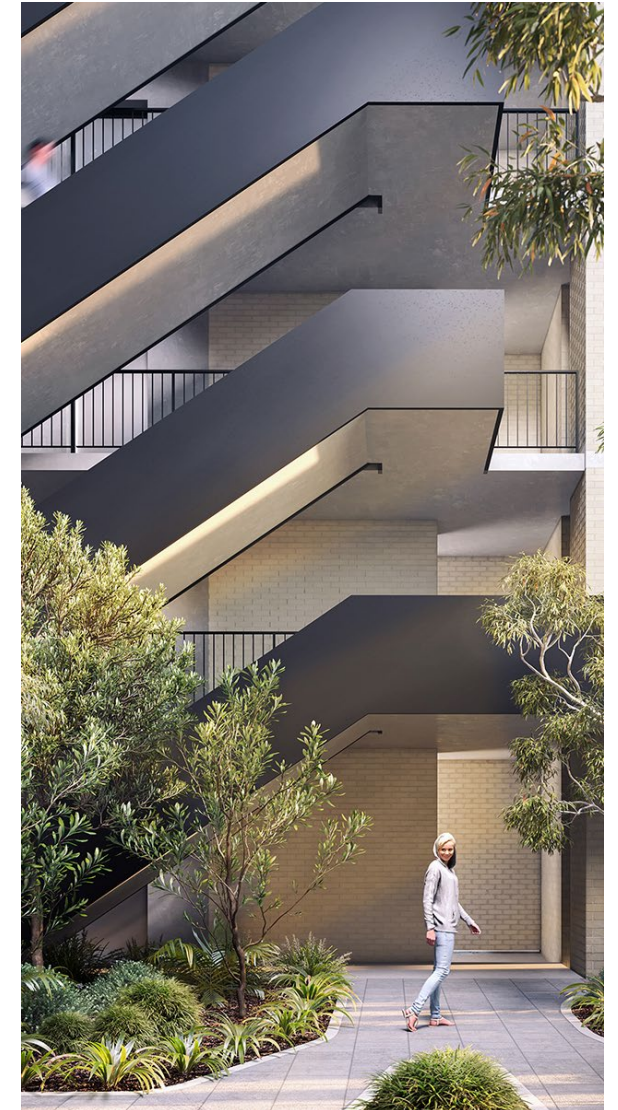
## Opportunities

Successful implementation of the action plan will be helped by:

- Providing communication material and induction of construction personnel and residents
- Surveys of future residents' expectations to create a baseline of experience of One Planet Living
- The feedback from community and engagement sessions

There is a unique opportunity for Montreal Commons through OP Properties to develop a sense of community before the apartments are signed over to occupancy. Biophilic design principles have been used as a process integrating green architecture with a sense of place within the apartment complex.

Integration with the wider East Village Knutsford Precinct will be a key to its success.






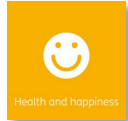
Communal grounds © Montreal Commons



# Action plan summary

Bioregional uses a simple red/amber/green traffic-light approach to indicate how well the action plan addresses the One Planet Living principle and their goals. More detailed comments and recommendations are in the 'full review' section.

-  Well addressed
-  Adequately addressed
-  Not fully addressed



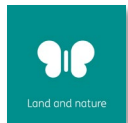
The health and happiness measures are comprehensive in nature through design, construction and occupation. Site inductions and the roll out of Mates in Construction (MIC), a suicide prevention and support programme, for all contractor staff will create an industry transformation opportunity. The social integration with wider East Village Knutsford, through online platforms and development of a community garden linked to a monitoring process, will be an essential component of ensuring active, social, meaningful lives and achieving good health and wellbeing goals.



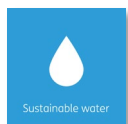
There is a diverse range of apartment options, including incorporation of Livable Housing principles to suit people with a disability. Flexible spaces to allow for working from home are included, providing equality of access to employment opportunities. Contractors will use local apprentices and other local employment criteria in construction contracts. Research by the Legacy Living Lab with Curtin University will assist in providing evidence of impact of the action plan.



A site-wide induction programme for construction staff on sustainability and One Planet Living principles can enable industry transformational change. Community engagement sessions and forums working with Curtin University and the use of local artists on programme material are planned and, in some cases, already implemented. The formation of the community garden group and online platform provides a supporting mechanism in delivery. Large communal space for interaction, events, BBQs, games and more are integrated in the building design. We would like to see in future how the project can incorporate First Nation's culture and knowledge into the design and governance of the community.



The building design includes biophilic principles whilst linkages to site-wide landscaping and access to greenways in close proximity show commitment to creating connections with nature. Given the style of building and the footprint of the project, it is a difficult principle to excel in. Notwithstanding, the project has demonstrated a willingness to provide the maximum opportunities to work with others to enhance an outcome that reflects WSUD principles, biophilic design, and integration with other parts of the precinct to enhance biodiversity outcomes.






All landscape irrigation water comes from the communal bore, a sustainable water source. The aquifer for the bore will be replenished when stormwater percolates down from the site. Water usage volumes are strictly capped to a sustainable level. Water efficient appliances will be used throughout the building. Protection of stormwater runoff will be controlled during the construction phase, and rainwater capture storage and reuse will be part of an integrated strategy with East Village Knutsford. All planter beds utilise drip irrigation to optimise water usage in landscape irrigation. Smart meters will allow residents to monitor and manage their water usage.



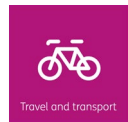
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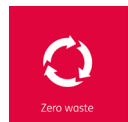
A community food garden is included in the development and throughout the precinct. The development of a 'precinct food map', local food sources and balcony garden options will be encouraged as part of the education programme and linked to the online community platform. The number of residents engaged in the community garden group and the provision of food grown on site being used by residents will be an important success factor for realising this principle.



Secure and easily accessible cycle storage for each apartment next to the café and main entrance, targeting one secure bike bay per apartment at a central location. Easily accessible cycle bays for visitors. Bike storage visible from the café. Communal bay in the basement reserved for car sharing. Provision for future EV charging stations for each apartment (add on option for residents) and residents can use the public EV charging station. Education, information and access to the community portal will provide information on the community car sharing, EV and public transport options.



Comprehensive approach to reducing impacts of materials and products in the design and construction. All timber products either being reused, recycled or FSC-certified. Steel will be sourced by a responsible steel maker being accredited by the ESC. Target to reduce amount of concrete used, which will have a 30% reduction in Portland cement. Recycled and locally sourced material (e.g. reconstituted bricks or old rail sleepers) will be used for landscaping. Online platform to encourage sharing and circular economy principles. All paints, adhesives, sealants, carpets and engineered wood used as interior finishes have low levels of volatile organic compounds and formaldehyde content, in line with Green Star Design & As Built v1.3 requirements. Working with Curtin University, principles of disassembly and circular economy strategies research are being explored.



All apartments to have three kitchen bins and the communal bin store will have dedicated areas for different waste streams, in line with Fremantle's Food Organic & Garden Organics (FOGO) scheme. Minimum target of 80% to landfill could be improved for demolition and construction waste, although local infrastructure does not support this well. Bins will be provided that can collect some electronic waste, with bins near the Café area collect soft plastics too. Online community portal and sustainability education will provide opportunities to further enhance sharing economy, reducing waste to landfill.



One of Australia's first apartment buildings to be carbon neutral certified for its operations. The average Australian Nationwide House Energy Rating Scheme across the building is 7.5 star, exceeding the 6 Star BCA regulation. All apartments will have good cross flow ventilation to optimise natural ventilation and reduce HVAC. Orientation will be optimised, targeting 80-90% apartments with good solar access. The building will use no gas and incorporate energy efficient appliances and LED lighting. Its standout features are a 70kWp solar array and certified green energy from the grid, contributing to a 100% renewable energy target. The East Village embedded battery network, utilising blockchain technology through Power Ledger, will also be available for residents, reducing Strata fees by up to 50%.



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