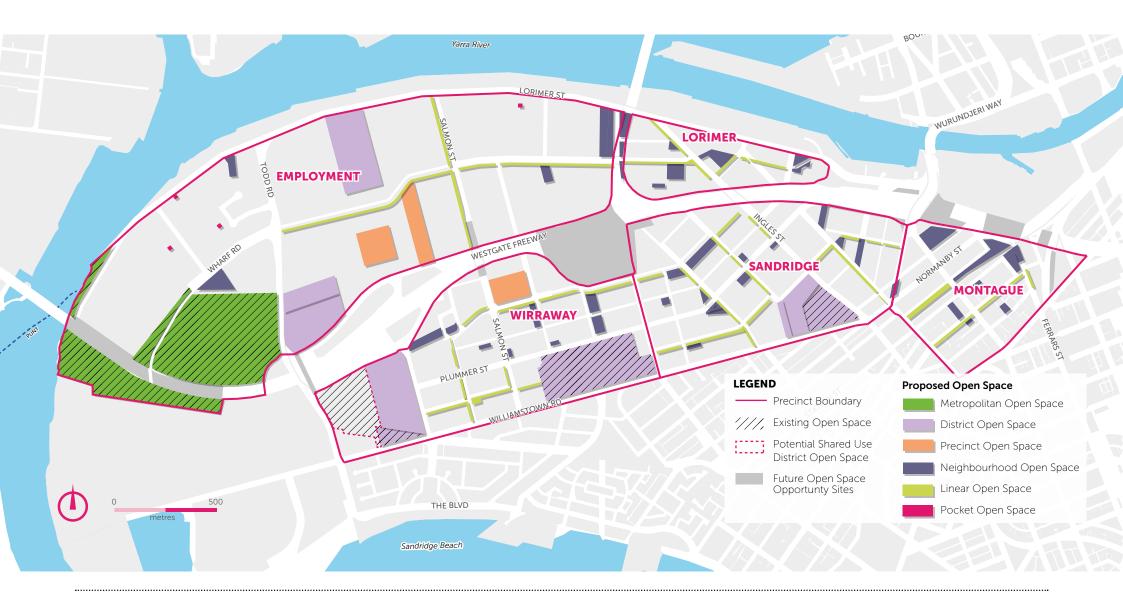


MAP 11: EXISTING & PROPOSED OPEN SPACE



EMPLOYMENT PRECINCT

The Employment Precinct will be a dynamic hub for commerce and innovation.

Building on its existing mix of commercial and industrial land uses the Employment Precinct will become a destination for sophisticated research and development; technology; and advanced manufacturing. The precinct will build on its relationship with Westgate Park by becoming the 'green lungs' of Fishermans Bend and enhancing biodiversity and sustainability across the precinct. High quality public realm will ensure the precinct is an attractive and liveable place to work, learn and invest.

Function

As shown on **(Map 12)**, Public open space within the Employment Precinct will cater to the future workers, providing place to rest and meet. A civic plaza will create a new destination for Melbourne. Active recreation will be provided in an expanded Westgate Park and within the main civic plaza. Generous 12m linear parks provide additional space for active and passive recreation and re-wilding. Westgate Park will continue to function as an important area for biodiversity and recreation.

Connections

The Turner Street spine will create a major public transport, pedestrian and cycle connection between Fishermans Bend and the city. New and improved crossings over the West Gate Freeway will allow easy access to Wirraway and Sandridge.

Early Activation

Opportunities to create active trails and circuits for walking and cycling to encourage people to move through the precinct.







Monash University Campus by TCL Landscape Architects



Celebrating the industrial heritage

MAP 12: FUTURE OPEN SPACE EMPLOYMENT PRECINCT



LORIMER PRECINCT

Lorimer will be a vibrant mixed use precinct including residential, commercial and community land uses.

Owing to its position and future connections across the Yarra River Lorimer will act as an extension of Docklands and the Melbourne Central Business District. The precinct will be anchored by the Turner Street green spine which will provide opportunities for recreation, active transport and biodiversity.

Function

Neighbourhood parks will create a network of diverse spaces to rest and play along the Turner Street spine and within Lorimer heart (L11), as shown in (Map 13).

Linear parks along Turner Street within activity centres will have a civic/plaza character with more hard surfacing and multifunctional uses, to embrace social interaction and connectedness across the community.

Connections

The Turner Street spine will create a major public transport and pedestrian connection between Fishermans Bend and the city.

New crossings over the Yarra will provide essential connection between Lorimer and the City.

Improved wide, level pedestrian and cycle connections over Lorimer Street will allow access to the existing public open spaces at Yarra's Edge.

Early Activation

Opportunity for areas of active recreation and play under the Bolte Bridge.

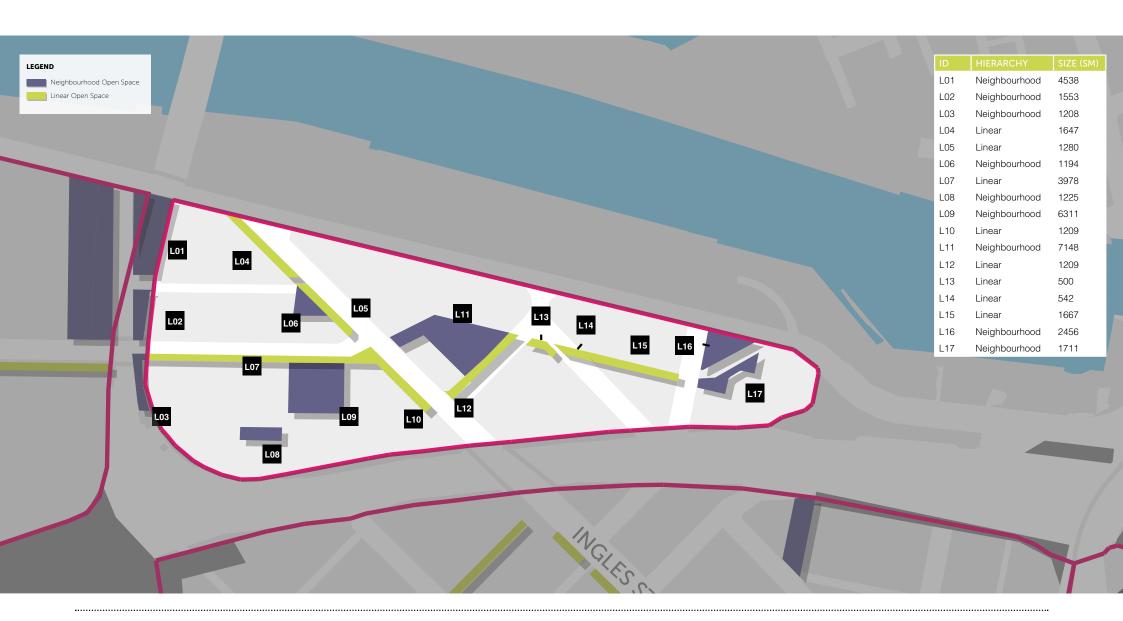


Shared space within the Lorimer heart



Neighbourhood parks provide local functions

MAP 13: FUTURE OPEN SPACE LORIMER PRECINCT



MONTAGUE PRECINCT

Montague will be a lively innercity residential precinct which will have a similar age profile as nearby South Yarra, with a high proportion of 20-somethings and couples without children

Montague will complement the adjoining Southbank Precinct with higher-density, high-rise dwellings closest to the CBD and a more diverse, lower-rise community further from the city. The precinct will also support a enterprising mix of businesses and creative industries. Underpinning the successful public open space in the precinct will be the

a vibrant green spine running through Buckhurst Street and the decked 'highline' park, connecting community facilities, activity centres and residents. A network of lanes, courtyards and plazas will add layers of interest to the Public open space network.

Function

As shown in **(Map 14)**, Linear parks along Buckhurst Street provide safe routes to schools and opportunities for neighbourhood and pocket park functions.

A neighbourhood scale park above existing tram tracks provides opportunity for active and passive recreation and could provide spill out space for adjacent buildings. A network of pocket parks create a diversity of public open spaces throughout Montague. Pocket parks and linear

parks along Ferrars Street within the Montague Activity Centre will have a civic/plaza character.

Connections

Improved pedestrian connections will be created within linear parks along Buckhurst Street and Ferrars Street and improved connections to South Wharf, Whiteman Street, South Melbourne, Bay Street and existing open space along the Route 109. The decked precinct park above existing tram tracks will improve east west connections linking the existing Evans Street linear park to Normanby Road and towards the City.

Early Activation

The Montague community park offers opportunity for early activation and a community gathering and focal point in association with the Ferrars Street School.



Decked park above tram tracks



High quality pocket parks

MAP 14: FUTURE OPEN SPACE MONTAGUE PRECINCT



SANDRIDGE PRECINCT

Sandridge will contain a vibrant mix of residential and commercial development with an almost equal number of workers and residents.

Sandridge will celebrate existing assets such as the iconic North Port Oval which will help the precinct establish a local character and identity.

Higher-density development and intensive commercial development will be focused around public transport nodes. A network of linear parks creates a comprehensive green spine extension of Woolboard Street from Wirraway into Sandridge. A civic plaza at the junction of Plummer and Fennell Streets will further support this development.



Places for the community to gather

Function

As shown in **(Map 15)**, An expanded North Port Oval will create a district scale park with capabilities for more intensive community use. A network of district, neighbourhood and linear parks creates a diversity of public open spaces throughout Sandridge.

Neighbourhood parks along throughout the precinct and within activity centres will have a civic/plaza character.

Connections

Plummer Street and Fennell Street will become a key connection through the middle of Sandridge and Wirraway with large scale trees, bike paths and high quality public realm.

Linear parks along Bridge street and new and improved

bridges over the West Gate Freeway create connections between the Lorimer and Sandridge.

An extended network of linear parks and neighbourhood parks creates a comprehensive green spine along Woolboard Street.

Early Activation

The existing activities and facilities at North Port Oval will provide a pre-existing hub of community focus, the expansion and redesign of the North Port Oval will further enhance the space as a central meeting place for the community and provide opportunity for community events and active recreation.



Active recreation

MAP 15: FUTURE OPEN SPACE SANDRIDGE PRECINCT



WIRRAWAY PRECINCT

Wirraway will be a distinct familyoriented residential precinct providing a graduated interface with existing residential areas of Port Melbourne.

The precinct will have an age profile similar to Fitzroy and will have a larger average household size than any other precinct in Fishermans Bend which will help facilitate the transition in both built form and population with the adjoining residential communities in Port Melbourne. Building upon existing public open spaces an expanded network of high-quality parks and sporting fields will be contained in the precinct.

Function

As shown in **(Map 16)**, An upgraded JL Murphy Reserve and a new district park to the east of the Melbourne Grammar Sports Field creates numerous opportunities for active recreation and community use.

An additional Precinct park along with a network of Linear and neighbourhood parks add diversity to the public open space network.

Parks along within activity centres will have a civic/plaza character.

Connections

Plummer Street and Fennell Street will become a key connection through the middle of Sandridge and Wirraway with large scale trees, bike paths and high quality public realm.

An extended network of linear parks and neighbourhood parks creates a comprehensive green spine along Woolboard Street.

Linear parks along Smith Street, Salmon Street and improved bridges creates more accessibility between the Employment Precinct and Wirraway.

Improved linkages south and along Todd Road will create easy access to the Port Melbourne beach and Westgate Park

Early Activation

Providing the linear parks early in the development process will create opportunities for active and passive recreation and introduce a circular route to promote active travel through the precinct.



Civic plaza / pocket parks



Active recreation in multifunctional spaces

MAP 16: FUTURE OPEN SPACE WIRRAWAY PRECINCT





FUNDING

OPEN SPACE FUNDING MIX

The funding and provision of open space in Fishermans Bend is being considered by the Fishermans Bend Taskforce and its project partners, as part of the overall Funding and Finance plan being developed for this project. As part of the development of the plan, numerous funding sources are being considered. These include but are not limited to:

- Open space contributions collected through the Melbourne and Port Phillip Planning Schemes (Clause 52.01);
- Development contributions collected under an approved Development Contributions Plan (DCP);
- Interim development contributions collected through section 173 Agreements prior to the introduction of a DCP; and
- Other agreements with landowners (e.g. shared access arrangements with schools which substitute for additional open space acquisition and improvement

costs).

• Other funding may also be required through local government capital works and State government grants and capital works.

Alternative potential funding sources include special rates and charges, government debt / bonds, Infrastructure recovery charges and betterment levies. At present, it is not clear whether any of these alternatives have been investigated by the State government for application to Fishermans Bend. Given that there is a specific mechanism in the Victorian Planning Provisions to fund open space acquisition and improvements (open space contributions through Clause 52.01), alternative funding mechanisms have not been reviewed in detail in this report.

It is noted that Urban Enterprise's previous advice to Places Victoria in respect of infrastructure funding in Fishermans Bend (2012) was that an ongoing, annual betterment levy would be a suitable way to spread the infrastructure funding burden across developers, land owners and occupants of the urban renewal area, while capturing some of the remaining land value uplift that will be experienced over time. As a designated Urban Renewal Area, an annual general charge could be applied under the Urban Renewal Authority Act 2003 and collected by the Victorian Planning Authority, in conjunction with an upfront development infrastructure levy through a DCP also collected by the VPA. Any such betterment levy would need to isolate the benefit to land values derived from improved infrastructure investment separately from general increases in land values in the area.

However, the first stage of land value uplift (initial sales of industrial and commercial sites to developers and investors following rezoning) has already taken place, significantly reducing the potential revenue from this mechanism. In these circumstances a betterment levy is less likely to be viable given the strong land value appreciation that has already occurred and will continue to occur in coming years as development and infrastructure provision accelerates. Further, any betterment levy would logically fund a range of infrastructure types in addition to open space, and any plans to implement such a levy would need to be co-ordinated across all relevant government agencies and infrastructure plans. Urban Enterprise has not been advised that any such plans are in place.

OPEN SPACE CONTRIBUTIONS AND DEVELOPMENT CONTRIBUTIONS

The main sources of revenue to deliver open space and public space will be open space contributions under the Subdivision Act and Clause 52.01 and development contributions via an approved DCP (or through section 173 agreements in the interim). Each of these mechanisms are currently established in the Melbourne and Port Philip Planning Schemes.

Table 9 shows an overview of these funding mechanisms, including the geographic areas to which they apply, the indicative revenue that could be collected, and the types of infrastructure that can or must be funded through the mechanism. A map showing the geographic areas to which the DCP and different open space contributions rates apply is shown in Figure 16.

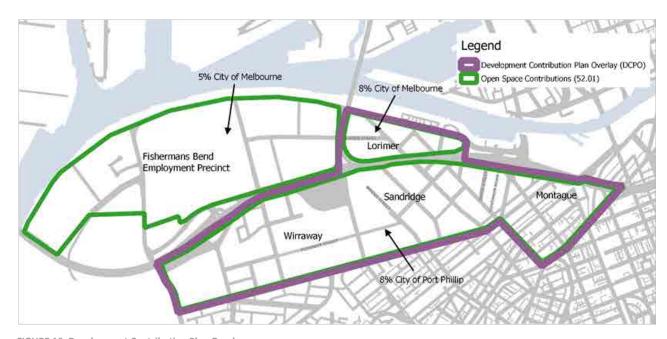


FIGURE 16: Development Contribution Plan Overlay

FUNDING SOURCE	DCP	OPEN SPACE CONTRIBUTIONS
Overview	Interim DCP levies are collected by the VPA and must be expended in accordance with s173 agreements on a range of infrastructure and land acquisition for community and recreation projects, roads, public transport, active transport, drainage, new open space and improvements to existing open space.	Open space contributions will be collected by the relevant local council and can be spent on open space acquisitions or improvements anywhere in the relevant municipality.
Levy amount	\$15,900 per dwelling (2013 dollars, indexed quarterly)	5% (Employment Precinct) or 8% (all other precincts) of the area to be subdivided, in land and/or cash contributions.
Triggers and Timing	Proposed DCP: Subdivision or development. Interim contributions: 90% at SoC, 10% at Building permit.	Subdivision
GEOGRAPHIC APPLICATION	NC	
Employment Precinct	No	5%
Lorimer	Yes	8%
Montague, Wirraway and Sandridge	Yes	8%
OPEN SPACE TYPES FUND	DED	
Passive Land	Only small areas associated with Community infrastructure	Yes
Active Land	No	Yes
Passive Improvements	Yes	Yes
Active Improvements	Yes	Yes

Source: Melbourne and Port Phillip Planning Schemes, Draft Fishermans Bend DCP (SGS, November 2013), Urban Enterprise 2017.

TABLE 9: Funding Mechanism Overview

OPEN SPACE CONTRIBUTIONS

The Planning Scheme (Clause 52.01) specifies mandatory public open space contributions as follows:

City of Melbourne:

- 'Fishermans Bend Urban Renewal Area' (Lorimer Precinct): 8%;
- Fishermans Bend Employment Precinct: 5%;

City of Port Phillip:

• 'Fishermans Bend Urban Renewal Area' (Sandridge, Wirraway and Montague Precincts): 8%.

Open space contributions can be satisfied in either land provision or monetary payment (or a combination of both) in accordance with any local policy guidance on where land and cash contributions are preferred. Cash contributions can be used by a Council to acquire land or undertake capital works anywhere in the municipality in which they are collected and can be accumulated over time to fund major projects. There is no statutory requirement for cash contributions to be applied to the local area in which they are collected.

Open Space contributions represent the most significant opportunity to generate revenue with the specific purpose of providing and improving public space in Fishermans Bend. however there is no specific requirement for Councils to spend funds collected from subdivisions in Fishermans Bend within the area. Given that there will be a significant and pressing need for additional open space

land (and additional capacity and quality within existing open spaces) to meet demand from a fast growing, high density new community within Fishermans Bend, the way in which Councils apply POS contributions revenue to Fishermans Bend will be a critical success factor for funding and delivering the Public Space Strategy.

Further challenges associated with open space contributions include:

- Land contributions are generally only practical where sites are of sufficient size to accommodate open space of suitable size and quality without compromising development opportunities for the balance of the land;
- Large parcels identified in their entirety as 'future open space' may give rise to compensation claims from landowners if the sites are compulsorily acquired (for example, using a Public Acquisition Overlay and funded through open space contributions);
- There is often a time lag between collection and expenditure, resulting in delayed provision of required local infrastructure and the risk of cost escalation (especially land value appreciation) reducing the ultimate scale and value of open space that can be delivered:
- Contributions are currently collected separately by the two Councils, and cannot be readily combined to deliver a key project. This should be reviewed with a view to establishing a joint fund and/or agreements regarding delivery of larger open spaces in particular

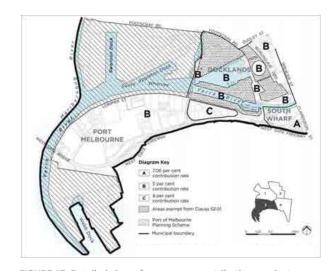


FIGURE 17: Detailed view of open space contribution precincts

DEVELOPMENT CONTRIBUTIONS

A Development Contributions Plan Overlay (DCPO) applies to all land in Fishermans Bend except the Employment Precinct. This enables the collection of development contributions levies through an approved DCP that is incorporated into the Planning Schemes. A DCP typically (but not always) accompanies a Planning Scheme Amendment process to rezone land and introduce strategic and statutory planning guidance for development in the relevant area.

A DCP has yet to be incorporated into the Planning Scheme. A draft DCP was prepared in November 2013 (by SGS for Places Victoria) and proposed to collect levies from all residential, commercial and industrial development towards the provision of the following infrastructure types (open space items in bold):

- Community and recreation infrastructure, including construction of community hubs, outdoor sports courts, indoor sports courts, a major civic space and a public sports and aquatic centre;
- Transport infrastructure, including construction of a light rail (tram) extension, bus priority lanes, Principal Bike Network improvements, local street and drainage upgrades, local pedestrian and cycling improvements, and public realm improvements to major streets;
- Land acquisition, including land for the light rail extension, relocation of a Council depot to allow conversion to open space, utilities, and two major community centres with associated open space;
- Open Space improvements, including linear parks, neighbourhood parks, pocket parks, large parks, primary squares, secondary squares, neighbourhood squares and upgrades to active facilities at JL Murphy Reserve.

Although many of these DCP projects relate to open space improvements, the following issues exist with the DCP in its draft form in respect of funding and delivering a suitable open space network:

 The DCP is presently capped at \$15,900 per dwelling (in 2013 values and indexed quarterly by the Consumer Price Index), with infrastructure costs estimated at around \$30,000 per dwelling (2013 dollars). Therefore, there will be a funding gap for all infrastructure types, including open space;

- Land values (along with all other costs) are in 2013 dollars. Land value appreciation is occurring at a high rate in Fishermans Bend, which will lead to significantly higher land costs to the DCP over time;
- Timing of collection: only 10% of the DCP liability is required to be paid upfront (at building permit stage), with the balance payable at Statement of Compliance for the subdivision (which generally occurs at completion of construction works). The resulting delay in development contributions revenue is likely to result in infrastructure delivery lagging behind the need for that infrastructure being realised; and
- Delivery issues: DCP levies are currently collected by the Victorian Planning Authority and open space contributions are collected by the Cities of Melbourne and Port Phillip. This complex administrative environment is likely to be inefficient and could lead to challenges in terms of accumulating funds for major projects and reaching agreement on project priorities and funding responsibilities. It also not clear how funds would be distributed between the various precincts, infrastructures and local government areas. This should be reviewed.

Interim Development contributions

Until such time that a DCP is incorporated into the planning scheme, planning permit approvals include conditions to make a development contributions of \$15,900 per dwelling to the VPA via a section 173 agreement. The amount is indexed to reflect cost increases over time. Interim contributions have been applied to each of the four approved planning permits.

Interim contributions are being allocated on a case by case basis. Draft conditions on planning permits state that the 173 agreement must "include a schedule of the types of infrastructure to be delivered by the Development Agency using development contributions" and "confirm that the contributions will be used by the Development Agency as stipulated by the Victorian Planning Authority to deliver the schedule of types of infrastructure."

Generally conditions also require that "payment of 10% of the contribution is at the time of issue of the building permit and 90% to be made prior to the issue of a Statement of Compliance in accordance with the Subdivision Act 1988."

The draft planning permit conditions and Council officers' reports do not specify how the interim development contributions collected by the VPA are intended to be expended.

Standard Levies / Infrastructure Contributions Plans

The Victorian Development Contributions system is currently under review, and a new Infrastructure Contributions Plan (ICP) system has been established to replace the existing DCP system in areas that are expected to undergo significant housing and employment growth, primarily greenfield growth areas and urban renewal areas (known as Strategic Development Areas). The existing DCP system will continue to operate in other areas.

Legislation to implement the new system has been introduced into the Planning and Environment Act 1987 through the Planning and Environment Amendment (Infrastructure Contributions) Act 2015. The Act "introduces a new simple, standardised and transparent infrastructure contributions system for levying development contributions towards the provision of infrastructure in growth and strategic development areas across Victoria" (DTPLI 'improving-the-system/infrastructure-contributions-reform')

It is not known whether an ICP and associated Infrastructure Contributions Plan Overlay (ICPO) will be prepared for Fishermans Bend to replace the current Development Contributions Plan and Overlay. A key difference between the DCP and ICP systems is the greater clarity regarding the specific infrastructure types that are allowable in an ICP. The current draft DCP for Fishermans Bend includes a range of open space improvement items, as well as two areas of land to be acquired for open space co-located with community hubs. If an ICP were to replace the current

draft DCP, it may not be possible for these items to be funded through infrastructure contributions if open space land acquisition and improvements are not ultimately included as 'allowable items' in an ICP. (It is noted that the final list of allowable items for Strategic Development Areas has not been published at the time this report was prepared however it is likely that the types of infrastructure that can be funded under an ICP will be more restrictive than under the current DCP system.)

Employment Precinct

The Employment Precinct has been recently included within Fishermans Bend, however the DCP Overlay (DCPO) which covers the other precincts does not apply to the Employment Precinct. It is not clear whether a new DCP or ICP will be prepared to support infrastructure delivery in the Employment Precinct, however there may be the opportunity to fund open space items in this area by extending the scope of the draft DCP and the DCPO to incorporate the employment area.

OPEN SPACE AND DEVELOPMENT CONTRIBUTIONS RECEIVED AND EXPENDED

Contributions Received

Five developments have entered into agreements to pay an interim **development contribution**—four of which are located within the City of Port Phillip. The developments comprise a total of 484 dwellings, 6,400 sqm of office floorspace and 414 sqm of retail floorspace. The sum of contributions owed is currently \$8.9m, as shown in Table 5.

\$2.29m in **open space contributions** has been requested by City of Port Phillip, equating to 8% of the land value of two of the four developments that have reached the subdivision stage.

One further development has been approved in the City of Melbourne—the permit for this development provides for carriageways and open space land to be vested in Council in full satisfaction of development contributions obligations.

TABLE 10: Development Contributions

AUTHORITY	DEVELOPMENT CONTRIBUTIONS OWED	OPEN SPACE CASH CONTRIBUTIONS
State Government	\$8.912m	-
City of Port Phillip	-	\$2.29m
City of Melbourne	-	\$0

Source: Fishermans Bend Taskforce, 2016.

Contributions Expended

It is understood that interim development contributions are yet to be expended on any DCP or open space infrastructure items. Section 173 agreements for interim DCP levy payments allow for funds to be spent on any of a suite of infrastructure types, including community and recreation, transport, open space and land acquisition projects. This provides the opportunity for interim contributions to be spent on early land acquisition for open space, however competing demands for early infrastructure provision will mean that there are no guarantees regarding the timing of any expenditure of DCP funds on open space.

FUTURE DEVELOPMENTS

As of August 2016, there were a total of 46 developments in Fishermans Bend either with approved or 'live' (application pending) permits, with further development proposals in pre-application discussions with the relevant authority. Many of these proposed developments are in excess of 30 storeys in height, and will generate significant demand for infrastructure (and DCP and open space revenue) should they proceed to construction.

The majority of the 32 proposed developments are located in the Montague Precinct, with 8 located in Sandridge, 6 in Lorimer and 7 in Wirraway, indicating that demand for open space in the eastern section of Fishermans Bend is likely to be higher than in the western end.

KEY FINDINGS

- The main opportunities to fund open space in Fishermans Bend are through the draft Development Contributions Plan and open space contributions through Clause 52.01 of the Planning Scheme;
- Public open space contributions will generate significant revenue and land contributions, equivalent to 8% of the area to be subdivided in the Montague, Lorimer, Sandridge and Wirraway Precincts, and 5% in the Employment Precinct;
- Public open space contributions are currently collected separately by each council – this should be reviewed to investigate the potential to combine revenue and deliver major open space assets in suitable locations to meet demand;
- The Draft DCP (2013) foreshadows the collection of \$15,900 per dwelling to fund a range of infrastructure including open space improvements. Interim contributions are being collected through individual section 173 agreements;
- If an ICP replaces the current draft DCP, it may not be possible for open space items to be funded through development contributions if open space land acquisition and improvements are not included as 'allowable items' in an ICP;
- The Employment Precinct has been recently included within Fishermans Bend, however the DCPO does not apply to this area. It is not clear whether a new DCP or ICP will be prepared to support infrastructure delivery in the Employment Precinct, however there may be the opportunity to fund open space items in this area by extending the scope of the draft DCP and the DCPO to incorporate the employment area and strategic open space areas.

REVENUE & COST ESTIMATES

DEVELOPMENT CONTRIBUTIONS REVENUE

The draft DCP identified a range of open space improvements to be funded through DCP levies, along with a range of other open space related items (relocation of the Council depot, outdoor sports courts and an indoor recreation facility) and land acquisition for two open space areas co-located with community hubs.

The proportion of interim DCP levies that relate to open space items has been calculated as shown in Table 11 and Table 12, using the following steps:

- Identify DCP costs relating to open space items (as shown in the draft DCP);
- Calculate the proportion of the cost of infrastructure within each relevant infrastructure category relating to open space items;
- Apply this proportion to the levies shown in the draft DCP for each relevant infrastructure category (after the Community Infrastructure Levy and levy rebate adjustments have been applied) to calculate the 'open space levy'; and
- Apply the open space levy to the development projections for Fishermans Bend to estimate DCP revenue relevant to open space items.

It is estimated that, under current circumstances, the total DCP revenue collected over the 35-year development period would be in the order of \$128m (indexed to

2016 dollars). It is important to note that this revenue is not guaranteed – the DCP is in draft form and decisions on expenditure of funds collected are currently made on a case by case basis in accordance with section 173 agreements.

	DRAFT DCP CO	DRAFT DCP COSTS (2013 VALUES)								
Infrastructure Category	Total Infrastructure Category Cost	POS Cost within category	% POS	Per Dwelling	Per 100m ² Commercial	Per 100m² Retail	Per Dwelling	Per 100m ² Commercial	Per 100m² Retail	
Community Infrastructure Levy	\$66,000,000	\$33,500,000	51%	\$900.00	\$1,800.00	\$0.00	\$456.82	\$913.64	\$0.00	
Community Infrastructure Land	\$69,000,000	\$34,500,000	50%	\$1,091.48	\$2,182.97	\$0.00	\$545.74	\$1,091.49	\$0.00	
Open Space Improvements	\$49,500,000	\$49,500,000	100%	\$1,046.43	\$2,092.86	\$2,092.86	\$1,046.43	\$2,092.86	\$2,092.86	
TARIF 11: Proport	ion of Intorim DCI	Louise				TOTAL	\$2,048.99	\$4,097.98	\$2,092.86	

TABLE 11: Proportion of Interim DCP Levies

	RESIDENTIAL	COMMERCIAL	RETAIL	DCP OPEN SPACE REVENUE (2013)	DCP OPEN SPACE REVENUE (2016)
Open Space Levy (see Table 6)	\$2,048.99	\$4,097.98	\$2,092.86		
Dwellings	40,000	-	-		
Floorspace (sqm)	-	918,206	41,944		
Interim DCP Open Space Revenue	\$81,959,527	\$37,627,890	\$877,829	\$120,465,247	\$127,509,998

TABLE 12: Proportion of Interim DCP Levies

OPEN SPACE CONTRIBUTIONS REVENUE

Open space contributions can be made in land or cash (or a combination). The value of contributions depend on the land values or each site at the time of subdivision. Current land values (2016) have been estimated using the following source information and assumptions.

Rating Valuations

Site values for all properties in Fishermans Bend were provided by City of Melbourne and City of Port Phillip for February 2012, 2014 and 2016. These were converted into per square metre medians using the following approach:

- Obtain the Site Value for each parcel at 2012, 2014 and 2016, provided by City of Melbourne and City of Port Phillip;
- Obtain land areas through extraction of GIS database¹;
- Calculate the SV per sqm for each parcel within the five precincts;
- Obtain a median SV per sqm for each precinct as at 2012, 2014 and 2016 and the rate of growth (% per annum) between the years 2012 and 2016.

Mid-size industrial and commercial properties are common in Wirraway, Sandridge and Lorimer (2,000 - 10,000sqm), large industrial properties are located in the Employment Precinct (2ha +), whereas smaller commercial properties are most common in Montague (500 - 1500sqm), as shown in Table 13.

SV/M ²	2012	2014	2016	% ANNUAL GROWTH	NO. OF PROPERTIES	AVERAGE PROPERTY AREA (M²)
Montague	\$2,232	\$3,024	\$4,548	19%	296	834
Sandridge	\$770	\$927	\$1,308	14%	98	3,607
Wirraway	\$769	\$858	\$1,155	11%	177	2,399
Employment	\$501	\$613	\$699	9%	65	23,018
Lorimer	\$573	\$695	\$1,122	18%	25	9,054

TABLE 13: Fishermans Bend Site Value

^{1.} number of the individual parcels, such as units and carparks, had the total area of the overall surrounding parcel attached to the data, rather than the area of the individual lot. Due to this issue, the sum of these sub-parcels was taken in order to calculate a SV per sqm of the overall parcel

Recent Sales

Land sales information provided by the Taskforce show the value of 18 property transactions between March 2015 and March 2016. The majority of these sales (13) were in the Montague precinct. A summary of the sales results is provided in Table 14. These sales are for improved properties (i.e. not vacant land), however the majority of the value of sites in Fishermans Bend is driven by the land value given the significant development opportunities.

The sample of sales for Wirraway is low (4 sales), and only 1 sale was reported for the Sandridge precinct. Detailed analysis of sales in these precincts would require a greater sample, however the sample for Wirraway shows that this precinct has much larger average property sizes and significantly lower property values at present. Larger sites generally have lower values per square metre.

City of Port Phillip Business Case

Modelling used in the City of Port Phillip business case for the acquisition of land for public open space in Montague assumed an average site value of \$5,000/sqm in Montague, increasing at 3.5% per annum. This report was prepared in July 2015.

Land Value Discussion

The only comprehensive value data available for Fishermans Bend is Council rates valuations. These provide detail on Site Value (i.e. excluding the value of improvements), the same basis on which valuations are prepared at the time that public open space contributions liabilities are calculated. However, Council rates valuations sometimes under-estimate property values, especially in times of strong property value growth, as is the case in

Fishermans Bend. This is often due to the lag between comparable sales value appreciation and the valuation of properties. That is, as values increase, it takes time to collect a body of evidence of comparable sales that are at a higher per square metre rate than previous valuations. The recent sale in Sandridge indicates that values are likely to now be somewhat higher than the rating values in this area.

Based on the evidence available and through discussions with the Fishermans Bend Taskforce, the following assumptions are made as to the likely average land values in each of the precincts.

Note: Urban Enterprise staff are not qualified valuers, and this estimate is provided purely for the purpose of estimating the indicative scale of potential open space contributions revenue in today's dollars. Values will vary greatly on a property by property basis — indicative averages are provided. Land values are expected to appreciate significantly over time—the implications of this are discussed later in this report.

PRECINCT	MEDIAN SALE VALUE (\$/ SQM)	AVERAGE SALE VALUE (\$/SQM)	NO. SALES	AVE SOLD PROPERTY AREA (SQM)
Montague	\$6,811	\$6,500	13	1,433
Sandridge	\$4,750	\$4,750	1	1,339
Wirraway	\$1,367	\$1,527	4	11,115
Lorimer	No sales		0	

TABLE 14: Precinct Sale Value

Open Space Contributions Revenue

In order to estimate the total scale of funds that could be collected through open space contributions, the assumptions shown in Table 15 have been used to model revenue.

It has been assumed that:

- Some public open space contributions will be satisfied through land contributions but the majority is likely to be collected as monetary payments due to the fragmented nature of land ownership in many areas; and
- Not all properties will be redeveloped within the timeframe, allowing for buildings that have been recently developed, areas that have been subdivided into small lots, and some larger businesses within the Employment Precinct that have significant investment on site and may not seek to relocate within the timeframe.

Based on these assumptions, the expected revenue collected from public open space contributions is shown in Table 16. It is estimated that a total of approximately \$425m will be collected over a 35-year period through open space contributions (in 2016 dollars).

It is expected that approximately 6ha of land could also be vested in the Councils, with an estimated value of \$150m (2016 dollars). Further, the proposed open space network includes around 17ha of land already in public ownership that would be used for open space, including existing road reserves and Council land parcels.

PRECINCT	AVERAGE LAND VALUE (\$/SQM, 2016)1 ¹	GROSS PRIVATE LAND AREA	% OF LAND DEVELOPED IN STUDY PERIOD	YEARS OF DEVELOPMENT	AVERAGE POS LAND CONTRIBUTIONS	AVERAGE POS CASH CONTRIBUTIONS
Montague	\$6,000	24.59	80%	35	1%	7%
Lorimer	\$6,000	24.43	80%	35	2%	6%
Sandridge	\$4,000	96.75	80%	35	2%	6%
Wirraway	\$4,000	34.3	80%	35	2%	6%
Employment	\$1,000	156.65	66%	35	3%	2%

Source: all sources Urban Enterprise, except: 1. based on recent land sales in Fishermans Bend provided by Fishermans Bend Taskforce, 2016.

TABLE 15: Open Space Contributions Revenue Assumptions

GROSS PRIVATE LAND AREA (HA)	336.72
Land developed (ha)	247.45
Land Provided (ha)	5.79
Value of land developed	\$7,580,450,000
POS Cash collected	\$425,274,600
City of Melbourne	\$91,036,200
City of Port Phillip	\$334,238,400

TABLE 16: Open Space Contribution Revenue (2016 Values)

OPEN SPACE COSTS

A proposed open space network was designed by Planisphere and the Fishermans Bend Taskforce and provided to Urban Enterprise. The proposed network includes a hierarchy of open space sizes and types, including District; Precinct; Neighbourhood; Pocket; and Linear open spaces. The network, along with the category of private, public and other status, is shown in **Appendix A**.

Open Space Improvement Costs

Indicative estimates of the cost of improving open spaces have been prepared using the City of Melbourne Open Space Strategy (2012) as a guide. These costs allow for site establishment, earthworks, minor retaining walls, sealed and unsealed paths, playgrounds /small recreation areas, picnic furniture, minor public art, fencing, planting (garden beds, trees and turf), water recycling and allowances for demolition, survey, planning, design and contingency. Public toilets, land acquisition and remediation costs are not included.

Indicative costs have been applied on a per square metre basis, using the City of Melbourne averages as a starting point and increased to take into account inflation and to reflect the projected high residential and employment densities and the envisaged role of all open spaces as multi-functional, high quality and high visitation spaces in Fishermans Bend. In some cases, the typical size of an open space type in Fishermans Bend differs from those in the City of Melbourne Open Space Strategy — in these

cases an indicative improvement cost per square metre that falls between cost of improving the two closest open space types and sizes was applied.

For new open spaces, the following indicative costs have been adopted:

Pocket parks: \$800 per sqm;

Neighbourhood and linear open spaces: \$600 per sqm;

Precinct open spaces: \$400 per sqm; and

District open space: \$300 per sqm.

Higher indicative allowances have been made for the proposed decking over the South Melbourne Tram Depot (\$1,200 per sqm) and future improvements to the JL Murphy Reserve (\$10m) to significantly increase the capacity of this active sports precinct. These allowances are indicative and would require more detailed costing once details and components of the proposed works are known.

The estimated cost of improving each open space area is shown in **Appendix D**. Overall, the indicative cost of improving approximately 59.3ha of open space is \$293m, equating to \$4.94m per hectare (\$494 per sqm).

It should be noted that Urban Enterprise staff are not qualified quantity surveyors—the costs shown are high-level and indicative only, drawing on previous costs prepared by others. More detailed assessment of typical

open space components and costs would be required to provide a refined costing. The costs shown in this report are included to provide a guide as to the overall scale of improvement costs likely to be incurred in Fishermans Bend for planning purposes.

Open Space Acquisition Costs

The proposed open space network includes:

- 44 ha of open space on private land;
- 12.5 ha of open space within existing road reserves or on other land in public ownership (i.e. not requiring acquisition); and
- 2.7 ha of open space located within encumbered land areas or on existing easements (such as high voltage power line easements) that will not require acquisition.

Indicative open space acquisition costs have been calculated by applying the estimated average land values per square metre for each precinct (**Table 17**) to the area of each new open space reserve that is proposed to be located on private land. The cost of acquiring each of these open space areas is shown in **Appendix D**.

The total cost of acquiring private land is estimated at \$1.17 bn, equating to an average value of approximately \$2,650 per square metre (2016 values). In practice, some of these open space areas will be provided as land contributions and therefore will not require acquisition. This is expected to primarily relate to pocket parks and

linear open spaces where the total amount of open space on the relevant property is equal to or less than the open space contribution requirement under clause 52.01.

The cost of acquiring land is expected to increase significantly over time — this is discussed further in the following section. The proposed network includes a significant proportion of open space within the Employment Precinct. The lower land values in this area compared with the other precincts (by virtue of the zoning which is predominantly Industrial 1 Zone and Commercial 2 Zone, compared with Capital City Zone in other precincts) means that the overall cost of land acquisition under the proposed open space network would be substantially lower than any alternative network with greater areas of open space in other precincts.

Summary of Open Space Acquisition and Improvement Costs

Table 17 shows a summary of the indicative open space acquisition and improvement costs by precinct. It is estimated that the total cost of acquiring and improving open space is \$1.464 bn (in 2016 dollars). The acquisition costs shown relate to all open space areas on private land — if some developments provide land contributions under clause 52.01, the acquisition cost would be lower than the costs shown in Table 17. Costs shown in Table 17 exclude any costs associated with remediation of contaminated land.

PRECINCT	OPEN SPACE AREA (SQM)	TOTAL IMPROVEMENT COST	OS AREA TO BE ACQUIRED (SQM)	AVERAGE LAND VALUE	COST OF ACQUISITION	TOTAL OS COST
Montague	49,288	\$36,075,000	9,637	\$6,000	\$57,822,000	\$93,897,000
Sandridge	93,179	\$50,727,580	64,200	\$4,000	\$229,080,800	\$279,808,380
Wirraway	142,464	\$63,154,500	126,666	\$4,000	\$506,664,000	\$569,818,500
Lorimer	40,462	\$24,277,200	27,434	\$6,000	\$164,604,000	\$188,881,200
Employment	272,334	\$107,974,380	213,813	\$1,000	\$213,813,100	\$321,787,480
Total	597,727	\$282,208,660	441,750	\$2,653	\$1,171,983,900	\$1,454,192,560

Source: Urban Enterprise. Note: costs are indicative only based on the high level information available regarding the role and composition of each open space. Costs should be reviewed by a Quantity Surveyor prior to reliance. Costs exclude remediation of any soil contamination.

TABLE 17 Indicative open space acquisition and improvement costs (2016 dollars)

COST AND REVENUE SUMMARY

Table 18 shows a summary of the expected cost of delivering the open space network and the potential revenue that could be derived from open space contributions and development contributions under the current Planning Schemes. All costs and revenues are expressed in 2016 dollars.

Table 18 shows that there is likely to be a significant funding shortfall in the order of \$760m. This shortfall would need to be funded from other sources, which could include a higher open space contributions rate (subject to further analysis).

It is important to note that the projected revenue from the draft DCP is not guaranteed to be available to deliver open space due to the draft status of the DCP, the range of infrastructure that will be required and the fact that contributions are currently being applied on a case by case basis.

OPEN SPACE COSTS	AMOUNT (2016 VALUES)
Land acquisition	\$1,171,983,900
Improvements	\$292,208,660
Total cost	\$1,464,192,560
OPEN SPACE REVENUE	
POS Cash contributions (52.01)	\$425,274,600
Value of POS Land contributions (52.01)	\$150,144,700
	\$150,144,700 \$127,510,000
(52.01)	

Source: Urban Enterprise. Figures rounded to nearest \$1,000.

TABLE 18: Summary of open space costs and revenue (2016 dollars)

Land Contamination

The conversion of industrial land in Fishermans Bend to more sensitive uses, including open space, may lead to the need to remediate land due to soil or groundwater contamination. Preliminary investigations (Golder Associates, 7 September 2016) identified that remediation costs will vary significantly depending on extent of contamination, ranging from less than \$1m per hectare for "low" contamination to more than \$6m per hectare for "high" contamination. The report notes that average contamination costs could be reduced in Fishermans Bend if economies of scale can be achieved through precinct based treatment arrangements.

Due to the large degree of variability between remediation costs per hectare and the absence of specific costs for sites required for open space, remediation costs have not been included in this report. It is understood that the Fishermans Bend Taskforce have applied indicative remediation costs to their internal cost estimates.

IMPLEMENTATION

The proposed open space network will be challenging to deliver and will require changes to the planning scheme and potentially the draft DCP to provide certainty that open space land can be acquired.

LAND ACQUISITION

Land contributions should be used to obtain open space that is fit for purpose and in locations that align with the preferred open space network shown in the Open Space Strategy. In some cases, however, land fragmentation is expected to result in many developments in the early stages making contributions in cash due to limited space available to provide on-site open space.

Delivery of the open space network will require a flexible approach which includes application of a range of mechanisms to secure land. Some of these mechanisms are not yet in place and need to be established as a matter of urgency.

The following principles are recommended to guide delivery of the open space network located on privately owned land:

- Clause 52.01 should be used to collect land contributions wherever the location of a subdivision allows for the provision of open space that integrates with the preferred open space network and a suitable size and type of open space can be delivered. This mechanism will primarily enable the delivery of:
- Pocket parks (the exact locations of which should be flexible within guidelines for general location and function as set by the Strategy); and
- Some sections of linear open spaces where the open space area is equal to or less than 8% (or 5% in the

Employment Precinct) of the relevant property.

- Clause 52.01 should be used to collect cash contributions from subdivisions which are not in an area identified in the Strategy as forming part of the preferred open space network, and to collect the balance of contributions owed from sites that provide less than the required percentage in land contributions. These contributions can then be used to acquire land elsewhere in the Precinct;
- Where the preferred open space network results in open space exceeding 8% (or 5% in the Employment Precinct) of a particular property and the location of that open space is not flexible (i.e. due to a clear need or opportunity identified and justified in the Strategy), a direct acquisition mechanism will be required. This is likely to apply to several properties identified on the preferred Open Space Network designated entirely for open space, as well as many other open space areas which cover a significant proportion of the property on which they are designated to be located. Options for direct acquisition include:
- Application of a Public Acquisition Overlay to area required for open space (no PAOs are currently in place). The overlay safeguards particular sites for public acquisition, but also exposes the acquiring authority to potential compensation claims from owners and developers, resulting in higher acquisition costs to secure the land;
- Inclusion of the open space area in a DCP (no

approved DCPs are currently in place – interim cash contributions are being collected only). If a DCP is prepared for the Employment Precinct (or the existing draft DCP extended to incorporate the Employment Precinct), strategic open spaces should be identified as key enabling infrastructure items for transformation of the industrial precinct into a modern knowledge intensive employment area with the land to be acquired under the DCP;

- Seeking to agree a market value through direct negotiation with the landowner (noting that land acquisition by Councils is subject to probity checks to ensure market value has not been exceeded); or
- Seeking expressions of interest from landowners to sell land to the relevant Council.

Appendix D includes a map showing the open spaces that could be provided through land contributions under the current open space contributions rates — this is limited to pocket parks and small sections of linear open spaces. Other open spaces will require direct acquisition or minor adjustments to the location of some open spaces to provide the opportunity for more land contributions to be made by developers.

Early acquisition is recommended to mitigate against the risk of cost increases (due to land value escalation) and missed opportunities to secure key sites for open space (due to subdivision/development of key sites prior to appropriate mechanisms being in place).

A map should be included in Clause 52.01 identifying the open space network and describing the circumstances and locations in which land contributions will be preferred over cash contributions.

In addition to privately owned land, a range of other measures are required to ensure sufficient open space is delivered through encumbered and public land, including:

- Enacting road closures in strategic locations to make land available for open space;
- Repurposing Council land for open space (e.g. relocating Council depot);
- Securing air rights for the proposed Montague elevated deck over the tram depot; and
- Requiring subdivision proponents to transfer any encumbered land suitable for open space to the relevant Council at the time of subdivision.

It is recommended that discussion and finalisation of the suite of acquisition mechanisms required to implement open space in Fishermans Bend should be the primary focus of a dedicated implementation working group including representatives of the VPA, Fishermans Bend Taskforce and Councils

LAND VALUES

Land acquisition comprises the majority of the cost of delivering the open space network, driven primarily by the fact that much of the land in Fishermans Bend is already within the Capital City Zone and many sites have transacted on the assumption of high density development opportunity. Land prices are expected to continue to appreciate quickly over the next 10-15 years as development and infrastructure provision accelerates in the area.

There is an opportunity to acquire land at lower values within the Employment Precinct. A complicating factor is that open space contributions would need to be expended by the City of Melbourne to deliver this open space, despite much of the demand (and revenue) being generated in the City of Port Phillip. A joint fund would assist in delivering open space in a timely and strategic manner.

STAGING

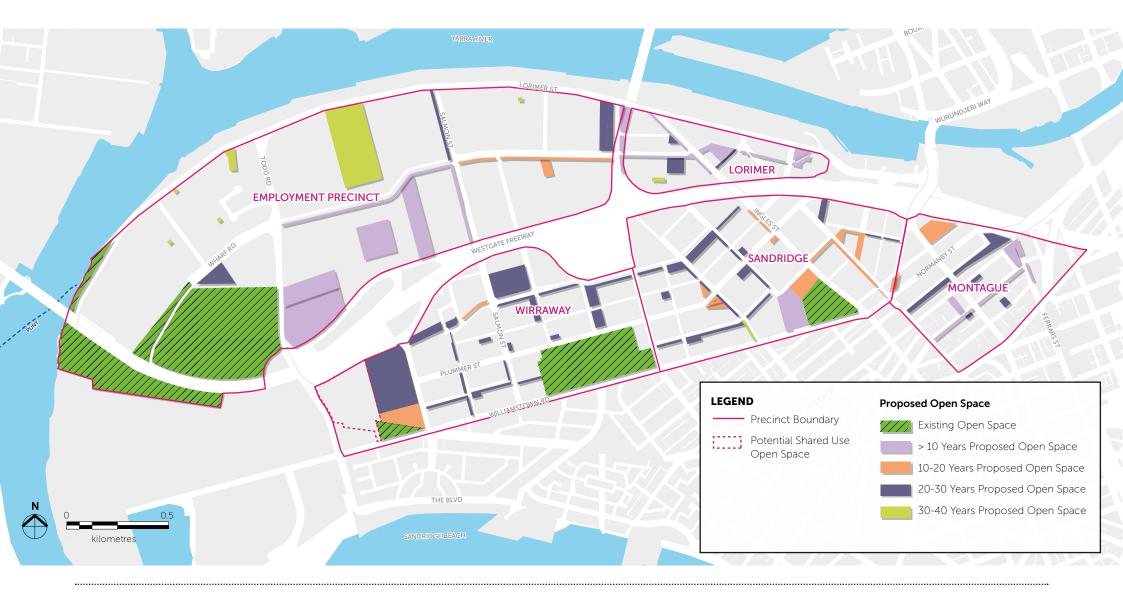
Given the development of Fishermans Bend will take place over a very long time period (likely to be in excess of 35 years), it is important that the proposed open space network is considered in stages, so that open space provision is planned for each cohort of new residents. For example, it would not be practical for open space contributions to be collected over 20 years and expended on a single major project at that time, resulting in a clear open space shortfall for residents during that period.

Similarly, land values are likely to increase significantly over the short term, resulting in increasing costs to acquire open space following collection of open space contributions and a subsequent erosion of an acquiring authority's purchasing power.

Councils should seek to acquire and create additional strategic open space assets where possible in the Montague and Lorimer precincts in the short term to meet early demand.

In the event of significant changes in open space needs or demand, a review of open space provision will need to occur. A review of open space provision should occur every five years or sooner.

MAP 17: OPEN SPACE STAGING



REVENUE RISKS

DCP revenue may not be realised if:

- A final DCP is not ultimately introduced into the planning scheme;
- The draft DCP is amended before it is introduced and excludes or reduces open space components;
- Interim DCP funds are expended on other items, or
- The DCP is replaced with an ICP, due to the open space land and improvements not being included as allowable items to be funded by an ICP for an Urban Renewal Area.

Open space revenue will continue to be collected under current arrangements, however as outlined in this analysis, revenue is expected to only fund a portion of the cost of land acquisition and improvements. The opportunity to increase the current open space contributions rate without unreasonably impacting development feasibility should be further investigated.

The VPA are currently responsible for collecting development contributions, and each council is separately collecting public open space contributions. This creates a complex environment and may limit the opportunity to pool cash for major projects.

Land value escalation is expected to continue to occur at a high rate, which will result in increasing land acquisition costs and the risk that open space cannot be provided commensurate with needs if there is an ongoing and widening funding gap:

GOVERNANCE

It is recommended that a joint working group is established to implement the open space strategy and ensure that land can be secured. The working group would need to include representatives from:

- Victorian Planning Authority;
- DELWP:
- Fishermans Bend Taskforce: and
- Councils.

It is important that a co-ordinated approach to strategic land acquisition is adopted to ensure that all key open space assets are delivered in a timely manner. This coordinated approach will be particularly important for finalisation of the draft DCP or translation into an ICP.

Other agencies could also be included on the working group on an as needs basis if relevant to specific open space / infrastructure items, such as Melbourne Water, VicRoads, Yarra Trams and Public Transport Victoria.

OPEN SPACE CONTRIBUTIONS RATE

The current open space contributions rate of 5% (Employment Precinct) and 8% (all other precincts) will only deliver part of the open space required to meet the needs of future workers and residents in Fishermans Bend. If all land is developed in the precinct and public open space land is provided at the rate specified in the Planning Schemes, a total of 22.2 ha of new public open space would be created. This equates to approximately half of the 44ha of privately owned land that is identified in the Open Space Strategy are required to meet open space needs, demonstrating that higher contributions rates and other funding mechanisms will be required.

The analysis in this report shows that a significant funding shortfall of in excess of \$800m would exist to deliver the proposed open space network, and this could increase over time if land is not acquired early in the development timeframe (due to expected strong land value appreciation).

The high-density nature of future development will require high quality open spaces and a significant amount of land dedicated to the public realm. A higher contributions rate may be appropriate; however this would need to be justified through additional analysis prior to introduction into the planning scheme.

IMPLEMENTATION RECOMMENDATIONS

- Engage with landowners of strategic sites regarding early acquisition;
- Establish an open space implementation working group with representatives of the VPA, Taskforce and Councils;
- Investigate options to establish a joint public open space contributions fund (City of Melbourne, City of Port Phillip and State government) to enable delivery of strategic open space assets to meet demand;
- Seek inclusion of open space assets (land acquisition) in a future (or extended) DCP for the Employment Precinct;
- Seek to maintain open space items in the current draft DCP when it is finalised, even if conversion to an ICP is required;
- Further investigate the feasibility and financial implications of increasing the open space contributions rate above the current planning scheme rates as required to meet open space demand;

- Introduce a new schedule to Clause 52.01 that shows and describe the locations and types of open space land that will be accepted as public open space contributions; and
- Ensure that there is sufficient flexibility in the open space network to enable land contributions to be made as development progresses
- Monitor and review open space provisions every five years to ensure that the community needs are met.



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APPENDIX A

EXISTING & FUTURE PUBLIC SPACE INVENTORY

Employment Precinct

E01 Neighbourhood 10096 E02 Pocket 400 E03 Pocket 400 400 E04 Pocket E05 Neighbourhood 4097 25193 E06 District E07 Precinct 27225 E08 District 73301 E09a 10950 Linear E09b Precinct 28777 Linear 5261 E09c E10 5,209 Linear E11 Pocket 400 E12 6,616 Linear E13 Neighbourhood 3698 E14a Neighbourhood 9570 E14b Neighbourhood 6512 E15 District 52009 E16 Linear 2220 E17 Neighbourhood 1086 E18 Metropolitan 228632 E19 Metropolitan 104775 Metropolitan 9480 Metropolitan 17250

Lorimer Precinct

ID	HIERARCHY	SIZE (SM)
L01	Neighbourhood	4538
L02	Neighbourhood	1553
L03	Neighbourhood	1208
L04	Linear	1647
L05	Linear	1280
L06	Neighbourhood	1194
L07	Linear	3978
L08	Neighbourhood	1225
L09	Neighbourhood	6311
L10	Linear	1209
L11	Neighbourhood	7148
L12	Linear	1209
L13	Linear	500
L14	Linear	542
L15	Linear	1667
L16	Neighbourhood	2456
L17	Neighbourhood	1711

Montague Precinct

ID	HIERARCHY	SIZE (SM)
M01	Neighbourhood	1072
M02	Neighbourhood	10889
M03	Linear	5798
M04	Neighbourhood	10837
M05	Neighbourhood	3608
M06	Neighbourhood	3444
M07	Neighbourhood	1109
M08	Neighbourhood	2882
M09	Linear	2938
M10	Neighbourhood	663
M11	Neighbourhood	1539
M12	Linear	3340
M13	Linear	1169

Sandridge Precinct

	HIERARCHY	SIZE (SM)
S01	Linear	1627
S02a	Linear	1356
S02b	Neighbourhood	2993
S03	Neighbourhood	1366
S04	Linear	808
S05	Neighbourhood	1352
S06	Linear	1523
S07a	Linear	3975
S07b	Neighbourhood	1457
S08	Linear	1362
S09a	Neighbourhood	98
S09b	Neighbourhood	1471
S09c	Neighbourhood	1985
S10	Linear	1798
S11	Neighbourhood	7122
S12	Linear	1318
S13	Linear	828
S14	Neighbourhood	1109
S15	Neighbourhood	2379
S16	Linear	1891
S17	District	5328
S18	District	25897
S19	Linear	1844
S20	Linear	703
S21	Linear	763
S22	Neighbourhood	750
S23	Linear	5556
S24	Neighbourhood	3269
S25a	Linear	1088
S25b	Neighbourhood	1533
S26	Neighbourhood	3888
S27	Linear	658
S28	Linear	656
S29	Linear	306
S30	Neighbourhood	1156
S31	Linear	1962
COO	District	04005

District

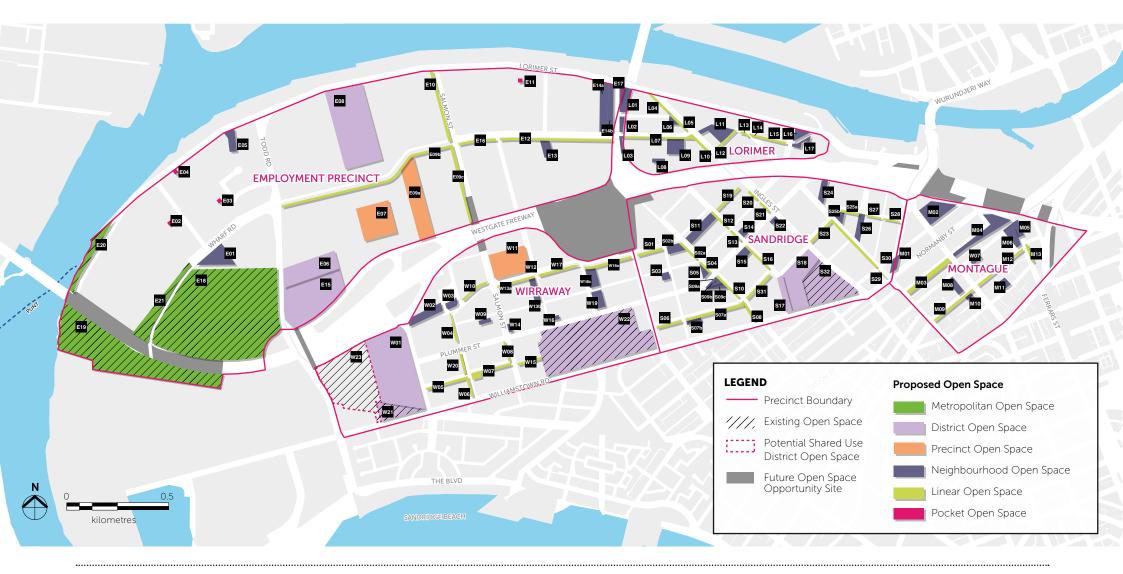
34325

Wirraway Precinct

ID	HIERARCHY	SIZE (SM)
W01	District	74413
W02	Neighbourhood	6708
W03	Neighbourhood	1952
W04	Linear	1386
W05	Linear	2410
W06	Linear	1207
W07	Linear	3317
W08	Linear	1026
W09	Neighbourhood	1211
W10	Linear	1843
W11	Precinct	19882
W12	Precinct	2880
W13a	Linear	2244
W13b	Neighbourhood	3543
W14	Neighbourhood	814
W15	Linear	1450
W16	Neighbourhood	872
W17	Linear	2337
W18a	Linear	2947
W18b	Neighbourhood	4546
W19	Neighbourhood	4268
W20	Linear	1208
W21	District	11343
W22	District	113412
W23	District	69185

FISHERMANS BEND PUBLIC SPACE STRATEGY

MAP 18: EXISTING AND PROPOSED OPEN SPACE



APPENDIX B CATCHMENT MAP

MAP 19: HIERARCHY & CATCHMENT MAP EXISTING AND FUTURE PUBLIC SPACE



APPENDIX C

GREEN STAR COMMUNITIES ASSESSMENT MATRIX

GREENSTAR COMMUN	GREENSTAR COMMUNITIES						
CHAPTER				RESPONSE			
Healthy and Active Living Credit 09	9.0 Minimum Requirement- Footpaths	9.0.1	Footpaths must be provided in accordance with the principles outlined in the Australian Model Code for Residential Development (AMCORD) for pedestrian facilities (see Guidance). This Code for pedestrian facilities must be applied to all development types.	Footpaths in Fishermans Bend will be appropriately dimensioned for safe and conveniant pedestrian movement, consistent with the Australian Model Code for Residential Development (AMCORD) for pedestrian facilities.			
		9.0.2	The street hierarchy must be designated to provide for the safe and convenient movement of pedestrians. Particular attention needs to be given to the aged, young children, people using prams, and people with disabilities.	Active transport networks will be incorporated into the open space network of Fishermans Bend, linking areas of open space in Fishermans Bend as well as linking to other areas of open space in metropolitan Melbourne.			
		9.0.3	In access lanes and places of low-volume access, it may be possible to provide for pedestrians on the street pavement however, this is likely to restrict pedestrian access for people with disabilities. The likely needs of an existing or future population must be assessed to determine whether a footpath should be provided.	Guidance for the quality of public open space in the strategy will enhance the quality of open space and public realm, ensuring the accessibility of open space.			
		9.0.4	In access streets carrying higher traffic volumes (i.e. excess of 1000 vpd), a footpath must be provided on one side of the road. On collector streets, where traffic speeds and volumes are higher, a footpath must be provided on both sides of the street.	Footpaths and pedestrian areas will be provided on both sides of all streets and roads in Fishermans Bend.			
	9.1.2 Walking Paths and Cyclist Facilities	9.1.2.1	The project must provide cycling and walking paths throughout the development. It must provide facilities along major and minor routes, connections to destinations or other networks, and solutions to all crossings, intersections, obstacles, and parking.	Active transport networks will be incorporated into the open space network of Fishermans Bend, linking areas of open space in Fishermans Bend as well as linking to other areas of open space in metropolitan Melbourne.			
		9.1.2.2	The design of the walking and cycling paths must be carried out in accordance with a planning tool specific to walking and cycling path design (see Guidance).	The Fishermans Bend Public open space Strategy supports all relevant criteria of the Bicycle Networks Checklist.			
		9.1.2.3	The design solution must address how walking and cycling paths are designed into the development and address at least the following issues: Routes along all roads, paths, freeways, green corridors; Connections to all major and local destinations and public transport; Access to the walking and bike network, and connection to adjacent networks; Provision of appropriate separate or on road paths as appropriate to the speed environment and population; and Appropriate crossings, lighting, intersections, and parking.	Active transport networks will be incorporated into the open space network of Fishermans Bend, linking areas of open space in Fishermans Bend as well as linking to other areas of open space in metropolitan Melbourne.			

TABLE 19: GreenStar Communities

GREENSTAR COMMUN	GREENSTAR COMMUNITIES					
CHAPTER	PROVISION	SPECIFIC	GREENSTAR REQUIREMENT	RESPONSE		
9.2 Recreation Facilities	9.2.1 Easy Access	9.2.1.1	All habitable buildings must have easy access to a local park and at least one publicly accessible indoor or outdoor sports facility.	All residents and workers will be within 200m of any type of publically accessible space (either publically owned public open space or privately owned public open space).		
Two (2) points are awarded where all habitable buildings have access to specified		9.2.1.2	To be deemed to have easy access, all habitable buildings must be within: a. Local Park — 400m b. Publicly Accessible Sports Facility — 800m No physical barriers can be located on the demonstrated route air distance.	The proposed hierarchy distributes a range of public open spaces, including precinct and neighbourhood parks, within 800m of residents and workers. These public open spaces will include opportunities for active recreation.		
recreational facilities and open spaces in accordance with	9.2.3 Publicly Accessible Sports Facilities		A sports facility is publicly accessible if it is able to be accessed by members of the general public, regardless of whether it is under private or public ownership, with or without a membership or access fee.	Improving the accessibility and level of public access to sporting facilities within Fishermans Bend including North Port Oval and the Melbourne Grammar Sporting Fields is a key objective of the Fishermans Bend Public Space Strategy.		
9.2.1 to 9.2.4	9.2.4 Open Space Provision	9.2.4.1	As a minimum, and in accordance with best practice standards (see Guidance), the provision of open space within the project site, combined with existing open space assets, must result in no less than 2.83ha of open space being accessible per 1000 project occupants (28.3m2 per person)	A total of 119.3 hectares of open space is proposed for Fishermans Bend which equates to 8.5m2 per person (residents and workers). This is less than the Greenstar recommendations. A Credit Interpretation Request (CIR) will need to be submitted to the Green Building Council of Australia (GBCA) to advocate for an alternative yet equivalent method of meeting Compliance Requirements and Fishermans Bend is in a high density city centre location and not in a greenfield area.		
		9.2.4.2	In order to determine the minimum amount of open space that must be provided within the project site to meet the requirements the project team must determine the amount of existing open space that will be available to the project occupants.	An investigation of existing open space within Fishermans bend and its environs has been conducted as part of the Fishermans Bend Public open space Strategy process. These investigations have influenced the amount and location of proposed open space in Fishermans Bend.		

TABLE 20: GreenStar Communities

GREENSTAR COM	MUNITIES			
	PROVISION	SPECIFIC	GREENSTAR REQUIREMENT	RESPONSE
Healthy Places 9.3 One 1 point is awarded where the requirements of 9.1 and 9.2 have both been achieved, and the development has been designed and built in line with holistic active and healthy living principles in accordance with 9.3.1 and 9.3.2.	9.3.1 Holistic Design		To be considered as holistically designed for active and healthy living principles, the project must be designed to achieve the following five key design outcomes: a. Walkability through attractive streetscapes, traffic control, connected street network, and comfort to walkers; b. Physical transport activity where cyclist facilities are complemented with good planning of location, transport plans, public transport corridors and end of trip facilities; c. Wayfinding elements are present through architectural elements and signage to improve navigating the project site by foot or alternative transport; d. Improved public open spaces with a relevant human scale, landscaping, and facilities; and e. Encourage social interaction through public art, interesting places, safety, and accessibility features for all.	The Fishermans Bend Public open space Strategy meets the relevant parts of the Heart Foundation of Australia's 'ACT Active Living Impact Checklist'. Walkability in Fishermans Bend will be enhanced by the network of public open space running through each precinct, and will particularly be enhanced through a network of linear parks. Active transport networks will be incorporated into the open space network of Fishermans Bend, linking areas of open space in Fishermans Bend as well as linking to other areas of open space in metropolitan Melbourne. Guidance for the quality of public open space in the strategy will enhance the quality of open space, improving the human scale of Fishermans Bend and enhance a sense of place through design. Strategies to incorporate street art and public art into the public open space networks of Fishermans Bend have been included in this strategy.
Safe Places Credit 15	15.0 Minimum Requirement- Visibility	15.0.1	All tunnels and underpasses within the project site must have end-to-end visibility.	Guidance for the quality of public open space in the strategy will enhance the quality of open space, ensuring the visibility of open space both internally and externally.
		15.0.2	All public areas, such as playgrounds, skate parks and community food gardens, must be visible from at least one street. In order to ensure visibility from the street: a. There must be minimal physical or vegetative visual barriers. b. Fence design must maximise natural surveillance from the street to the building, building to the street and minimise opportunities for intruders to hide. c. Landscape design must avoid landscaping designs that obstruct surveillance, serves as a barrier to unimpeded views, or allow intruders to hide.	Guidance for the quality of public open space in the strategy will enhance the quality of open space, ensuring the visibility of open space both internally and externally.

TABLE 21: GreenStar Communities

GREENSTAR COM	MUNITIES		
CHAPTER			
Stormwater This is a minimum requirement	24A.0 Minimum requirement- stormwater	To be eligible for points for this performance pathway the project must meet all of the following minimum requirements for stormwater: To% of the total annual stormwater runoff is evaporated or retained within the project site, via both harvesting and infiltration to achieve a similar frequency of flow to pre-development conditions; The post-development peak 1 year Average Recurrence Interval (ARI) event discharge from the project site does not exceed the pre-development peak 1 year ARI event discharge; and The quantity of key pollutants discharged in site stormwater is limited, based on the percentage reduction of sediment, phosphorus, nitrogen, and litter in project runoff when compared to untreated runoff.	The requirements of the pathway criteria will be met, refer to the Sustainability Strategy for detailed information.
Water Sensitive Urban Design Up to seven (7) points are awarded where it is demonstrated that the potable water consumption of the project is reduced, through the application of the of Water Sensitive Urban Design (WSUD) principles, when compared against a reference project.	24A.1 WSUD	The project team must demonstrate that the design for the project site has been developed by suitably qualified professionals using the following WSUD best practice hierarchy: a. Retention and restoration — retain or restore natural channels, wetlands, and riparian zones; b. Source controls (non-structural) — educational and enforcement measures to minimise water use and polluting activities; c. Source controls (structural) — structural techniques located as near to the source (or use) to minimise water use, minimise wastewater generation, minimise stormwater runoff quantity, maximise stormwater quality using infiltration and natural physical treatment processes, and maximise re-use of treated wastewater and stormwater; and d. In-system controls (structural) — structural techniques installed in precinct — or district — level water services infrastructure to augment source controls.	Fishermans Bend will employ a number of Water Sensitive Design treatments within Public Open Spaces and the Public Realm. This will include: Bioswales Urban Raingardens Roof Gardens Podium Gardens Permeable surfaces The WSUD design will be considered at a precinct level and the detailed planning progresses.

TABLE 22: GreenStar Communities

GREENSTAR COM	IMUNITIES					
CHAPTER				RESPONSE		
Ecological Value Credit 29 Biodiversity Management Plan	Biodiversity Management	29.2.1.1	A BMP must be developed by a Qualified Ecologist.	The requirements of the pathway criteria will be met, refer to the Sustainability Strategy for detailed information.		
		29.2.1.2	The BMP must include at least the following: a. A set of measurable biodiversity objectives, incorporating a list of the values that can be offset and a brief summary of the logic and feasibility behind the design; b. A brief explanation of how the project applicant can be at least 50% confident that the net gain they are claiming for biodiversity gains is likely to be achievable; c. An explanation of how the BMP meets each of the principles of the biodiversity offsets in accordance with 29.2.1.4; d. A monitoring program, including a set of performance indicators that will be measured on a maximum 3 yearly basis (after project completion); e. A suggested adaptive management and continual improvement process, including options for maintaining or revising the trajectory of habitat improvements, to maintain the value of outcomes (if necessary); and f. Roles and responsibilities	The requirements of the pathway criteria will be met, refer to the Sustainability Strategy for detailed information.		
				29.2.1.3	The BMP must align with any local biodiversity management plan(s) prepared by the relevant District, Local Council or State and Territory authorities who have a regulatory responsibility, within the project's boundaries.	The requirements of the pathway criteria will be met, refer to the Sustainability Strategy for detailed information.
				29.2.1.4	Where biodiversity offsets are used they must be: a. Mandatory and/or voluntary offsets, if the offset work is being done on site; or b. Voluntary offsets, if the offset work is being done off site; or c. Any combination of the above. Offsets may only apply to residual impacts of development, identified in accordance with 29.2.1.5. Voluntary offsets must comply with 29.2.1.6.	The requirements of the pathway criteria will be met, refer to the Sustainability Strategy for detailed information.
		29.4.1.5	Residual impacts must be identified by using a standard ecological assessment process in accordance with the Environment Institute of Australia and New Zealand (EIANZ) Ecological Impact Assessment (EcIA) Guidelines Work Draft May 2010.	The requirements of the pathway criteria will be met, refer to the Sustainability Strategy for detailed information.		
					29.2.1.6	Voluntary offsets must meet one of the following requirements: A. Be calculated and assessed, as a priority, in accordance with any existing regional policy that sets out specific measurement criteria (e.g. the Victorian Habitat hectare methodology or the NSW Biocredit Scheme); or

TABLE 23: GreenStar Communities

GREENSTAR COM	MUNITIES		
CHAPTER			
		B. If the project applicant wishes to exceed these requirements or such processes do not exist the following applies: • Measurement criteria may be developed consistent with the methodologies proposed by the EPBC Act Environmental Offsets Policy; and • It must be demonstrated that the voluntary offsets are permanent and that management regimes are in place to ensure stated outcomes are achieved or maintained. Note: the onus is on the developer to demonstrate that any claimed voluntary offsets are indeed voluntary.	
To encourage and recognise projects that implement measures to reduce heat island effect.	31.1 Heat Island effect	One (1) point is awarded where, when assessed in plan view, at least 50% of the whole project site area comprises one or a combination of the following: • Vegetation; • Green roofs; Roofing materials, including shading structures, having the following SRI values: • i. For roof pitched <15° a three year SRI >64 • ii. For roof pitched >15° a three year SRI >34 Only where three year SRI for products is not available use the following: • iii. For roof pitched <15° an initial SRI > 82 • iv. For roof pitched >15° an initial SRI > 39 • Unshaded hard-scaping elements with a three year SRI> 34 or an initial SRI >39; • Hard-scaping elements shaded by overhanging vegetation or roof structures; • Water bodies and/or water courses; and • Areas directly to the south of vertical building elements, including green walls and areas shaded by these elements at the summer solstice.	The Fishermans Bend Public open space Strategy sets a target of 50% tree canopy cover in public open spaces and streets to mitigate urban heat island effects. The strategy sets a key directive to turn 'grey; spaces such as footpaths, roads and pavement into 'green' spaces such as parks. The incorporation of green walls and rooftop gardens are supported by the strategy. The strategy also encourages the implementation of green and blue public open space to mitigate urban heat island.

GREENSTAR COM	MUNITIES			
CHAPTER				RESPONSE
Light Pollution Credit 32	Dellution	32.1.1	Project teams must show that 95% (by number) of all external public lighting luminaries within the project site boundary have an Upward Light Output Ratio (ULOR) of less than 5%, relative to their particular installed mounting orientation.	Guidance for the quality of public open space in the strategy will enhance the quality of open space, ensuring the appropriate level of lighting within areas of open space.
	32.1.2	The ULOR provided in the compliance documentation must have regard to the actual installed mounting orientation of the luminaire. A luminaire with a ULOR ratio as nominated in a manufacturer's data sheet will have a different ULOR ratio when the mounting orientation of the luminaire is changed.	Guidance for the quality of public open space in the strategy will enhance the quality of open space, ensuring the appropriate level of lighting within areas of open space.	
		32.1.3	In the event that any external luminaire is mounted in an orientation other than the one nominated by the manufacturer, the ULOR must be recalculated for the installed orientation and provided to Green Star Certified Assessors.	Guidance for the quality of public open space in the strategy will enhance the quality of open space, ensuring the appropriate level of lighting within areas of open space.

TABLE 24: GreenStar Communities

