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Places Victoria Fishermans Bend Urban Renewal Area Funding Options Paper

*Places Victoria
Fishermans Bend
Urban Renewal
Area Funding Options
April 2013*

Executive summary

1. Background

The Fishermans Bend Urban Renewal Area (FBURA) is a site of 240+ ha to the South West of Melbourne's CBD. The Net Developable area of the FBURA area is estimated at 180ha (Places Victoria).

The Victorian State Government has earmarked this project as a project of State significance and a target for future urban renewal and city growth in Melbourne over the next 30+ years.

A project of this size entails significant pre-work and infrastructure investment to promote and sustain the degree of proposed development. There is also only a limited degree of site control or ownership that Government can leverage in order to generate funding or to influence forms or scale of development to achieve important urban renewal outcomes.

The Development Contribution Plan (DCP) scheme is an upfront funding source, prior to development (as opposed to spread over the useful life of infrastructure assets being developed) which may be insufficient or incapable (alone) of meeting a key objective for Government, which is to sustainably fund the development and long-term maintenance of required infrastructure for FBURA.

2. Scope of PwC consultancy

PwC has been engaged by Places Victoria to undertake a qualitative and quantitative review of alternate funding sources for FBURA taking into account national and international precedents, 'strategic fit', legislative constraints and stakeholder views.

3. Success factors for FBURA

A key stakeholder workshop was undertaken on December 18, 2012. Findings and recommendations from this workshop are outlined in Appendix B – Stakeholder consultation.

A key output from this workshop was the establishment of a number of core objectives to assess potential funding sources for upfront works and infrastructure for the FBURA. These include:

Benefit equity –benefit versus cost impost for various stakeholders (Government Stakeholders, Developers, Residents, Tax payers);

'Naturally matched' to infrastructure or site cost– might lead to a suite of models to reflect diverse infrastructure requirements. Linked to economic efficiency of implementing mechanism;

Financial sustainability to the State (not only taking account upfront development, but ongoing management and ownership of assets). Consideration of 'balance sheet' impact, GST and other tax and budgetary implications (where relevant);

Urban renewal outcomes: Does not adversely impact upon the nature, scale, speed or efficacy of urban renewal outcomes – (taking account of market appetite for a mechanism). Facilitates development in the right area at the right time to enable appropriate growth;

Practicality and deliverability of funding mechanisms – taking into account all the potential implementation issues (including administration, legislative constraints, market constraints and state or local government appetite). For example the introduction of new taxes may not be supported by State Government);

Cost effective – doesn't adversely impact housing affordability, developer and/or financier appetite in the FBURA;

Risk – Makes investment in the FBURA 'bankable' by reducing and appropriately allocating risk to the parties responsible; and

'Broad basis' of revenue collection– Promote a broad basis of revenue collection to distribute cost of infrastructure and other upfront outlay's. Flexibility to alter the capture area which the funding mechanisms are applied to should be considered to alleviate possible funding strain caused by relying on a concentrated source. This flexibility will also assist an equitable burden distribution. A mixed use of upfront collection and long-term collection profile will also smooth funding impacts.

When attempting to achieve the core objectives listed above, is it imperative to acknowledge the implicit characteristics of each which may prevent all criteria being achieved concurrently.

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By way of an example, a trade off may occur between the fulfilment of a broad basis of revenue collection (with the advantage of it potentially being cost effective and relative easy to implement versus other more 'scientific' approaches) and the ability to ensure benefit equity. In other words, by choosing to fund a project through the application of an increased capture area, all the parties which are drawn on as a funding source may not benefit equally due in part to the distance or reduced nexus between payee and beneficiary.

Therefore the selection and achievement of the above listed criteria requires careful balancing to ensure the desired outcome is achieved.

4. Challenge to meet – are DCPs (alone) suitable for FBURA?

There are a number of funding mechanisms available to Government; many of these mechanisms may draw on the same source or contributor.

Therefore to ensure an equitable result which reflects commercial viability and market acceptance, the funding category which is utilised must be appropriately selected and not overdrawn. These funding categories include:

- Recovery from developers;
- Recovery from land / property owners;
- Recovery from end users;
- Funding from government; and
- Additional private sector opportunities.

The most commonly utilised mechanism, Development Contribution Plan (DCP) funding, has been in place for over a decade and is well understood and accepted by the market to fund urban renewal projects in Victoria, although their use in urban renewal projects is less prevalent.

However, it is recognised that under DCP the burden falls principally on the developer to fund the majority of infrastructure and associated upfront costs

required. This could cause a number of unintended market consequences that are particularly relevant for a unique urban renewal project such as the FBURA.

Another potential unintended consequence of a high Developer Contribution is the impact on affordability for homebuyers. As the development contribution may be passed on - to a greater or lesser extent, as determined by market forces.

DCPs in more detail

In Victoria, a DCP must provide clear documentation detailing the costs associated with the project. The following costs eligible to be included in the calculation of a levy.

- The capital costs of providing the necessary infrastructure;
- The cost of financing the infrastructure project, if provided early in the life of the DCP;
- The design costs associated with the infrastructure projects; and
- The costs of preparing and approving the DCP

Recurrent costs such as maintenance and operating costs or costs associated with the administration of the DCP cannot be included in the calculation of a development contributions levy.

Review of DCPs

In May 2012, the Minister for Planning announced a preferred framework for the development contributions system in Victoria which is set out in A New Victorian Local Development Contributions System – *'A Preferred Way Forward'*, prepared by the Department of Planning and Community Development. It proposes a combination of standard contributions and other variable contributions for five infrastructure categories, in different development settings.

According to the abovementioned *'A Preferred Way Forward'* framework, a Standard Levy is proposed as the default in each development setting, but with the opportunity

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to apply a tailored Development Levy Scheme (in Growth Areas and Large Scale Strategic Development Areas) if strategically justified such as the FBURA.

A Standard Levy will be applied per net developable hectare for Growth Areas, or per dwelling for Urban Areas and Strategic Development Areas in both a metropolitan and non-metropolitan context.

This report notes the potential upgrade of the DCP framework but at this stage does not provide final recommendations or list final views on its efficacy and applicability to the FBURA.

Special rates & IRCs

Special rates and charges may be applied by Local Authorities. Infrastructure Recovery Charges (per Revitalising Central Dandenong) can be levied on developers. Under the Urban Renewal Act up to 10% of developable areas is designated Urban Renewal Areas.

For the purpose of this report IRCs are considered under the banner of Recovery from Developers as they are direct levies on developers accruing to the lead developers on individual projects.

DCP Inefficiencies

When considering a 'tailored approach' to funding the FBURA there will need to be consideration of the following inefficiencies of raising funding entirely through a DCP. These include:

- **Potential 'funding gap'** due to uncertainty of ultimate development scale and nature, which may be exacerbated by any scope creep or increased costs during infrastructure delivery phases;
- **Other potential forecast risks** – including escalation risk and / or changing infrastructure requirements (e.g. road intersections);
- **Timing of cashflows** – potential mismatch between receipt of development contributions and upfront need to fund necessary infrastructure;

- **Administrative complexity** and potential for delay due to DCP related impediments to the (Precinct Structure Plan) PSP or Strategic Framework Plan (to be undertaken by DPCD for FBURA) and wider development process;

- **Imperfect 'nexus'** between infrastructure and funding source. Under a DCP the costs of infrastructure and pre-works are almost entirely borne by Developers who may not enjoy commensurate gain from infrastructure deployment. Certain infrastructure types may have a better strategic fit with alternate funding sources. For example transport corridors, may be more efficiently funded via a combination of funding sources (e.g. the Gold Coast Rapid Transit project, which funded infrastructure through a variety of sources including an annual infrastructure charge to land owners); and

- **Negative impact upon housing affordability.** Development charges can constitute a material proportion of the cost of bringing new housing to market.

It should also be noted that there is likely to be a tension between increasing "commercial / retail" value (driven essentially by development demand) versus lower level value use such as "community" or "family friendly housing" use as favoured by Government policy.

This compromise may require policy or market intervention from Government (with associated cost).

5. Use of funds

Places Victoria has prepared four development scenarios plus an existing scenario for FBURA. These include:

- Scenario A – 15,000 residential dwellings and 200,000 metres squared commercial retail space;
- Scenario B – 30,000 residential dwellings and 500,000 metres squared commercial retail space;
- Scenario C – 60,000 residential dwellings and 850,000 metres squared commercial retail space ; and

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- Discussion scenario – 40,225 residential dwellings and 750,000 metres squared of commercial, retail and industrial space

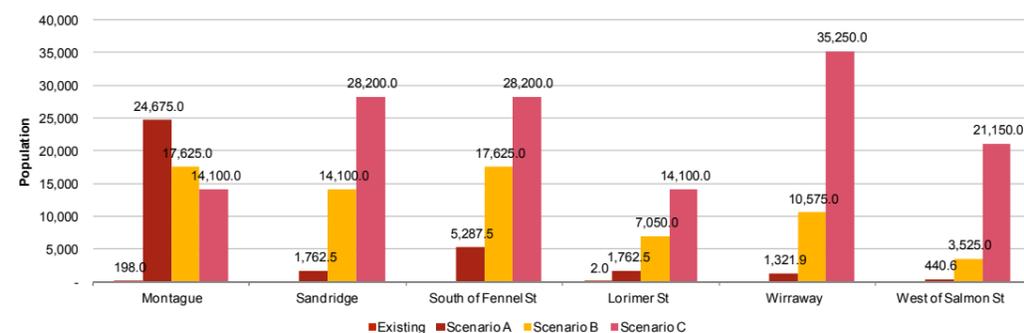
Potential scenarios (excluding discussion scenario)

Scenario	Population	Dwellings	Commercial/ Retail GFA	New jobs
Existing	200	103	-	-
Scenario A	35,250	15,000	200,000	13,333
Scenario B	70,500	30,000	500,000	33,333
Scenario C	141,000	60,000	850,000	56,667
Discussion Scenario	83,445	40,225	1,057,179	50,000

Source- Urban Enterprise (October 2012) and Places Victoria

Places Victoria projects that the FBURA development will have a timeframe in the region of 40 years (per Urban Enterprise advice), commencing in 2013.

Population scenarios



Source- Places Victoria 2012

Places Victoria
PwC

Infrastructure funding requirement

According to Urban Enterprise, the FBURA development project will require a range of infrastructure. A key upfront step in determining an appropriately tailored funding mechanisms for the FBURA is to estimate the scale and nature of infrastructure (and associated costs) as listed in the following table:

Summary of FBURA infrastructure costs

Summary of Costs	Scenario A	Scenario B	Scenario C	Discussion scenario
Community and Active Open Space				
• sports ovals & facilities	\$38m	\$66m	\$93m	\$81m*
• earthworks				
• recreation centres and libraries				
Land Acquisition	\$80m	\$140m	\$280m	\$230m*
Transport Costs				
• light rail (including buses)***	\$85m	\$305m	\$685m**	\$655m*
Roads and Infrastructure				
• upgrades and associated land acquisition	\$31m	\$65m	\$126m	\$106m*
• new intersections				
• paths and streetscape				
Others including:				
• Schools				
• Medical facilities	c.70m*	c.138m*	c.215m*	c.158m*
• Other social infrastructure				

Note: * Costs are estimates and subject to further refinement following discussion with Places Victoria

** \$200m of the 685m for light rail infrastructure has been assumed by Urban Enterprise to be apportioned to the surrounding areas which would gain a direct benefit from the infrastructure required and therefore will not be funded from the FBURA. PwC has not contributed to this conclusion.

*** Metro is excluded because the scenarios examined do not include heavy rail. This cost does include however buses and Active Transport infrastructure (including pedestrian and cycle paths)

Source- Urban Enterprise (October 2012) and Places Victoria

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Key infrastructure requirements:

- **Community and active open space:** The community and active open space infrastructure requirements are estimated to be between \$38m Scenario A to \$93m in Scenario C. This includes sporting, recreational and community facilities (library/community centres)
- **Light rail:** It is envisaged the FBURA will involve Light Rail infrastructure costs of between \$85m and \$685m depending on the level of development at Fishermans Bend Urban Renewal Area. The level of costs in Scenario B, C and Discussion Scenarios are a result of the expected need for a dedicated light rail route and Yarra River bridge crossing to service these greater scale developments. Under Scenario C and Discussion scenario there is a \$200m funding gap expected to be recovered from other funding sources outside of FBURA project (as understood from discussions with Places Victoria).
- **Road infrastructure:** The costs of road infrastructure as estimated by Urban Enterprise are between \$31m to \$126m. This is an indicative estimate only and would need to be informed by detailed infrastructure needs assessment and cost planning.
- **Social infrastructure:** The upfront costs of establishing social infrastructure have not yet been confirmed for schools, medical facilities. These costs are expected to be considerable when taking into account the original outlay, lifecycle costs (if necessary) etc... These costs are likely to be scrutinised by a range of stakeholders due to limited current scope of social services and assets within the FBURA (and neighbouring communities).
- **Utilities:** PwC's instructions have been to exclude utilities and stormwater costs for the purposes of this report (although we understand that Places Victoria have allowed for 'drainage' costs within allowances under roads infrastructure costs), although it is recognised that this could be a significant cost that may or may not be on charged to developers by utilities companies.
- **Sustainable energy infrastructure:** Sustainable energy infrastructure has been excluded due to insufficient information available about base load demand for energy.

6. Prior Quantitative analysis

As part of their study for Places Victoria, Urban Enterprise undertook an analysis of indicative levies for FBURA under all the development (except for the discussion scenario). They modelled a number of funding mechanisms, of which two included a:

- 100% full recovery cost apportionment DCP model of upfront costs (full recovery)
- 'Standard Levy' (per system under Minister's review – 25, 50 and 75% Standard Levy i.e. % of Greenfield Levy)

100% cost apportionment

The table below shows the indicative levies, under 100% 'cost apportionment' DCPs calculated by Places Victoria (based on this Urban Enterprise work), but refreshed to take account of updated costings for the project in February 2013.

Cost Apportionment Method – 100% cost recovery

Infrastructure Type	Applicable Infrastructure Charge (\$/unit)		
	Scenario A	Scenario B	Scenario C
Community and active open space infrastructure	\$2,514	\$2,189	\$1,556
Public and active transport infrastructure	\$5,086	\$7,908	\$6,504
Roads and intersections	\$1,692	\$1,692	\$1,692
Land acquisition for development infrastructure	\$543	\$519	\$536
Land acquisition for open space	\$3,256	\$3,111	\$3,219
Project Planning and DCP preparation	\$271	\$130	\$67
Total Infrastructure Charge / Residential Demand Unit (rounded) see Note 1	\$13,000	\$15,500	\$13,500

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	Applicable Infrastructure Charge (\$/unit)		
Total Infrastructure Charge / Commercial Demand Unit (rounded) see Notes 1 and 2	\$10,500	\$13,500	\$12,000

Note 1: Residential demand unit = 1 residential dwelling. Commercial demand unit = 120sqm. commercial floor space and 20sqm retail floor space

Note 2: The infrastructure charge for residential and commercial development is different because it is assumed that commercial development will not contribute

source- Fishermans Bend Progress Report December 2012 P24

A rate in excess of \$15,000 needs to be critically assessed against developer appetite, especially within a particularly competitive housing market and strategic, policy-related need for development at FBURA and given that DCP levies are not applied on a number of other urban renewal sites that are competing for development investment.

The Productivity Commission, in its 2011 report that the Victorian infill (DCP) average of \$1,609 was the lowest nationally. NSW and QLD were \$15,000 and \$25,000 respectively. However, there is doubt as to the relevance and currency of the Victorian benchmark. It is also unclear as to whether each State benchmark captures an equivalent scope of infrastructure and other wider project costs (i.e. compare apples with apples).

For example, the Property Council of Australia release on the 31 January 2013, 'RE: 2013-14 Pre-Budget Submission' indicated that it is now normal for development contributions to sit between \$225,000 - \$275,000 per net developable hectare, approaching a cost of \$20,000 per Greenfield lot in Victoria. This represents a significant recent increase in cost and / or scope of cost, which the State Government is attempting to address through its review of standard contributions.

Alternate – Indicative Standard Levy – 75% infill rate

The following, indicates the results of modelling undertaken by Urban Enterprise for the alternate 'Indicative Standard Levy' approach currently under review by Government – the 75% Standard levy is presented below.

Indicative Standard Levy – 75% infill rate

Summary of Calculated Levies	Scenario A	Scenario B	Scenario C
Residential Levy (per dwelling)	\$9,600	\$9,600	\$9,600

Summary of Calculated Levies	Scenario A	Scenario B	Scenario C
Commercial Levy (per demand unit)	\$5,076	\$5,076	\$5,076

source- Urban Enterprise, 2012

Under the Indicative Standard Levy, a funding shortfall was expected By Urban Enterprise to be at least \$100m – although this number is subject to a refresh. It is expected that this shortfall will likely to increase as the cost and scope of works increases as timetable for delivery approaches. For example this analysis did not originally include an allowance for social infrastructure which attracts finite sources of funding from developers through the DCP regime.

7. Some preliminary qualitative findings

Following our preliminary review of a number of case studies (details outlined in section 8) there are a number of preliminary themes emerged. When reviewing case studies and the strategic fit of funding models with FBURA, we believe the following issues should be considered:

- **Infrastructure requirements and funding nexus**
- **Developer Contribution Plan funding insufficiency and / or inappropriateness** as the single funding source for the FBURA
- **Price signalling** - . Competing supply in an environment where other Metropolitan developments (e.g. in CBD or Southbank) do not impose development charges (at this stage although we understand that the City of Melbourne may still consider the use of these in the future)
- **Alternative funding options** – Must be considered to de-risk and provide assurance through flexibility. Needs to take account of administration, delivery implications and legislative constraints
- **Whole of Government approach**- is a key feature of most successful international precedents is that they are facilitated through alignment of objectives and stakeholder engagement.

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- **Governance and Delivery Models** - to aggregate risks, Governance and delivery of FBURA, potentially to a single entity represents a significant opportunity for this project.
- **Unlikely to be a one-size fits all approach to funding** – “pick and mix” approach likely to be advantageous to spread funding burden and improve project outcomes (albeit may incur additional administrative burden on funding collectors).

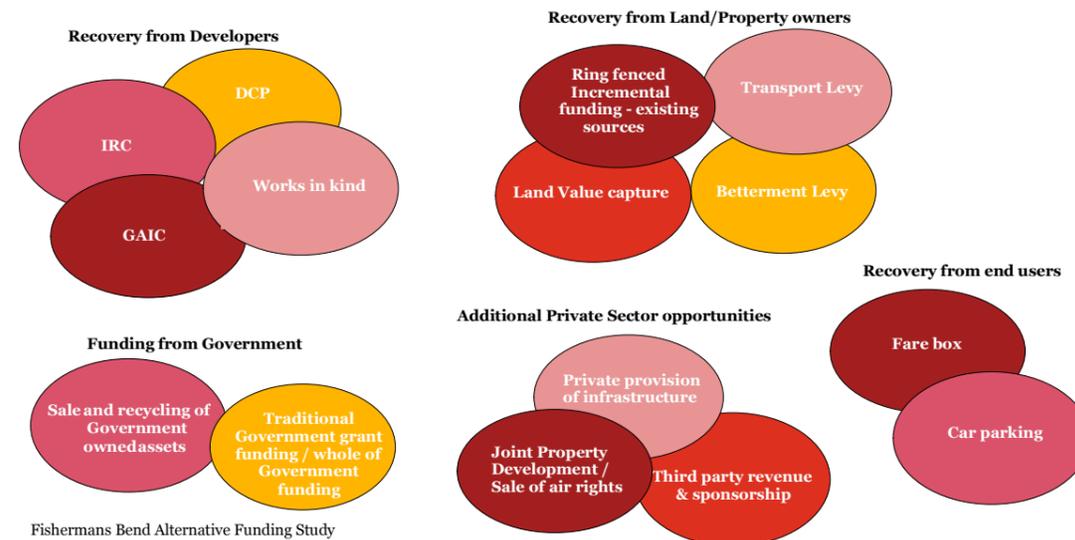
8. Alternate funding models

We have completed a national and international review to provide examples and cases relevant to the FBURA which may be incorporated into or substitute a DCP as a funding source for the project. Alternate funding mechanism may be used within a suite to develop a bespoke funding ‘package’ for the FBURA.

The alternate funding models are split into five categories which the initial funding burden falls upon. Subsequently, this burden and costs borne may be passed onto other groups such as land owners / home buyers depending upon the demand and supply elasticity of the market. These categories are as follows:

- Recovery from developers
- Recovery from Land / Property owners
- Recovery from end users
- Recovery from government
- Additional private sector opportunities

Figure 4: Funding Model categories



Key considerations when considering alternate funding mechanisms for the FBURA:

- A broad range of costs and infrastructure requirements need to be funded
- Consideration of upfront capital costs and ongoing governance, management and maintenance costs of assets
- A mixture of funding sources can spread the burden and reduce risk.
- Choice of funding model(s) is likely to impact upon the pace of development and subsequent urban renewal outcomes. Likely impact on clear set of policy requirements

More detail as to the practical application of alternate funding models are outlined for national and international precedents in Section 8 of this report.

8.1 Qualitative review of alternate funding models for FBURA

The table below provides preliminary insight into funding models available for consideration in the FBURA context. A high level assessment has been completed to determine the strength of fit of each option with FBURA objectives. This qualitative review will inform our final overall comparison of shortlisted options



Table 8: Qualitative review of alternate funding sources for FBURA	“Strength of fit” with FBURA objectives	Pros & cons
Funding models		
<p>Developer Contributions and payments</p> <p><i>Development contributions are payments (or in-kind works, facilities or services) provided by developers towards the supply of infrastructure required to meet the future needs of a particular community, of which the development forms part.</i></p>		<ul style="list-style-type: none"> DCPs are suitable for funding infrastructure in areas experiencing new growth rather than maintenance and replacement of existing services. DCPs can also fund replacement of existing assets if needed by new residents and developments. Is the Status Quo funding source in Victoria for urban infrastructure so enjoys a level of understanding and acceptance in the market (nevertheless it is currently subject to a review by the State Government) <p>Has strong local precedent and easily implemented in the FBURA. Its strategic fit is improved if it is perceived to not excessively impact upon end-customer demand and or developer profitability.</p> <p>Limitations:</p> <p>Timing: An inherent delay exists between upfront infrastructure spend and DCP funding cashflows. The predictability of DCP quantum and timing is also hard to calculate prior to project commencement and thus, may lead to funding shortfalls or surpluses in some years.</p> <p>Uniformity: Under the current regime a single DCP rate applies to each residential, retail and commercial ‘demand unit’. This removes the ability to apply flexibility to promote increased development in sub-sectors of a precinct and also to apply ‘density bonuses’ that directly surround infrastructure ‘nodes’ (e.g. transport hubs). Although ‘density bonuses’ are not currently applied under Capital City Zones, there are numerous international precedents</p>

<p>Table 8: Qualitative review of alternate funding sources for FBURA</p> <p>Funding models</p>	<p>“Strength of fit” with FBURA objectives</p>	<p>Pros & cons</p>
<p><u>Infrastructure Recovery Charge</u></p> <p><i>An Infrastructure Recovery charge does not apply to typical homeowners but is targeted at commercial scale developments, with three or more dwellings on a lot. It can levied on developers under Urban Renewal Act up to 10% of development value in designated Urban Renewal Areas.</i></p>		<p>where their use aids the funding of new infrastructure deployment</p> <ul style="list-style-type: none"> An Infrastructure Recovery Charge is suitable for funding infrastructure in areas experiencing significant new growth rather than for use in established urban areas. A recent Victorian precedent is Revitalising Central Dandenong (RCD) <p>Limitations:</p> <ul style="list-style-type: none"> Exemptions can be overly utilized given the revenue that may captured and in practice in Victoria have led to some ‘sub-optimal’ outcomes in the view of Government (Department of Treasury and Finance in particular) The trigger for the Infrastructure Recovery Charge accruing can be negotiated or determined by the project team, and thus there may be a protracted delay in funds being received if developers lobby the relevant authority.
<p><u>Growth Area Infrastructure Charge</u></p> <p><i>A Growth Areas Infrastructure Contribution (GAIC) is a charge designed to fund essential State infrastructure in Melbourne's growth areas.</i></p>		<ul style="list-style-type: none"> Typically related to growth area development and administered by Growth Areas Authority (GAA). Therefore not considered relevant for this project.
<p><u>Works in Kind as a substitute</u></p> <p><i>Infrastructure works and land may be provided by developers to public authorities on completion, with a credit provided against the development contribution they would otherwise be liable for.</i></p>		<p>To be considered on a case by case basis. Could be advantageous due to:</p> <ul style="list-style-type: none"> Efficiency and speed of deployment Integration with infrastructure and commercial / residential development <p>May also be considered a sub-set of DCPs, GAIC or IRC</p>

Recovery from Land / Property Owners

Funding Models

**“Strength of fit”
with FBURA
objectives**

Pros & cons

Betterment Levy

A Betterment levy seeks to capture the increase in property value owing to a public improvement based upon the property’s geographic proximity to an improvement.



- This seemingly ‘straight-forward’ method of cost apportionment to beneficiaries may be better received than other taxes (bearing in mind it is still a new tax / tariff applied) by potential payees, who are nearby residents and can match new asset provision with the new levy.
- It can also be argued that a betterment levy may be a suitable and transparent mechanism to capture value on land which has already been rezoned. The previous announcement of rezoning of land at FBURA to Capital City Zone can limit a number of other mechanisms from capturing value. If a fixed Betterment Levy (a flat charge per household) was applied it would not require land / properties to be valued both pre and post infrastructure deployment. That is to say, a single incremental levy per resident, business or land value unit could be applied.
- Comparatively, to apply a variable betterment levy, a distributed ‘sliding levy’ can be applied depending on the relative level of “betterment” created by the investment in infrastructure. This rate would vary geographically to residents, businesses, etc...

Limitations:

- Significant implementation issues can occur due to the accuracy required when assessing how to equitably distribute the charge
- Recent experience indicates that these levies can be implemented effectively in Victoria (especially at a local government levy and other recent State Government impositions). However, there may be concern of addition of ‘another tax’ or levy to residents on top of Metropolitan Fire Brigade Levy, Vic Desalination Levy, etc..

Funding Models	“Strength of fit” with FBURA objectives	Pros & cons
<p><u>Transport Levy</u></p> <p><i>A transport levy is an Improvement Charge which is assumed to be incurred by all ratepayers at flat rate per dwelling, charged by the council.</i></p>		<ul style="list-style-type: none"> • Transport levy has strong strategic fit with project given the key asset being developed will likely be a light rail corridor (clear link between funding source and asset provision). • Clear nexus between transport users and or local residents and asset funding. <p>Funding source is diversified away from upfront development contribution (not payable by developers) and is a long-term cashflow source able to fund not only asset development, but also long-term maintenance costs. Can lead to increased certainty and “bankability” due to long-term incremental funding source</p> <p>GCRT:</p> <p>The Gold Coast Rapid Transit (GCRT) project employed a ‘City Transport Improvement Charge’ to partially fund the light rail project – flat rate tax of c\$100 per household / business per annum (subject to escalation)</p> <p>Limitations:</p> <p>Timing: Inherent delay between upfront infrastructure spend and levy receipts. Although this can also help provide ‘ring-fenced’ fund infrastructure for future renewal and maintenance over time. Transport levy on existing residents does however provided limited early year, non-development impacted cashflows</p> <p>Collection: Requires a collection agency (e.g. local council) to collect tax. If a flat rate is assumed then may form a regressive tax on landowners. In FBURA given the limited number of residents currently within the precinct, the extent of future revenue (funding) is highly dependent on the rate and scale of development actually achieved.</p> <p>Benefit: May be difficult to estimate the benefit of light rail and therefore difficult to set an appropriate rate. However, this mechanism may be tailored primarily as a cost recovery mechanism to avoid this theoretical debate.</p>

Funding Models	“Strength of fit” with FBURA objectives	Pros & cons
		<p>Also per above (‘Betterment Levy’) regarding addition of an another levy to residents on top of existing recent imposed levies in Melbourne</p>
<p><u>Land Value Capture</u></p> <p><i>Land Capture Value is a type of public financing that recovers some or all of the value that public infrastructure, such as building transportation or sewer facilities generates for private landowners. They can be applied to developers or landowners and either before or after a public improvement is built.</i></p>		<ul style="list-style-type: none"> • Land value tax regimes such as those instituted in ACT, Columbia and Brazil are either based on existing mechanisms that exist within property market (e.g. ACT lease arrangements) or apply similar mechanisms to DCPs (albeit with more potential flexibility). • Ultimately either landowners or developers contribute funding. <p><u>Limitations</u></p> <p>Scope for additional funding: Ability to extract value from increased density (linked to development approval process) may be limited by current planning designation (capital city zone). Still taxing same entities as under DCP, just through a different mechanism</p> <p>Difficult to determine ‘baseline’ and uplift of property value – It may be difficult to accurately calculate the baseline value of properties and consequent uplift attributable to infrastructure deployment in FBURA. Add to this is the fact that the rezoning has already occurred, which is often seen to be the greatest contributor to value. As such to apply a ‘value tax’ may be seen by some as adding taxes in retrospectively.</p> <p>Applicability</p> <p>Sao Paulo example is not particularly relevant due to the fact it is based on an existing residential development area versus a currently predominantly industrial area in the FBURA. Land value capture mechanisms are often used in existing residential areas with benefits more feasibly calculated and allocated for specific areas versus neighbouring areas.</p>
<p><u>Ring fenced incremental funding –</u></p>		<ul style="list-style-type: none"> • Combination of hypothecation of new and increased council rates and / or stamp duty receipts

Funding Models	“Strength of fit” with FBURA objectives	Pros & cons
<p>existing sources</p> <p><i>Ring fenced incremental funding is where the ‘authority’ borrows towards the funding of infrastructure investment in the expectation that the proposed economic regeneration will result in increased local tax revenues in the relevant area. Assumed to only relate to incremental tax income from FBURA.</i></p>		<p>Limitations:</p> <p>Timing: Inherent delay between upfront infrastructure spend and DCP funding cashflows. However upfront securitisation of incremental funding sources (per Northern American examples) may introduce an upfront financing mechanism – to be repaid over time. If private bond market is weak, this may be supplemented by Treasury Corporation of Victoria (TCV) funding – although risk transfer back to State should be well understood under this mechanism. TCV funding is provided to select Government projects of policy importance, and accrues interest as a debt funding source.</p> <p>Predictability: Predictability of incremental funding sources (e.g. stamp duty, land taxes and council rates) – both in quantum and timing of development is hard to predict, so may lead to funding shortfalls or surpluses in some years. Although this may be mitigated through conservative assumptions</p> <p>Appetite: Low appetite exists due to perceived forecasting risk, concern relating to where the risk eventually resides and hesitation in allowing incremental stamp duty and land tax to be captured and applied as funding, rather than directed to consolidated accounts within the State and Local Governments.</p> <p>The Victorian Government has a policy aversion to hypothecation of its revenues and is concerned about the State’s risk position related to project or forecasting risk and whether there is any contingent financing risk.</p> <p>The importance of Local Government ‘buy-in’ to the process cannot be underestimated as both potential underwriter and / or collection agency for this funding source.</p>

Recovery from End Users

Funding Models	“Strength of fit” with FBURA objectives	Pros & cons
<p><u>User pays – Fare box and car parking revenue</u></p> <p><i>Under this mechanism the end user pays for infrastructure through the application of fees, tolls and fares which may be used as a form of revenue to pay for infrastructure costs.</i></p>		<ul style="list-style-type: none"> Fare box on light rail is a collectable source attached to delivery of transport infrastructure asset <p><u>Limitations</u></p> <p>It is likely that ‘fare box’ revenue on light rail and other transport may been ‘ring-fenced’ by the Department of Transport (DoT)/ existing providers to fund maintenance / lifecycle costs of transport services, given that this has been typically arrangements with public transport assets. This is to be confirmed through additional discussions with DoT (DoT were not clear on position at time of this paper being produced).</p> <p>Little appetite may exist for a congestion charge or implementation of additional fare charges to transport within FBURA (e.g. additional 50 cents per trip or consider FBURA a new ‘zone’)</p>

Funding From Government

Funding Models	“Strength of fit” with FBURA objectives	Pros & Cons
<p><u>Sale and recycling of government owned assets</u></p> <p><i>The sale and recycling of government owned infrastructure can be used to fund new projects, which may assist infrastructure delivery by putting infrastructure assets in the hands of those who may be best placed to manage and operate them. These may be assets both within and external to FBURA.</i></p> <p><i>There needs to be consideration of political sensitivities relating to the sale of assets to fund future urban renewal investments.</i></p>		<ul style="list-style-type: none"> • Sale of surplus asset could be an upfront source of funding to fund upfront capital outlays for the project. • Proceeds may be ring-fenced for project use. • Tax and GST advantages exist for pre-year 2000 owned assets that are used to derive proceeds <p>Limitations:</p> <p>Attributed elsewhere: Generally the revenue from the sale of surplus assets is regarded as part of consolidated revenue and may also already be accounted for in the forward estimates. It is unlikely to be treated differently from other Government funding sources.</p> <p>However where there is a clear link to funding sources and use (e.g. school provision) and provides a mechanism to efficiently unlock asset worth that is currently underutilised this is seen as worthy of further consideration</p>
<p><u>Traditional Government funding / whole of government funding</u></p> <p><i>Traditional Government Funding is financial assistance received by non government entities in the form of federal, state, or local government grants, loans, loan guarantees, property, cooperative agreements, food commodities, direct appropriations, or other assistance</i></p>		<ul style="list-style-type: none"> • Given fiscal constraints there is unlikely to have much all-of-Government support for pure capital contributions. <p>Limitations:</p> <p>Government contributions without increase to project specific funding sources will add to credit rating burden on the Local, State and / or Federal Governments. Would likely require BERC (Budget and Expenditure Review Committee) business case submission and approval.</p>

Additional Private Sector Opportunities

Funding Models	“Strength of fit” with FBURA objectives	Pros & Cons
<p><u>Private provision of infrastructure</u></p> <p><i>Private Provision of Infrastructure involves the private sector providing assets to the public such as infrastructure that is traditionally the responsibility of the government.</i></p>		<ul style="list-style-type: none"> • Already established method of levying developer contributions (DCP) – therefore does not increase funding pool <p>Limitations:</p> <p>Market appetite: Uncertain market appetite and applicability to this project. Should be tested through market sounding exercise. There may only be a certain number of developers with scope and appetite to undertake this form of deal with the State.</p>
<p><u>Joint Property Development /Sale of Air Rights</u></p> <p><i>Joint property development enables an infrastructure provider to capture value through the development of adjacent real estate.</i></p> <p><i>As another method of capturing value, Air rights comprise the rights vested in the ownership of all the property at and above a certain horizontal plane</i></p>		<ul style="list-style-type: none"> • Due to limited land either owned or in the control of the State. Little land to leverage (except where sale of surplus asset (outside of FBURA) – as outlined below <p>Limitations:</p> <p>State unlikely to play a developer role (either as sole or joint developer) unless it acquires large parcels of land to create reservations for multiple infrastructure types. This may leave residual land for commercial gain.</p> <p>Alternatively State may Joint Venture with the private sector and receive a combination of baseline value along with a share in profit or revenue, per commercial terms of deal.</p>
<p><u>Third party revenue & sponsorship</u></p>		<p>To be explored speculatively during implementation, but unlikely to form a core element of a funding solution for FBURA</p>

Executive summary

Funding Models	“Strength of fit” with FBURA objectives	Pros & Cons
<u>Voluntary and community sector involvement</u>		<p>Opportunistic– unlikely to be a key ‘funding plank’ for FBRUA.</p> <p>To be explored speculatively during implementation</p>
<u>Master planner</u>		<p>Opportunistic – unlikely to be a key ‘funding plank’.</p> <p>Due to limited site ownership and control the public sector is unlikely to generate revenue through master planning role</p>

10. Quantitative assessment of alternate funding mechanisms

Infrastructure Costs –Uses of Funds

As outlined above, infrastructure costs are broken into a number of categories. Initial findings on the total nominal values for these costs (across each of the scenarios) are outlined below:

Nominal Infrastructure costs by category and Scenario

Uses of funds - Nominal	Scenario A (\$m)	Scenario B (\$m)	Scenario C (\$m)	Discussion Scenario (\$m)
Roads and Drainage	31.2	65.3	126.2	106.3
Pedestrian and cycle paths	-	-	-	-
Public Transport	-	-	-	-
Light Rail	85.0	305.0	685.0	655.0
Land Acquisition Costs (Infrastructure)	10.0	20.0	40.0	30.0
Land Acquisition Costs (Public Open Space)	70.0	120.0	240.0	200.0
Social Infrastructure	69.3	137.8	215.0	158.9
Community Infrastructure	37.7	65.7	93.4	80.5
Other supporting infrastructure	-	-	-	-
Project Planning	5.0	5.0	5.0	5.0
Total	308.1	718.7	1,404.6	1,235.7

Source: costs collated by Urban Enterprise and Places Victoria, specific sources have been outlined in the detailed modelling assumptions.

Note: Certain costs (Pedestrian and cycle paths, Public transport, and other supporting infrastructure have not as yet been finalised)

NPV of Infrastructure costs

Based on the nominal infrastructure costs, and the infrastructure spend profiles outlined above Net Present Cost calculations have been completed and show a total NPC of infrastructure costs for the Discussion Scenario of **c.\$820m** in 1 Jan 2013 dollars, split as follows (note the numbers below do not include a 'specific' risk adjustment component):

Infrastructure Category	NPC (\$m)	Nominal (\$m)
Roads and Drainage	80.1	106.3
Pedestrian and cycle paths	-	-
Public Transport (not incl. Light Rail)	-	-
Light Rail	371.1	655.0
Land Acquisition Costs (Infrastructure)	24.3	30.0
Land Acquisition Costs (Public Open Space)	162.1	200.0
Social Infrastructure	118.4	158.9
Community Infrastructure	59.9	80.5
Other supporting infrastructure	-	-
Project Planning	3.7	5.0
Total	819.7	1,235.7

Note: the discount rate used for this calculation is 5.98%, which uses a TCV risk free rate of 4.18%, a market risk premium of 6%, and an asset beta of 0.3 (based on DTF guidelines). We have used a nominal discount rate and a DTF specified beta, however further review of these numbers could be warranted in a more detailed discount rate discussion.

NPV of funding mechanisms – Sources of Funds

We have reviewed the returns to the State from each funding mechanism under the Discussion Scenario. Based on the Discussion Scenario assumptions outlined earlier, potential returns to the State could potentially be as outlined in the table below.

List of sources of funding and indicative returns under the Discussion Scenario

Infrastructure Category	NPC (\$m)	Nominal (\$m)
DCP funding (@ 73% cost apportionment)	384.3	848.8
CIL funding (@ \$900 cap per dwelling)	16.4	36.2
IRC funding (@ 5% of development value)	415.2	884.0
Transport Levy funding @ \$140 p.a/demand unit	53.3	154.0

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Infrastructure Category	NPC (\$m)	Nominal (\$m)
Betterment Levy funding @ \$300 p.a/demand unit	85.0	269.5
Ring-fenced stamp duty increment	120.0	322.1
Ring-fenced council rates increment	108.3	351.1
Ring-fenced land tax increment	65.0	210.8

The gap from pure DCP funding

Our assumptions of a maximum charge of \$15,000 per dwelling for a DCP charge means a 73% cost recovery (e.g. 73% of total costs on a nominal basis are recovered through the DCP charge for the infrastructure costs in the Discussion Scenario).

The base case funding package of a DCP levy (alone) was tested and showed a total “gap” (difference between uses and sources of funds) on a nominal and NPV basis as follows:

Base Case funding package: DCP Only

DCP Only	NPC	Nominal
Funding Gap	\$ 419m	\$ 351m

Potential alternative funding packages

Our analysis reviews three possible funding packages that could be used to replace or supplement the use of a DCP. The funding packages have been selected based on the key considerations outlined earlier in the report, and take into account mutual exclusivity of mechanisms, legislative and implementation issues, and the key issues around benefit equity, etc. The packages that we have selected for more detailed analysis are:

1. Infrastructure Recovery Charge only
2. DCP plus transport levy and betterment levy
3. DCP plus transport levy, betterment levy, and incremental council rates

Funding package 1: IRC only

IRC	NPC	Nominal
Funding Gap	\$ 427m	\$ 352m

Funding package 2: DCP plus transport levy and betterment levy

DCP, TL, BL	NPC	Nominal
Funding Gap	\$ 281m	(\$ 73m) (net funding surplus)

Funding package 3: DCP plus transport levy, betterment levy, and incremental council rates

DCP, TL, BL, CR	NPC	Nominal
Funding Gap	\$ 172m	(\$ 423m) (net funding surplus)

These funding packages will need to be tested further as the FBURA business case progresses, and the numbers from these packages are refined. Changes in Precinct staging and phasing, development profiles and mechanism settings (e.g. total % of cost apportionment) will likely have a significant influence on potential funding returns to the State, and therefore the mix of funding mechanisms that may be appropriate. Financing costs are not included in the nominal funding gap presented above both rather are taken account of in NPV comparisons with funding sources.

Preferred funding package

Given the significant infrastructure costs that may be required for this Precinct, and the various legislative and practical constraints covered in earlier sections of this report, the preferred funding package based on available data to date would be Funding Package 3. This recommendation, however is subject to the administrative, political and value of including the incremental council rates income to the funding package (of which the efficacy of implementation should be explored further at business case)

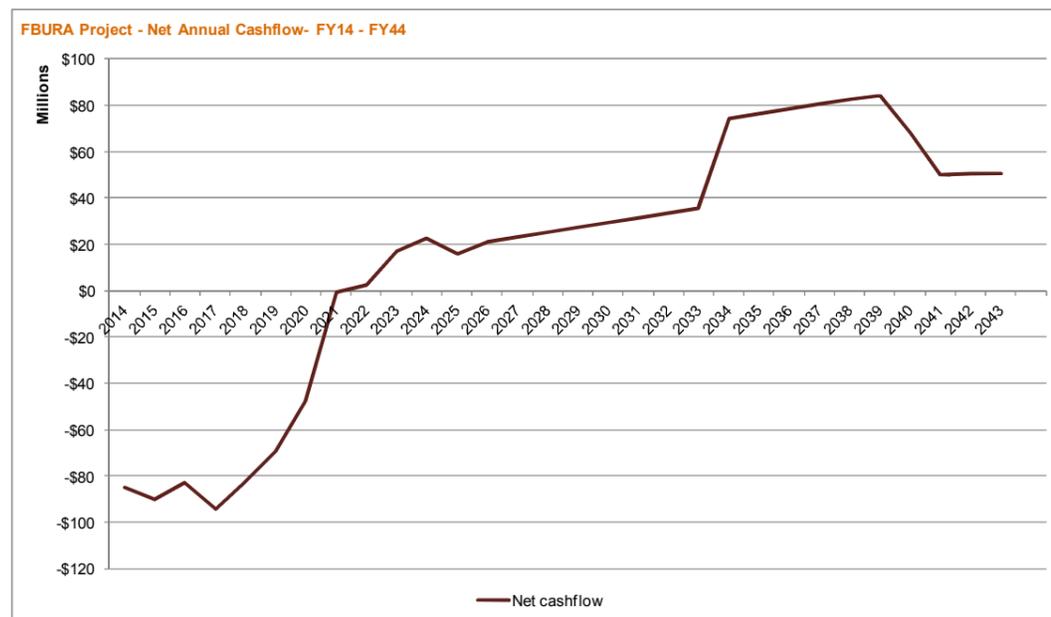
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This package includes a broad range of value capture funding mechanisms (transport levy, betterment levy and incremental council rates) supporting the core funding platform a DCP charge of \$15,000 per dwelling and commercial demand unit.

Our analysis of peak funding exposure and risk (on FBURA) is based on the Discussion Scenario, and Funding Package 3.

The net cash flow (excluding financing costs and appropriate 'risk adjustments') from the preferred funding package is shown in below outlined total sources and uses of funds for the FBURA project.

Figure 1 - Net Annual cash flow - Preferred funding package



11. Implementation & Governance

Implementation

The funding approaches outlined in this report will require further work prior to their implementation.

In particular we recommend the development of an interim business case and detailed business case (we understand that Places Victoria have already commenced work in developing an interim business case). The business case should include the following indicative scope:

- Detailed assessment of infrastructure requirements supported by planning, design and construction consultants to develop a reliable reference project; whole of life project costs; key timing assumptions; (depending on the model adopted) impact on property values; etc.
- Further development of the preferred funding model(s) including legislative impacts; detailed stakeholder assessment; governance model(s).
- Market consultation
- A detailed risk assessment
- Detailed financial modelling and sensitivity analyses. This would include some assessment of financial impacts of unanticipated slow-down scenarios in development growth versus current projections (i.e. additional 'stress testing' of the funding model)
- Detailed economic analysis. This should seek to support the need for any form of Government intervention at FBURA
- Develop detailed implementation time-and a roadmap for effective delivery including input from key stakeholders.

The interim business case should be considered to be 'proof of concept' followed by a full business case.

Project Governance

A governance framework for the Project is required to establish the various roles of the State and other involved parties in the Project and the most appropriate delivery framework.

The governance structure needs to be established in a manner that ensures a broad range of State government objectives are met. The scale and importance of the development suggest an organisational response is required.

Funding mechanism governance

It is recommended that Governance decision be made (considering who will drive the process) with reference to the following key decisions:

- What Government intervention is desirable
- Who will the funding administration and collection entity/s be?
- How will Local Government be involved
- Who will procure the necessary upfront infrastructure and associated works
- How will procurement, planning, funding and financing risks be mitigated for the project over the entire project
- How will necessary financing be arranged
- How to manage, negotiate with and regularly update public and private stakeholders.
- Ensuring the delivery entity capability, experience and resources to manage the FBURA project.

The interim business case should establish the roles and responsibilities of each party in this project and role they should play in the delivery of the infrastructure; these will be developed and completed in the full business case.

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Tax and accounting strategies

Places Victoria, in order to most efficiently apply the funding envelope obtainable for the FBURA, should consider advantageous tax strategies including considering GST, stamp duty, land and other tax impacts on the project. The *Project Development and Construction Management Act 1994 (Vic)* (“PDACM Act”) is one such initiative which could be utilised to minimise future taxes payable when acquiring land for infrastructure deployment. This opportunity requires a further assessment as more information becomes available regarding the particulars of the project.

The accounting impact of the project on Places Victoria, the Victorian State Government and Local Governments should also be carefully planned. Similar to the 'contingent' nature of any demand risk sharing payments, a number of the alternate funding models outlined in this paper may have some revenue 'at-risk' nature to them.

12. Next Steps

Outlined below are a number of key steps we recommend be undertaken in order to further expand the test the efficacy and applicability of funding sources to the FBURA. These findings and next steps should not be considered exhaustive, but rather should be built upon as starting point for developing a business case for implementation on this city-changing urban renewal project:

Key findings and recommendations:

- We recommend that the costs provided by AECOM for the light rail and transport infrastructure are peer reviewed as they are likely to be the most significant Government initiated expenditure items for the FBURA. There should also be due consideration as to the long term maintenance, lifecycle costs and management of this asset (line and rolling stock) post construction and commission.
- The social infrastructure costs are expected to be considerable when taking into account the original outlay, lifecycle costs (if necessary) etc. These costs are likely to be scrutinised by a range of stakeholders due to limited current scope of social services and assets within the FBURA (and neighbouring communities)
- An interim and detailed business case be prepared to further develop the funding models and mechanisms and their application to FBURA. This report outlines a number of the due diligence pieces that are required to confirm their applicability to FBURA. These business case(s) should also investigate for FBURA:
 - Detailed assessment of infrastructure requirements
 - Market consultation of suitability of funding mechanisms
 - Further development of the preferred funding model(s) including legislative impacts; detailed stakeholder assessment; governance model(s), tax efficiencies, .etc..
 - Risk implications on stakeholders and financial modelling, along with detailed economic analysis. This should included sensitivity analyses of financial projections to test financial robustness
 - Implementation plan and project ‘roadmap’

Other opportunities:

- Key funding opportunities for FBURA are outlined in this paper. In this section we have also outlined some key next steps to progress and refine the potential application of these for FBURA. These next steps are to be considered an initial work-in-progress, with issues and milestones to be refined as the project team approaches delivery of the project

Developer contributions (DCPs)

- Track the DCP review work being undertaken by the Victorian State Government to clarify the implications for FBURA, in particular if it proposes that FBURA adopts a ‘standard infill’ rate for FBURA
- Undertake further due diligence on the correct calculation of a DCP for FBURA, clarifying infrastructure items allowed, rate of escalation, etc.. Further analysis required in order to price the DCP (i.e. what threshold will developers not consider FBURA development economic)
- If a DCP is to be contemplated develop a financial model in order to robustly calculated relevant contribution levies taking into account allowable infrastructure and associated costs (e.g. design, capital and financing costs, etc..) This model should be updated and further developed throughout the project lifecycle to track budget against funding sources for FBURA. It should be stress-tested under alternate development and economic condition scenarios.

Infrastructure Recovery Charges

- Further test the appetite for IRC and the potential benefits it presents vis-à-vis the status quo (DCPs).
- Key lessons learnt from the Revitalising Central Dandenong project should be heeded and taken into account if IRC are to be contemplated at FBURA. For example, consider the establishment on an IRC with stringent controls such as mandates on timing of payment and upfront clarity on scope of costs included in calculation of charges (thus avoiding any subsequent negotiation with developers). If this is established this may well be advantageous from a cashflow or 'attributable items' basis when compared with DCP related levies (IRC only to be implemented as a substitute for DCP levies)

Betterment Levy

- Local Government buy-in is required in order to test appetite to be the collection agency and / or to 'forward fund' the levy. Consider the use of the Local Government Act 1989 to establish this levy (and others analysed in this report)
- Further due diligence required in order to value impacts related to infrastructure investment and what proportion of this should be captured to fund FBURA. For example a number of North American and European studies have tested the relationship between transport infrastructure and property values (see *PwC Tax Increment Financing paper for the Property Council of Australia - 2008.*)
- Create sub-sector profiles and model likely uplifts in property to gain a profile of local property market economics. This study should recommend appropriate rates of benefit levy to apply to which areas on a detail, granular basis. Decide which areas within and external to FBRUA project boundary to apply levy to
- If this funding mechanism is to be employed investigate methods to securitise revenue to deliver necessary upfront funds – either through private or public financing
- Consider the use of sunset dates, targeted levying (e.g. exclude local business owners, etc..) to refine levy to optimise funding whilst also focussing on core objectives (e.g. benefit equity, minimising impact on preferred development types, reducing risk and 'bankability' of funding proposal
- Consider whether betterment levy could be applied to residents, businesses and per demand unit or per value unit. Also whether it is applied to areas within FBURA or more generally to areas outside this precinct

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Transport Levy

- Local Government buy-in is required in order to test appetite to be the collection agency and / or to 'forward fund' the levy.
- Decide who the levy will be applied to and on what basis (e.g. flat rate charge per annum)
- Decide which areas within and external to FBRUA project boundary to apply levy to
- Like betterment levy - investigate methods to securitise revenue to deliver necessary upfront funds – either through private or public financing
- Investigate whether the levy may be applied as an annual charge under the Urban Renewal Act

Land Value Capture

It is difficult to estimate and therefore difficult to recommend at this stage given limitation over applicability and information. For example:

- How is benefit estimated?
- Does authority apply density bonuses, charges on development application – what recent precedent exists for this in Melbourne?

Applying a density bonus (as a potential option – such as the New York example) may reduce residential and commercial density which could be contrary to project objectives.

This mechanism should be considered as a possibility to form a component of funding model / package for FBURA, especially to provide additional control over types and location of dense development if this is considered important

Test appetite for this model, but also consider whether this approach would add more than a betterment levy. One future application could be to areas surrounding major transport interchanges or underground train stations, where density could be 'taxed' effectively without significantly impacting upon the appetite for development in these areas.

It should also be noted that the Land Value Capture analysis contained in this report has not modelled, nor in a detail capacity, assessed the implementation of an ad valorem (unimproved land value) based cashflow. This levy approach may be explored in subsequent work, in particular how this tax / levy would be calculated in order to raise sufficient funding to justify its establishment at FBRUA.

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Ring fenced incremental income

- Test local Government appetite for this type of funding mechanism. This discussion should also outline the risk mitigating measures discussed in this paper such as sunset dates, limiting the percentage (say 70%) of incremental income to be allocated to FBURA upfront funding
- Ongoing discussion with Victorian State Government

Investigate appetite in the financier market for securitisation of incremental income at FBURA. This process could also consider the combination of securitising this funding source with procurement of infrastructure (potentially by the same entity)

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1 Background

1.1 Background and Objectives of Study

- The Fishermans Bend Urban Renewal Area (FBURA) is site of 240+ ha to the direct South West of Melbourne's CBD. The Net Developable area of the FBURA area is estimated at 180ha (Places Victoria)
- The Victorian State Government has earmarked this project as a project of State significance and a target for future urban renewal and city growth in Melbourne over the next 30+ years.
- The FBURA project will have a major impact on the Melbourne economy by potentially increasing land supply, housing stock, construction and general economic activity

However a project of this size also entails significant pre-work and infrastructure spend to sustain the degree of proposed development. There is also only a limited degree of site control or ownership that Government can leverage in order to generate funding or to influence forms or scale of development to achieve important urban renewal outcomes

- The site has 4 precincts –Montague, Lorimer, Sandridge and Wirraway which in July 2012 were rezoned to Capital City 1 to allow increased urban density. Notwithstanding, the FBURA will require significant investment in masterplanning, strategic direction and upfront infrastructure deployment to facilitate development.
- The Development Contribution Plan (DCP) scheme is an upfront funding source, prior to development (as opposed to spread over the useful life of infrastructure assets being developed) which may be insufficient or incapable (alone) of meeting a key objective for Government, which is to sustainably fund the development and long-term maintenance of required infrastructure for FBURA.

- In a tight fiscal environment the funding of required infrastructure - including economic, social and utilities - in order to enable mixed-use urban growth is a complex issue. The Status Quo, the DCP should be critically assessed against funding needs and requirements for the individual precincts. A potential alternate option may be to employ a mix of existing and other funding sources to help spread the funding burden between public and private project stakeholders. As currently planned, a Development contribution Plan Overlay mandates the collection of contributions in the current Planning Scheme
- It should be noted that Government has low levels of ownership and or control of sites with the FBURA , which limits the degree of other 'value capture' funding sources employed on other large urban renewal projects.



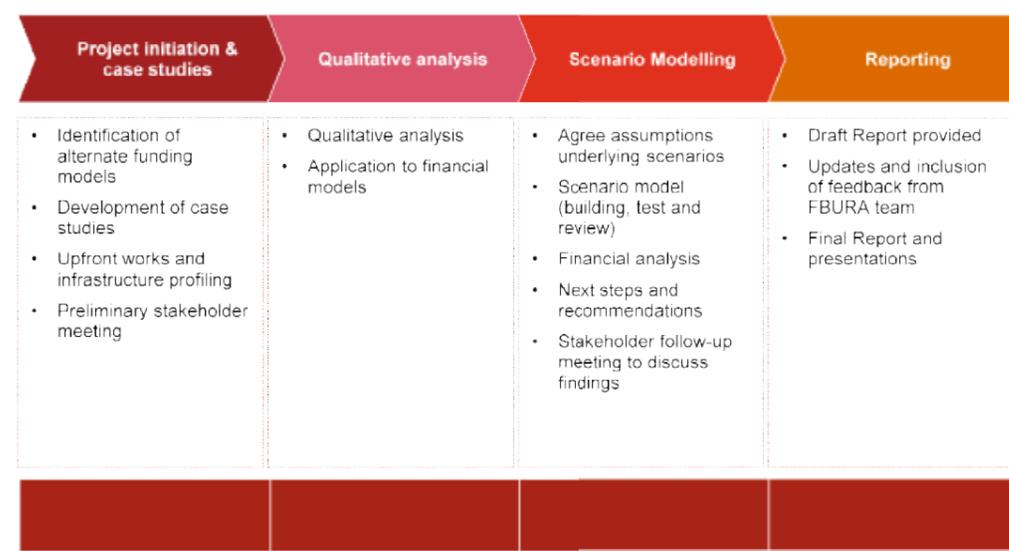
2 Nature of consultancy

2.1 Scope of PwC Engagement

PwC has been engaged by Places Victoria to undertake the following:

- 1 Identify alternative funding models – taking into account the proposed scale and nature of required infrastructure to enable effective urban renewal
- 2 Review national and international ‘best practice’ urban renewal and infrastructure funding models for potential application in central Melbourne
- 3 Discussion of legislative constraints and State Government update of DCP
- 4 Qualitative assessment of funding models to suit local context (through preliminary qualitative analysis). Tailor advice to the Fishermans Bend Urban Renewal Area site
- 5 Quantitative analysis under alternate development scenarios (low, medium and high density scenarios). High-level financial modelling
- 6 Stakeholder engagement to test finding and presentations. Next steps and broad implementation advice

Figure 2 Consultancy work steps



3 Objectives of Government for 'funding package' for FBURA

3.1 Success Factors/Assessment Criteria

Based on workshops undertaken with Government, we understand the following information to be the key success factors /assessment criteria to be used when examining the various funding alternatives for FBURA.

A key stakeholder workshop was undertaken on December 18, 2012. Findings and recommendations from this workshop are outlined in Appendix B – Stakeholder Consultation.

A key output from this workshop was the establishment of a number of core objectives and also central criteria for the assessment of existing and alternate funding sources for upfront works and infrastructure for the FBURA. This set of criteria will be used to assess and then shortlist the various funding mechanisms. The set of criteria includes:

Benefit equity – what benefit versus cost imposed for which stakeholders (Government Stakeholders, Developers, Residents, Tax payers)

'Naturally matched' to infrastructure or site cost (e.g. can't institute toll roads on schools) – might lead to a suite of models to reflect diverse infrastructure requirements. Linked to economic efficiency of implementing mechanism

Financial sustainability to the State (not only taking account upfront development, but ongoing management and ownership of assets). Consideration of 'balance sheet' impact, GST and other tax implications (where relevant)

Urban renewal outcomes: Does not adversely impact upon the nature, scale, speed or efficacy of urban renewal outcomes – (taking account of market appetite for a mechanism). Facilitates development in the right area at the right time to enable appropriate growth

Practicality and deliverability of funding mechanisms – taking into account all the potential implementation issues (including administration, legislative constraints, market constraints and state or local government appetite). For example the introduction of new taxes may not be supported by State Government)

Cost effective – doesn't adversely impact housing affordability, developer and or financier appetite in the FBURA

Risk – Makes investment in the FBURA 'bankable' by reducing and appropriately allocating risk to the parties responsible

'Broad basis' of revenue collection– Promote a broad basis of revenue collection to distribute cost of infrastructure and other upfront outlay's. Flexibility to alter the capture area which the funding mechanisms are applied to should be considered to alleviate possible funding strain caused by relying on a concentrated source. This flexibility will also assist an equitable burden and distribution of cost for the project. A mixed use of upfront collection and long-term collection profile will also smooth funding impacts.

When attempting to achieve the core objectives listed above, it is imperative to acknowledge the implicit characteristics of each which may prevent all criteria being achieved concurrently.

By way of an example, a trade off may occur between the fulfilment of a broad basis of revenue collection (with the advantage it potentially being cost effective and relative easy to implement versus other more 'scientific' approaches) and the ability to ensure benefit equity. For example, by choosing to fund a project through the application of an increased capture area, all the parties which are drawn on as a funding source may not benefit equally due in part to the distance or reduced nexus between payee and beneficiary.

Therefore the selection and achievement of the above listed criteria requires careful balancing to ensure the desired outcome is achieved.

4 Challenge to meet

4.1 Challenge to meet- Reduce DCP funding gap and improve equity and effectiveness of funding model

The redevelopment of such a large inner city area with various land uses and owners presents a number of complex challenges. These include the way in which the project can be funded given the immediate constraints on Government budgets.

In this light, whilst there may be many various alternate funding mechanisms available to Government, many of these mechanisms may draw on the same source or contributor. For example, whilst Developer contributions and Infrastructure Recovery charges may be calculated on a different basis, the end party who is left with the burden may be the same.

To ensure an equitable result which reflects commercial viability and market acceptance, the funding category which is utilised must be appropriately selected and not overdrawn. These funding categories include:

- Recovery from developers
- Recovery from land / property owners
- Recovery from end users
- Funding from government
- Additional private sector opportunities.

Section 8 provides further detail of funding sources.

A common category drawn upon is recovery from developers. The most commonly utilised mechanism, DCP, has been in place for over a decade and is well understood and accepted by the market to fund urban renewal projects in Victoria (depending of course on the size of the earmarked DCP being accrued to developers). Although it must be noted that their use in urban renewal projects is less prevalent.

It is recognised that under DCP the burden falls principally on the developer to fund the majority of infrastructure and associated upfront costs required. This could cause a number of unintended market consequences that are particularly relevant for a unique urban renewal project such as the FBURA.

For example, if the Developer Contribution levies are set too high (remembering that these costs must be paid by Developers before any revenue is received) then the appetite of developers for the project may be negatively affected. In a worst-case scenario, this may ultimately impact upon the extent and timetable of development in the project area. This may result in lower take up rates and expanded timescales for urban development if project returns are not considered alongside the level of contributions.

Another potential unintended consequence of a high Developer Contribution is the impact on affordability for homebuyers. As the development contribution may be passed (to a greater or less extent – as determined by market forces) by the developer to the purchasers of the individual dwellings, this will increase house prices and reduce relative affordability of housing within FBURA.

4.1.1 Development Contributions

Development contributions require a Collection Agency to administer the plan and provide infrastructure necessitated by proposed private urban growth or renewal areas. In Victoria, developers are typically required to provide infrastructure within development site boundaries.

In addition, developers are also required to contribute to the provision of development and community infrastructure such as land, roads, public transport, improvements to public open spaces, drainage, building and works for maternal and child related centres and building and facilities for community and social purposes.

In some cases, economic infrastructure such as train, light rail and high-volume roads may be required to facilitate appropriate forms of development. Much of this social and economic ‘trunk’ infrastructure requires upfront funding and / or financing (at least in the form of a ‘commitment’ by Government) prior to physical property development commencing en-mass. This infrastructure is often a catalyst to create subsequent developer interest in the sites or renewal precincts.

Challenge to meet

In Victoria, a DCP must provide clear documentation detailing the costs associated with the project, with the following costs eligible to be included in the calculation of a levy:

- The capital costs of providing the necessary infrastructure
- The cost of financing the infrastructure project, if provided early in the life of the DCP
- The design costs associated with the infrastructure projects, and
- The costs of preparing and approving the DCP

Recurrent costs such as maintenance and operating costs or costs associated with the administration of the DCP cannot be included in the calculation of a development contributions levy.

The Development Contributions Guidelines, which apply to development and community infrastructure, provide that Development Contribution Plans (DCPs) must comply with eight principles:

- 1. Strategic basis** - the DCP must be strategically justified and linked to the State Planning Policy Framework or the Local Planning Policy Framework in the planning scheme
- 2. Justification of infrastructure projects** - infrastructure projects can be included if they will be used by the future community of an area, including existing and new development
- 3. Nexus** it must be demonstrated that the new development to be levied is likely to use the infrastructure to be provided
- 4. Reasonable time horizon**- the time horizon should not exceed 20 to 25 years
- 5. Share of usage** -infrastructure costs must be apportioned on the basis of projected 'share of usage'
- 6. Commitment to provide the infrastructure**- a DCP imposes a binding obligation on the infrastructure provider to provide the infrastructure by the date or criteria specified in the DCP
- 7. Accountability** - levies collected must be used to provide the infrastructure specified in the DCP. Proper financial accounts must be kept to demonstrate this

8. Transparency - all assumptions relating to the calculation of levies must be documented and justified and expressed in non-technical language so they can be clearly understood.

(Source Standard Development Contributions Advisory Committee –Interim Consultation Report Proposed reform of Local Government development infrastructure charges arrangements (November 2010))

Legislative basis - Planning and Environment Act 1987

The Planning and Environment Act 1987 contains the statutory provisions for development contributions. The act provides for the inclusion of a DCP in the Planning Scheme and provides for the application of Development Infrastructure Levy or a Community Infrastructure Levy.

The Act sets a limit on the levy for community infrastructure. This maximum is \$900 for each dwelling to be constructed and \$0.25 for each dollar of the cost of building work. There is no maximum levy for development infrastructure in the Act.

Development infrastructure - there is no maximum levy for development infrastructure under this regime. However, the classification of infrastructure and upfront costs to enable development is key to calculate the charge to developers (via 'cost apportionment' methodology)

Review of DCP

The current DCP system has been operational since 1995 with the most significant shift in DCP formulation and cost apportionment occurring in relation to community and recreation infrastructure.

In May 2012, the Minister for Planning announced a preferred framework for the development contributions system in Victoria which is set out in A New Victorian Local Development Contributions System – 'A Preferred Way Forward', prepared by the Department of Planning and Community Development. It proposes a combination of standard contributions and other variable contributions for five infrastructure categories, in different development settings. These are standard development contributions based around five infrastructure categories:

- Community facilities (fixed levy)
- Open space facilities (fixed levy)
- Transport infrastructure (variable levy)
- Drainage infrastructure (variable levy); and
- Public land (variable levy).

Challenge to meet

Under this new model proposed the objectives are to provide fairness, certainty and a simplified approach for councils, developers and the community through the use of pre determined standard levies.

These levies could be imposed on new development in the following development settings:

- Growth areas
- Regional settlements
- Rural settlements
- Established areas
- Strategic redevelopment sites.

According to the abovementioned *'A Preferred Way Forward'* framework, a Standard Levy is proposed as the default in each development setting, but with the opportunity to apply a tailored Development Levy Scheme (in Growth Areas and Large Scale Strategic Development Areas) if strategically justified such as the Fishermans Bend Urban Renewal Area.

A Standard Levy will be applied per net developable hectare for Growth Areas, or per dwelling for Urban Areas and Strategic Development Areas in both a metropolitan and non-metropolitan context.

It is proposed that different levies be set for residential and non residential development in these areas to provide flexibility and equality. This more standardised approach to development levies has been proposed in order to foster certainty, so as to properly apportion and share the usage and costs of infrastructure.

The report referenced above, *'A Preferred Way Forward'* is the first of two reports required to finalise the new development contribution system. Submissions are invited prior to the preparation of Report 2 *'Setting the levies'* in May 2013. This process and final report will provide a framework for a new Victorian development contributions system and for the establishment of standard levies.

This report notes the potential upgrade of the DCP framework but at this stage does not provide final recommendations or list final views.

Special rates / charges & Infrastructure Recovery Charges (IRC)

Special rates and charges may applied by Local Authorities. Infrastructure Recovery Charges (per Revitalising Central Dandenong) can levied on developers under Urban Renewal Act up to 10% of development value in designated Urban Renewal Areas.

Since 2006, all new commercial developments within revitalising Central Dandenong have been required to pay the IRC of 5% of the development value. For developments other than subdivisions, development value is the sum of the site value at the time of development based on the unimproved site value listed on most recent municipal rates notice, and the cost of the building work for the development. Timing of the payment of an IRC is agreed prior to project commencement and can be accrued upon development application or through to property settlement.

For the purpose of this report IRCs are considered under the banner of Recovery from Developers as they are direct levies on developers accruing to the lead developers on individual projects.

4.2 DCP Inefficiencies

DCP has historically been an important and key funding 'plank' for urban renewal in Victoria. However on selected complex or significantly scaled projects there is a need to critically assess whether DCP should be the sole (and indeed principal) form of funding of upfront works. When considering a 'tailored approach' to funding FBURA there will need to be consideration of the following inefficiencies of raising funding entirely through DCP.

4.2.1 Suitability of current DCP regime

There are a number of structural issues related to DCPs that may have a negative impact (to varying degrees) on the FBURA project, if it is to be the sole funding source for infrastructure and other upfront works and costs. These include:

Potential 'funding gap' under DCP

The 'full cost apportionment' DCP (Status Quo) requires upfront estimation of development scale, nature and timing. Given the uncertainty of actual development scale and timing a calculated DCP regime may be insufficient to fund infrastructure and other upfront works. This potential funding gap may be further exacerbated by any scope creep or increased budget / costs for infrastructure roll-out.

Challenge to meet

Furthermore, under the 'standard levy' approach under review by the Minister for Planning this funding gap under higher development scenarios may be entirely insufficient as outlined in more detail in Section 6 - Prior Quantitative Assessment of DCP. This would almost certainly be the case if the standard proposed 'infill rate' of \$9,600 per dwelling, rather than a bespoke Development Levy Scheme (DLS), were to be applied to the FBURA project.

Other potential forecast risks

Scope creep is a key concern for policy makers and public administrators overseeing urban development. Often costs estimates made years before 'built form' delivery of projects can be insufficient or under scoped for key infrastructure. A recent example quoted by local councils has been the current cost of road intersections which have been a magnitude of almost 10 times greater than originally budgeted for.

Appropriate escalation of infrastructure and other works is another acute risk. The choice of escalation rate (e.g. CPI, BPI, etc.), is a key assumption that can also contribute to a future funding gap for priority infrastructure development.

It should be noted that many of the other alternate funding mechanisms must also contend with forward estimate errors and or volatility, so may not be considered an issue entirely DCP related, however DCP levies must be calculated and agreed upfront in a project such as this and as such may be seen to be inflexible and too 'rigid' in practice.

4.2.2 Timing of Cash flows

DCP contributions typically coincide with planning permissions and site construction and thus provide a source of finance when infrastructure investment is required. Timing of payment of contributions can be a key negotiation point on large scale developments.

In order to fund FBURA, Government will face an issue with regard to the timing of cash flows. Upfront funding will be required for land acquisition, remediation, early infrastructure and other 'pre-development' works. Early development of infrastructure should also increase land values and improve the feasibility of development, however these values are unlikely to be realised until further along the 'value chain'.

DCPs are likely to be levied post these activities. For example, capital intensive land acquisition, some trunk infrastructure and other site specific upfront costs are likely to be incurred before DCPs are accrued on a precinct-by-precinct basis – leading to an interim, timing-related funding gap.

This work may need to occur before the acquisition or approve / design phases in the 'Development Value Chain' as outlined below in Figure 2. It should also be noted that the DCP is often the most debated element of Precinct Structure Plans (PSP), and administratively can lead to additional complexity and in case delay to the development process (through delay in adoption of PSP). It should be noted that a Strategic Framework Plan to be undertaken by DPCD is being developed for FBURA, rather than a PSP.

Figure 3 Development value chain



As well as being potentially insufficient therefore, DCP funding also provides a timing gap that needs to be bridged through financing mechanisms or upfront Government contributions or land financing.

Challenge to meet

4.2.3 *Nexus between infrastructure type, stakeholders and funding sources*

Another issue for consideration is the nexus between infrastructure type and funding source. Key enabling works and infrastructure are likely to benefit a number of different stakeholders including developers, land owners, business operators, residents, Local Authorities, State and Federal Governments.

Under DCP the costs of infrastructure and pre-works are almost entirely borne by Developers who may not enjoy commensurate gain from infrastructure deployment. Subsequently, these costs may be passed onto land owners / home buyers depending upon the demand and supply elasticity.

Developers often question the times lag between initial developers being charged and the subsequent delay that can occur before infrastructure deployment. Therefore, the timely provision of key infrastructure as seen by the market is essential to assure developers by setting the right precedent for the life of the Fishermans Bend Urban Renewal Area.

Certain infrastructure types may have a better strategic fit with alternate funding sources. For example transport corridors, may be more efficiently funded via a combination of funding sources, but principally from a dedicated 'transport levy' on nearby residents to supplement user pays' 'fare box' revenues. In 2011, the Gold Coast Rapid Transit Project was developed partially using revenue from a City Transport Improvement Charge levied on nearby ratepayers. Ratepayers, direct users and nearby land owners (through land uplifts) all benefitted economically from this 13km light rail deployment. The Gold Coast City Council (GCCC) played a crucial role in arranging funding for this project.

Gold Coast Rapid Transit Project, Australia

The Gold Coast City Council (GCCC) is contributing around \$100 million to fund the Gold Coast Rapid Transit Project, alongside State and Federal Government

The GCCC is raising a significant portion of its contribution through the City Transport Improvement Charge, at a price of \$111 per dwelling in 2012, which is incurred by ratepayers. The charge assists Council to fund improvements to

local roads and to partner with public and private organisations to improve State roads and provide expanded bus services, Council cabs, ferry services, bicycles, pedestrian and rapid transport. The increase in density and property values from the GCCC will provide a further boost to rate revenue.

Source- Golding Gold Coast Light Rail 27 August 2012

4.2.4 *Negative impact on housing affordability*

Development charges can constitute a material proportion of the cost of bringing new housing to market – the Productivity Commission noted that infrastructure charges were one of several key factors contributing to the development cost of new residential constructions in Australia (PC 2004).

One of the effects of using Development contributions to fund infrastructure is the removal of cross-subsidisation that exists where infrastructure costs are spread across the community (e.g. through rates). This spread would otherwise have the effect of lowering the cost of home ownership on average for existing home owners and purchasers.

Nonetheless taking this into account, whilst Development contributions in isolation might increase up-front housing costs, they can also have the effect of lowering future charges – reducing the future burden on owner's disposable income.

Therefore the resultant affect as concluded by The Productivity Commission in its First Home Ownership report is that the greater use of up-front development contributions is "unlikely to have any substantial effect on housing affordability, irrespective of whether infrastructure was previously subsidised". (PC 2004c, p. 165).

Thus, it is imperative to consider a balanced selection of funding sources. This is to avoid the situation whereby alternative funding mechanisms are chosen in an attempt to spread the funding burden, however merely shift the cost to the same stakeholder group (albeit over a longer investment period, which by its nature may still be advantageous).

For that reason it is worth considering that on a case by case basis the circumstances of demand and supply elasticity will determine the extent to which the land owner,

Challenge to meet

developer or homebuyer are able to absorb or share the costs of funding mechanisms, in particular DCP.

Housing affordability policy options

To provide further certainty regarding affordable housing or to attain more aspirational community based targets, some developments such as the Bowen Hills Urban Area (QLD) have introduced other controls to ensure lasting affordability over the longer term. As sourced from the Bowen Hills Urban Development Area scheme July 2009 these include:

- Limiting the trading of a dwelling to a particular target and income group through a title covenant. This means that affordable owner occupied units are only on-sold to other eligible buyers, with transfer of ownership occurring through a controlled process which excludes wills, private sales or bequests.
- Placing a covenant and management plan on a title of a property which ensures it is rented at affordable levels to an identified target group for 16 years or more and managed by a registered Not for Profit community housing organisation.

Many UK urban renewal models have also placed affordable housing covenants on private developments to increase affordable housing supply.

Therefore should affordable housing and its long lasting provision be a key success factor, regardless of whether or not DCP is utilised as a funding mechanism there are other affordable housing policies and guidelines which can be implemented to manage this policy outcome. Again the impact of additional covenants on development should also be considered in the context of impact on developer appetite at FBURA.

Potential trade-off of intervention

There is likely to be a tension between increasing “commercial / retail” value (driven essentially by development demand) versus lower level value use such as “community” or “family friendly housing” use as favoured by Government policy, and may be proposed at FBURA.

This compromise may require policy or market intervention from Government - with associated cost. For example, it is likely that a mismatch will occur between developer commercial objectives, exacerbated by present market conditions, and Government

policy objectives which may aim to create a family friendly environment, with family suitable housing options in FBURA.

Based on market experience, developers, as a default position, are expected to masterplan residential projects with a strong concentration of one and two-bedroom units within a new development area such as FBURA

Therefore, if the ideal of ‘family-friendly’ accommodation (e.g. 3 bedroom housing) is to be provided this may require the provision of government subsidies, in lieu of DCP or other developer contributions, or through development agreement (where legally permissible). This would therefore negatively impact upon Government finances for the project and may erode some of the funding sources for FBURA (e.g. if social or ‘community styled’ accommodation were to be provided in lieu of DCP payments by development)

These measures and related tradeoffs, like all market interventions by Government, needed to be balanced against the potential cost of implementing any new housing related policy for FBURA. These policy interventions are not currently costed within financial projections.

5 Uses of funds

5.1 Development Scenarios

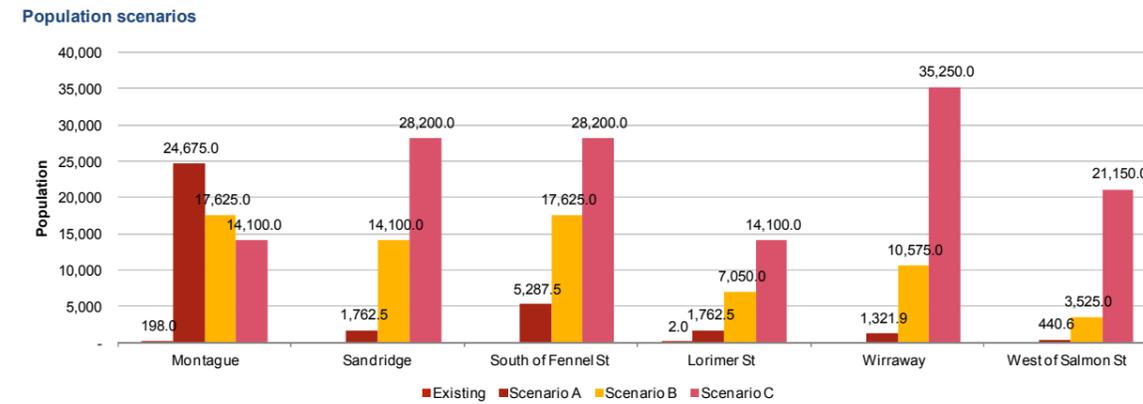
Places Victoria has prepared four development scenarios plus an existing scenario for FBURA. The modelling of these scenarios has produced projections for residential dwellings, commercial space and retained industrial land. The existing scenario (the baseline scenario) assumes no state government financial contribution to the area and provides no additional public transport, road connections or open space.

Scenarios A, B, C as shown in Figure 2 and a Discussion scenario are development projections using different development densities and all assume 20% of developable land will be retained for current industrial uses. These densities are considered by Places Victoria (and its advisors Urban Enterprise as illustrated in Table 1) to be within the likely range of employment and population capacity in the FBURA.

The four development scenarios are based on

- Scenario A – 15,000 residential dwellings and 200,000 metres squared commercial retail space
- Scenario B – 30,000 residential dwellings and 500,000 metres squared commercial retail space
- Scenario C – 60,000 residential dwellings and 850,000 metres squared commercial retail space
- Discussion scenario – 40,225 residential dwellings and ~1,057,000 metres squared of commercial, retail and industrial space

Places Victoria projects that the FBURA development will have a timeframe in the region of 40 years (per Urban Enterprise advice), commencing in 2013.



Source- Places Victoria 2012

Figure 4 Population scenarios

Scenario	Population	Dwellings	Commercial/ Retail GFA	New jobs
Existing	200	103	-	-
Scenario A	35,250	15,000	200,000	13,333
Scenario B	70,500	30,000	500,000	33,333
Scenario C	141,000	60,000	850,000	56,667
Discussion Scenario	83,445	40,225	211,436	845,743

Source- Urban Enterprise (October 2012) and Places Victoria

Uses of funds

5.2 Infrastructure Funding Requirements

According to Urban Enterprise, the FBURA development project will require a range of infrastructure. A key up-front step in determining an appropriately tailored funding mechanisms for the FBURA is to estimate the scale and nature of infrastructure (and associated costs) as listed in Table 2

Table 1 Infrastructure funding requirements

Summary of Costs	Scenario A	Scenario B	Scenario C	Discussion scenario
Community and Active Open Space				
<ul style="list-style-type: none"> sports ovals & facilities earthworks recreation centres and libraries 	\$38m	\$65m	\$93m	\$81m*
Land Acquisition	\$80m	\$140m	\$280m	\$230m*
Transport Costs				
<ul style="list-style-type: none"> light rail (including buses) *** 	\$85m	\$305m	\$685m**	\$655m*
Roads and Infrastructure				
<ul style="list-style-type: none"> upgrades and associated land acquisition new intersections paths and streetscape 	\$31m	\$65m	\$126	\$106m*
Others including:				
<ul style="list-style-type: none"> Schools Medical facilities Other social infrastructure 	c.70m*	c.138m*	c.215m*	c.158m*

Note: * Costs are estimates and subject to further refinement following discussion with Places Victoria

** \$200m of the 685m for light rail infrastructure has been assumed by Urban Enterprise to be apportioned to the surrounding areas which would gain a direct benefit from the infrastructure required and therefore will not be funded from the FBURA. PwC has not contributed to this conclusion.

*** Metro is excluded because the scenarios examined do not include heavy rail. This cost does include however buses and Active Transport infrastructure (including pedestrian and cycle paths)

Source- Urban Enterprise (October 2012)

5.2.1 Community and Active Open Space Infrastructure

The community and active open space infrastructure requirements are estimated to be between \$38m Scenario A to \$93m in Scenario C. This includes sporting, recreational and community facilities (library/community centres).



5.2.2 Light Rail Infrastructure

It is envisaged the FBURA will involve Light Rail infrastructure costs of between \$85m and \$685m depending on the level of development at BURA. The level of costs in Scenario B, C and Discussion Scenarios are a result of the expected need for a dedicated light rail route and Yarra River bridge crossing for to service these greater scale developments.

Under Scenario C and Discussion scenario there is at least a \$200m funding gap expected to be recovered from other funding sources outside of FBURA project (as understood from discussions with Places Victoria).

We recommend that the light rail infrastructure costs are peer reviewed as they are likely to be the most significant Government initiated expenditure items for the FBURA. There should also be due consideration as to the long term maintenance, lifecycle costs and management of this asset (line and rolling stock) post construction and commission.

The basis for the FBURA costs as Sourced from: Fishermans Bend - Planning & Design - Transport - Light Rail Concept Design Revision E - ~ 10 November 2011 are:

- Approximately \$12.5m per kilometre of track

Uses of funds

- \$40k-\$50k psm for elevated tram bridge
- \$500k per major road intersection
- \$5.5m per rolling stock

Three routes were nominated in the project brief by the Department of Transport (DoT). They were:

- An extension from Collins Street, across the Yarra River, and then along Lorimer Street and Todd Road to Williamstown Road;
- An extension from Collins Street, across the Yarra River, and then along Ingles Street;
- An extension from the Port Melbourne Light Rail along Williamstown Road.

A series of additional route options were identified by AECOM. These include:

- A north-south route along Salmon Street;
- An east-west route along Plummer Street;
- An east-west route adjacent to the West Gate Freeway between Boundary Street and Normanby Road;
- Variations to connect Williamstown Road to the Port Melbourne light rail;
- Variations at the western end of Lorimer Street.

Table 2 Light rail benchmarks

Project	Location	Cost (\$M/km)	Date
Gold Coast Rapid Transit	NSW	73	Jun-11
Hobart Light Rail	Tas	24	May-09
Capital Metro (proposed)	ACT	51	Sep-12
Western Sydney Light Rail (proposed)	NSW	62	Aug-12
Anzac Parade Light Rail (proposed)	NSW	71	Aug-12

Source: Infrastructure NSW: State Infrastructure Strategy, Section 7; Hobart Light Rail Cost Estimate: desktop system design and service model - Report 1; Plenary Group media publications

As can be seen in table 3, FBURA light rail costs appear to be on the lower side (even taking into account rolling stock cost estimates). It is recommended that a more

thorough review of costs be undertaken and compared with recent precedents, given the importance of this infrastructure category for FBURA.



5.2.3 Road Infrastructure

The costs of road infrastructure as estimated by Urban Enterprise are \$31m to \$126m. This is an indicative estimate only and would need to be informed by detailed infrastructure needs assessment and cost planning.

5.2.4 Social Infrastructure

The upfront costs of establishing social infrastructure have not yet been confirmed and finalised. Assets to be development will include (but not exclusively):

- Schools
- Medical facilities

These costs are expected to be considerable when taking into account the original outlay, lifecycle costs (if necessary) etc. These costs are likely to be scrutinised by a range of stakeholders due to limited current scope of social services and assets within the FBURA (and neighbouring communities)

Table 3 Social Infrastructure cost estimates - FBURA

Social Infrastructure	Scenario A (\$000's)	Scenario B (\$000's)	Scenario C (\$000's)
Community Health Service Sites	2,100	4,410	8,610
Acute Health	2,100	4,410	8,610
Secondary schools	34,000	66,000	134,000
Primary School	76,400	152,800	305,600
Specialist Schools	10,696	19,864	30,560

Source: ASR Research: Fishermans Bend Preliminary Community Infrastructure Needs Assessment

Uses of funds

5.2.5 Other supporting infrastructure

Utilities

PwC's instructions have been to exclude utilities (including 'drainage' and stormwater infrastructure) for the purposes of this report. Although it is recognised that this could be a significant cost and are at least partially funded through developer charges paid directly to utility service providers (Urban Enterprise, 2012)

Sustainable energy infrastructure

Sustainable energy infrastructure has been excluded due to insufficient information available about base load demand for energy.

6 Prior Quantitative Assessment of DCP

6.1.1 Indicative Levies

As part of their study for Places Victoria, Urban Enterprise undertook an analysis of indicative levies for FBURA. They modelled a number of funding mechanisms, of which two included a:

- 100% full recovery cost apportionment DCP model of upfront costs (full recovery)
- ‘Standard Levy’ (per system under Minister’s review – 25, 50 and 75% Standard Levy i.e. % of Greenfield Levy)

This modelling was based on available infrastructure, pre-works and site acquisition costs of \$150m (Scenario A), \$460m (Scenario B) and \$750m (Scenario C), which however are now superseded by updated costs.

Table 5 shows the indicative levies calculated by Places Victoria, based costs as at 20 February 2013 (Fishermans Bend Progress Report), assuming the 100% cost apportionment model DCP is levied directly to developers. This cost recovery mechanism is based on recovery of roads, intersections, trails, public transport, drainage works, public open space improvements, community facilities (maternal health centre and kindergartens) and land acquisition.

The following numbers would be highly sensitive to increases in pre-works, infrastructure and other costs. Eventual changes to the scale of development will also impact the levy amount calculated.

Table 4 Cost Apportionment Method – 100% cost recovery

Infrastructure Type	Applicable Infrastructure Charge (\$/unit)		
	Scenario A	Scenario B	Scenario C
Community and active open space infrastructure	\$2,514	\$2,189	\$1,556
Public and active transport infrastructure	\$5,086	\$7,908	\$6,504
Roads and intersections	\$1,692	\$1,692	\$1,692
Land acquisition for development infrastructure	\$543	\$519	\$536
Land acquisition for open space	\$3,256	\$3,111	\$3,219
Project Planning and DCP preparation	\$271	\$130	\$67
Total Infrastructure Charge / Residential Demand Unit (rounded) see Note 1	\$13,000	\$15,500	\$13,500
Total Infrastructure Charge / Commercial Demand Unit (rounded) see Notes 1 and 2	\$10,500	\$13,500	\$12,000

Note 1: Residential demand unit = 1 residential dwelling. Commercial demand unit = 120sqm. commercial floor space and 20sqm retail floor space

Note 2: The infrastructure charge for residential and commercial development is different because it is assumed that commercial development will not contribute

source- Fishermans Bend Progress Report December 2012 P24

As its title suggests, ‘Cost Apportionment’ is intended to fully fund project upfront outlays by entirely placing the burden of capital costs with developers. A rate in excess of \$15,000 needs to be critically assessed against developer appetite, especially within a particularly competitive housing market and strategic, policy-related need for development at FBURA and given that DCP levies do not apply for a number of other urban renewal sites that are in competition for developer investment.

It is also noted that FBURA is in competition for developer interest with other Metropolitan developments (e.g. in CBD or Southbank), many of which do not impose development charges – although this may change per update local Council policies regarding development in established areas.

6.1.2 Infrastructure costs included in DCP

The Planning and Environment Act 1987 requires infrastructure works to be classified as either development or community infrastructure. The maximum levy amount, timing, collection process and person who pays is different.

A development infrastructure levy, per a DCP are generally collected through conditions on planning permits and can fund:

- Land acquisition for road, transport corridors, public open space and community infrastructure
- Road, bicycle and footpath and traffic management infrastructure construction
- Public transport, rail and railways, bus and tram infrastructure (including 'stops')
- Basic improvement to public open space, including earthworks, landscaping, fencing, seating and playground equipment
- Drainage works; and
- Building and works for or associated with the construction of maternal and child health centres, care centres, kindergartens, etc...

Community Infrastructure Levies are generally collected through the building permit process and are used to fund buildings or other facilities used for community or social purpose. (*Development Contribution Guidelines*, DPCD, amended March 2007). Community Infrastructure Levies also limited to a maximum of \$900 as a contribution only to community infrastructure costs.

The calculation of levies is often debated through the planning scheme amendment process, but the Development Contribution Guidelines (DCPD) sets the following parameter, allowing the following costs to be included:

- The capital costs of providing the infrastructure

- Design costs
- The costs of financing the infrastructure (if provided early in DCP)
- Costs of preparing and approving the DCP

(*Development Contribution Guidelines*, DPCD, amended March 2007).

6.1.3 Benchmark Developer Contribution Rates

Table 6 below indicates typical infrastructure charges imposed on developers for Infill and Greenfield scenarios across Australia. It should be noted that at the time of this report in 2011 the Victorian infill average of \$1,609 was the lowest nationally. NSW and QLD were \$15,000 and \$25,000 respectively.

However, there is doubt as to the relevance and currency of the Victorian benchmark presented. It is also unclear as to whether each State benchmark captures an equivalent scope of infrastructure and other wider project costs (i.e. compare apples with apples).

Table 5 Performance Benchmarks on Infrastructure

Benchmark	NSW	VIC	QLD	WA	SA	TAS	NT
Integration of planning and infrastructure	Low	Med	High	Med	Med+	Very Low	Very Low
Infrastructure charges - \$ per dwelling							
Infill	\$15,000	\$1,609	\$25,000	\$5,000	\$5,577	na	na
Greenfield	\$37,300	\$11,000	\$27,000	\$20,000	\$3,693	na	na

source - Australian Government Productivity Commission Research Report – Volume 1 April 2011

When comparing infrastructures across and within different jurisdictions, it is important to be mindful of the sometimes unique characteristics of a development which charges are applied. For example, infill developments differ in terms of age and their capacity to cope with additional demand on infrastructure from new development. Similarly, Greenfield developments may vary considerably in environmental attributes, yield potentials and potential land uses.

A Property Council of Australia release on the 31 January 2013, 'RE: 2013-14 Pre-Budget Submission' described that it is now normal for development contributions to sit between \$225,000 - \$275,000 per net developable hectare, approaching a cost of \$20,000 per Greenfield lot in Victoria. This is a significant change, which the State Government is attempting to address through its review of standard contributions. Whilst considering the above statistics, the FBURA site specific conditions may cause the actual infrastructure charges required to vary greatly from the above.

The following, Table 7 indicates the results of modelling undertaken by Urban Enterprise for the alternate 'Indicative Standard Levy' approach currently under review by Government – the 75% Standard levy. The funding source per demand unit is presented below:

Table 6 Indicative Standard Levy – 75% infill rate

Summary of Calculated Levies	Scenario A	Scenario B	Scenario C
Residential Levy (per dwelling)	\$9,600	\$9,600	\$9,600
Commercial Levy (per demand unit)	\$5,076	\$5,076	\$5,076

source- Urban Enterprise, 2012

As demonstrated above the 'Indicative Standard Levy' approach applies a single rate across the area irrespective of the development scenario and has less flexibility to allow for increased density scenarios. Furthermore, for the higher density scenarios (B, C & Discussion) there are significant project collection or funding shortfalls as calculated by Urban Enterprise (2012) as outlined in Table 8 below. These shortfalls are likely to be understated in all scenarios due to recent updates to FBURA project costs:

Table 7 Projected Collection / Funding shortfall by Levy

Summary of Calculated Levies	Scenario A	Scenario B	Scenario C
Cost Apportionment Method – 100% cost recovery*	-	-	-
Indicative Standard Levy – 75% infill rate	\$1.7m surplus	\$124m shortfall	\$95m shortfall

source- Urban Enterprise, 2012

*Subject to more detailed modelling of standard and social infrastructure funding sources through DCP

As Table 9 demonstrates above, under the standard levy approach a significant funding gap exists between the different Scenarios if this is adopted for FBURA. Alternatively, as also demonstrated in Table 9, a 100% DCP at the FBURA (as a sole funding mechanism) is currently modelled at between \$13,000 - \$17,700 per dwelling (based on current forecast infrastructure costs). This is at the upper end of the recent precedents – albeit for growth area benchmarks.

Under the Indicative Standard Levy, a funding shortfall was expected by Urban Enterprise to be at least \$100m – although this number is subject to a refresh. It is expected that this shortfall will likely increase as the cost and scope of works increases as timetable for delivery approaches. For example this analysis did not originally include an allowance for social infrastructure which attracts finite sources of funding from developers through the DCP regime.

Prior Quantitative Assessment of DCP

Table 8 Residential Developer Contributions

	<u>Levy per dwelling</u>	<u>Density dwellings per Hectare</u>
<u>Recent Growth area precedents</u>	\$5,000 to \$17,000	8 to 19
FBURA forecasts		
Standard Levy	\$9,600	
Scenario A 100% DCP	\$13,000	74
Scenario B 100% DCP	\$15,500	147
Scenario C 100% DCP	\$13,500	294
Discussion Scenario	\$17,663	278

source- Property council of Australia ,and Urban Enterprise, March 2011, Places Victoria FBURA forecasts

Key conclusions from Urban Enterprise work:

- Full DCP apportionment has been calculated by Places Victoria between c.\$13,000 and c.\$17,000 which is higher than the Victorian average in 2011.
- Calculating appropriate DCPs on projects is highly susceptible to forecasting error and the risk of the underlying benchmark being insufficient
- Victorian DCP benchmark rates were significantly lower than national benchmark equivalents in 2011 , however evidence suggests that Victorian DCP are rapidly escalating for new development projects
- Places Victoria believes that developer contributions greater than \$15,000 per dwelling need to be critically assessed, in light of developer perceptions for FBURA. It is also noted that FBURA is in competition for developer interest with other Metropolitan developments (e.g. in CBD or Southbank), many of which do not impose development charges to investors / developers.
- The Standard levy approach is being reviewed by the State Government and may not be best matched to the FBURA, especially if a DLS is not applied. If a standard levy approach is adopted for FBURA, this will most likely result in a significant funding gap for the project if not

7 *Some preliminary findings*

Whilst not considered assessment criteria, there are a number of additional themes to consider which have been drawn from analysis and discussion with Places Victoria and other key stakeholders during the assessment. Following our preliminary review of a number of case studies (details outlined in section 8) there are a number of preliminary themes emerged. When reviewing case studies and the strategic fit of funding models with FBURA, we believe the following issues should be considered:

- **Infrastructure requirements and funding nexus** – The nature of infrastructure and other costs will be key determinants of appropriate funding sources. How ‘naturally matched’ a funding mechanism is to infrastructure or site costs– may lead to a suite of models to reflect diverse infrastructure requirements. Linked to economic efficiency of implementing mechanism
- **Developer Contribution Plan** – This funding source may be insufficient or incapable alone of fulfilling the required funding needs and may require a mix of mechanisms (e.g. Crossrail UK)
- **Price signalling** – Competing supply in an environment where other Metropolitan developments (e.g. in CBD or Southbank) do not impose development charges (at this stage although we understand that the City of Melbourne may still consider the use of these in the future)
- **Alternative funding options** – Should be considered to de-risk and provide assurance through flexibility. Needs to take account of administration, delivery implications and legislative constraints

- **Whole of Government approach**- A key feature of most successful international precedents is that they are facilitated through alignment of objectives and stakeholder engagement. Interlinking objectives, stakeholder interests and funding sources have provided numerous opportunities for urban renewal outcomes globally
- **Governance and Delivery Models** - to aggregate risks, Governance and delivery of FBURA, potentially to a single entity represents a significant opportunity for this project.
- **Unlikely to be a one-size fits all approach to funding** – “pick and mix” approach likely to be advantageous to spread funding burden and improve project outcomes (albeit may incur additional administrative burden on funding collectors. We believe a mix of funding sources are likely to be appropriate given:
 - The broad range of costs and infrastructure requirements need to be funded at FBURA
 - Consideration of upfront capital costs and ongoing governance, managements and maintenance costs of assets
 - Policy need for significant growth and importance of opportunity at FBURA

8 Alternate funding models

8.1 Alternate Funding Models

The DCP regime (the “Status Quo”) may not be sufficient to meet the infrastructure requirements, and therefore may be considered too onerous on developers and potential real estate purchasers. It is therefore worthwhile examining alternative funding models which may bridge the funding gap or broaden the funding base. This section looks at a number of funding models used worldwide in urban development projects. We have completed a national and international review to provide examples and cases relevant to FBURA which may be incorporated into or substitute a DCP as a funding source for the project.

Unlikely to be a one-size fits all approach to funding

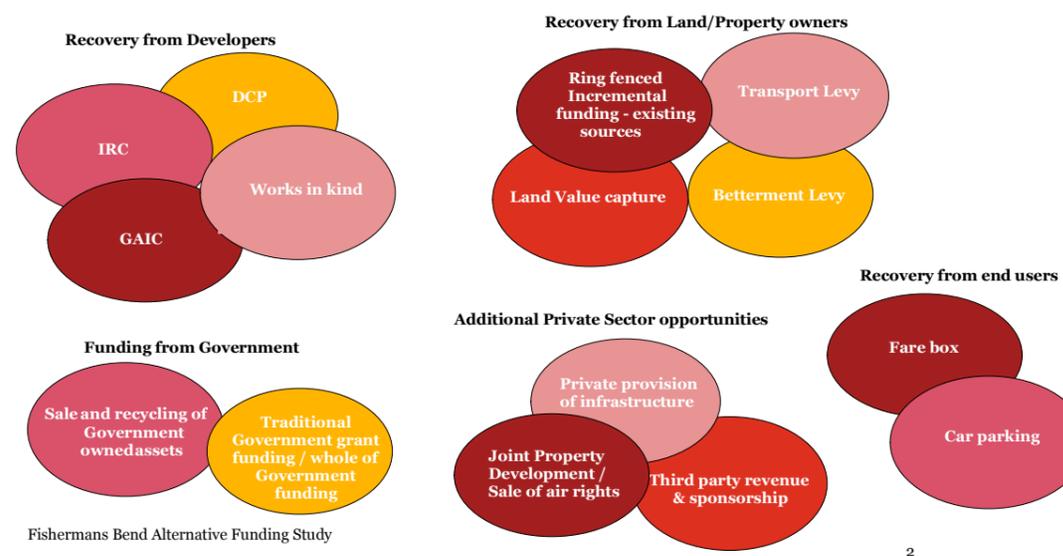
Key considerations:

- A broad range of costs and infrastructure requirements need to be funded
- Consideration of upfront capital costs and ongoing governance, management and maintenance costs of assets
- A mixture of funding sources can spread the burden and reduce risk
- Choice of funding model(s) is likely to impact upon the pace of development and subsequent urban renewal outcomes. Likely impact on policy objectives

The alternate funding models are split into five categories which the initial funding burden falls upon. Subsequently, this burden and costs borne may be passed onto other groups such as land owners / home buyers depending upon the demand and supply elasticity of the market. These categories are as follows:

- Recovery from developers
- Recovery from Land / Property owners
- Recovery from end users
- Recovery from government
- Additional private sector opportunities

Figure 4: Funding Model categories



8.2 Funding Model Precedents

Table 11 provides examples in which the funding mechanisms tested above and others have been applied, creating national and international precedents. Further detail of each is provided in appendix A.

Table 9 Funding model precedents

Recovery from developers	
Development charges and levies	<p>Development contributions are payments (or in-kind works, facilities or services) provided by developers towards the supply of infrastructure required to meet the future needs of a particular community, of which the development forms part.</p> <ul style="list-style-type: none"> • Status Quo for new developments in Victoria • Bowen Hills Urban Development Area Infrastructure Contribution Schedule (ICS)
Infrastructure Recovery Charge	<p>An Infrastructure Recovery charge does not apply to typical homeowners but is targeted at commercial scale developments, with three or more dwellings on a lot. It can levied on developers under Urban Renewal Act up to 10% of development value in designated Urban Renewal Areas.</p> <ul style="list-style-type: none"> • Infrastructure Recovery Charge - Revitalising Central Dandenong (RCD) Area charge was set at 5% of development value
GAIC	<p>A Growth Areas Infrastructure Contribution (GAIC) is a charge designed to fund essential State infrastructure in Melbourne's growth areas.</p> <ul style="list-style-type: none"> • Victoria - Planning and Environment Amendment Act came - Growth Areas Infrastructure Contribution (GAIC) in Victoria
Works in Kind	<p>Infrastructure works and land may be provided by developers to public authorities on completion as Works in Kind, with a credit provided against the development contribution they would otherwise be liable for.</p> <ul style="list-style-type: none"> • Crossrail - UK (Canary wharf train station) • numerous local examples

<i>Recovery from land / property owners</i>	
Betterment Levies	<p><i>A Betterment levy seeks to capture the increase in property value owing to a public improvement based upon the property's geographic proximity to an improvement.</i></p> <ul style="list-style-type: none"> • Portland Street car – USA Special Assessment Districts • Poland Special Assessment Districts • Melbourne Australia - Melbourne Underground Rail Loop
Transport levy	<p><i>A transport levy is an Improvement Charge which is assumed to be incurred by all ratepayers at flat rate per dwelling, charged by the council.</i></p> <ul style="list-style-type: none"> • Transport Levy - Gold Coast Rapid Transit Project • Crossrail - UK (business rate supplement, community infra levy and s106 contributions)
Land Value Tax	<p><i>Land Capture Value is a type of public financing that recovers some or all of the value that public infrastructure, such as building transportation or sewer facilities generates for private landowners. They can be applied to developers or landowners and either before or after a public improvement is built.</i></p> <ul style="list-style-type: none"> • Sao Paulo – sale of FSR increases in designated urban renewal zones • ACT - Lease variation charge (LVC) • Bowen Hills Urban Development Area land value uplift tax • Calgary Revitalisation Levy - community infrastructure levy (property tax on designated development areas & increased taxes from increased values) to pay initial interest on borrowings, sale of development sites (under public ownership)

Alternate funding models

Ring fenced incremental funding – existing sources

Ring fenced incremental funding is where the ‘authority’ borrows towards the funding of infrastructure investment in the expectation that the proposed economic regeneration will result in increased local tax revenues in the relevant area. Assumed to only relate to incremental tax income from FBURA.

- Chicago (Illinois), Denver URA
- Oregon South Auditorium project
- Edinburgh waterfront, Scotland
- Growth area bonds case – NSW

Recovery from end users

Fare box and car parking revenue

Under this mechanism the end user pays for infrastructure through the application of fees, tolls and fares which may be used as a form of revenue to pay for infrastructure costs.

- Toll Roads - e.g. Eastlink, Cross City Tunnel
- Melbourne Convention Centre (convention use)
- Congestion charge (London & Milan)
- Stormwater charges - for all impervious surfaces. Can be applied to newly developed and existing assets
- Securitisation of car parking revenues
- Nottingham Express Transit – Workplace Parking Levy
- 1200 buildings initiative – Environment Upgrade Agreement (Melb – Aus)
- Transportation Improvement Districts (e.g. traffic congestion charge)

Funding from government

Sale and recycling of government owned infrastructure

The sale and recycling of government owned infrastructure can be used to fund new projects, which may assist infrastructure delivery by putting infrastructure assets in the hands of those who may be best placed to manage and operate them. There needs to be consideration of political sensitivities relating to the sale of assets to fund future urban renewal investments.

- Queensland Ports
- Places Victoria
- Commercial land swaps
- Community Land Trust Model

Alternate funding models

<p>Traditional government grant funding and endowments</p>	<p>Traditional Government Funding is financial assistance received by non government entities in the form of federal, state, or local government grants, loans, loan guarantees, property, cooperative agreements, food commodities, direct appropriations, or other assistance.</p> <ul style="list-style-type: none"> • Urban Renewal Trust Fund - endowment by HK Govt • Liveable cities fund
<p>Whole of government funding</p>	<ul style="list-style-type: none"> • Auckland Tamaki Edge funding program - pooled funding from central and local government agencies for housing, social development, health, social development, health, education, indigenous affairs, police, etc.. • As per above Regents Park • Brisbane Urban Renewal • Joint State / local government contribution (many examples)
<p>Government guarantees</p>	<ul style="list-style-type: none"> • Marine Supply Project, Darwin • SEQ Schools, Queensland
<p>Productivity Incentive Payments (PIP)</p>	<ul style="list-style-type: none"> • NSW & SA
<p>Additional Private Sector opportunities</p>	
<p>Private provision of infrastructure</p>	<p>Private Provision of Infrastructure involves the private sector providing assets to the public such as infrastructure that is traditionally the responsibility of the government.</p> <ul style="list-style-type: none"> • In lieu of Mining royalties • In lieu of GAIC – various examples – TB (e.g. Negotiated exactions – less formal negotiations than DCPs) • Malmo (Sweden) - Planning agreements - funding for provision and management of urban green space in and around new residential and commercial developments • Sustainable infra / EUAs, etc.
<p>Joint property development / sale of air-rights</p>	<p>Joint property development enables an infrastructure provider to capture value through the development of adjacent real estate. Under this arrangement typically the private sector funds or underwrites a proportion of the core infrastructure costs of the project. Then the infrastructure provider jointly develops the real estate in and around the infrastructure to generate a revenue stream to offset the cost of its provision.</p> <ul style="list-style-type: none"> • Sale of air-rights – density bonuses in New York to improve subway infrastructure • Chatswood (NSW), Melbourne Central

Alternate funding models

	<ul style="list-style-type: none"> • MTR Corp - Hong Kong • Taiwan – private owners contribute equity in exchange for additional development rights (<i>land contribution model</i>)
Third party revenue & sponsorship	<ul style="list-style-type: none"> • Mile End Park, London - licensing and franchising, sponsorship, entry fees and fines (50% of income) • Renew Hamilton – Canada • GCRT / Penlink (and other PPPs) - advertising revenue
Voluntary and community sector involvement	<ul style="list-style-type: none"> • Various examples
Masterplanner	<ul style="list-style-type: none"> • Bowden Urban Village - masterplanner - sale of superlots to developers • Royalties (e.g. NT Government) & revenue (e.g. car parking) securitised • Regents park - sale of future apartment sales – bond financed • VicUrban / Places Victoria

8.3 Methodology to shortlist options

The proposed funding solution for FBURA may require a suite of funding mechanisms, in order to create sufficient volume and diversity of sources. For example a number of national and international precedents such as the Gold Coast Rapid Transit and Crossrail (UK) have successfully developed funding plans based on multiple sources.

A high-level assessment of applicability to FBURA has been undertaken in order to shortlist a number of options for more extensive qualitative review.

In addition to assessing against FBURA objectives (see section 3) our analysis takes into account:

- The preliminary findings from the review of potential existing and alternate funding sources and national and international precedents
- The likely ease and efficacy of implementation (including administrative implementation issues)
- The potential for the funding source to be a key 'funding plank' for the project
- The administrative implications of having multiple funding mechanisms / sources and need to balance generating diversity of funding sources

- Highlight funding options that are unlikely to be deliverable, do not add sufficiently to existing funding levers or does not have a good match with the key principles, characteristics or objectives of FBURA. This will rule out unsuitable options from further review and consideration (at this stage).
- Our review has taken into account these considerations when reviewing the potential application of funding source(s) at FBURA, as outlined in Section 8.4 – Consideration of Funding Models – Qualitative Review.

Figure 5: Short listing methodology

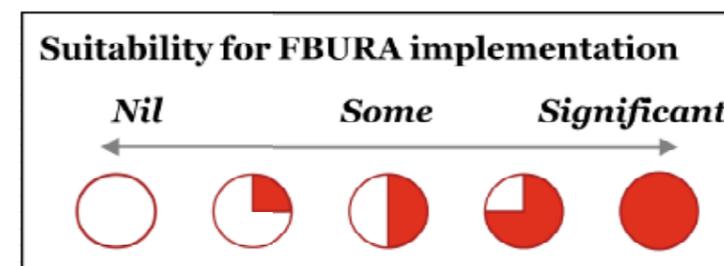


8.4 Consideration of Funding Models – Qualitative Review

Table 12 below provides preliminary insight into funding models available for consideration in the FBURA context. A high level assessment has been completed to determine the strength of fit of each option with FBURA objectives. This qualitative review will inform our final qualitative comparison of shortlisted options

Table 10 Qualitative review of alternate funding mechanism

Recovery from Developers



Funding models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p>Developer Contributions and payments</p> <p><i>Development contributions are payments (or in-kind works, facilities or services) provided by developers towards the supply of infrastructure required to meet the future needs of a particular community, of which the development forms part.</i></p>		<p>Yes (potentially implementable) –</p> <ul style="list-style-type: none"> DCPs are suitable for funding infrastructure in areas experiencing new growth rather than maintenance and replacement of existing services. Is the Status Quo funding source in Victoria for urban infrastructure so enjoys a level of understanding and acceptance in the market (Nevertheless it is currently subject to a review by the State Government) <p>Has strong local precedent and easily implemented from FBURA (if DCPs are not</p>	<p>May be readily implemented with as a proposed ‘standard levy DCP’, full apportionment or Infrastructure recovery charge on developer (per RCD) as options. The issue of whether excessive levies would impact housing affordability and subsequent impact on pace and scale of development in FBURA needs to be considered.</p> <p>A full apportionment model is unlikely to deliver key FBURA objectives as outlined by Stakeholders to the State. This is due to potential inadequacy or perceived inequality when used as a funding for the entirety of the FBURA (see Section 4 - Problem to be solved).</p>

Funding models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
		<p>onerous and therefore slow down planning process). DCP are well understood by developers and therefore acceptable. Its strategic fit is improved if it is perceived not excessively impact upon end-customer demand and or developer profitability.</p> <p>Limitations:</p> <p>Timing: An inherent delay exists between upfront infrastructure spend and DCP funding cashflows. The predictability of DCP quantum and development timing is also hard to calculate prior to project commencement and thus, may lead to funding shortfalls or surpluses in some years</p> <p>Uniformity: Under the current regime a single DCP rate applies to each residential, retail and commercial ‘demand unit’. Removes ability to apply flexibility to promote increased development in sub-sectors of a precinct and also to apply ‘density bonuses’ that directly surround infrastructure ‘nodes’ (e.g. transport hubs).</p>	<p>Financial Modelling Parameters</p> <p>A refined , less than 100% apportionment should be investigated along with combined DCP and other alternate funding sources within a package or suite of funding mechanisms in order to spread the infrastructure funding burden. Is a calculated tax per residential, retail and commercial demand unit.</p>
<p><u>Infrastructure Recovery Charge</u></p> <p><i>An Infrastructure Recovery charge does not apply to typical homeowners but is targeted at commercial scale developments, with three or more dwellings on a lot. It can levied on developers under Urban Renewal Act up to</i></p>		<p>Yes (potentially implementable) –</p> <ul style="list-style-type: none"> An Infrastructure Recovery Charge is suitable for funding infrastructure in areas experiencing significant new growth rather than in established urban area. A recent Victorian precedent is 	<p>Infrastructure recovery charge – under urban renewal act (2003) – Max 5-10% development value (see Section 4 – Problem to be solved).</p>

Alternate funding models

Funding models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p>10% of development value in designated Urban Renewal Areas.</p>		<p>Revitalising Central Dandenong (RCD)</p> <p>Limitations:</p> <ul style="list-style-type: none"> Exemptions can be overly utilized given the revenue that may capture. Recent examples such as Revitalising Central Dandenong demonstrated to some extent some ‘gaming’ from developers to receive some concessions through reduced IRC calculation – this has led to some ‘sub-optimal’ outcomes in the view of Government (Department of Treasury and Finance in particular) The definition of ‘trigger’ (what works required by Government before it accrues) for the Infrastructure Recovery Charge may cause a delay in funds being received 	
<p>Growth Area Infrastructure Charge</p> <p><i>A Growth Areas Infrastructure Contribution (GAIC) is a charge designed to fund essential State infrastructure in Melbourne's growth areas.</i></p>		<p>No (considered inapplicable)</p> <ul style="list-style-type: none"> Typically related to growth area development and administered by Growth Areas Authority (GAA). Therefore not considered relevant for this project. 	

Alternate funding models

Funding models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p><u>Works in Kind as a substitute</u></p> <p><i>Infrastructure works and land may be provided by developers to public authorities on completion, with a credit provided against the development contribution they would otherwise be liable for.</i></p>		<p>No (opportunistic at this stage. Limited information to suggest there would be ‘systemic or broad-based application).</p> <p>May also be considered a sub-set of DCPs, GAIC or IRC</p> <p>To be considered on a case by case basis. Could be advantageous due to:</p> <ul style="list-style-type: none"> • Efficiency and speed of deployment • Integration with infrastructure and commercial / residential development 	

Recovery from Land / Property Owners

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p><u>Betterment Levy</u></p> <p><i>A Betterment levy seeks to capture the increase in property value owing to a public improvement based upon the property’s geographic proximity to an improvement.</i></p>		<p>Yes – (worthy of further consideration)</p> <ul style="list-style-type: none"> This seemingly ‘straight-forward’ method of cost apportionment to beneficiaries may be better received than other taxes (bearing in mind it is still a new tax / tariff applied) by potential payees, who are nearby residents and can match new asset provision with new levy. It can also be argued that a betterment levy may be a suitable and transparent mechanism to capture value on land which has already been rezoned. The previous announcement of rezoning of land at FBURA to Capital City Zone can limit a number of other mechanisms from capturing value. If a fixed Betterment Levy (a flat charge per household) was applied it would not require land / properties to be valued both pre and post infrastructure deployment. That is to say, a single incremental levy per resident, business or land value unit could be applied. Comparatively, to apply a variable betterment levy, a distributed ‘sliding levy’ can be applied depending on the relative level of “betterment” created by the investment in infrastructure. This 	<p>Other Considerations:</p> <p>A sunset clause should be considered so as to alleviate potential concerns of other stakeholders whom which this style of revenue source would traditionally be collected by in entirety.</p> <p>Creating a ‘fit-for-purpose’ regime is seen as advantageous</p>

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
		<p>rate would vary geographically to residents, businesses, etc...</p> <p>Limitations:</p> <ul style="list-style-type: none"> • Values not available to form assessment and allotment of benefits received and therefore assign accurate costs to payees commensurate with gain from infrastructure deployment in FBURA • Significant implementation issues can occur due to the accuracy required when assessing how to equitable distribute the charge • Recent experience indicates that these levies can be implemented effectively in Victoria (at a local Government and State Government level). However, there may be concern of addition of ‘another tax’ or levy to residents on top of Metropolitan Fire Brigade Levy, Victorian Desalination Levy, etc.. 	
<p><u>Transport Levy</u></p> <p><i>A transport levy is an Improvement Charge which is assumed to be incurred by all ratepayers at flat rate per dwelling, charged by the council.</i></p>		<p>Yes – (worthy of further consideration)</p> <ul style="list-style-type: none"> • Transport levy has strong strategic fit with project given the key asset being developed will likely be a light rail corridor. 	<p>Transport Levy is a key opportunity to charge local residents for the use of facility. Can be combined with Fare Box and other complimentary funding sources.</p> <p>Financial Modelling Parameters</p>

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
	<ul style="list-style-type: none"> Clear nexus between transport users and or local residents and asset funding. <p>Funding source is diversified away from upfront development contribution (not payable by developers) and is a long-term cashflow source able to fund not only asset development, but also long-term maintenance costs. Can lead to increased certainty and “bankability” due to long-term incremental funding source</p> <p>GCRT:</p> <p>The Gold Coast Rapid Transit (GCRT) project employed a ‘City Transport Improvement Charge’ to partially fund the light rail project – flat rate tax of c\$100 per household / business per annum (subject to escalation)</p> <p>Limitations:</p> <p>Timing: Inherent delay between upfront infrastructure spend and levy receipts. Although this can also help provide ‘ring-fenced’ fund infrastructure for future renewal and maintenance over time</p> <p>Collection: Requires a collection agency (e.g. local council) to collect tax. If a flat rate is assumed then may form a regressive tax on landowners. In FBURA given the limited</p>	<ul style="list-style-type: none"> Proposed modelling of a Transport Levy on residents and businesses within the FBURA: <p>Key questions to be answered include:</p> <ul style="list-style-type: none"> Who to tax (residents, owners, business operators)? Could include a business rate supplement. Should rates be attributed to only residents / businesses within FBURA or wider Southern Melbourne areas? What levy rates to use? On what basis –flat rates or per property valuation? <p>Other Considerations:</p> <p>Many examples of mix of development charges, developer contributions, business rate and other funding sources into a single package are outlined in our list of case studies (e.g. Crossrail which included business rate supplements, financing fare box, developer contributions and national government contributions – from general taxation)</p> <p>Securitisation of levy receipt (and all forms of future government income) may be possible – subject to private investor sentiment. This would alleviate timing issue between infrastructure spend and funding through potential bond financing. Public financing is also an option dependant on</p>	

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
		<p>number of residents currently within the precinct, the extent of future revenue (funding) is highly dependent on the rate and scale of development actually achieved.</p> <p>Benefit: May be difficult to estimate the benefit of light rail and therefore difficult to set an appropriate rate. However, this mechanism may be tailored primarily as a cost recovery mechanism.</p> <p>Per ‘Betterment Levy’ (above) commentary addition of ‘another tax’ or levy to residents on top of Metropolitan Fire Brigade Levy, Vic Desalination Levy, etc..</p>	<p>Government appetite for this.</p>
<p><u>Land Value Capture</u></p> <p><i>Land Capture Value is a type of public financing that recovers some or all of the value that public infrastructure, such as building transportation or sewer facilities generates for private landowners. They can be applied to developers or landowners and either before or after a public improvement is built.</i></p>		<p>No – (opportunistic at best)</p> <ul style="list-style-type: none"> Land value tax regimes such as those instituted in ACT, Columbia and Brazil are either based on existing mechanisms that exist within property market (e.g. ACT lease arrangements) or apply similar mechanisms to DCPs (albeit with more potential flexibility). Ultimately either landowners or developers contribute funding. <p>Limitations</p> <p>Scope for additional funding: Ability to</p>	<p>Development of a “Special Assessment District” – perhaps FBURA boundary and / or surrounding areas may be established but, at this stage, a business rate supplement or other development charges would be apply – as outlined above</p> <p>Other Considerations:</p> <p>Potential to add flexibility in charges (versus DCP) to individual developments, ability to change over time.</p> <p>Difficult to model at this stage given limitation over applicability and information. E.g.:</p> <ul style="list-style-type: none"> How is benefit estimated? Does authority apply density bonuses, charges on development application?

Alternate funding models

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
	<p>extract value from increased density (linked to development approval process) may be limited by current planning designation (capital city zone). Still taxing same entities as under DCP, just through a different mechanism</p> <p>Difficult to determine ‘baseline’ and uplift of property value – It may be difficult to accurately calculate the baseline value of properties and consequent uplift attributable to infrastructure deployment in FBURA. Add to this is the fact that the rezoning has already occurred, which is often seen to be the greatest contributor to value. As such to apply a ‘value tax’ may be seen by some as adding taxes in retrospectively.</p> <p>Applicability</p> <p>Sao Paulo example is not particularly relevant due to the fact it is based on an existing residential development area versus a currently predominantly industrial area in the FBURA. Land value capture mechanisms are often used in existing residential areas with benefits more feasibly calculated and allocated for specific areas versus neighbouring areas.</p>	<p>Applying a density bonus may reduce residential and commercial density which could be contrary to project objectives.</p> <p>This mechanism should be considered as a possibility to form a component of funding model / package for FBURA, especially to provide additional control over types and location of dense development if this is considered important</p>	

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p><u>Ring fenced incremental funding – existing sources</u></p> <p><i>Ring fenced incremental funding is where the ‘authority’ borrows towards the funding of infrastructure investment in the expectation that the proposed economic regeneration will result in increased local tax revenues in the relevant area. Assumed to only relate to incremental tax income from FBURA.</i></p>		<p>Yes – (worthy of further consideration)</p> <ul style="list-style-type: none"> Combination of hypothecation of new and increased council rates and / or stamp duty receipts <p>Limitations:</p> <p>Timing: Inherent delay between upfront infrastructure spend and DCP funding cashflows. However upfront securitisation of incremental funding sources (per Northern American examples) may introduce an upfront financing mechanism – to be repaid over time. If private bond market is weak, this may be supplemented by TCV funding – although risk transfer back to State should be well understood under this mechanism</p> <p>Predictability: Predictability of incremental funding sources (e.g. stamp duty, land taxes and rates) – both in quantum and timing is hard to predict, so may lead to funding shortfalls or surpluses in some years. Although this may be mitigated through conservative assumptions</p> <p>Appetite: Low appetite exists due to perceived forecasting risk, concern relating to where the risk eventually resides and hesitation in allowing incremental stamp duty and land tax to be captured and applied</p>	<p>Hypothecation of council rates and stamp duty could alleviate requirements and broaden tax base. Could exclude Council rates and adopt NSW Growth bonds template being considered (see appendix A)</p> <p>This regime would require careful Governance arrangements to implement and detailed of understanding of consequential risk exposures to State and local Governments in order to proceed. Government may wish to explore the role of a dedicated entity to manage these risks for FBURA (e.g. a PPP entity) to attempt to ring-fence risk</p> <p>Other Considerations:</p> <p>Due to less than perfect forecasting accuracy conservative estimates are often required as to the overall funding likely to be captured. For example a conservative rate of c.75% of incremental income or less has been used internationally to safeguard the local authority position.</p> <p>It is also relevant to consider the infrastructure which ring fenced incremental funding should be used to support. For example if the public does not value certain infrastructure deployed, values will not increase which the mechanism seeks to capture.</p> <p>A sunset clause should be considered so as to alleviate potential concerns of other stakeholders whom which this style of revenue source would</p>

Alternate funding models

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
	<p>as funding.</p> <p>The Victorian Government has a policy aversion to hypothecation of its revenues and is concerned about the State’s risk position related to project or forecasting risk and whether there is any contingent financing risk.</p> <p>The importance of Local Government ‘buy-in’ to the process cannot be underestimated.</p>	<p>traditionally be collected by in entirety</p> <p>Financial Modelling Parameters</p> <p>Model both 1) stamp duty & 2) stamp duty and council rates hypothecation. Other land taxes are not expected to be significant.</p> <p>Timing and scope of Stamp duty collection – first uplift, all uplifts and by precinct development only?</p> <p>Incremental income can also be securitised along with other funding sources (e.g. betterment levy) to finance upfront capital cost of the FBURA</p> <p>Car parking levies and other funding sources not to be modelling (due to difficult of estimation and opportunistic nature)</p>	

Recovery from End Users

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p><u>User pays – Fare box and car parking revenue</u></p> <p><i>Under this mechanism the end user pays for infrastructure through the application of fees, tolls and fares which may be used as a form of revenue to pay for infrastructure costs.</i></p>		<p>No– unlikely source of income for FBURA</p> <p>Limitations</p> <p>It is likely that ‘fare box’ revenue on light rail and other transport may be ‘ring-fenced’ by the Department of Transport (DoT)/ existing providers to fund maintenance / lifecycle costs of transport services, given that this has been typically arrangements with public transport assets. This is to be confirmed through additional discussions with DoT (DoT were not clear on position at time of this paper being produced).</p> <p>Little appetite may exist for a congestion charge or implementation of additional fare charges to transport within FBURA (e.g. additional 50 cents per trip or consider FBURA a new ‘zone’).</p>	<p>Fare box for Transport projects could be instituted. This issue (including the long-term management and maintenance of transport assets in FBURA) should be discussed further with DoT regarding how operating revenue would be separated and shared between the FBURA, DOT, Yarra trams etc</p> <p>Financial Modelling Parameters</p> <p>Not modelling as unlikely to be a significant ‘ring-fenced’ funding source for FBURA</p>

Funding from Government

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p><u>Sale and recycling of government owned assets</u></p> <p><i>The sale and recycling of government owned infrastructure can be used to fund new projects, which may assist infrastructure delivery by putting infrastructure assets in the hands of those who may be best placed to manage and operate them.</i></p> <p><i>There needs to be consideration of political sensitivities relating to the sale of assets to fund future urban renewal investments.</i></p>		<p>Yes – (However opportunistic given preliminary stage of project and funding environment).</p> <ul style="list-style-type: none"> • Sale of surplus asset could be an upfront source of funding to fund upfront capital outlays for the project. • Proceeds may be ring-fenced for project use. • Tax and GST advantages exist for pre-year 2000 owned assets that are used to derive proceeds <p>Limitations:</p> <p>Attributed elsewhere: Generally the revenue from the sale of surplus assets is regarded as part of consolidated revenue and may also already be accounted for in the forward estimates. It is unlikely to be treated differently from other Government funding sources.</p> <p>However where there is a clear link to funding sources and use (e.g. school</p>	<p>Opportunity to potentially leverage Places Victoria Broadacre assets, Department of Education school site, VicTrack and other Government assets (as some examples – subject to further investigation and Due Diligence) to use as land swaps or to jointly develop with private sector to create upfront and linked funding for FBURA. These assets are located outside of the FBURA site boundaries</p> <p>For example surplus school sites (outside FBURA) could be leveraged to fund site acquisition and built-form development of new school(s) planned within FBURA . Similarly VicTrack / VicRoads surplus assets could be potentially used to fund transport project capital spend proposed in FBUR capital spend proposed in FBURA</p> <p>Financial Modelling Parameters</p> <ul style="list-style-type: none"> - Not modelled as not expected to be viewed by the State Government as different from other forms of direct Government capital grants or funding that might be allocated to FBURA

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
		<p>provision) and provides a mechanism to efficiently unlock asset worth that is currently underutilised this is seen as worthy of further consideration, especially if FBURA provides additional incentive to ‘unlock and develop’ incremental asset volumes.</p>	
<p><u>Traditional Government funding / whole of government funding</u></p> <p><i>Traditional Government Funding is financial assistance received by non government entities in the form of federal, state, or local government grants, loans, loan guarantees, property, cooperative agreements, food commodities, direct appropriations, or other assistance.</i></p>		<p>No –</p> <ul style="list-style-type: none"> Given fiscal constraints there is unlikely to have much all-of-Government support for pure capital contributions. <p><u>Limitations:</u></p> <p>Government contributions without increase to project specific funding sources will add to credit rating burden on the Local, State and / or Federal Governments</p> <p>Would likely require BERC (Budget and Expenditure Review Committee) business case submission and approval.</p>	<p>Other Consideration:</p> <p>Some form of credit guarantee to underwrite patronage demand on light rail or redeployment of committed funding for other projects is worthwhile considering but not assumed to form a viable core funding source for this project</p> <p>Coordination of Government funding has been seen to be successfully implemented to various projects worldwide, often over 3 levels of Government (e.g. Regents Park, GCRT, etc).</p> <p>Regents Park in Toronto is an appropriate example whereby a new CAD38 million, 60,000sq. Ft arts and culture centre has been developed. This example of the direction of arts and cultural funding was a clear signal to developers of the whole of government commitment to the project. This acted as a catalyst for subsequent renewal of the wider precinct.</p>

Additional Private Sector Opportunities

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<p><u>Private provision of infrastructure</u></p> <p><i>Private Provision of Infrastructure involves the private sector providing assets to the public such as infrastructure that is traditionally the responsibility of the government.</i></p>		<p>No - (opportunistic – unlikely to be a key funding plan).</p> <ul style="list-style-type: none"> Due to already established method of levying developer contributions (DCP) – does not increase funding pool <p>Limitations:</p> <p>Market appetite: Uncertain market appetite and applicability to this project. Should be tested through market sounding exercise. There may only be a certain number of developer with scope and appetite to undertake this form of deal with the State.</p>	<p>May be an option to offer developers the option to provide infrastructure (rail, roads infrastructure) in lieu of Developer Contributions or other levies. In Malmo (Sweden) developers take maintenance obligations of public assets (e.g. parks) in return for development approval</p> <p>Added benefits of integration of infrastructure works with development of development precincts (potentially by one contractor / developer). May reduce upfront ‘funding delay’ as key infrastructure provided by developers in lieu of other Opportunistic and likely to be negotiated on a case-by-case basis rather than a precinct-wide shift in policy / implementation of new funding mechanism</p> <p>Other Consideration:</p> <p>Consider as an implementation option the ability for private developers to provide key infrastructure in lieu of DCPs or other funding obligations. However, unlikely to increase the quantum of funding for the project. Nevertheless may increase the efficiency of infrastructure procurement and deployment.</p> <p>Should be negotiated by the State on a case-by-case basis but subject to key commercial principles which should guide negotiations with developers</p> <p>Social housing could be incorporated in the</p>

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
			<p>development process:</p> <ul style="list-style-type: none"> To ensure provision of % of social housing with final development Benefit of this is to be assessed against potential reduction in commercial appeal for this type of arrangement <p>Many UK models have traditionally adopted this model of private delivery for public provision of housing.</p>
<p><u>Joint Property Development /Sale of Air Rights</u></p> <p><i>Joint property development enables an infrastructure provider to capture value through the development of adjacent real estate. Under this arrangement typically the private sector funds or underwrites a proportion of the core infrastructure costs of the project. Then the infrastructure provider jointly develops the real estate in and around the infrastructure to generate a revenue stream to offset the cost of its provision.</i></p> <p><i>As another method of capturing value, Air rights comprise the rights vested in the ownership of all the property at and above a certain horizontal plane</i></p>		<p>No - (opportunistic – unlikely to be a key funding plan).</p> <ul style="list-style-type: none"> Due to limited land either owned or in the control of the State. Little land to leverage (except where sale of surplus asset (outside of FBURA) – as outlined below – is explored). <p>Limitations:</p> <p>State unlikely to play a developer role (either as sole or joint developer) unless it acquires large parcels of land to create reservations for multiple infrastructure types. This may leave residual land for commercial gain. Alternatively, State may Joint Venture with the private sector and receive a combination of baseline value along with a share in profit or revenue, in exchange for land.</p>	<p>Other Consideration:</p> <p>Some sale of air-rights may be available, but likely to be towards the conclusion of development and dependent on the rail corridor alignment and location of any transport hub (especially transport nodes such as rail and bus interchanges). For example metro might present a sale of air rights opportunity (per Melbourne Central example)</p> <p>Sponsorship and third-party revenue opportunities should be pursued but will unlikely form a key funding source for this project.</p>

Alternate funding models

Funding Models	“Strength of fit” with FBURA objectives	Shortlist Decision (for financial modelling) & rationale	Key Opportunities
<u>Third party revenue & sponsorship</u>		<p>No - (opportunistic – unlikely to be a key funding plan).</p> <p>To be explored during implementation</p>	
<u>Voluntary and community sector involvement</u>		<p>No - (opportunistic – unlikely to be a key funding plan).</p> <p>To be explored during implementation</p>	
<u>Master planner</u>		<p>No - (opportunistic – unlikely to be a key funding plan).</p> <p>Due to limited site ownership and control the public sector is unlikely to generate revenue through master planning role</p>	

9 Summary Short listing and Modelling of Funding Mechanisms

9.1 Modelling of Funding Mechanisms

Table 13 below provides preliminary conclusions relating to funding models available and applicable to the FBURA context. A high level assessment has been completed to determine the strength of fit of each option with FBURA objectives. The range of mechanisms to be modelled will be quantitatively assessed to determine through further analysis their application potential with the FBURA.

Table 11 Summary of mechanisms to be modelled

Category	Model	Mechanism	Revenue source	Geography / method	Mutually exclusive with	To be modelled
Recovery from developers	DCP	\$ per dwelling / ha charged to developers	Developer	Sourced from within Urban renewal area / cost recovery	• IRC	• Yes
	IRC	Max 10% of development value charged and paid on settlement subject to negotiation	Developer	Within URA / cost recovery	• DCP	• Yes
	GAIC	GAIC is levied on land which has been or will be included within FBURA. It is charged on a per hectare basis, charged only once and indexed annually.	Developer	Within URA / cost recovery	• DCP	• No
	Works in kind as a substitute	Infrastructure works and land may be provided by developers with a credit provided against their development	Developer	Within URA / cost recovery	IRC/ DCP	• No

Summary Short listing and Modelling of Funding Mechanisms

Category	Model	Mechanism	Revenue source	contribution	Mutually exclusive with	To be modelled
Recovery from land / property owners	Betterment Levy	Tax paid by FBURA beneficiary in lump sum or instalments reflecting level of benefit received, derived by geographic proximity to benefit	Property owners	• Within & potentially outside URA / benefit related	• Ring fenced incremental funding – existing sources • Land value capture	• Yes (However due to high level nature of works, modelled similarly to transport levy. This is due to forecast difficulty given detailed mathematical characteristics of mechanism)
	Transport Levy	Improvement Charge which is incurred by all ratepayers at flat rate per dwelling across all of FBURA	Property owners	Within & potentially outside URA / benefit or cost related		• Yes
	Land value capture	Established at the FBURA level rising for property owners that benefit from a project, and fall for those whose property decrease in value	Property owners	• Within & potentially outside URA / benefit related	• Betterment Levy	• No (Difficult to model from high level perspective – To be discussed with Places Victoria)
	Ring fenced incremental funding – existing sources	Collection of incremental uplift in stamp duty, rates and land tax attributed to infrastructure upgrades	Property owners	• Within & potentially outside URA / benefit related	•	• Yes – with only a % of incremental income to be ‘ring-fenced’ for FBURA
Recovery from end users	Fare box	Possible collection of surcharge applied to public transport users in	Users	• Within & potentially outside URA / benefit related	•	• No (assumption that Fare box will be used to contribute towards

Summary Short listing and Modelling of Funding Mechanisms

Category	Model	Mechanism	Revenue source	Mutually exclusive with	To be modelled
	Car parking revenue	Collection of parking fees charged to designated zones in FBURA	Users	Within & potentially outside URA / benefit related	Opex costs) • No (opportunistic)
Funding from government	Sale and recycling of government owned assets	Sale, transfer or swap of surplus assets to fund upfront infrastructure development.	Government	n.a	• No (opportunistic)
	Traditional government grant funding / whole of government funding	Funding provided by government	Government	n.a	• No (unlikely to be available)
Additional private sector opportunities	Joint Property Development / Sale of air rights	Case by case	Private Sector	n.a	• No (opportunistic, limited state control and current land ownership)
	Private provision of infrastructure	Case by case	Private Sector	n.a	• No
	Third party revenue & sponsorship	Case by case	Private Sector	n.a	• No

Summary Short listing and Modelling of Funding Mechanisms

Mechanisms to be modelled:

- | | | | |
|-------|-------------------|--------------------------------|-------------------------------------|
| ✓ IRC | ✓ Betterment Levy | ✓ Developer Contributions Plan | ✓ Community Infrastructure Levy |
| | | ✓ Transport Levy | ✓ Ring fenced incremental financing |

Other considerations for alternative funding models (including implementation stages)

At this stage the existing information does not allow for further analysis and modelling of all the funding mechanisms available. For example the ability to utilise *developer works in kind* in lieu of *DCP or IRC contributions* cannot currently be determined, despite the fact enhanced infrastructure deployment and procurement efficiency may be positively affected by utilising such a substitute. Deployment of this type of funding mechanism is dependent on individual negotiations with key developers who may approach Government with 'Works in Kind' proposals that are robust at project inception. Therefore mechanisms which have been disqualified but characterised as opportunistic can be re-examined if there is additional evidence of:

- Developer appetite
- Stakeholder appetite
- Relative ease of implementation

The following mechanisms are opportunistic and should be considered at the implementation stages as potential 'optimised' funding sources:

- | | | | | |
|---------------------------------------|---|--|---|--|
| • Works in Kind
(see above) | • Betterment Levy
• (value linked uplift)
(if distribution method can be confirmed) | • Car parking revenue
(If sources can be identified) | • Sale and recycling of government assets
(If assets are identified and lined to FBURA) | • Joint Property Development / Sale of air rights
(if available development land is secured) |
|---------------------------------------|---|--|---|--|

Mechanisms not to be modelled:

- | | | | | |
|---|--|---|---------------------------------------|-----------------------------------|
| × GAIC | × Works in Kind as a substitute | × Betterment Levy (value linked uplift) | × Land value capture | × Fare box & Car parking revenue |
| × Sale and recycling of government owned assets | × Traditional government grant funding | × Joint property development / sale of air rights | × Private provision of infrastructure | × Third party revenue sponsorship |

10 Quantitative testing of shortlisted options

10.1 Background to quantitative analysis

This chapter outlines the methodology and results of the quantitative analysis completed for potential infrastructure costs (uses of funds) and a selection of funding revenue streams (sources of funds). The underlying driver of the magnitude and profile of the uses and sources of funds is the speed and scale of development (development profile).

The key purpose of the following analysis will be as a high-level guide to potential funding strategies. Given the early stages of the FBURA project, the analysis performed is of a high level and makes a number of assumptions (key assumptions of modelling are outlined in Appendix D) that will need to be refined as the business case for the FBURA progresses and further detailed information comes to hand.

10.2 Development profile

Development profile assumptions drive the outputs of this analysis. The unit used to stage development is a demand unit of 'built form'. Development has been staged across each of the precincts (Montague, Lorimer, Sandridge and Wirraway) and within Sandridge and Wirraway is further split into two sub-precincts each.

The analysis assumes that development is split into three distinct development periods until the total dwellings, retail and commercial demand units for a particular precinct have been delivered. To simplify the analysis, within each period development is assumed to be occurring at an even pace by quarter.

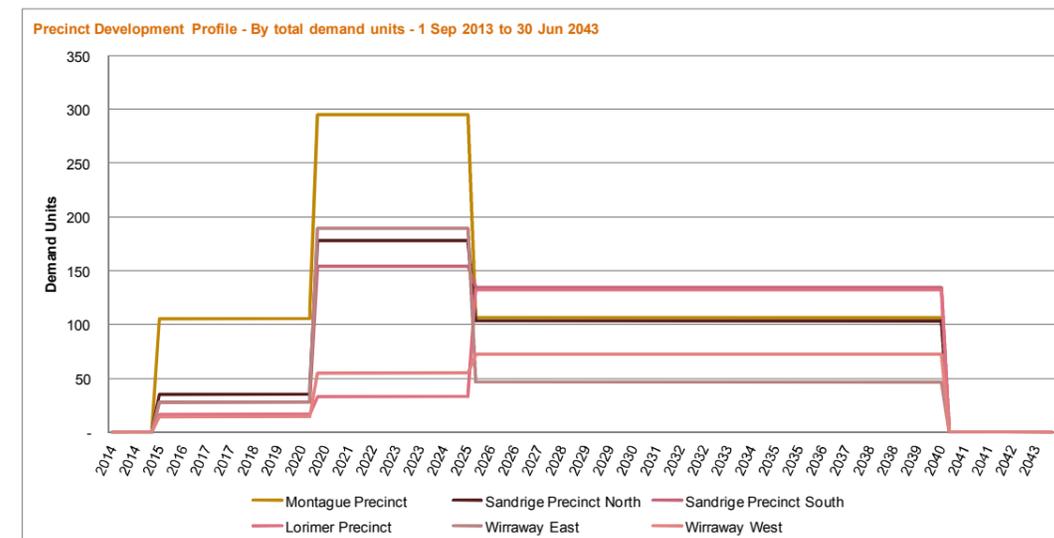
The three key development periods are as follows, and the total assumed development (by % of each precinct) is showing in the table below:

Table 12 - FBURA development profiles by Precinct

Precinct	2015-2020	2020-2025	2025-2040
Montague	14.7%	41.0%	44.3%
Sandridge North	6.7%	34.1%	59.2%
Sandridge South	4.8%	26.3%	68.9%
Lorimer	3.7%	7.4%	88.9%
Wirraway East	7.8%	52.9%	39.3%
Wirraway West	4.9%	19.3%	75.8%

Source: Places Victoria – Discussion Scenario assumptions

The graph below shows the development profile (by demand unit) of the Precinct under the Discussion Scenario:



10.3 Uses of funds

Infrastructure costs have been drawn from a number of sources of information, including due diligence reports completed by a number of other consultants, and

Quantitative testing of shortlisted options

information received directly from the Department of Transport (for light rail costs). Details on sources of information are provided in Appendix E. Timing of infrastructure is related to the development profile for each precinct, albeit subject to assumptions that approximate the level of upfront investment by precinct.

Infrastructure Costs

As outlined above, infrastructure costs are broken into a number of categories. Initial findings on the total nominal values for these costs (across each of the scenarios) are outlined below:

Table 13 - Nominal Infrastructure costs by category and Scenario

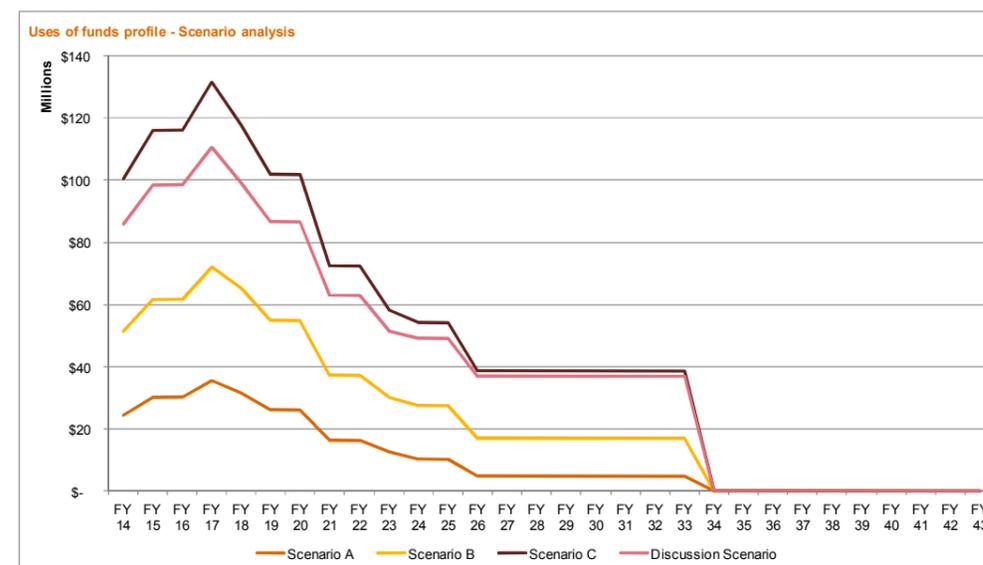
Uses of funds - Nominal	Scenario A (\$m)	Scenario B (\$m)	Scenario C (\$m)	Discussion Scenario (\$m)
Roads and Drainage	31.2	65.3	126.2	106.3
Pedestrian and cycle paths	-	-	-	-
Public Transport	-	-	-	-
Light Rail	85.0	305.0	685.0	655.0
Land Acquisition Costs (Infrastructure)	10.0	20.0	40.0	30.0
Land Acquisition Costs (Public Open Space)	70.0	120.0	240.0	200.0
Social Infrastructure	69.3	137.8	215.0	158.9
Community Infrastructure	37.7	65.7	93.4	80.5
Other supporting infrastructure	-	-	-	-
Project Planning	5.0	5.0	5.0	5.0
Total	308.1	718.7	1,404.6	1,235.7

Source: costs collated by Urban Enterprise and Places Victoria, specific sources have been outlined in the detailed modelling assumptions.

Note: Certain costs (Pedestrian and cycle paths, Public transport, and other supporting infrastructure have not as yet been finalised)

On a nominal basis, the spend profile on these costs across each of the Scenarios is outlined in Figure 5.

Figure 5 - Uses of funds by Scenario

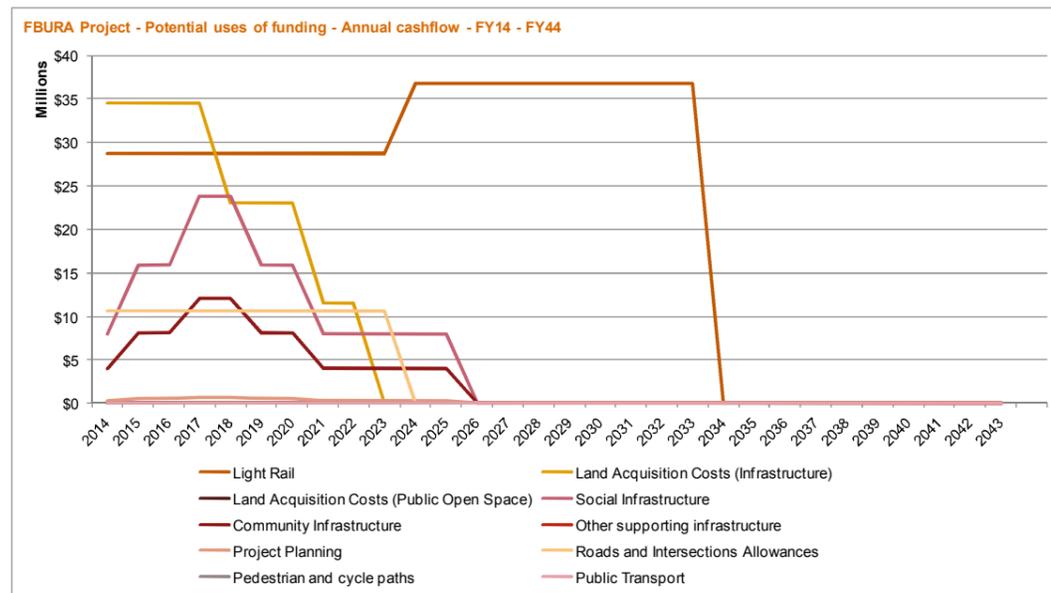


This profile reflects a set of assumptions for each section of costs, including timing across the FBURA as well as by precinct, and by the timing of the individual precincts. These costs do not include risk or financing costs. A detailed breakdown of the assumptions outlining the expected “S-Curves” for infrastructure spending is provided in Appendix D.

Figure 5 shows the total spending (sum of all infrastructure categories), however not all infrastructure spending profiles are the same. For example, in the Discussion Scenario, the spend profile across each cost category (based on the “S-Curves”) is shown below in Figure 6.

Quantitative testing of shortlisted options

Figure 6 - Infrastructure spending profile - Discussion Scenario



NPC of Infrastructure costs

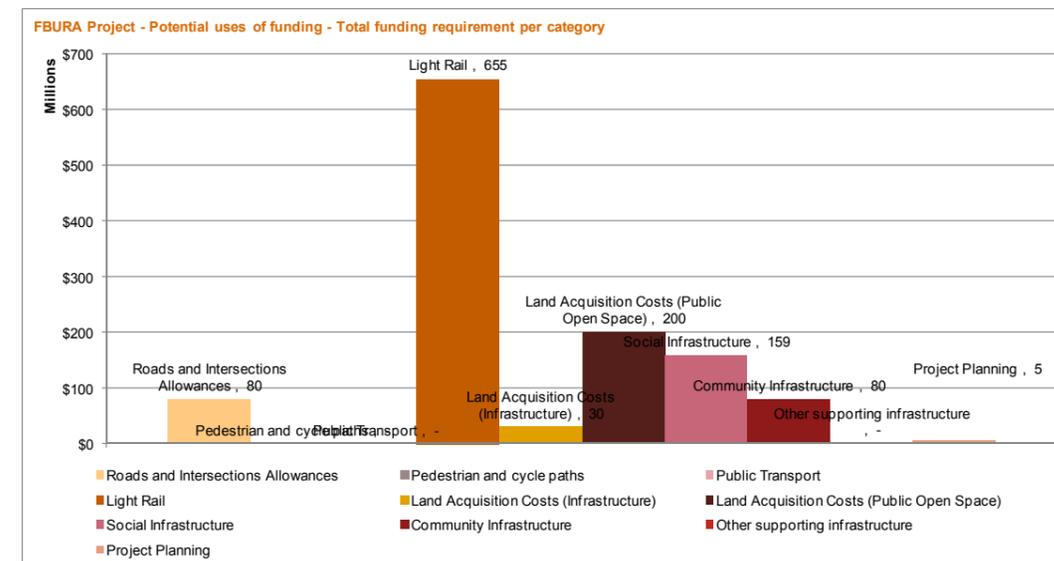
Based on the nominal infrastructure costs, and the infrastructure spend profiles outlined above Net Present Cost (NPC) calculations have been completed and show a total NPC of infrastructure costs for the Discussion Scenario of **c.\$820m** in 1 Jan 2013 dollars, split as follows (note these numbers do not currently include a risk component):

Infrastructure Category	NPC (\$m)	Nominal (\$m)
Roads and Drainage	80.1	106.3
Pedestrian and cycle paths	-	-
Public Transport (not incl. Light Rail)	-	-
Light Rail	371.1	655.0
Land Acquisition Costs (Infrastructure)	24.3	30.0
Land Acquisition Costs (Public Open Space)	162.1	200.0

Infrastructure Category	NPC (\$m)	Nominal (\$m)
Social Infrastructure	118.4	158.9
Community Infrastructure	59.9	80.5
Other supporting infrastructure	-	-
Project Planning	3.7	5.0
Total	819.7	1,235.7

Note: the discount rate used for this calculation is 5.98%, which uses a TCV risk free rate of 4.18%, a market risk premium of 6%, and an asset beta of 0.3 (based on DTF guidelines). We have used a nominal discount rate and a DTF specified beta, however further review of these numbers could be warranted in a more detailed discount rate discussion.

Graphically, the magnitude of costs for each infrastructure category (for the Discussion Scenario) has been shown below:



Quantitative testing of shortlisted options

The largest expense is the expected Light Rail construction for the Precinct, making up just over 50% (in nominal terms) of total infrastructure costs, with other key costs being land acquisition for public open space (16%) and social infrastructure (13%).

10.4 Sources of funds

Table 11 Summary of mechanisms to be modelled, shows the alternative funding mechanisms that we considered and the alternative mechanisms that we have modelled at a high level as part of this analysis.

Based on our analysis of potential funding mechanisms, the following mechanisms were modelled and broadly the assumptions used are shown in the table below:

Table 14 - Funding Mechanism

Funding mechanism	Summary of assumptions used for quantitative analysis
DCP (Cost Apportionment)	A set developer contribution (capped at \$15,000 per dwelling) that is paid by developers on delivery of a demand unit. DCPs cover all infrastructure other than social infrastructure.
Community Infrastructure Levy (CIL)	A set one off levy per demand unit (capped at \$900 per dwelling) that can be used to pay for various social infrastructure investments, such as schools (both primary and secondary), acute health centres, medical clinics.
Infrastructure Recovery Charge (IRC)	A model similar to the one used on Revitalising Central Dandenong, that is applied as a % of development value (land value + construction cost). Can be used to pay for any mix of infrastructure costs.
Transport Levy	A flat quarterly charge levied on land owners based on the demand units owned. Assumed to be levied on existing demand units as well as new developments. Sunset date is after a 30 year period.
Betterment Levy	Modelled as per the transport levy to simply assumptions, but in practice will be modelled based on proximity to infrastructure and benefits accruing based on this proximity.

Funding mechanism	Summary of assumptions used for quantitative analysis
Ring-fenced incremental stamp duty	<p>Modelled to capture the increase in stamp duty as a result of increased Capital Improved Value (CIV) within the FBURA.</p> <p>Uplift in CIV is calculated based on a projected overall increase less inflation to arrive at an uplift as a result of infrastructure delivery and rezoning of land.</p> <p>Not applied to 'off the plan' sales ('off the plan' assumed to be 70% of total).</p> <p>Only 40% of this uplift in stamp duty is attributed to the FBURA.</p>
Ring-fenced incremental council rates	<p>Modelled to capture a portion of the increase in council rates as a result of an uplift in Net Annual Value (NAV) in the FBURA. NAV is assumed to be 5% of CIV.</p> <p>Uplift in NAV is calculated based on a projected overall increase less inflation to arrive at an uplift as a result of infrastructure delivery and rezoning of land.</p> <p>Only 40% of this uplift in council rates is attributed to the FBURA.</p>
Ring-fenced incremental land tax	<p>Modelled to capture a portion of the increase in land tax as a result of an uplift in unimproved land value (ULV) and number of transactions in the FBURA.</p> <p>Uplift in ULV is calculated based on a projected overall increase less inflation to arrive at an uplift as a result of infrastructure delivery and rezoning of land.</p> <p>Only applied to non primary places of residence.</p> <p>Only 40% of this uplift in land tax is attributed to the FBURA.</p>

The profile of these sources of funds is linked to the development profile of the individual precincts as outlined above.

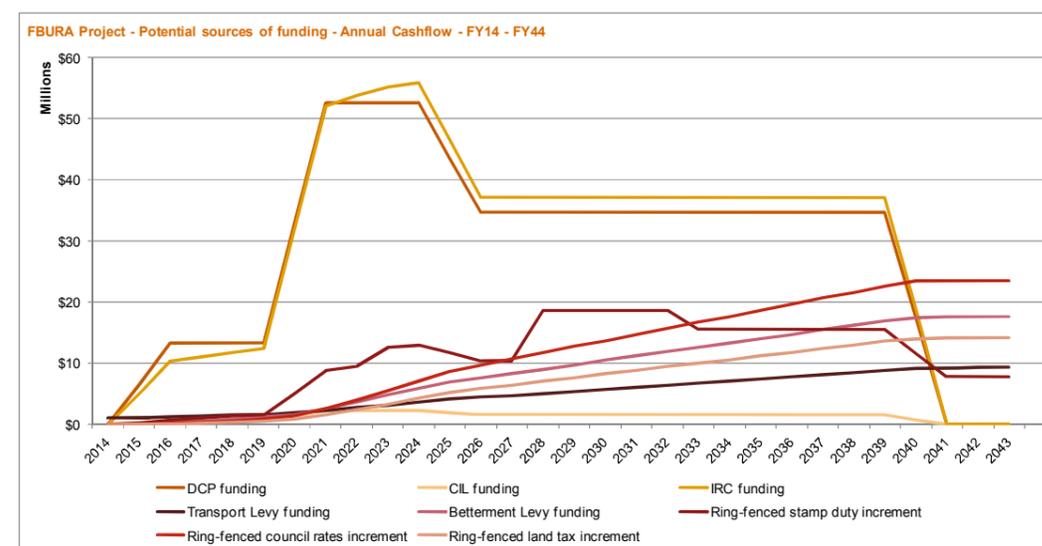
Quantitative testing of shortlisted options

Key drivers for each funding mechanism are:

- DCP and IRC: demand units resulting from new development
- Transport Levy and Betterment levy: cumulative demand units (due to ongoing charging of land owners), from new development. There is an option to include demand units from existing development however this has not as yet been modelled.
- Ring-fenced revenues: changes in market values per demand unit as a result of infrastructure delivery, however is applied in different models for each type of revenue stream:
 - For stamp duty this includes new development and resales of demand units.
 - For council rates and land tax it is based on cumulative new development (as these rates are charged annually).

The cash flow profile of each of the funding mechanism under the Discussion Scenario are outlined in the graph below.

Figure 7 - Sources of funds profile – Discussion Scenario



NPV of funding mechanisms

We have reviewed the returns to the State from each funding mechanism under the Discussion Scenario. Based on the Discussion Scenario assumptions outlined earlier, potential returns to the State could potentially be as outlined in the table below.

Table 15 - List of sources of funding and indicative returns under the Discussion Scenario

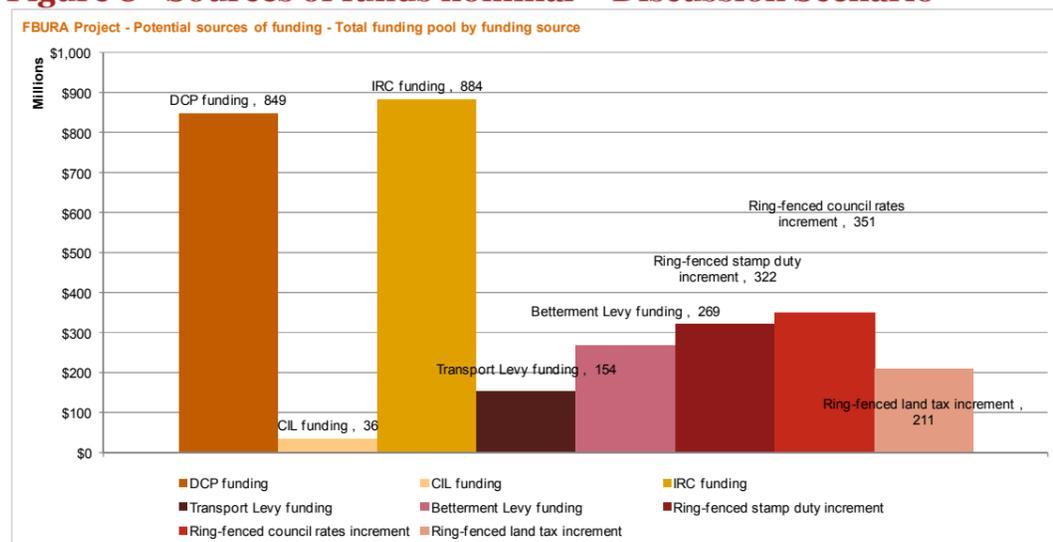
Infrastructure Category	NPC (\$m)	Nominal (\$m)
DCP funding (@ 73% cost apportionment)	384.3	848.8
CIL funding (@ \$900 cap per dwelling)	16.4	36.2
IRC funding (@ 5% of development value)	415.2	884.0
Transport Levy funding @ \$140 p.a/demand unit	53.3	154.0
Betterment Levy funding @ \$300 p.a/demand unit	85.0	269.5

Quantitative testing of shortlisted options

Infrastructure Category	NPC (\$m)	Nominal (\$m)
Ring-fenced stamp duty increment	120.0	322.1
Ring-fenced council rates increment	108.3	351.1
Ring-fenced land tax increment	65.0	210.8

Graphically, the magnitude of funds from each category is provided below:

Figure 8 - Sources of funds nominal – Discussion Scenario



10.5 Market Value uplift

There are a number of funding sources based on the following:

- underlying unimproved land value (ULV)
- capital improved value (CIV)
- net annual value (NAV)

of the Precinct. The graph below shows our assumptions in the market value (ULV, CIV and NAV) of each sub-Precinct within the FBURA.

Figure 9 - Unimproved land value uplift

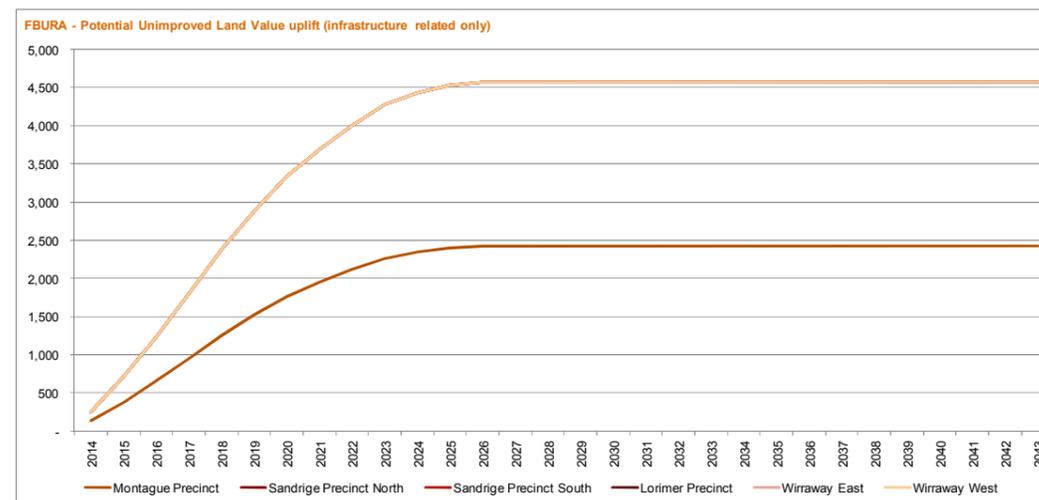
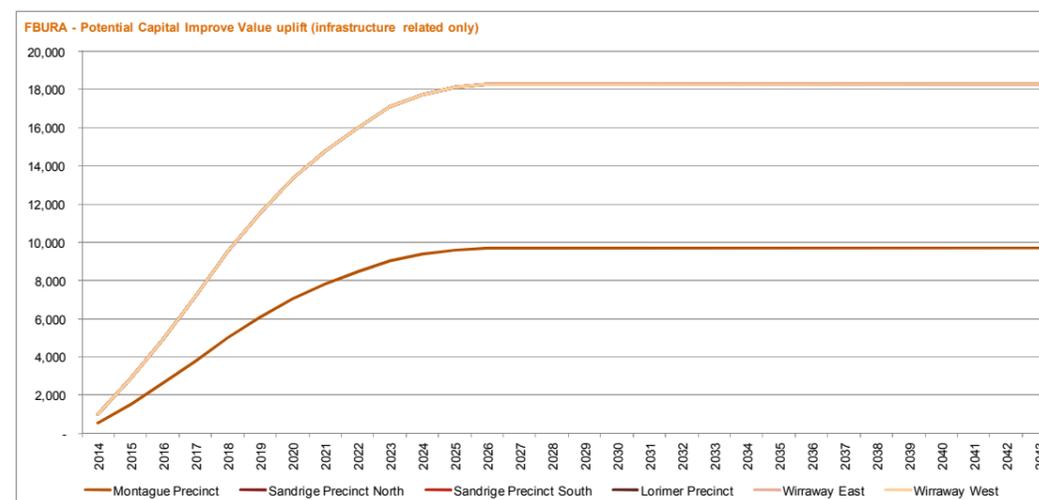
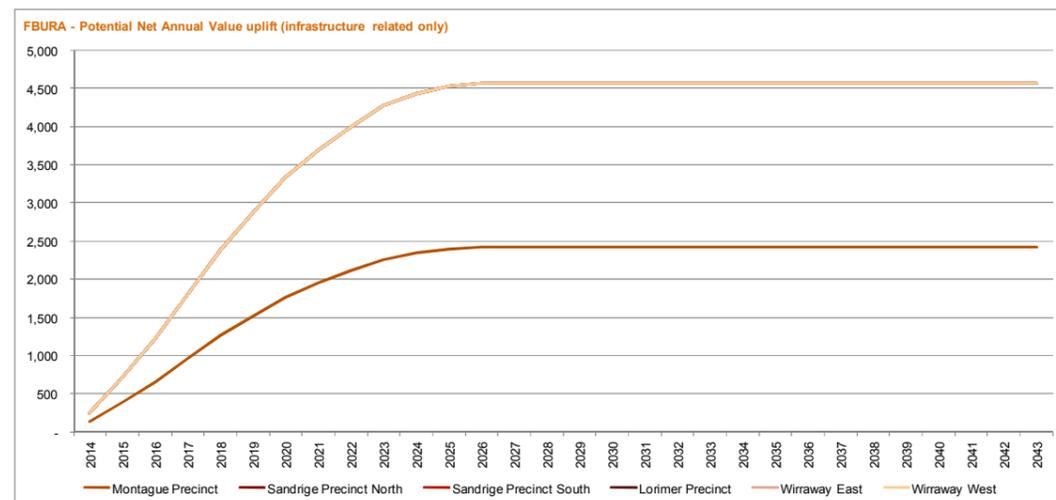


Figure 10 - Capital Improve Value uplift



Quantitative testing of shortlisted options

Figure 11 - Net Annual Value uplift



10.6 Assessing the shortfall from using DCP only (Discussion Scenario only)

Our assumptions of a maximum charge of \$15,000 per dwelling for a DCP charge means a 73% cost recovery (e.g. 73% of total costs on a nominal basis are recovered through the DCP charge for the infrastructure costs in the Discussion Scenario.

Under Scenarios A, B and C, the required DCP cost apportionment levels are as follows:

Scenario	Cost Apportionment for \$15,000 / dwelling
Scenario A (15,000 dwellings)	100% Cost Apportionment (resulting in a maximum of \$14,299 / dwelling)
Scenario B (30,000 dwellings)	~91% Cost Apportionment
Scenario C (60,000 dwellings)	~88% Cost Apportionment

The base case funding package of only a DCP was tested and showed a total “gap”

(difference between uses and sources of funds) on a nominal and NPV basis as follows:

Base Case funding package: DCP Only

	NPC	Nominal
Funding Gap	\$419m	\$351m

10.7 Potential alternative funding packages

Our analysis reviews three possible funding packages that could be used to replace or supplement the use of a DCP. The funding packages have been selected based on the key considerations outlined earlier in the report, and take into account mutual exclusivity of mechanisms, legislative and implementation issues, and the key issues around benefit equity, etc. The packages that we have selected for more detailed analysis are:

4. Infrastructure Recovery Charge only
5. DCP plus transport levy and betterment levy
6. DCP plus transport levy, betterment levy, and incremental council rates

Funding package 1: IRC only

IRC	NPC	Nominal
Funding Gap	\$ 427m	\$ 352m

Funding package 2: DCP plus transport levy and betterment levy

DCP, TL, BL	NPC	Nominal
Funding Gap	\$ 281m	(\$ 73m) (net funding surplus)

Quantitative testing of shortlisted options

Funding package 3: DCP plus transport levy, betterment levy, and incremental council rates

DCP, TL, BL, CR	NPC	Nominal
Funding Gap	\$ 172m	(\$ 424m) (net funding surplus)

These funding packages will need to be tested further as the FBURA business case progresses, and the numbers from these packages are refined. Changes in Precinct staging and phasing, development profiles and mechanism settings (e.g. total % of cost apportionment) will likely have a significant influence on potential funding returns to the State, and therefore the mix of funding mechanisms that may be appropriate.

10.8 Preferred funding package

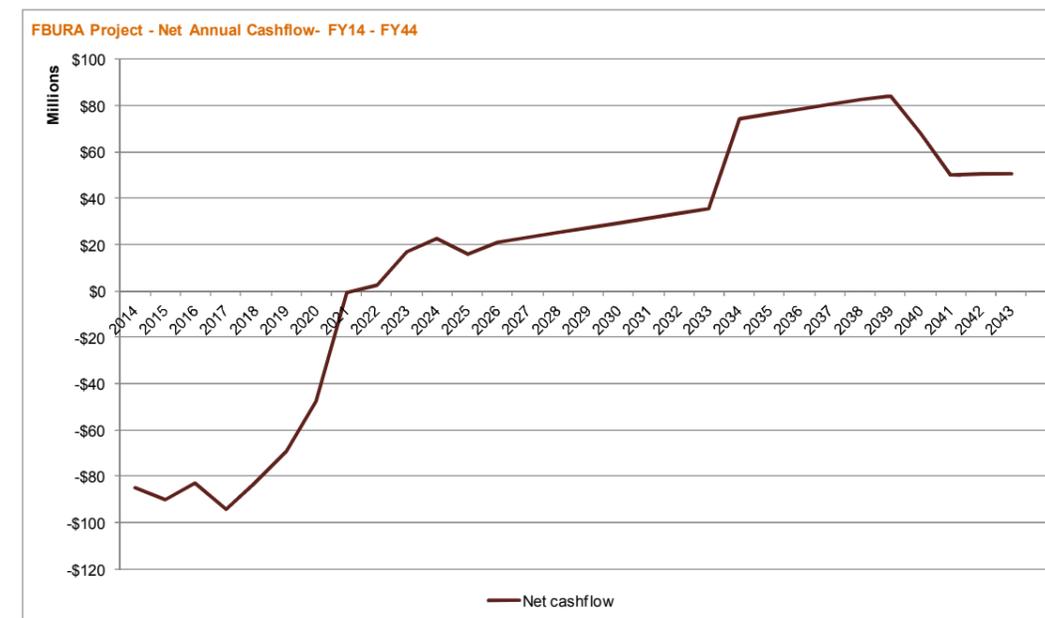
Given the significant infrastructure costs that may be required for this Precinct, and the various legislative and practical constraints covered in earlier sections of this report, the preferred funding package based on available data to date would be Funding Package 3.

This package a broad range of value capture funding mechanisms (transport levy, betterment levy and incremental council rates) supporting the core funding platform a DCP charge of \$15,000 per dwelling and commercial demand unit.

Our analysis of peak exposure and risk is based on the Discussion Scenario, and Funding Package 3.

The net cash flow from the preferred funding package is shown in below

Figure 12 - Net Annual cash flow - Preferred funding package



10.9 Peak exposure, financing and risk

There are two key components to funding infrastructure that the State will need to understand and manage.

Peak exposure and financing

As a result of the mismatch in timing of cash flows between uses and sources of funds, there will be a component of infrastructure costs that will need to be financed up front. While this analysis has not looked at financing costs in detail, *Figure 13 – Peak exposure: cumulative net cash flow* below shows cumulative cash flows for the project, and provides an overview of the total peak exposure (i.e. funding / financing requirement) that the State will have as the project progress.

Peak exposure (defined a cumulative net cash flow) is expected to occur approximately around 2021, and could potentially be as a high as ~\$550m based on Funding package 4 under the Discussion Scenario.

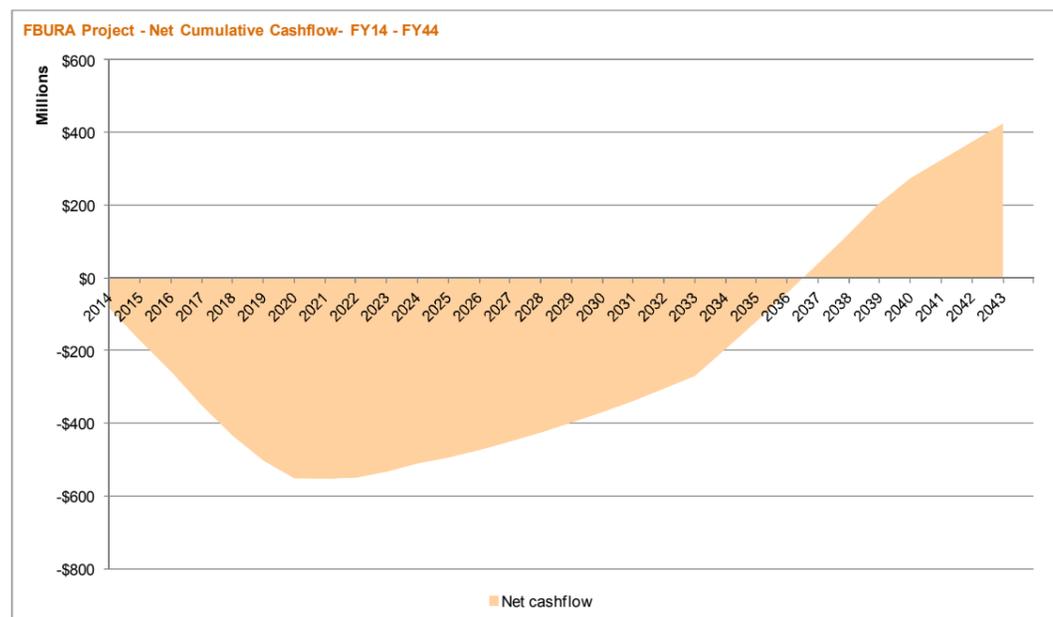
Quantitative testing of shortlisted options

This exposure could result in significant additional interest costs to the State to finance this early outlay prior to receiving returns through the funding package.

The calculation of the NPV of sources and uses of funds earlier in the report captures the cost of capital for the State for this Project; however the total cash exposure as a result of increased interest costs has not been reflected in the peak exposure calculation below.

At the business case stage there will need to be a more robust and detailed assessment of risk (qualitative and quantitative) to then feed into financial projections and project budget).

Figure 13 – Peak exposure: cumulative net cash flow



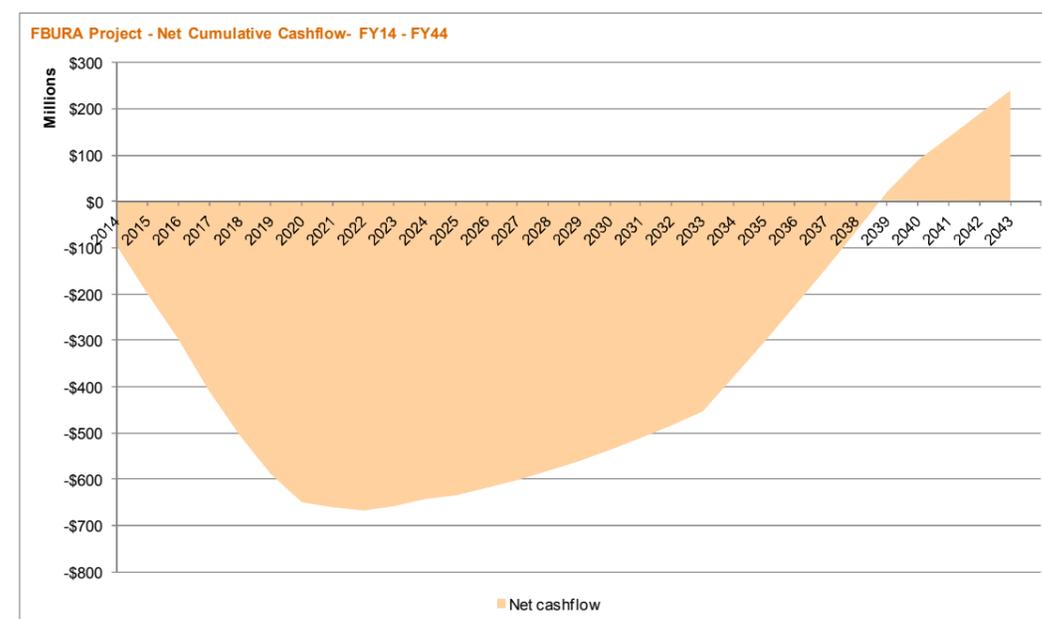
Risk

The figures outlined above are drawn directly from those provided by a number of different consultants and by Places Victoria. While the magnitude of contingency in each cost category has not been reviewed in this analysis, it is expected that there will be an inbuilt contingency.

However in addition to inbuilt contingency, the procurement of infrastructure carries with it a number of underlying risk elements, particularly at an early stage of the project when risks have not been identified and mitigations actions put in place. The numbers above have not been adjusted for risk; however this analysis provides a scenario where an additional 15% of risk (e.g. additional infrastructure costs) is included in the project to assess the maximum negative impact that could occur. This would result in a maximum exposure of ~\$700m, and an increase in the NPV of the funding gap of just under \$120m (from \$172m to \$295m).

This analysis has not modelled revenue risk; however as the business case further progresses, additional risks such as low revenue, or delays in receiving revenue will need to be considered prior to a finalisation of funding mechanisms, as would lower development growth scenarios to 'stress -test' funding models.

Figure 14 - Peak exposure (assume 15% uplift in infrastructure costs)



Funding package 3 – “gap” with 15% increase in infrastructure costs: DCP plus transport levy, betterment levy, and incremental council rates

Quantitative testing of shortlisted options

DCP, TL, BL, CR	NPC	Nominal
Funding Gap	\$ 295m	(\$ 238m) (net funding surplus)

11 **Implementation, governance and next steps**

11.1 **Implementation**

The funding approaches outlined in this report will require further work prior to their implementation. The work conducted in this report has looked at potential funding options for the FBURA project based on both national and international practice. However, moving from this relatively high level analysis to a funding package that is sufficiently well developed to provide an achievable funding platform for FBURA will require a series of planning, implementation and due diligence activities.

In particular we recommend the development of an interim business case and detailed business case (we understand that Places Victoria have already commenced work in developing an interim business case). The business case should be developed to detail the preferred funding solutions for the Project's infrastructure requirements and would build upon key findings and recommendations in this report. This should include the following activities:

- Detailed assessment of infrastructure requirements supported by planning, design and construction consultants to develop a reliable reference project; whole of life project costs; key timing assumptions; (depending on the model adopted) impact on property values; etc.
- Further development of the preferred funding model(s) including legislative impacts; detailed stakeholder assessment; governance model(s).
- Market consultation to sound market views on funding models and other key assumptions.
- A detailed risk assessment to consider the differential risks on each of the parties affected by the model – including government and non-government stakeholders. This would include some assessment of financial impacts of unanticipated slow-down scenarios in development growth versus current projections (i.e. additional 'stress testing' of the funding model)
- Detailed financial modelling to quantify impacts.

- As 'value capture' is seeking to capture and reallocate economic benefits, we recommend the business case should also include detailed economic analysis. This should seek to support the need for any form of Government intervention at FBURA
- Develop detailed implementation time-line to consider governance and activity in the delivery of the proposed model.
- A roadmap for effective delivery including input from key stakeholders.

The interim business case should be considered to be 'proof of concept' followed by a full business case. In this section we have outlined some items we believe are relevant to Governance, tax and specific funding sources and mechanisms that are worthy of further due diligence.

11.2 **Project Governance**

A governance framework for the Project is required to establish the various roles of the State and other involved parties in the Project and the most appropriate delivery framework. Governance arrangements made for the entire project will influence and be influenced by governance arrangements made specifically around infrastructure delivery and establishment of funding mechanisms.

Overall project governance

The FBURA project is complex, involves multiple stakeholders and is city changing in character. The response from government will require an integrated approach to delivery and the governance structure will need to reflect broad representation.

Government's interests need to be considered from the perspective of each government stakeholder group, covering areas such as planning and policy, legislation, the role of the State government, the City of Port Phillip and the City of Melbourne, private land owners and the role of the different agencies of State government involved in the development of the project, including the Minister for Planning as the ultimate Responsible Authority.

The governance structure needs to be established in a manner that ensures a broad range of State government objectives are met. For a development of this scale and timing the State will need to consider the type of organisation(s) that would be required to support the development, for example, whether a State owned corporation or authority would be appropriate. The scale and importance of the development suggest an organisational response is required; however, the nature of

Implementation, governance and next steps

that response will be in part dependent on the how infrastructure is funded, financed and delivered.

Indeed the decisions regarding the most appropriate governance for the project need to be taken within a 'governance structure'. At this stage we have a study that makes a number of recommendations around the development of the Project; fundamental questions need to be asked around which organisation(s) within government should have carriage of this project and determine the State's strategic response.

Funding mechanism governance

There is an opportunity to consider who will drive the process and not only arrange the funding plan, but more broadly all the necessary actions and project management related to FBURA as the project enters advanced planning and 'delivery stage'.

For example, it is recommended that Governance decision be made with reference to the following:

- What Government intervention is desirable
- Who will the funding administration and collection entity/s be?
- How will Local Government be involved (as either a collection agency, upfront capital provider, procurement agency and / or precinct planning or otherwise)?
- Who will undertake the necessary upfront infrastructure and associated works, and under what procurement models?
- How will procurement, planning, funding and financing risks be mitigated for the project, not only at inception, but also long-term as the project is financed and funding collected potentially over decades' long time horizon.
- Will a special purpose entity be established in order to corral risks within a single entity (e.g. numerous overseas examples of Multi Utility Service Company (MUSCO) – to develop and long-term manage infrastructure in large-scale urban renewal projects)?
- How will financing be arranged and will it rely upon a particular entity's balance sheet, or rather have a dedicated and 'ring-fenced' balance sheet to quarantine risk?

- Requirement to manage, negotiate with and regularly update public and private stakeholders.
- The delivery entity must have capability, experience and resources to manage due diligence process, project structuring, procurement and operations for a large-scale urban renewal project such as FBURA.

The interim business case should establish the roles and responsibilities of each party in this project and role they should play in the delivery of the infrastructure; these will be developed and completed in the full business case.

11.3 Tax and accounting strategies

Places Victoria, in order to most efficiently apply the funding envelope obtainable for the FBURA, should consider advantageous tax strategies. The *Project Development and Construction Management Act 1994* (Vic) ("PDACM Act") is one such initiative which could be utilised to minimise future taxes payable when acquiring land for infrastructure deployment. This opportunity requires a further assessment as more information becomes available regarding the particulars of the project.

To the extent that any land, document or transaction relating to the Project gives rise to a liability to any duty, rates, contribution, tax or charge (e.g. stamp duty, land tax, council rates, etc) in Victoria, consideration should be given as to whether an application should be made to the Governor in Council under the PDACM Act to have the Project designated as a "nominated project" and further that an application will be made for the relevant land, document or transaction relating to the Project to be exempted from such duty, rates, contribution, tax or charge in Victoria (as the case may be). This process will require the Treasurer to make an instrument on the recommendation of the responsible Minister that the specified land, documents, or transactions in respect of the Project be exempted from stamp duty, land tax and other taxes, rates, contributions or charges as may be relevant.

The accounting impact of the project on Places Victoria, the Victorian State Government and Local Governments should also be carefully planned. Similar to the 'contingent' nature of any demand risk sharing payments, a number of the alternate funding models outlined in this paper may have some revenue 'at-risk' nature to them

This should include an assessment of the ability to optimise the Goods and Services Tax (GST) treatment of the project, in particular taking advantage of Joint Venture opportunities with private sector and the residential development of pre-year 2000 government owned property to optimise additional funding for the project.

Implementation, governance and next steps

Alternatively project structuring should also be applied to create stamp duty and land benefits that may be applied to future investment in FBURA project.

The business case should consider tax, accounting and balance sheet treatment. The delivery and funding structure will determine the accounting policy for the project and there is an opportunity to consider structures that secure an off balance sheet treatment for government. For example, an SPV in the ownership of the private sector which secures rights to future development contributions or rates and uses this funding to forward finance infrastructure, may be off-balance sheet. The accounting impact of alternative delivery structures should be considered.

12 *Next steps*

Outlined below are a number of key steps we recommend be undertaken in order to further expand the test the efficacy and applicability of funding sources to the FBURA. These findings and next steps should not be considered exhaustive, but rather should be built upon as starting point for developing a business case for implementation on this city-changing urban renewal project:

Key findings and recommendations:

- We recommend that the costs provided by AECOM for the light rail and transport infrastructure are peer reviewed as they are likely to be the most significant Government initiated expenditure items for the FBURA. There should also be due consideration as to the long term maintenance, lifecycle costs and management of this asset (line and rolling stock) post construction and commission.
- The social infrastructure costs are expected to be considerable when taking into account the original outlay, lifecycle costs (if necessary) etc. These costs are likely to be scrutinised by a range of stakeholders due to limited current scope of social services and assets within the FBURA (and neighbouring communities)
- An interim and detailed business case be prepared to further develop the funding models and mechanisms and their application to FBURA. This report outlines a number of the due diligence pieces that are required to confirm their applicability to FBURA. These business case(s) should also investigate for FBURA:
 - Detailed assessment of infrastructure requirements
 - Market consultation of suitability of funding mechanisms
 - Further development of the preferred funding model(s) including legislative impacts; detailed stakeholder assessment; governance model(s), tax efficiencies, .etc..
 - Risk implications on stakeholders and financial modelling, along with detailed economic analysis. . This should included sensitivity analyses of financial projections to test financial robustness of funding sources and financial sustainability of the project
 - Implementation plan and project 'roadmap'

Other opportunities:

- Key funding opportunities for FBURA are outlined in this paper. In this section we have also outlined some key next steps to progress and refine the potential application of these for FBURA. These next steps are to be considered an initial work-in-progress, with issues and milestones to be refined as the project team approaches delivery of the project

2 Developer contributions (DCPs)

- Track the DCP review work being undertaken by the Victorian State Government to clarify the implications for FBURA, in particular if it proposes that FBURA adopts a 'standard infill' rate for FBURA
- Undertake further due diligence on the correct calculation of a DCP for FBURA, clarifying infrastructure items allowed, rate of escalation, etc.. Further analysis required in order to price the DCP (i.e. what threshold will developers not consider FBURA development economic)
- If a DCP is to be contemplated develop a financial model in order to robustly calculate relevant contribution levies taking into account allowable infrastructure and associated costs (e.g. design, capital and financing costs, etc..) This model should be updated and further developed throughout the project lifecycle to track budget against funding sources for FBURA. It should be stress-tested under alternate development and economic condition scenarios.

Infrastructure Recovery Charges

- Further test the appetite for IRC and the potential benefits it presents vis-à-vis the status quo (DCPs).
- Key lessons learnt from the Revitalising Central Dandenong project should be heeded and taken into account if IRC are to be contemplated at FBURA. For example, consider the establishment of an IRC with stringent controls such as mandates on timing of payment and upfront clarity on scope of costs included in calculation of charges (thus avoiding any subsequent negotiation with developers). If this is established this may well be advantageous from a cashflow or 'attributable items' basis when compared with DCP related levies (IRC only to be implemented as a substitute for DCP levies)

Betterment Levy

- Local Government buy-in is required in order to test appetite to be the collection agency and / or to 'forward fund' the levy. Consider the use of the Local Government Act 1989 to establish this levy (and others analysed in this report)
- Further due diligence required in order to value impacts related to infrastructure investment and what proportion of this should be captured to fund FBURA. For example a number of North American and European studies have tested the relationship between transport infrastructure and property values (see PwC *Tax Increment Financing paper for the Property Council of Australia - 2008.*)
- Create sub-sector profiles and model likely uplifts in property to gain a profile of local property market economics. This study should recommend appropriate rates of benefit levy to apply to which areas on a detail, granular basis. Decide which areas within and external to FBRUA project boundary to apply levy to
- If this funding mechanism is to be employed investigate methods to securitise revenue to deliver necessary upfront funds – either through private or public financing
- Consider the use of sunset dates, targeted levying (e.g. exclude local business owners, etc..) to refine levy to optimise funding whilst also focussing on core objectives (e.g. benefit equity, minimising impact on preferred development types, reducing risk and 'bankability' of funding proposal
- Consider whether betterment levy could be applied to residents, businesses and per demand unit or per value unit. Also whether it is applied to areas within FBURA or more generally to areas outside this precinct

Transport Levy

- Local Government buy-in is required in order to test appetite to be the collection agency and / or to 'forward fund' the levy.
- Decide who the levy will be applied to and on what basis (e.g. flat rate charge per annum)
- Decide which areas within and external to FBRUA project boundary to apply levy to
- Like betterment levy - investigate methods to securitise revenue to deliver necessary upfront funds – either through private or public financing
- Investigate whether the levy may be applied as an annual charge under the Urban Renewal Act

Land Value Capture

It is difficult to estimate and therefore difficult to recommend at this stage given limitation over applicability and information. For example:

- How is benefit estimated?
- Does authority apply density bonuses, charges on development application – what recent precedent exists for this in Melbourne?

Applying a density bonus (as a potential option – such as the New York example) may reduce residential and commercial density which could be contrary to project objectives.

This mechanism should be considered as a possibility to form a component of funding model / package for FBURA, especially to provide additional control over types and location of dense development if this is considered important

Test appetite for this model, but also consider whether this approach would add more than a betterment levy. One future application could be to areas surrounding major transport interchanges or underground train stations, where density could be ‘taxed’ effectively without significantly impacting upon the appetite for development in these areas.

It should also be noted that the Land Value Capture analysis contained in this report has not modelled, nor in a detail capacity, assessed the implementation of an ad valorem (unimproved land value) based cashflow. This levy approach may be explored in subsequent work, in particular how this tax / levy would be calculated in order to raise sufficient funding to justify its establishment at FBURA.

Ring fenced incremental income

- Test local Government appetite for this type of funding mechanism. This discussion should also outline the risk mitigating measures discussed in this paper such as sunset dates, limiting the percentage (say 70%) of incremental income to be allocated to FBURA upfront funding
- Ongoing discussion with Victorian State Government

Investigate appetite in the financier market for securitisation of incremental income at FBURA. This process could also consider the combination of securitising this funding source with procurement of infrastructure (potentially by the same entity)

Appendices

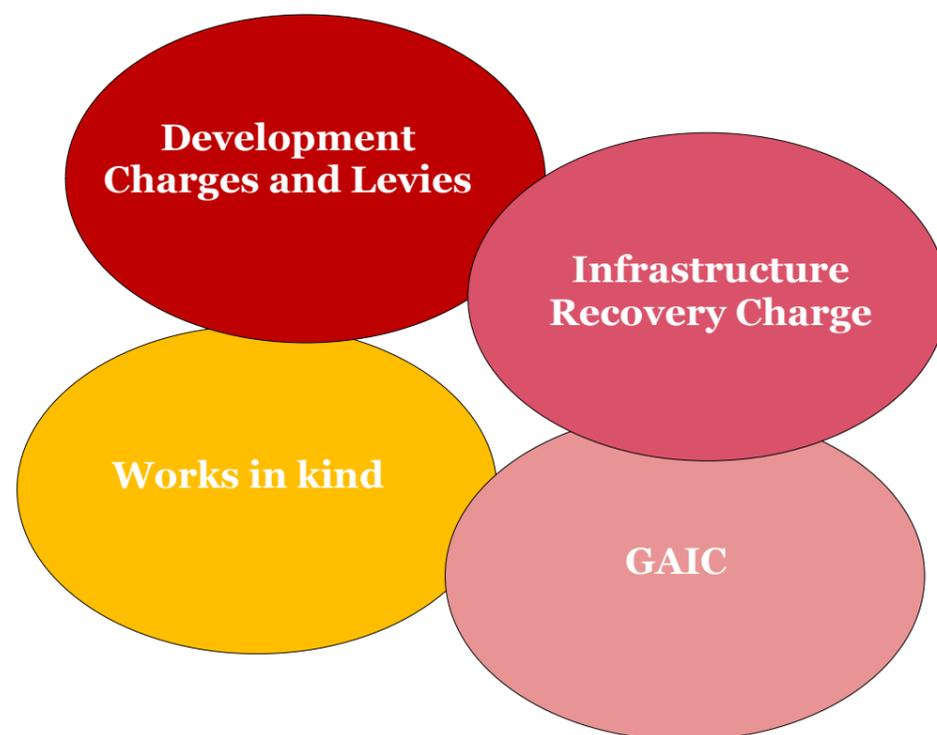
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***Appendix A Funding sources
and implementation case studies***

12.1.2 Recovery from developers

Methods of recovering from developers costs for infrastructure in Australia are typically designed to recover the infrastructure expenditure incurred by government for new developments.

Model	Examples
Development Charges and Levies	<ul style="list-style-type: none"> Crossrail - UK (business rate supplement, community infra levy and s106 contributions) Transportation Improvement Districts (e.g. traffic congestion charge)
Infrastructure Recovery Charge	<ul style="list-style-type: none"> Revitalising Central Dandenong Area (Infrastructure Recovery Charge)
GAIC	<ul style="list-style-type: none">
Works in kind	<ul style="list-style-type: none"> Crossrail – UK (canary wharf train station works in kind)



Development Charges and Levies

Model	What is it?	Examples
Development Charges and Levies	Development Charges and Levies are typically based on an apportionment of infrastructure costs based on dwelling numbers/Sq metres of commercial space.	<ul style="list-style-type: none"> • Crossrail - UK (business rate supplement, community infra levy and s106 contributions) • Transportation Improvement Districts (e.g. traffic congestion charge)
Infrastructure Recovery Charge	An Infrastructure Recovery charge does not apply to typical homeowners but is targeted at commercial scale developments, with three or more dwellings on a lot. It can be levied on developers under Urban Renewal Act up to 10% of development value in designated Urban Renewal Areas	<ul style="list-style-type: none"> • Revitalising Central Dandenong Area (Infrastructure Recovery Charge)
GAIC	A Growth Area Infrastructure Charge is designed to fund essential infrastructure in growth areas.	<ul style="list-style-type: none"> •
Works in kind as a substitute	Alternatively, infrastructure works and land may be provided by developers with a credit provided against their development contribution, subject to the written agreement of the Collecting Agencies. Works in Kind are only possible if the Collecting Agencies agree to that method of delivery.	<ul style="list-style-type: none"> • Crossrail – UK (canary wharf train station works in kind)

Combined Levies Case – London's Crossrail development, England

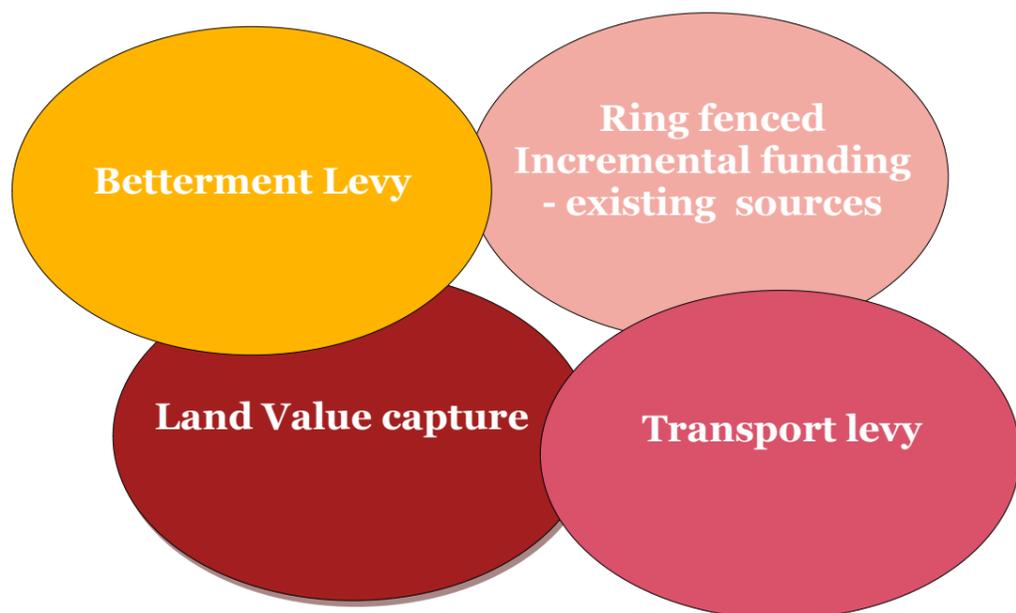
The Greater London Authority introduced new development-type charges to raise its contribution. These included a business rate supplement, community infrastructure levy and a local government section 106 contribution. These new measures allowed the Authority to raise funds from new developers and

Funding sources and implementation case studies

businesses that will directly benefit from the new infrastructure project. There is, however, also the possibility that the stakeholders could use the tax incremental financing model to assist in raising capital.

12.1.3 Recovery from land / property owners

A contribution required from an owner towards the development costs. Owners may pay their cost contribution by money, land or some other method acceptable to the local government. The contribution may be made in a lump sum, by instalments, or in such other manner acceptable to the Authority.



Model	Examples
Betterment levies	<ul style="list-style-type: none"> Portland Street car – USA Poland Melbourne Australia - Melbourne Underground Rail Loop
Transport Levy / Community Infrastructure Levy	<ul style="list-style-type: none"> Transport Levy - Gold Coast Rapid Transit Project Crossrail - UK (business rate supplement, community infra levy and s106 contributions)
Land Value Tax	<ul style="list-style-type: none"> Sao Paulo/Maharashtra –Levies on developments of additional floor space on top of existing buildings ACT - Lease variation charge (LVC) Case
Ring fenced incremental funding – existing sources	<ul style="list-style-type: none"> Chicago (Illinois), Denver URA Oregon South Auditorium project Edinburgh waterfront, Scotland Growth area bonds case – NSW

Betterment Levies

Model	What is it?	Examples
Special Assessment Districts	Special Assessment Districts (SAD) financing seeks to capture the increase in property value owing to a public improvement based upon the property's geographic proximity to an improvement.	<ul style="list-style-type: none"> • Crossrail - UK (business rate supplement, community infra levy and s106 contributions) • Portland Street car – USA • Poland

SAD case – Streetcar, Portland, USA

The special assessment district was created to help fund the Portland streetcar, representing about 17 percent of the first phase of development, and about 20 percent of each subsequent phase. Streetcar systems are particularly suited to assessment districts because they are typically located within a single jurisdiction, usually within a single neighbourhood such as the downtown.

In addition SADs' primary uses include the construction of sewer and water infrastructure; road and highway construction and maintenance; and transit construction. Additionally, a few states like California allow the use of special assessment districts to finance ongoing public services such as neighbourhood policing, graffiti removal and street sweeping. In the USA all fifty states authorise local governments to create SADs to finance local improvement projects. The security for the bonds, issued by a SAD is the special tax levied on the property within the district. The bonds are non-recourse to the issuer and to the developer. The property within the district is the security for the payment of principal and interest on the bonds. Each property unit as a beneficiary pays an appropriate share of the cost of the improvements, which is amortized over the life of the bonds.

SAD case – Poland

Poland applies a betterment-capture mechanism intended to capture windfalls due to planning decisions. The levy is assessed through a parcel-by-parcel appraisal, in order to determine the real value increase attributable to a new or revised plan. The municipalities administer the levy and keep its revenues. The law permits local authorities to set levy rates up to 50% of project costs. A majority of local governments have adopted the levy.

Transport Levies

Model	What is it?	Examples
Transport Levy / Community Infrastructure Levy	CIL charges are based on simple formulae which relate the size of the charge to the size and character of the development paying it. The proceeds of the levy will be spent on local and sub-regional infrastructure to support the development of the area.	<ul style="list-style-type: none"> • Transport Levy - Gold Coast Rapid Transit Project • Crossrail - UK (business rate supplement, community infra levy and s106 contributions)

Transport Levy Case – Gold Coast Rapid Transit, Queensland, Australia

The Gold Coast Rapid Transit (GCRT) project is an 18 year A\$1 billion Operator Franchise Public Private Partnership (PPP) to design, build, finance, operate and maintain the new light rail system. The GCRT system will service a 13 kilometre route with 16 stations.

The Gold Coast City Council (GCCC) committed approximately \$120m to fund the GCRT project, alongside State and Federal Government funding sources. The GCCC is raising a significant portion of its contribution through the City Transport Improvement Charge which is incurred by all ratepayers at a cost of \$111 per dwelling as at 2012. The charge assists Council to fund improvements to local roads and to partner with public and private organisations across the GCCC jurisdiction.

Community Infrastructure Levy Case – England and Wales

The Community Infrastructure Levy (CIL) is a charge which local authorities in England and Wales are empowered, but not required, to charge on most types of new development in their area. CIL charges will be based on simple formulae which relate the size of the charge to the size and character of the development paying it. The proceeds of the levy will be spent on local and sub-regional infrastructure to support the development of the area.

The charges are decided by designated charging authorities and levied by them on new development to ensure that developers contribute to the infrastructure improvements required to make new communities economically viable.

Land Value Tax

Model	What is it?	Examples
Land Value Tax	A land tax value established at the municipal or metropolitan level rises for property owners that benefit from a project, and fall for those whose property decrease in value.	<ul style="list-style-type: none"> • Bowen Hills Urban Development Area land value uplift tax • Sao Paulo/Maharashtra –Levies on developments of additional floor space on top of existing buildings • ACT Lease variation charge • Calgary Revitalisation Levy - community infrastructure levy (property tax on designated development areas & increased taxes from increased values) to pay initial interest on borrowings, sale of development sites (under public ownership) •

Land value tax case – Land value uplift, Bowen Hills, Urban Development Area

The major infrastructure works, affordable housing and ecologically sustainable outcomes will be funded by way of the sharing of the land value uplift arising from the development scheme. To ensure transparency and simplicity the land value uplift will be a rate determined for the UDA or a precinct within the UDA and equate to a charge applied for every square metre of additional GFA in excess of original development approval. The rate is determined considering various development scenarios and developing a business model, using standard industry assumptions and using information to then determine residual land value.

Land value tax case – Selling building rights, Sao Paulo, Brazil

The total available stock of new building rights made available through this programme may be used for the transfer of individual lots or virtually, through property certificates of built area called Special Additional Potential Construction Certificates (CEPACs). CEPACs are issued by the city and purchased by individuals who link them to their plot of land, thus increasing the total FAR permitted. These securities are issued by the municipality, and the funds are transferred to the Treasury, where they remain in a fiduciary account. CEPACs are issued and traded in the Sao Paulo Stock Exchange.

Different conversion rates of CEPACs into building areas allow city planner further discretion over incentives for specific sub-areas in the same Urban Operation. For example, if a conversion rate in a sub-area is set for two, it will cost half as much to buy an additional square metre than in a sub-are where the conversion rate is one. City planners then incorporate relative market prices for different sb-oareas in order to conversion rates that will encourage development in that sub-area.

Lease variation charge (LVC) Case – ACT

In the Australian Capital Territory (ACT) a form of betterment tax is attributed to lease variations. In the ACT, residents and businesses own land through leasehold, and the Government receives a payment based on the conditions of the lease at the time that it leases land. When the conditions of the lease are varied in such a way that the value of

Funding sources and implementation case studies

the lease increases, these variations attract the lease variation charge (LVC). The LVC captures 75% of any increase in value from a lease variation and applies in addition to increases in land tax, and stamp duty. The LVC's are reviewed and determined annually. For example, For residential properties, the payment of an LVC will be triggered by an approval to increase the number of dwellings on a property. Generally speaking, the LVC will be a rate per unit or dwelling, based on the "market average" over the previous three years of similar properties in the same suburb.

Ring fenced incremental funding – existing sources

Model	What is it?	Examples
<p>Incremental Funding</p>	<p>Incremental funding is a mechanism which allows for taxes to be levied on increased property values in a development area. A lead agency typically borrow money upfront to fund the required infrastructure and then the future increased tax cash flows are used to repay the debt.</p> <p>Incremental funding imposes a cost on property owners/purchasers in the defined district. But only in proportion to the increase in their asset value and only after infrastructure services (or their affect on property value) have been provided.</p> <p>Under incremental funding the potential for inefficient development can be avoided by establishing appropriate eligibility and evaluation provisions, which require that:</p> <ul style="list-style-type: none"> • The area/infrastructure of potential incremental funding sources are adequately assessed in terms of level of genuine incremental tax revenue (value) likely to be generated over the term relative to the infrastructure costs • Incremental funding development plans are consistent with land use plans for the broader region 	<ul style="list-style-type: none"> • Denver URA, • Oregon South Auditorium project • Chicago (Illinois), • Edinburgh waterfront, Scotland
<p>Productivity Incentive Payments (PIP)</p>	<p>The PIP proposal aims to identify, through robust cost benefit analysis the economic benefits of infrastructure investment and then, and this is the extension which is not normally undertaken, to identify and allocate those benefits to the beneficiaries of the investment</p>	<ul style="list-style-type: none"> • NSW

TIF case – South Auditorium Project, Oregon

Financing of the project was done on a formula of two-thirds federal funding and one-third local match. The local match was generated by the tax increment financing method (TIF), authorized by voters in 1961. New construction and renovated buildings increase property values in urban renewal districts. Higher property values generate some

Funding sources and implementation case studies

additional property tax revenues. Under TIF, those additional revenues are used to pay off bonds for improvements to streets, sewers and other public facilities in the urban renewal district. Once urban renewal improvements are paid for, all tax revenues go back to normal property tax collection and distribution.

TIF case – CBD theatre district and riverfront, Chicago

Since the late 1990s, Chicago has used TIF to subsidise the redevelopment and rejuvenation of parts of its CBD, including the theatre district and riverfront area. Approximately \$7 million of this \$7.7 million project cost was funded by the Central Loop TIF District. The remaining \$700,000 was financed by the city's general obligation bonds. Since rejuvenation of this area commenced, it has been reported that hotel operators are returning to State Street and developers have converted empty or underused buildings into residential, retail and office space attract the influx of private investment essential for its future prosperity.

TIF case – Edinburgh waterfront, Scotland

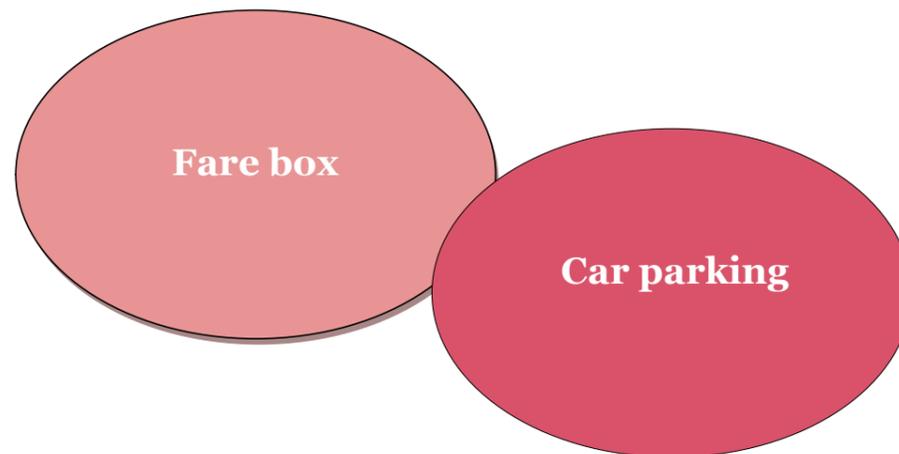
Tax Incremental Financing (TIF) has been used to fund a new cruise liner terminal, lock gates, esplanade and link road in Edinburgh's waterfront. This form of financing was seen as a means to fund specific infrastructure projects within the Leith docks area, which was expected to act as a catalyst for development within the wider community. It was estimated the project could eventually attract £660 million of business investment and 4,900 jobs. The strategy was expected to be viewed by the private sector as a positive response to the present difficult economic conditions and a much needed stimulus to the market both within Edinburgh's Waterfront and across the City.

Growth area bonds case – NSW

It is proposed the scheme will be initiated by a state government agency rather than local government which may not have the necessary expertise. The bonds would be issued through NSW Treasury, and the tax revenues involved would be land tax and stamp duty but exclude council rates. The scheme could be used to fund infrastructure in both Greenfield areas and urban infill areas. This approach avoids a tax or levy as the debt is repaid through asset revaluation. The conservative model sees growth area bond financing 75% of infrastructure – the same amount funded by state development charges.

12.1.4 Recovery from end users

Instruments such as user-pay or beneficiary-pay charges have been favoured as a method of influencing development decisions and promoting efficient investment — as well as being a way of recovering infrastructure costs. The end user pays for infrastructure through the application of levies/tolls.



Model	Examples
Fare box and car parking revenue	<ul style="list-style-type: none">• Toll Roads - e.g. Eastlink, Cross City Tunnel• Melbourne Convention Centre (convention use)• Congestion charge (London & Milan)• Stormwater charges - for all impervious surfaces. Can be applied to newly developed and existing assets• Securitisation of car parking revenues• Nottingham Express Transit – Workplace Parking Levy• 1200 buildings initiative – Environment Upgrade Agreement (Melb – Aus)• Transportation Improvement Districts (e.g. traffic congestion charge)

User Pays Levies

Model	What is it?	Examples
User Pays	The end user pays for infrastructure through the application of levies/tolls.	<ul style="list-style-type: none">• Toll Roads - e.g. Eastlink, Cross City Tunnel• Melbourne Convention Centre (convention use)• Congestion charge (London & Milan)• Stormwater charges - for all impervious surfaces. Can be applied to newly developed and existing assets• Securitisation of car parking revenues• Nottingham Express Transit – Workplace Parking Levy• 1200 buildings initiative – Environment Upgrade Agreement (Melb – Aus)• Farebox – ticket sales

User pays case – Toledo, Ohio, USA – fee based on property owner / tenant based on contribution to stormwater usage

The City of Toledo implemented their stormwater utility as a way to pay for the increasing costs of managing and maintaining their sewer system. In 1999, the City created a utility that charged fees based upon the amount of impervious surface area of all the landowners within their jurisdiction. In 2001, the city also instituted a stormwater fee discount program as a way for non-residential property owners to reduce their stormwater service fee.

The program identifies several different practices that property owners can install to reduce stormwater runoff and pollution and establishes different discount percentages for each practice. For example, a property owner can receive a 10% discount for brownfield reuse, and a 30% discount for installing a forested buffer or swale.

The current guidelines of the program are as follows:

- Credits are available only for non-residential property owners who pay a stormwater fee.
- The maximum credit receivable is 50%.
- Credit is awarded only for fully constructed and functional practices.
- The credit is applicable only to the impervious area that is controlled by the practice

User pays case – Nottingham express transit, Nottingham, UK – workplace parking fees to fund public transport

The Nottingham express transit phase two project was to design, build, finance and operate two tram network extensions with a combined length of 17.5km and to immediately takeover tram operations on the existing NET Line One. Under this deal, the concessionaire was expected to take full patronage risk, with an additional availability payment from NCC based on performance against a series of detailed service and performance standards. There were two unique aspects to the deal:

- DfT would only finance 75% of the overall scheme costs. NCC spent a number of years developing a Workplace Parking Levy scheme, a *charge on employers in the city region that provide workplace parking, as a new source of income*. Charging begins on 1 April 2012 and the income will be used to finance the remaining scheme costs.
- NCC already had a concessionaire in place for NET Line One since 2000. As well as negotiating the details of the NET Phase Two deal, a termination settlement and transition arrangements also had to be put in place with the incumbent concessionaire to maintain a seamless transfer of operations.

User pays case – 1200 Buildings program, Melbourne, Australia

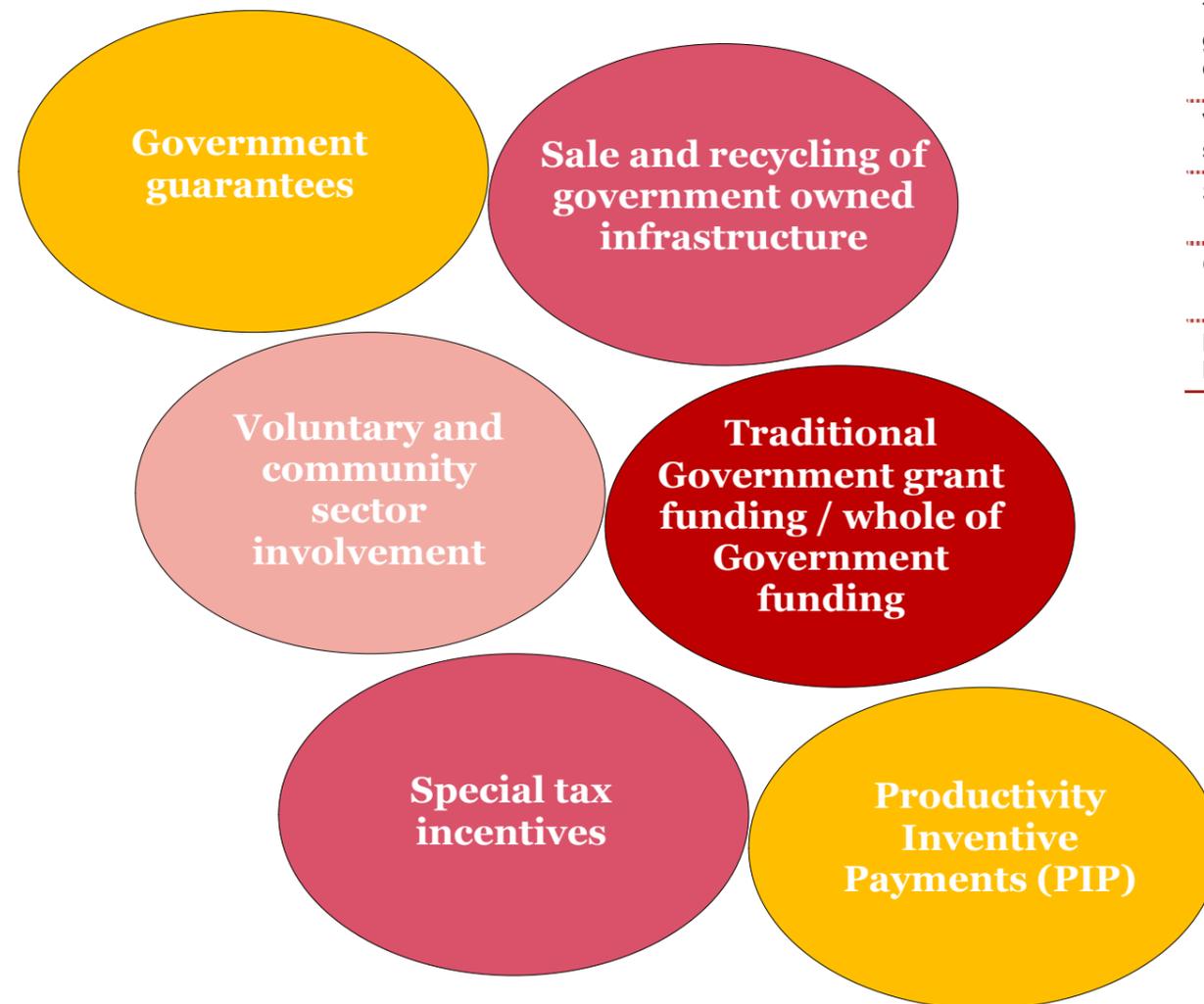
Legislative change has provided the basis for environmental upgrade finance. The mechanism allows Melbourne City Council, in partnership with Australian financial institutions, to enter into voluntary environmental upgrade agreements with building owners to finance environmental upgrades for non-residential buildings.

These funds will be recovered by the City of Melbourne through a charge linked to rates collection. The amount funded is declared by Melbourne City Council as an environmental upgrade charge. The charge will remain on the rateable land until the funds advanced by the financier are repaid in full.

Property owners are also able to pass part of the environmental upgrade charge to the building occupiers (tenants). The legislation requires that any such arrangement can only be made with the tenants' consent. The objective of this requirement is to overcome the split incentive barrier, so that the costs and benefits can be shared by the building owner and the occupiers.

12.1.5 Funding from government

Funding from the Government includes traditional Government Funding, where financial assistance is received by entities in form including federal, state, or local government grants, loans, loan guarantees, property, cooperative agreements, food commodities, direct appropriations, or other assistance.



Model	Examples
Sale and recycling of government owned infrastructure	<ul style="list-style-type: none"> • Queensland Ports • Places Victoria • Commercial land swaps • Community Land Trust Model
Traditional government grant funding and endowments	<ul style="list-style-type: none"> • Urban Renewal Trust Fund - endowment by HK Govt • Liveable cities fund
Voluntary and community sector involvement	<ul style="list-style-type: none"> • Various Examples
Special Tax Incentives	<ul style="list-style-type: none"> • Tax incentives for developers, interlinked with private provision of infrastructure
Government guarantees	<ul style="list-style-type: none"> • Marine Supply Project, Darwin • SEQ Schools, Queensland
Productivity Incentive Payments (PIP)	<ul style="list-style-type: none"> • NSW & SA

Sale and Recycling of Government Owned Infrastructure

Model	What is it?	Examples
Sale and Recycling of Government Owned Infrastructure	Sale of surplus assets to fund upfront infrastructure development.	<ul style="list-style-type: none"> • Queensland Ports • Places Victoria • Commercial land swaps • Community Land Trust Model • VicUrban / Places Vic
Traditional Government Grant Funding and Endowments		
		<ul style="list-style-type: none"> • Urban Renewal Trust Fund - endowment by HK Govt • Liveable cities fund, Australia
Voluntary and Community Sector Involvement		
Whole of Government Funding		
		<ul style="list-style-type: none"> • Auckland Tamaki Edge funding program - pooled funding from central and local government agencies for housing, social development, health, social development, health, education, indigenous affairs, police, etc.. • As per above Regents Park • Brisbane Urban Renewal • Joint State / local government contribution (many examples)

Funding sources and implementation case studies

Model	What is it?	Examples
Special Tax Incentives		<ul style="list-style-type: none"> Tax incentives for developers, interlinked with private provision of infrastructure
Productivity Incentive Payments (PIP)		<ul style="list-style-type: none"> NSW & SA

Case Study – Mile End Park, London

The Liveable Cities Program seeks to improve the capacity of the 18 eligible capital and major regional cities that are the subject of the National Urban Policy. The Program is providing \$20 million over two years and comprises two funding streams:

- Planning and Design Projects with a maximum Australian Government funding contribution of up to \$500,000 per project; and
- Demonstration Projects with a maximum Australian Government funding contribution of up to \$4 million per project.

Case Study – Auckland Tamaki Edge

New Zealand's largest urban renewal and community transformation projects, in Auckland's Tamaki Edge, is expected to attract NZ\$3bn in infrastructure, business, education and social investment over the next 20 years. A major part of this is the Tamaki Transformation Programme (TTP), a collaboration between Auckland City Council and central government agencies for state housing, social development, health, education, Maori and Pacific Island affairs, as well as the police and local communities.

Case Study – Marine Supply Project, Darwin

The Darwin Marine Supply Project (DMSP) is a project to develop ports and associated logistics infrastructure for the servicing of off shore oil and gas facilities

During the 'go to market' phase of the project it became evident that the market could not finance the project with the uncertainty existing around the demand forecasts. As a result the project was subsequently reshaped to allow for the Territory to provide the majority of the capital cost of the project.

Case Study – SEQ Schools, Queensland

The SEQ Schools project is using a combination of private and public debt also known as the 'Supported Debt Model' to allow cheaper government funding to substitute for more costly private finance. The model is a variation of the conventional (fully privately funded) PPP model.

Funding sources and implementation case studies

The private sector will provide all financing for the project (both debt and equity) during the high risk construction phase, but only around 30% of the funding required for the operations phase. Queensland Treasury Corporation (QTC) will provide the balance of the finance (around 70%) through first ranking senior debt on completion of construction. The QTC funding will be drawn down in tranches, subject to completion and certification of various stages of the project.

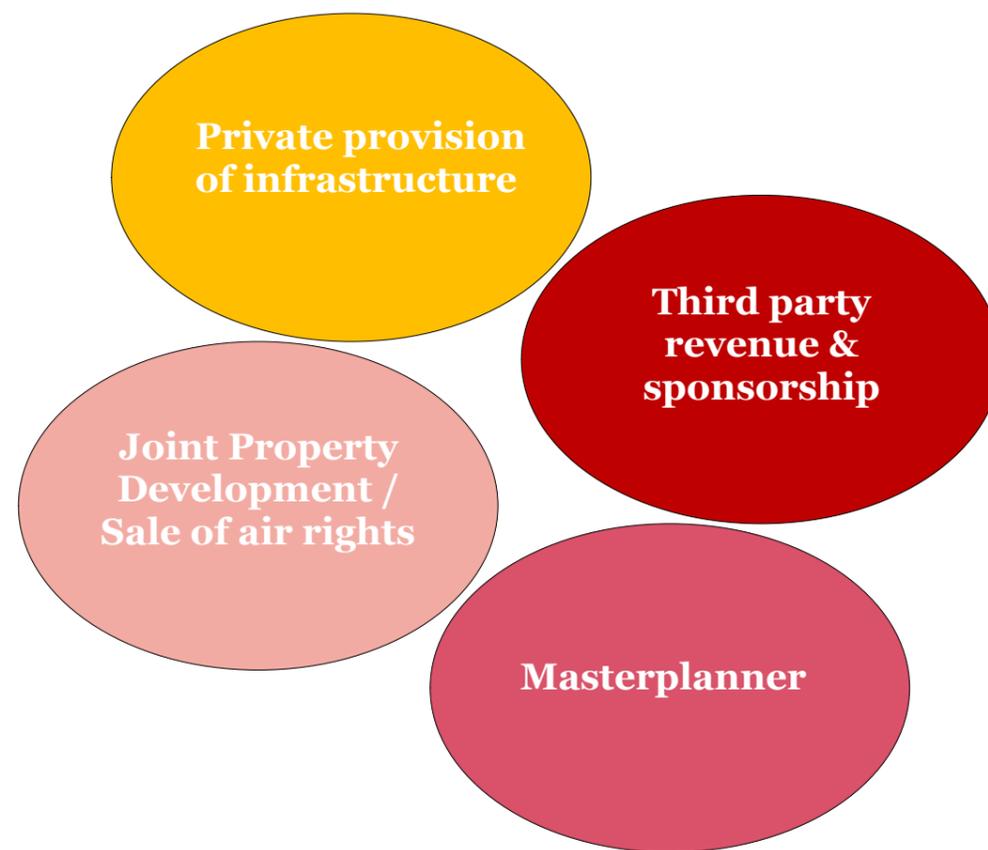
PIP case – NSW & SA, Australia

The NSW government has developed proposals for a funding model which aims to capture a share the economic benefits related to certain infrastructure projects which arise at the Federal level through collection of GST, corporate and personal taxes.

The contention is that certain infrastructure projects, namely those that relive infrastructure bottlenecks and boost productivity, are highly desirable from an economic perspective but do not proceed as the benefits of the projects are recovered through Federal, and not State taxes. By providing a nexus between those projects, their economic benefit and crucially, funding, the intention is to provide a mechanism to fund economically desirable projects that would otherwise not proceed.

12.1.6 Private Development 'Value Capture'

Private Development capture incorporates strategies to capture an opportunity rather than a transaction from the development



Model	Examples
Private Provision of Infrastructure	<ul style="list-style-type: none"> • In lieu of Mining royalties • In lieu of GAIC – Melbourne, Victoria – TB (e.g. Negotiated exactions – less formal negotiations than DCPs) • Malmo (Sweden) - Planning agreements - funding for provision and management of urban green space in and around new residential and commercial developments • Sustainable infra / EUAs, etc.. • UK social housing – East India Dock
Joint property development / sale of air-rights	<ul style="list-style-type: none"> • Sale of air-rights – density bonuses in New York to improve subway infrastructure • Chatswood (NSW), Melbourne Central • MTR Corp - Hong Kong • Taiwan – private owners contribute equity in exchange for additional development rights (land contribution model)
Third party revenue & sponsorship	<ul style="list-style-type: none"> • Mile End Park, London - licensing and franchising, sponsorship, entry fees and fines (50% of income) • Renew Hamilton – Canada • GCRT / Penlink (and other PPPs) - advertising revenue
Masterplanner	<ul style="list-style-type: none"> • Bowden Urban Village - master planner - sale of superlots to developers • Royalties (e.g. NT Government) & revenue (e.g. car parking) securitised • Regents park - sale of future apartment sales – bond financed • VicUrban / Places Victoria

Model	What is it?	Examples
Private Provision of Infrastructure	GAIC is levied on land which has been or will be included within the Urban Growth Boundary or is zoned residential, industrial, business, comprehensive development, priority development or urban growth. It is charged on a per hectare basis, charged only once and indexed annually.	<ul style="list-style-type: none"> In lieu of Mining royalties GAIC – various examples – TB (e.g. Negotiated exactions – less formal negotiations than DCPs) Malmö (Sweden) - Planning agreements - funding for provision and management of urban green space in and around new residential and commercial developments

Private provision case – Bo01 City, Malmö, Sweden

- The site is built on reclaimed, previously developed industrial land, thereby helping to protect Sweden’s arable and agricultural land. The site comprises around 800 apartments and a small number of shops and cafes over 30 hectares. Primary investors in Bo01 are the State of Sweden, the City of Malmö and Sydskraft which is a regional power company. Bo01 is supported by the European Commission and is part of a Local Investment Programme for the Ecological Adaptation of Malmö. The City of Malmö was granted 250 million Swedish Kr. from the national government for this work and earlier funding also came for land reclamation and the development of a sustainable energy system within Bo01. Developers plant trees and vegetation, install water features and organise for long-term maintenance via the charge of service fees to new property owners.

Private provision case – Melbourne, Australia

The Planning and Environment Amendment Act came into force on 1 July 2010. The Act introduces a new Growth Areas Infrastructure Contribution (GAIC) in Victoria which been estimated to contribute approximately 15 percent of the cost of providing State infrastructure and services in the growth areas. It is:

- Used to fund State infrastructure and associated costs in growth areas
- Is payable by developers and purchasers of land (or interests in land rich entities) in Victorian growth areas.

The GAIC is levied on land which has been or will be included within the Urban Growth Boundary or is zoned residential, industrial, business, comprehensive development, priority development or urban growth. It is charged on a per hectare basis (\$82,550 to \$98,030 per hectare depending on type of land in 2011/12) and is incurred on the first property transaction on either the sale or subdivision of the land. The GAIC is payable only once – all subsequent sales of the land does not attract a further Contribution. The rates are indexed annually to a published Construction Cost Index approved by the Treasurer.

Model	What is it?	Examples
<p>Joint Property Development /Sale of Air Rights</p>	<p>- JPD enables an infrastructure provider to capture value through the development of adjacent real estate. Under this approach, the infrastructure provider jointly develops the real estate in and around the infrastructure to generate a revenue stream to offset the cost of its provision.</p>	<ul style="list-style-type: none"> • Sale of air-rights – density bonuses in New York to improve subway infrastructure • Chatswood (NSW) • Melbourne Central • Taiwan – private owners contribute equity in exchange for additional development rights (land contribution model)
<p>Joint Commercial Development</p>	<p>Commercial development refers to the establishment of a core infrastructure facilities (in order to progress the State’s policy objectives) with opportunistic development of adjacent real estate potential. This commercial arrangement would typically involve the private sector funding or underwriting a proportion of the core infrastructure costs of the project, often under the terms of a commercial development agreement</p>	<ul style="list-style-type: none"> • MTR Corp - Hong Kong • Taiwan – private owners contribute equity in exchange for additional development rights (land contribution model)

Joint property development case – Chatswood

An innovative solution to the need for land to build assets is to use so-called air space development, which means adding space above existing buildings and infrastructure such as railway stations. This approach has already been tried at three railway stations in Sydney - St Leonards, Chatswood and North Sydney. These stations have been redeveloped with a mix of commercial and residential space above the tracks Joint Property Development (JPD) initiatives. JPD enables an infrastructure provider to capture value through the development of adjacent real estate. Under this approach, the infrastructure provider jointly develops the real estate in and around the infrastructure to generate a revenue stream to offset the cost of its provision.

Funding is received from a Joint Property development model. Joint property development (JPD) is where governments partner with private developers to create funding opportunities to assist with building rail transport infrastructure and the surrounding station precincts.

Joint commercial property development case– Mass Transit Railway, Hong Kong

The Mass Transit Railway Corporation in Hong Kong (MTR Corporation Limited) utilised a “rail plus property model”, which allowed Government to augment revenue from rail services with the financial benefit of development rights to properties attached to the rail network. This led to a successful integration and linking of infrastructure and commercial development. These developments might include residential, commercial office, and retail space.

Joint commercial property development case – Delhi International Airport, India

In 2006, following a competitive bidding process, the Government of India awarded the Delhi International Airport concession to the Delhi International Airport Private Limited (DIAL) with a mandate to operate, maintain, develop, design, construct, finance, upgrade, and modernize the Indira Gandhi International Airport in Delhi, for a period of 30 years until 2036, with a further option to extend the concession by 30 years.

DIAL leases the site from the Government of India for a nominal rent. The concession also allows DIAL to develop 5 percent of the total airport size for commercial property development; including hotel and retail space. The income secured from this commercial development is contributed as quasi-equity for the airport’s development.

Model	What is it?	Examples
Third Party Revenue and Sponsorship		<ul style="list-style-type: none"> • Mile End Park, London - licensing and franchising, sponsorship, entry fees and fines (50% of income) • Renew Hamilton – Canada • GCRT / Penlink (and other PPPs) - advertising revenue

Case Study – Mile End Park, London

Mile End Park receives a considerable proportion of its maintenance funds from events held in its two pavilions and the rents from retail units beneath the green bridge. Further income will be generated by installing twin wind turbines, which will sell electricity to the National Grid, and selling water from an on-site borehole. Mile End Park generates around 50 per cent of its annual budget from income-generating opportunities sited within the park, which include shop units, a go-kart track, café franchises and the hire of pavilions for weddings, conferences and exhibitions

Case studies

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Appendix B

Case studies

Case – Gold Coast Rapid Transit Project

Background: Gold Coast Rapid Transit (GCRT) is a nation building, public transport project that aims to reduce congestion and improve public transport services at the Gold Coast – one of Australia's fastest growing cities. The project is being delivered by the Queensland Government (through the Department of Transport and Main Roads) in partnership with the Australian Government and Gold Coast City Council. Gold Coast Rapid Transit has secured funding commitments totalling \$949 million from 3 levels of government (local, state and federal). These funds will deliver Stage One of the system, which is the priority route from Griffith University (Parklands Drive, Southport) to Broadbeach. Delivery of Stage One is scheduled for 2014.

Funding

This project is funded by three levels of government, working in partnership with the private sector. **In 2008 Gold Coast City Council committed \$120 million to the delivery of Stage One and a further \$30 million to future stages connecting to Helensvale and Burleigh Heads.**

In 2009 the federal government committed \$365 million to the delivery of Stage One. This commitment to funding was the result of the project's successful submission to Infrastructure Australia. The project receipt of federal funding highlighted its importance on a national scale. In the same year, the Queensland Government committed \$464 million to the delivery of Stage One.

The project is being delivered as a service and availability PPP (with the Queensland Government) to design, build, finance operate and maintain the GCRT for 18 years, with operations to commence in 2014.

The project uses multiple sources to raise its funds, such as the **Gold Coast Transport Levy** which is collected across the whole of the Gold Coast municipality in order to help fund and operate the new light rail. The Gold Coast City Council is raising a portion of its contribution through a **City Transport Improvement Charge** levied on all ratepayers. Although not strictly a Tax increment financing (TIF) charge because it is levied on all ratepayers and not only those who benefit directly from the infrastructure.

City Transport Improvement Charge

As part of the strategic planning for public transport on the Gold Coast, the GCCC implemented a **city wide transport levy** as part of all property owners' annual council rates notices. This permanent transport levy is called the **"City Transport Improvement Charge" and its purpose is to:**

"fund improvements to local roads and to partner with public and private organisations to improve state roads and provide expanded bus services, Council cabs, ferry services, bicycle, pedestrian and rapid transport"

The "City Transport Improvement Charge" (the transport charge) component of the rates notice is a flat charge to all property owners. Other flat charges within the rates notice include the "Botanic Gardens", "Open Space Preservation" and "Recreation Space" charges.

The transport charge was implemented as a separate charge of \$93.60 in addition to the existing general rate and ancillary charges levied by the GCCC, and generated revenue of \$22,400,000 for the 2010/2011 financial year.

The transport charge was raised for the 2011/2012 financial year to \$111.00 which generated revenue of \$26,682,400 for the 2011/2012 financial year for contribution to fund transport system improvements.

Case – Crossrail

Background: Crossrail is among the most significant infrastructure projects ever undertaken in the UK. Crossrail will, for the first time, produce a direct connection between all of London's main business centres, linking Heathrow, with Paddington, the West End, the City and Canary Wharf. **With an estimated project cost of £14.5 billion, The estimated benefit of Crossrail to the UK economy is at least £42 billion. Crossrail is set to open in 2018.**

Funding:

The project is being funded from multiple sources.

A substantial portion of the cost will come from central government, with another portion coming from the Mayor.

The remainder is comprised of both **a levy on business taxes**, and a **collection of lump-sum contributions from key beneficiaries** - including £800m from Canary Wharf Group, £200m from BAA (the operators of Heathrow Airport) and £250m from the City of London Corporation.

Business Rate Supplement (BRS)

The Greater London Authority (GLA) introduced a business rate supplement (BRS) in April 2010 to finance £4.1 billion of the costs of the £15.9 billion Crossrail project. The Mayor introduced a levy of 2p on non-domestic properties with a rateable value of over £55,000 in London.

Less than one in five of London's business and other non domestic premises are liable to pay the Crossrail BRS. Under the Crossrail BRS, a ratepayer for a property (or rating assessment) with a rateable value of £100,000 is liable for an annual BRS contribution of £2,000 (i.e. £100,000 x the 2p in the pound BRS multiplier).

The Crossrail BRS will be used to finance £3.5 billion worth of borrowing by the GLA and the repayment of this sum after the end of the Crossrail construction works. A further £0.6 billion of BRS revenues will be used to finance the construction works directly. The GLA will have contributed £1.9 billion by March 2012 towards the project using revenues financed by the BRS. It expects the Crossrail BRS will run for a period of between 24 and 31 years until its borrowing is repaid.

Community Infrastructure Levy (CIL)

Introduced in 2012, CIL is a levy on new developments in London to finance Crossrail. This will be paid by the developer.

It applies to all applications which result in an increase in net floorspace of over 100m² or involving the creation of one or more residential units.

From 1 April 2012, the Mayor of London started charging CIL ("**Mayoral CIL**") on development to help provide £300m towards the cost of delivering the Crossrail project, a strategic priority to support the growth and development in London.

There is a flat rate charge of between £20 and £50 per square metre which varies from borough to borough. There is no facility for pleading exceptional circumstances relief for the Mayoral CIL.

Sweden

Case 11 – Bo01 city, Malmo

Description:

Historically, Kockums shipyard was located in the Western Harbour which today hosts Bo01, Sweden's first climate neutral city district. The area is supplied 100% by local renewable energy over the course of a year. Buildings receive energy from solar, wind and a heat pump that extracts heat from seawater and an aquifer that facilitates seasonal storage of heat and cold water. Each complex includes a separate structure for waste separation. 200 households have food waste disposers to generate biogas from organic waste. **Bo01 integrates green-space to promote biodiversity, incorporating local vegetation, as well as rainwater through open storm water management and connection to the sea. Green points, including bat houses, birdhouses and deadwood, create habitats for non-human residents.** Bo01 incorporates an eco-friendly transport system, with buses connecting Bo01 every 10 minutes. Bus stops feature real-time displays so passengers know when the next bus will arrive. Bicycles are common and the district features a carpool.

Assets developed:

The site is built on reclaimed, previously developed industrial land, thereby helping to protect Sweden's arable and agricultural land. The site comprises around 800 apartments and a small number of shops and cafes over 30 hectares.

- **Bo01, in Malmo is Sweden's first climate neutral city district.**
- **Bo01 integrates green-space to promote biodiversity, incorporating local vegetation, as well as rainwater through open storm water management and connection to the sea.**
- **Bo01 is a 100% local renewable energy community, with heat produced from the exploitation of aquifers (85%) and from 1400 sq m of solar thermal panels (15%)**

Funding:

- Primary investors in Bo01 are the State of Sweden, the City of Malmö and Sydkraft which is a regional power company. Bo01 is supported by the European Commission and is part of a Local Investment Programme for the Ecological Adaptation of Malmö. The City of Malmö was granted 250 million Swedish Kr. from the national government for this work and earlier funding also came for land reclamation and the development of a sustainable energy system within Bo01.
- A 'Green Space factor' had to be applied to every apartment block and required developers to provide on-plot vegetation such as planted walls or roofs, and surface water courses.
- Developers plant trees and vegetation, install water features and organise for long-term maintenance via the charge of service fees to new property owners.

Status:

Construction finished successfully

Source: <http://www.eaue.de/winuwv/187.htm>, http://www.malmo.se/download/18.af27481124e354c8f1800015936/susmalmo_kortis_eng_091118webb.pdf, http://www.energy-cities.eu/IMG/pdf/bshf_projects_europe.pdf, http://www.energy-cities.eu/IMG/pdf/BO01_EN.pdf,

Case – 1200 Buildings

Background: The City of Melbourne's 1200 Buildings Program, announced in 2010, aims to encourage the environmental retrofit of around two thirds of the municipality's commercial stock. Retrofits improve energy and water efficiency in buildings. This can help lower utility bills and increase an asset's value. The program encourages and supports building owners, managers and facility managers to improve the energy and water efficiency of commercial buildings by providing information, tools, educational seminars and events. The scale and ambition of the program is the first of its kind in the world. Retrofitting existing buildings will improve their energy efficiency, increase economic resilience and improve their resistance against the predicted effects of climate change.

Funding:

- The 1200 Buildings program is managed through a strategic partnership between the City of Melbourne and Sustainable Melbourne Fund (SMF).
- SMF administers the program's environmental upgrade finance mechanism on behalf of the City of Melbourne.
- In March 2010 the Victorian Government today announced a \$500,000 boost to Melbourne City Council's plans to retrofit more than two thirds of Melbourne's commercial buildings as part of its "1200 Buildings" sustainability initiative.
- In September 2010 the Victorian Parliament passed Australia's first legislation to support the large-scale environmental retrofit of city buildings.
- The City of Melbourne Act 2001 was amended to enable Melbourne City Council to **levy a new form of statutory charge, called the environmental upgrade charge.**
- The environmental upgrade finance allows the City, in partnership with Australian financial institutions, to enter into voluntary environmental upgrade agreements with building owners to finance environmental upgrades for non-residential buildings.
- **Under an environmental upgrade agreement, funds advanced by the financier to a building owner for retrofitting are recovered by Council through a charge linked to rates collection – the environmental upgrade charge.** Money received by Council is then forwarded to the financier. Property owners are also able to pass part of the environmental upgrade charge to the building occupiers (tenants).

The City of Melbourne aims to be carbon neutral by 2020. Fifty percent of the municipality's greenhouse gas emissions are generated by the commercial sector. 1200 Building Goals:

- Catalyse the retrofit 1200 commercial buildings
- 38% increase in energy efficiency
- Mitigate 383kt/year of CO₂-e
- Reduce potable water use by 5 giga litres/year

Project Solution Partnerships

- Sustainable Melbourne Fund;
- Australian Financial Institutions;
- Building owners; Consultants and service providers;
- Industry Associations;
- Victorian Government;
- Low Carbon Australia

Current Projects:

In January 2012, two significant environmental upgrade agreements had been signed under the City of Melbourne's 1200 Buildings Program for 123 Queen Street and the Kings Technology Park (KTP) precinct.

The 123 Queen Street agreement, signed between the City of Melbourne, National Australia Bank (NAB), Low Carbon Australia Limited and the building owner is the first privately funded environmental upgrade agreement through the 1200 Buildings Program.

The \$1.3 million retrofit of 123 Queen Street will include a trigeneration system to generate electricity, heating and cooling, as well as occupancy sensors and double glazing. The KTP agreement, signed between the City of Melbourne, Sustainable Melbourne Fund and the building owner, will provide funding towards a \$3.2 million retrofit of the business precinct at 100 Dorcas Street, South Melbourne.

Case 5 – Growth Area Bonds (NSW)

Background:

Growth Area Bonds - where governments fund infrastructure with a bond then repay it with the growth in property taxes generated by the investment.

Working of Growth Area Bonds:

- Identify a suitable area (or GAB district) and establish a GAB authority
- Prepare a growth plan for the area outlining its infrastructure needs and estimating the cost
- Calculate the property tax revenues currently derived from the area
- Issue bonds to fund the infrastructure works for the area (bonds can be government-backed or not)
- Repay the bonds from the incremental increase in property taxes (above the revenue previously collected) generated by the new infrastructure and development in the area.
- Once the bonds are repaid, all property tax revenue for the area returns to the Government.

A NSW model for Growth Area Bonds would have five fundamental elements:

- Enabling legislation to set up GAB schemes passed by the Parliament;
- Schemes initiated by a state government agency rather than local government which may not have the necessary expertise;
- Bonds would be issued through NSW Treasury (T-Corp);
- Tax revenues involved would be land tax and stamp duty but not council rates;
- Schemes would be used to fund infrastructure in both greenfield areas and urban infill areas

GABs disciplines government to guarantee the timely and rigorous provision of infrastructure.

The model has been used in the United States for over 50 years and is now widely activated to help cities and communities accelerate growth. Growth Area Bonds (GABs) can be tailored to suit development needs and governance arrangements accordingly.

Case – Nottingham Express Transit

Background:

Nottingham Express Transit (NET) project Phase II will provide two new tram lines into Nottingham City Centre. It consists of upgrading works to the existing Line 1, including the extension of the existing Wilkinson Street Depot from where the entire Network is managed.

The NET Phase II funding mix:

- NET Phase Two is funded by Nottingham City Council, the Government, and through a combination of tram fare revenue and a Private Finance Initiative (PFI) arrangement over the life of the concession.
- The Government provides approximately 66% of the estimated £570m (net present value) cost through the PFI arrangement, and **the remaining 34% coming from Nottingham City Council, mainly through the Workplace Parking Levy (WPL). The WPL is a charge on employers based in the city that provide 11 or more car parking places for employees.**

Nottingham's Workplace Parking Levy :

- **A levy which charges employers for their staff to park at work has come into effect from April 1, 2012.**
- Employers with 11 or more parking spaces now have to pay Nottingham City Council £288 a year per space under the Workplace Parking Levy. The employer occupying any premises is responsible for paying the WPL charge, regardless of whether they own the building and land or not.
- The cost of the levy will increase to an estimated £334 in 2013/14, £364 in 2014/15, £381 in 2015, and in future years in line with inflation (estimated figures, based on an assumed 3% inflation rate)
- The employer is responsible for paying the WPL charge, however some employers may choose to reclaim the cost of the charge from their employees who park at work, by, for example, introducing a parking charge, as part of a parking management scheme.
- The council expects to meet its target of generating an average of £14m a year over the 23-year period of the levy.
- Bristol City Council is currently considering following Nottingham's lead and introducing a Levy.

Workplace Parking Levy (WPL)

WPL was introduced by the Nottingham City Council, as part of an overall transport package to tackle congestion, in line with local and regional transport policy. Its aim is to offer realistic alternatives to the use of private transport.

The WPL will support a package of transport benefits; NET Phase Two, the redevelopment of the railway station (The Hub) and the Link bus network. **The WPL is estimated to raise, on average, around £10m per year, if operated for 10 years, which will be invested into better public transport.**

Hong Kong

Case – Urban Renewal Trust Fund

Description:

The Urban Renewal Fund Ltd (URFL) was established as an independent organization by guarantee incorporated on August 15, 2011 to act as the trustee and settlor of the Trust Fund. From November 10, 2011, the Trust Fund is also entitled to exemption under Section 88 of the Inland Revenue Ordinance (Cap. 112) and is, therefore, exempt from all taxes payable under the Ordinance. With HK\$500 million endowed by the Urban Renewal Authority, the Urban Renewal Fund Limited endeavours to provide an independent funding source to support the operation of social service teams to provide assistance for residents affected by urban redevelopment projects implemented by the URA, to support social impact assessments and other related planning studies to be proposed by the District Urban Renewal Forum and to support heritage preservation and district revitalisation projects to be proposed by non-governmental organizations and other stakeholders in the overall context of urban renewal.

Assets developed:

- Kwun Tong Town Centre project
- Pak Tsz Lane Revitalization project
- Sheung Wan Revitalization project
- Tung street improvement project
- Western market
- Kai Wai Man Project
- Kennedy Town New Praya project
- Queen Street project
- Peel Street/Graham Street development
- Staunton Street/Wing Lee Street Project
- Baker Court project
- Chi Kiang Street
- Kowloon city Road
- Pak Tai Street

Funding:

The fund started of with a HK\$500 million endowment by the Urban Renewal Authority and today promotes redevelopment, rehabilitation, heritage preservation and revitalisation projects all over Hong Kong.

Status:

The fund continues to promote urban renewal projects in Hong Kong.

Places Victoria

Source: <http://www.ura.org.hk/>

- **The Urban Renewal Fund Ltd (URFL) was established as an independent organization by guarantee incorporated on August 15, 2011 to act as the trustee and settlor of the Trust Fund.**
- **With HK\$500 million endowed by the Urban Renewal Authority, the Urban Renewal Fund Limited endeavours to provide an independent funding source to support heritage preservation and district revitalisation projects to be proposed by non-governmental organizations and other stakeholders in the overall context of urban renewal.**

Australia

Case 1 – Barangaroo Redevelopment

Description:

The development of Barangaroo, formerly known as East Darling Harbour and located north-west of the city centre on the harbour edge between King Street Wharf and Walsh Bay, is a NSW Government project. The 22 hectare site will be divided into public parkland (Headland Park), low-rise residential, commercial and civic buildings (Barangaroo Central) and a high-rise retail, corporate and housing precinct (Barangaroo South). **The Barangaroo Delivery authority is managing the development and is responsible for delivering world class benchmarks in urban design, public domain and sustainability. A proposal by Lend Lease to amend the approved concept plan for the part of the site called Barangaroo South is now being considered by the State Government.**

Assets to be developed:

The plan is to redevelop the Barangaroo area (formerly East Darling Harbour) and features public waterfront areas, shops, a department store, supermarkets, waterfront restaurants, possibly a museum and a library, an international hotel, between 775 and 800 apartments and commercial space for financial headquarters. The latest proposal for the Barangaroo South precinct includes a high-rise hotel built in the harbour and excavation works to create new foreshore with a public promenade along its edge from the location of the proposed hotel pier to Barangaroo Central. **The redevelopment project comprises three precincts: Barangaroo South, Barangaroo Central and the Headland Park.**

The development will be the first of its size in the world to be climate -positive:

- **Recycling and exporting to the central business district more water than it uses**
- **Delivering no waste to landfills**
- **Achieving carbon neutrality by generating its own renewable energy.**

Funding:

- Estimated cost: \$6 Billion
- Lend Lease, an Australia-based international property and infrastructure group, was granted a 99-year leasehold to build three office towers containing 3.3 million square feet (310,000 sq m) of office space, 366,000 square feet (34,000 sq m) of retail space, and a luxury hotel
- To finance the first two towers, Lend Lease has launched a new commercial wholesale open-ended property trust, secured by A\$1.5 billion (US\$1.55 billion) in funding commitments from several cornerstone investors:
 - A\$1 billion (US\$1.03 billion) from the Canada Pension Plan Investment Board,
 - A\$500 million (US\$517 million) from the Lend Lease--managed Australian Prime Property Fund (APPF) Commercial and a pair of existing APPF Commercial investors, First State Super and Telstra Super.
- In line with the developer's strategy of investing alongside capital partners, Lend Lease also will invest up to A\$500 million in the first two towers, to be drawn down progressively over the development period.

Status:

To be completed by 2023 (12 years from start date – Oct, 2011)

Places Victoria

PWC Source: <http://urbanland.uli.org/Articles/2012/Aug/ul/SichelmanBarangaroo>, <http://www.cityofsydney.nsw.gov.au/development/UrbanRenewalProjects/Barangaroo.asp>.

Australia

Case 2 – RNA showgrounds, Bowen Hills

Description:

Bowen Hills is an inner city suburb with high-density living and the majority of homes are multi-storey residential apartments with few freestanding houses. The suburb also has a mix of light industry including the Mayne Rail Yards. The Urban Land Development Authority (ULDA) is responsible for planning, managing and delivering the strategic sites to the market within the Bowen Hills UDA. The UDA covers 108 hectares of land east of the Royal Brisbane and Women's Hospital, south of the Inner City Bypass and Enoggera Creek and north of Brunswick Street.

Work has already begun on the redevelopment of Brisbane's RNA show-grounds in the city's inner-north, on a five and a half hectare tract of land covering the old show-grounds and the inner-city suburb of Bowen Hill. Touted as the most significant urban renewal project since South Bank after Expo 88, the residential, commercial, and retail component of the overall project is known as 'Showground Hill'. Showground Hill will house 3,000 people and provide commercial spaces for 15,000 workers.

Assets to be developed:

The makeover of the Ekka show-grounds will include retail, commercial and residential facilities – designed to turn the showgrounds between Fortitude Valley and Bowen Hills into a year-round inner-city lifestyle-cultural hub.

RNA's development application included 20,000 sq. m of retail space and 340,000 sq m of commercial and residential space. The approved application will include a large fresh food market and homes for an estimated 3,000 residents

Construction has started on the Brisbane Housing company development which will provide 107 affordable housing units close to public transport.

**Construction is underway on the Code development. The building offers affordable housing close to the CBD and a design to ensure efficient energy use
RNA and Lend Lease will undertake redevelopment of the RNA Showgrounds**

Funding:

- **The A\$2.9 billion redevelopment project will ensure the financial future of Ekka and create a year round vibrant commercial, residential and retail precinct.**
- The private sector will be invited to enter joint ventures with the RNA, which also plans hotel accommodation for the site – and, potentially, new rail and bus access.
- The project started off with a A\$40-60 million redevelopment of the Industrial Pavilion in 2011.

Status:

The project is scheduled to be completed in 15-25 years and has been started in 2011.

Places Victoria
PWC Source: http://www.ulda.qld.gov.au/_dbase_upl/Community_Newsletter_4.pdf, <http://www.skyscraperlife.com/queensland-main-forum/14010-project-bowen-hills-rna-urban-renewal-zone.html>

Australia

Case – Beacon Cove

Description:

Beacon Cove is a locality within Port Melbourne and the City of Port Phillip. It comprises approximately 1100 dwellings in a mixture of low-rise medium density and high-rise housing with a small supermarket, some commercial space, a small number of cafes, restaurants and a gym. The historic waterfront of Port Melbourne, once a thriving docklands, was transformed into Beacon Cove, a new community that takes advantage of the site's industrial heritage and its dramatic vista of Port Phillip Bay. Four kilometers (2.5 mi) southwest of downtown Melbourne, Beacon Cove is a public/private master-planned community marketed to young professionals.

Assets to be developed:

Developed by Mirvac in a joint venture with the Victoria state government's Major Projects Victoria, the 32-hectare (79 ac) site has been built out over a ten-year period between 1996 and 2006, with a total of 1,517 residential units and 4.5 hectares (11 ac) of open common space and recreational amenities. The design team worked to integrate the new construction within the existing inland suburban neighborhood, while emphasizing the site's harbor-front roots. A diverse range of housing types and densities, designed by Mirvac's in-house planning and design team, HPA Pty., Ltd., is organized according to a pedestrian-oriented plan with a three-acre (one ha) town center and a generous promenade along the bay..

The development was completed in stages from 1996 to 2006, working west from Princes Street, and this is reflected in the different styles of architecture.

The estate comprises five residential precincts, with individual architectural characteristics and sub-precincts, as well as four additional high rise, mixed use and waterfront precincts

Funding:

- The project is developed through a joint venture between the Victoria State Government's Major Projects Victoria and private player Mirvac.

Status:

The project has been successfully completed. The project started in 1996 and took ten years to complete finishing off in 2006.

Australia

Case – Brisbane Urban Renewal

Description: In 1991, the Urban Renewal Taskforce was established under a tri-governmental partnership and charged with revitalising derelict industrial suburbs in Brisbane. The key objectives of the Taskforce (now known as Urban Renewal Brisbane) were to create sustainable live-work communities in the inner city, revive local economies, deliver affordable housing and reverse the exodus of local residents and businesses. Urban Renewal Brisbane initiated innovative approaches to planning and development in inner-city Brisbane, partnering with the private sector, eliminating bureaucratic obstacles, engaging the local community, championing urban design excellence and sparking new ways of thinking about the city's heart.

Assets to be developed/already developed:

- Master plans for Newstead, Teneriffe, Fortitude Valley and Bowen Hills
- Facilitating the redevelopment of vacant warehouses and industrial sites to deliver over 6500 new homes, including hundreds of affordable dwellings
- The **\$22m upgrade to Brisbane's S1 Sewer**, essential to inner-city growth
- The **\$220m Inner City Bypass (ICB)** to divert regional traffic from the Valley and City Centre
- The **\$7m upgrades to Brunswick St and Chinatown malls**
- Reviving inner-city culture with Brisbane Powerhouse and Judith Wright Centre
- Managing the catalytic redevelopment of key Council landholdings, including Green Square, Emporium and Newstead Riverpark

- URB has actively stimulated developer interest by funding and delivering catalyst projects, creating new development opportunities and streamlining the government approval process. Early government investment in key infrastructure has also worked to build developer confidence.
- The URB approach has shared the costs of providing infrastructure as well as the financial benefits that come from urban renewal.

Funding:

- URB has actively stimulated developer interest by funding and delivering catalyst projects, creating new development opportunities and streamlining the government approval process. Early government investment in key infrastructure has also worked to build developer confidence.
- The URB approach has shared the costs of providing infrastructure as well as the financial benefits that come from urban renewal.
- URB has provided clearly defined development directions, utilising innovative planning controls to provide for orderly development and economically attractive built forms.
- Initial funding came primarily from two sources:
 - the Brisbane City Council, which provides funding each year under its annual budget,
 - the Commonwealth Government, which provided funding under the Building Better Cities program over a four-year period from 1992-1996.

Status:

To be completed by 2023 (12 years from start date – Oct, 2011)

Places Victoria

Source: <http://www.brisbane.qld.gov.au/planning-building/current-planning-projects/neighbourhood-planning/urban-renewal-brisbane/index.htm>

Australia

Case – Sale and recycle of government owned assets

Description:

There are long term benefits of freeing up the capital currently invested by Australian governments in over \$220 billion of energy, water, transport and other infrastructure assets, and recycling it to fund infrastructure. A possible example of this is the Victorian Urban Development Authority (**VICURBAN**) which aims to pursue joint ventures with developers and is already in talks to sell some of its sites with project end values topping \$4 billion. Melbourne-based private developer Villawood Properties, one of the five biggest residential developers in the state by lot sales, is understood to be the first company to take advantage of VicUrban's need to slim down its project portfolio under its new development-light mandate. In 2010, Stockland paid \$48.5 million for a 100ha residential development site near Craigieburn and \$58m for two sites totalling 117.4ha in nearby Wollert.

Assets to be developed:

While the process of identifying assets for downsizing its property portfolio and development pipeline is ongoing, the top of the list are VicUrban's massive 630ha, 8000-lot site in Epping North, a 340ha, 6000-lot subdivision in Officer and 108ha, 1200-lot neighbourhood at Craigieburn. Interested parties include Villawood, Stockland, Australand, Metricon and Devine.

Freeing up the capital currently invested by Australian governments in energy, water and transport infrastructure assets, and recycling it to fund infrastructure development programs will meet the needs of Australia as well as offer stable, secure, long term return for investors.

Funding:

- Project end values of some of the assets identified for divestment is upwards of A\$4 billion

Status:

Not available

Australia

Case – Chatswood (Sydney)

Description:

In New South Wales, a mind-blowing 6.8 million square metres of new commercial space - equivalent to 10 cities the size of Sydney's second city, Parramatta, for instance - are needed by 2031. An innovative solution to this need for land to build assets, is to use so-called air space development, which means adding space above existing buildings and infrastructure such as railway stations. This approach has already been tried at three railway stations in Sydney - St Leonards, Chatswood and North Sydney. These stations have been redeveloped with a mix of commercial and residential space above the tracks Joint Property Development (JPD) initiatives. JPD enables an infrastructure provider to capture value through the development of adjacent real estate. Under this approach, the infrastructure provider jointly develops the real estate in and around the infrastructure to generate a revenue stream to offset the cost of its provision.

Assets to be developed:

- St Leonards
- Chatswood
- North Sydney
- Melbourne Central
- Areas in Victoria

The mixed-use commercial spaces allow for the positive use of otherwise unused, arguably wasted space. The urban planning strategy holds so much potential for the state, the government is now offering its support and looking for new avenues in the residential sector to implement air space development strategies in order to bridge the gap between Sydney-siders and public transport. This new strategy could mean a major turnaround for the city of Sydney and NSW as a whole.

In the NSW government's Centres and Corridors Strategy for Sydney, it is claimed that even modest progress in achieving this approach will yield at least \$5 billion in travel-related savings over 16 years.

As might be imagined, the economic implications of air space development over railway land are so powerful that governments have been driven to act at both commonwealth and state level.

Funding:

- Funding is received from a Joint Property development model. Joint property development (JPD) is where governments partner with private developers to create funding opportunities to assist with building rail transport infrastructure and the surrounding station precincts.

Status:

The strategy has been implemented in three separate railway lines at St Leonards, Chatswood and North Sydney after the success of the remodelling of Melbourne Central.

Source: <http://www.theaustralian.com.au/business/property/developers-eye-the-air-up-there/story-fn9656lz-1226351257483>,
<http://designbuildsource.com.au/density-crunch-architects-aiming-sky-high>

Canada

Case – Calgary redevelopment

Description:

In 2007, the Calgary City Council directed that an integrated land use and transportation plan be created that aligned with the vision and goals of Calgary over 100 year period. The process for developing an integrated Municipal Development Plan and a Calgary Transportation Plan was called Plan It Calgary. The goal of Plan It Calgary was to set out a long-term direction for sustainable growth to accommodate another 1.3 million people over the next 60 years. It was grounded in the values of SMART growth and Council adopted sustainability principles for land use and mobility. These principles focused on a compact city form that cultivates walking, cycling and transit, and preserves open space, parks and other environmental amenities. On September 28, 2009 City Council approved a new MDP and CTP that were created through the Plan It Calgary process. These plans describe the vision for a long-term pattern of growth and development in Calgary over the next 60 years and provide policies that will start to create that form of city over the next 30 years. These policies will guide decisions that will continue to integrate social, economic and environmental objectives.

Assets to be developed:

- South Calgary/Altadore redevelopment
- Richmond Area redevelopment
- Marda Loop Area redevelopment
- St Patrick's Island redevelopment

Funding:

Calgary is the first Canadian city to deploy tax increment financing. With TIF, Calgary last year agreed to borrow future taxes to redevelop the East Village area. The project will have the city incur \$75-million in debt-financed expenses to prepare infrastructure and renew the brownfield area. The debt, plus \$40-million in interest over the next 20 years, will allegedly be repaid out of future tax revenues from the project after the land is sold to private developers at a tax-prepaid discount.

The project involves a 60 year plan to redevelop Calgary and instead of progressively increasing the boundaries of the city with increasing population, redevelop land for future use.

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Status:

The entire plan of developing Calgary is a 60 year plan. The current process of redevelopment is ongoing

Source: <http://www.calgary.ca/PDA/LUPP/Pages/Municipal-Development-Plan/Plan-It-Calgary/Plan-It-Calgary.aspx?redirect=/planit>

New Zealand

Case – Auckland’s Tamaki Edge transformation

Description:

The Tāmaki Transformation is the largest urban regeneration programme in New Zealand. The Tāmaki Transformation Programme area includes the Auckland suburbs of Glen Innes, Pt England and Panmure. Trains from the Glen Innes station provide a less than 15 minute journey to the heart of Auckland City. Over one third of the population are under the age of 15 years adding to the vibrancy and energy of area. With 11 schools and neighbouring University of Auckland Tāmaki Innovation Campus the area is well represented in educational services. Two town centres provide a massive opportunity for economic development. Housing in the area is currently dominated by state housing and plans are underway to better utilise the land and provide better community facilities that meet the needs of the people who live here now and in the future.

Assets to be developed:

Auckland’s Tamaki Edge, is expected to attract NZ\$3bn in infrastructure, business, education and social investment over the next 20 years. A major part of this is the Tamaki Transformation Programme (TTP), a collaboration between Auckland City Council and central government agencies for state housing, social development, health, education, Maori and Pacific Island affairs, as well as the police and local communities.

The programme will fuse together investment by central and local government in housing, education, health, social services, economic development and infrastructure, into a unique partnership with the Tamaki community.

The programme will fuse together investment by central and local government in housing, education, health, social services, economic development and infrastructure, into a unique partnership with the Tamaki community.

Funding:

- New Zealand’s largest urban renewal and community transformation projects, in Auckland’s Tamaki Edge, is expected to attract NZ\$3bn in infrastructure, business, education and social investment over the next 20 years. A major part of this is the Tamaki Transformation Programme (TTP), a collaboration between Auckland City Council and central government agencies for state housing, social development, health, education, Maori and Pacific Island affairs, as well as the police and local communities.
- The project kick started in 2009 with an initial investment of A\$50 million

Status:

To be completed by 2030 (20 year project)

Source: <http://www.beehive.govt.nz/release/tamaki%E2%80%99s-bright-future-starts-now>, <http://www.tamakitransformation.co.nz> , http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=3350888

United Kingdom

Case– Mile End Park, London

Description:

Mile End Park in the heart of London's East End has been redesigned to reduce the amount of habitat fragmentation. Although the park was 90 acres, it was perceived as a series of smaller parks due to its dissection by a number of major and minor roads and railway lines. In order to join up two sides of the park a novel approach was taken to increase connectivity. A green bridge was built to join the two sides. The green bridge spans five lanes of the Mile End Road, with 25 metres width of landscaped parkland. Rainwater runs off the bridge and down into tanks on either side. It is then pumped back onto it and recycled. The park now provides safe and attractive pedestrian and cycle routes in an area of heavily congested roads and connects to the wider East End green grid.

Assets developed:

London's Mile End Park and surrounding areas

Funding:

- Mile End Park receives a considerable proportion of its maintenance funds from events held in its two pavilions and the rents from retail units beneath the green bridge. Further income will be generated by installing twin wind turbines, which will sell electricity to the National Grid, and selling water from an on-site borehole
- Mile End Park generates around 50 per cent of its annual budget from income-generating opportunities sited within the park, which include shop units, a go-kart track, café franchises and the hire of pavilions for weddings, conferences and exhibitions

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Status:

The project has been successfully completed.

United States of America

Case – South Auditorium project, Oregon

Description:

The South Auditorium project was among the first urban renewal project in Portland, Oregon, with work starting in the 1960s. The project spanned over a 109.3-acre area on the southern fringe of the downtown that became known as the South Auditorium Renewal Project, because the well known landmark, the Civic Auditorium, was within its boundaries. The South Portland Auditorium area had been eyed for clearance and redevelopment since 1950. **The route towards urban renewal followed was to acquire, clear, and re-build the entire area. At least 349 parcels were secured, 1,573 residents, including 336 families and 289 businesses were relocated, and 445 buildings were demolished. The plan was to erect offices, commercial and retail services, high-rise apartments, a hotel, parks, malls, and transportation routes.**

Assets developed:

South Auditorium neighbourhood in Portland, Oregon. Its slate of projects of multi-family housing, offices, business and jobs development, retail establishments, as well as parks and plazas, were fresh, exciting additions to the city. Its most notable ornament, the Forecourt Fountain, became a source of civic pride for years.

The project was actually an ambitious first attempt to change the fate of the core city. Its slate of projects of multi-family housing, offices, business and jobs development, retail establishments, as well as parks and plazas, were fresh, exciting additions to the city. Its most notable ornament, the Forecourt Fountain, became a source of civic pride for years. Ninety-seven percent of the funding for the redevelopment in the district came from private sources. The result added \$394 million of assessed property value to the tax rolls by 1974.

Funding:

- In the US model for Tax Increment Financing, property tax revenue increases attributed to the TIF program are temporarily diverted to repay government-issued bonds or privately secured loans for improvements in the district. These property tax revenue increases are referred to as the Incremental District Revenue. Bond holders and investors receive a stable, long term and often tax-favourable return on investment, and communities are able to spread large capital expenditures over the 20 – 25 year term of the bond.
- Financing of the project was done on a formula of two-thirds federal funding and one-third local match. The local match was generated by the tax increment financing method (TIF), authorized by voters in 1961. New construction and renovated buildings increase property values in urban renewal districts. Higher property values generate some additional property tax revenues. Under TIF, those additional revenues are used to pay off bonds for improvements to streets, sewers and other public facilities in the urban renewal district. Once urban renewal improvements are paid for, all tax revenues go back to normal property tax collection and distribution.

Status: Completed successfully

Source: <http://www.kingneighborhood.com/history/Brief%20History%20of%20Urban%20Renewal%20in%20Portland.pdf>

United States of America

Case – Betterment Levy– Bogota, Columbia

Description:

Bogotá, the capital of Colombia, is a city of 7.5 million people with an area of 1,587 square kilometers (613 square miles) on a flat savannah of the Andes mountain range. The administration of the betterment levy is the responsibility of the Urban Development Institute (Instituto de Desarrollo Urbano, or IDU), which is also in charge of identifying the main road construction projects to be financed by the levy. The levy is assessed on all properties affected by a given project (or set of projects) and is calculated by multiplying different benefit factors. The Betterment Levy in Columbia has played a significant role in financing public works and has been a major contributor to municipal revenues, although collections have fluctuated over time. Since 2000, the levy has been used more intensively in Bogotá, Medellín, Cali, Manizales, Bucaramanga, Barranquilla, and most other cities with a population of more than 300,000. Over 50% of Bogotá's main road grid was paid for with betterment levies. The Bogotá model uses a series of factors to represent the local benefit of the project in order to assess the levy, taking into account the payment capacity of the property owners and the different benefit levels. These factors include considerations such as improved mobility and welfare, but do not quantify the specific value added to the property by the project.

Assets developed:

- In 1809 the Comun bridge was built with contributions from nearby estates.
- National legislation since 1887
- First levy implemented in 1937

Bogotá has packaged its street and bridge improvement program into a citywide bundle of public works projects, all financed in part through a citywide valorización fee that is broadly differentiated by benefit.

Funding:

- The Bogotá uses a series of factors to represent the local benefit of the project in order to assess the levy, taking into account the payment capacity of the property owners and the different benefit levels. The Bogotá funding model is related to finance public works through fund from general tax.
- Its collection has been generally accepted by taxpayers with relatively low default rates—in fact lower than for the property tax.
- IDU granted 10% discount for early payment. This discount was not included in the budget.
- To reduce the average amount of the levy, an effort is made to include the largest possible number of lots within the area of influence. When the levy finances multiple projects, the boundaries of the entire area of influence are defined by superimposing the individual areas of each project and adjusting them to account for the complementary effects of the benefits from the combined set of projects.

Bogotá, Colombia betterment fees contribution:

- US\$1.0 billion collected in 1997-2007; US\$1.1 billion bridge improvements; planned for 2008-15; used to finance city street and bridge improvement program.

The total amount to be collected was based on cost recovery, defined as the following:

- 100 percent of (budgeted) infrastructure costs plus
- 10 percent contingency fee plus
- 30 percent administrative costs.

Status: Not available

Source: https://www.lincolnst.edu/pubs/dl/1899_1213_LLA110404.pdf , <http://indiausp.org/brookings/Bogota-Betterment-Levy.pdf> ; <https://openknowledge.worldbank.org/bitstream/handle/10986/6552/461290PUBoBox3101OFFICIALoUSEoONLY1.txt?sequence=2>

Canada

Case – Renew Hamilton

Description:

The mission of Renew Hamilton is to document, promote and accelerate the regeneration of Hamilton's built and natural environments with a particular focus on our downtown and adjacent neighborhoods. The project's purpose is to help advance the renewal of Hamilton's built, natural and cultural environments as key contributors to the attraction of talent and investment. The long range goal of Renew Hamilton is to develop and deliver customized education and training targeting the needs of individuals and organizations working in the renewal economy.

Assets to be developed:

- The project has progressed with a number of local renewal developments. A number of historic buildings are converted into modern mixed use facilities like: Ivor Wynne Stadium, Treble Hal, Dominion Furniture Building, Atrium Building at McMaster Innovation Park and One Hunter Street.
- Conversion to two way road traffic, combined with streetscape improvements.
- Commercialize local arts and culture.
- Increase residential density downtown.
- Attract new businesses to the downtown
- Connect downtown to the waterfront
- Commercialize local research.
- Increase educational capacity
- Improve community aesthetics

Funding:

- The project works under Public-Private Funding Model. Renew Hamilton is a not-for-profit, community based project of the Hamilton Economic Summit operating under the auspices of the Hamilton Chamber of Commerce. Summit organizers were successful in receiving a grant from the Province of Ontario (Ministry of Economic Development and Trade) in support of the Renew Hamilton project deliverables.
- The grant provides a total of \$115,000 over a three year period ending March 31, 2013. This sum represents approximately 40% of the overall project cost.
- Additional funding totaling approximately \$165,000 (over three years) must be secured through other public and private sector sources.
- The project's strategy is to secure sponsorship support from key stakeholders with a direct interest in strengthening Hamilton's renewal economy.

Status:

The entire plan emerged from the inaugural Hamilton Economic Summit held in 2008 and continues to guide summit-inspired projects.

Source: <http://www.hamiltoneconomicssummit.ca/wp-content/uploads/downloads/2011/04/Summit-View-2008-2010-FINAL1.pdf>; <http://renewhamilton.ca/about/our-mission/>

The project Renew Hamilton is a Hamilton Chamber of commerce initiative inspired for urban development. It responds to calls from local community leaders to capitalize on Hamilton's rich base of restorable assets.

The project secures *sponsorship* support from key stakeholders with a direct interest in strengthening Hamilton's renewal economy. **Sample stakeholders include:**

- Architects
- Builders
- Business Improvement Areas
- Contractors
- Engineers
- Financial Institutions
- Developers (commercial, residential, industrial)
- Educational Institutions
- Foundations
- Insurance Firms
- Labour Organizations
- Philanthropists
- Media Outlets
- Relevant Associations (business, construction, etc.)

Canada

Case – Regent Park

Description:

Regent Park is Canada’s oldest and largest government subsidized housing development. Originally designed in 1947, Toronto City Council approved the revitalization of the neighborhood in 2003. The original design for Regent Park is characteristic of modernist public housing developments in North America at that time. The design consists of rows of townhouses, as well as a number of low-rise and high-rise apartment buildings situated in a ‘park-like setting’. Regent Park is undergoing a revitalization that is rebuilding the neighborhood for 12,500 residents over 15 years. Toronto Community Housing Corporation (TCHC) heads the revitalization project, in conjunction with developer partner Daniels Corporation. With a proposed end date of 2025, the revitalization process is already within its second phase of construction. Regent Park’s residential dwellings are entirely social housing, and cover all of the 69 acres (280,000 m²) which comprise the community. The Toronto neighbourhood then known as Cabbagetown was razed in the process of creating Regent Park; the nickname Cabbagetown is now applied to the historical, upscale area north of the housing project.

Assets to be developed:

- The project is being carried forward as a public-private partnership, through a project agreement and joint venture for the condominium projects with The Daniels Corporation.
- The project’s business plan is to use profits from the sale of over 3,000 market condominiums to help pay for the replacement of 2,083 new social housing units and contribute toward the construction of 700 new affordable rental units.

Funding:

Toronto Community Housing realizes the value of its land with a development partnership with The Daniels Corporation. Through bond funding and equity, Toronto Community Housing will invest just under 60 per cent of the total expected cost of the revitalization of just under \$1 billion. The financial plan forecasts about 13 per cent will come through government grants or rebates. The balance will be paid for through the net proceeds of condominium sales. Toronto Community Housing is funding its investment in infrastructure and replacement housing through a bond issuance arising from new and more efficient buildings that will result in lower long-term operating costs. Without the revitalization, the capital repairs backlog at Regent Park would be added to the Toronto Community Housing’s growing backlog. The organization has issued two bonds worth \$450 million. A portion of these bonds is being used as part of the funding for the revitalization of Regent Park. Public funding for revitalization. Public funding for revitalization comes in the form of a 60 per cent share of infrastructure (like roads and sewers), and City of Toronto capital budgets for public facilities.

Government funding for the Regent Park revitalization includes:

- \$3.3 million in Infrastructure Stimulus Funding for the Children and Youth Hub from the province of Ontario
- \$5.1 million from the governments of Ontario and Canada in Affordable Home Ownership Program funding
- \$11.7 million over 20 years for Provincial Affordability Payments to service debt incurred from the construction of the new affordable rental units
- \$19.5 million from the governments of Ontario and Canada in Affordable Housing Program funding (for phase one)
- \$16.4 million from the governments of Ontario and Canada in Investment in Affordable Housing Program funding (for phase two)
- \$24 million in Infrastructure Stimulus Funding for the Regent Park Arts and Cultural Centre from the governments of Ontario and Canada. (The Regent Park Arts and Cultural Centre is also being supported by a fundraising campaign targeting \$10 million in charitable donations.)
- \$62.6 million by the City of Toronto to pay for most of the City-owned community facilities and the City’s 60% share of municipal infrastructure over phases two to six.

The entire revitalization is expected to cost just under \$1 billion over 15 years. The plan relies on leveraging the value of Toronto Community Housing’s land, which is maximized through the creation of a strong residential and commercial real estate market. This has already been achieved with sales of condominiums and leasing of commercial and retail space in Regent Park so far. And the market continues to grow.

Status:

The entire plan is has a proposed end date of 2025. The current process of revitalization is ongoing.

Source: https://qspace.library.queensu.ca/bitstream/1974/6864/1/Greaves_Astrid_E_201109_MA.pdf , http://www.torontohousing.ca/about_regent_park_revitalization#fp

Bowen Hills Urban Development Area

Background: In March 2008, The Urban Land Development Authority declared the Bowen Hills Urban Development Area (UDA), which is approximately 108 hectares in area.

Situated approximately 3 kilometres north of Brisbane's CBD, the UDA is ideally located to take advantage of both the continuing interest in residential accommodation as well as the high demand for new office space in the inner and near city locations.

Furthermore the UDA falls within the convergence of Brisbane's two main northern roads and all of the city's northern rail lines, making it a viable area for development.

The Urban Hills Development Scheme has been developed aimed at facilitating:

- The availability of land for urban purposes
- The provision of a range of housing options to address diverse community needs
- The provision of infrastructure for urban purposes
- Planning principles that give effect to ecological sustainability/ best practise urban design
- The provision of ongoing housing affordability options

There are three elements of the scheme – the *land use plan*, to articulate preferred development in the UDA, the *infrastructure plan*, detailing essential infrastructure needed and the *implementation strategy* indicating how it will deliver all elements of the scheme including proposed financing mechanisms to deliver infrastructure.

The goals of the scheme over the long term include promoting and maintaining liveable communities, promoting planning as well as design excellence, providing economic benefit whilst considering protecting ecological values and optimising resource use.

Assets to be developed:

- Bowen Hills Heart Development
- Ekka Precinct Development
- RBH Precinct Development
- Water Street Precinct Development
- Markwell Street West Precinct Development
- Montpelier Precinct Development
- Perry Park Precinct Development
- Thompson Street Precinct Development
- Breakfast Creek Precinct Development

Status:

The entire master plan of developing Bowen Hills Urban Development Area is completed.

Funding:

- Infrastructure Contribution Schedule (ICS) – a rate will be used to calculate this contribution which is required before development commencing. This essentially covers water, sewer, waterways, transport and community facilities.
- Major Infrastructure and Affordable Housing Development Contribution – a rate labelled the land value uplift is the contribution shared by the owner, developer or government to cover major infrastructure and affordable housing. This contribution equates to a charge applied for every square in excess in development approval

Mechanisms to maximise affordable housing outcomes in the UDA will ensure affordable product is not resold providing a windfall gain to the first purchaser and affordable rental product remains cost effective to the target group for a significant period of time.

Source: Urban Land Development Authority – Development Scheme July 2009

Case studies – alternative funding strategies for urban renewal projects

Stakeholder consultation

Appendix C

Stakeholder consultation

Outcomes from the stakeholder workshop (1 of 3)

A workshop was hosted by Places Victoria on 18th December with a number of relevant State Government and public sector stakeholders attending. PwC facilitated the discussion

Attendees to the Stakeholder workshop:

-

Name	Organisation	Area / Position
Leanne Hodyl	City of Melbourne	Strategic Urban Planning
Lisa Kogios	VicRoads	Network Strategy Coordinator
Tim Smith	DTF	Commercial Division
Martina Johnson	DPCD	Project Management
Max Coffman	DPC	
Gerard	DOT	
Jeffery Tait	DEECD	
Geoff Ward	Places Victoria	Places Victoria
Clinton Fisher	Places Victoria	Places Victoria
Jeremy Conway	Places Victoria	Places Victoria

Outcomes from the stakeholder workshop (2 of 3)

Key issues Discussed

- A stand alone DCP does not currently cover the full cost of the project, but there are other urban renewal income streams that could be captured [‘Gap’ for ‘Base Case’ to be modelled]
- Stakeholders are looking for a replicable model that could act as a precedent for inner city development across Melbourne. Although it was also considered that the scale and nature of this urban renewal project may prove difficult to replicate (even at a broad funding level)
- Practicality and deliverability of mechanisms are important. Having too many mechanisms may create unnecessary or unmanageable project governance and / or administrative burdens on Stakeholders
- A key concern for the group was around the fact that models being considered should be able to be implemented within existing legislation:
 - Environmental Planning and Assessment Act 1979
 - Places Victoria Act (to be further discussed with the Places Vic team)
 - [other legislation?]
- Stakeholders were concerned with fairness of funding models (e.g. Who benefits, pays), though capturing this information may be the key issue
- Some appetite for potential use of other procurement models (e.g. PPPs) to deliver required infrastructure such as Schools, Open Space, Police facilities, community hubs and libraries
- Key to a successful model is to find a way to deal with upfront spending on infrastructure, potentially through financing off the back of various long term funding streams
- Discussion around Open Space contribution levy, what are the “real gaps”, still acts like a DCP and imposes too much on developers
- Affordable housing looks to be a key issue for the Stakeholders (discussed by many), with government looking to make sure that there is a sufficient mix of housing to cater for all types of housing demand
- Appetite for investigation of alternate forms of user pay / levies to help fund upfront works and infrastructure

However it was also noted that the investment horizon of FBURA is likely to be decades. Therefore the funding model may need to challenge existing constraints. For example Places Victoria has an option to initiate specific legislation to drive objectives for the Precinct

Outcomes from the stakeholder workshop (3 of 3)

Other issues associated with funding models

- **Density Bonuses:** Discussions around the density bonus and how it could be applied in the FBURA context, potential for density bonuses to be applied differently in different areas depending on the need for infrastructure, and a “trade-off” mindset being about the need to balance high density with open space, affordable housing, etc
- **TIF:** While there is little appetite for TIF within the State government, the group suggested not to automatically discount it at this stage.
- **Value capture:** Could be a significant sourcing of funding, but capturing without impacting development income too much will be a key challenge. Key value capture will likely come from rezoning followed by transport infrastructure delivery (followed by other infrastructure and development).
- How does government capture some of this uplift? Can this be done under current law? What changes in law might be required to capture value uplift?
- Current land values are around \$700/\$1000sqm which will increase significantly (currently approx 1/3 of expected price) once infrastructure is in place and development has occurred.

Success Factors

- Ensure that Urban Renewal outcomes are clearly spelled out and assess impact to each of these factors of funding models being tested
- Key concerns around efficiency of the model and ability to easily implement within existing frameworks where possible
- Simplicity and certainty of the models is key, and a discussion around the potential ‘bankability’ (de-risking of funding streams)
- Replicability should be added as an assessment criteria
- Impact on sequencing and development

Appendix D Modelling assumptions

This section documents the key mechanical assumptions that have been made as part of the high level modelling in this report. Actual numbers driving our modelling are documented in the input sheets within the FBURA Alternative Funding Mechanisms model.

Development profile and demand equivalency

Timing for Precincts is based on the Discussion Scenario timing assumptions provided to us in the Discussion Scenario paper date February 2013.

The demand equivalency ratios are 1 demand unit equals:

1 dwelling

19 GFA of commercial - retail

121 GFA of commercial - office

Infrastructure Assumptions

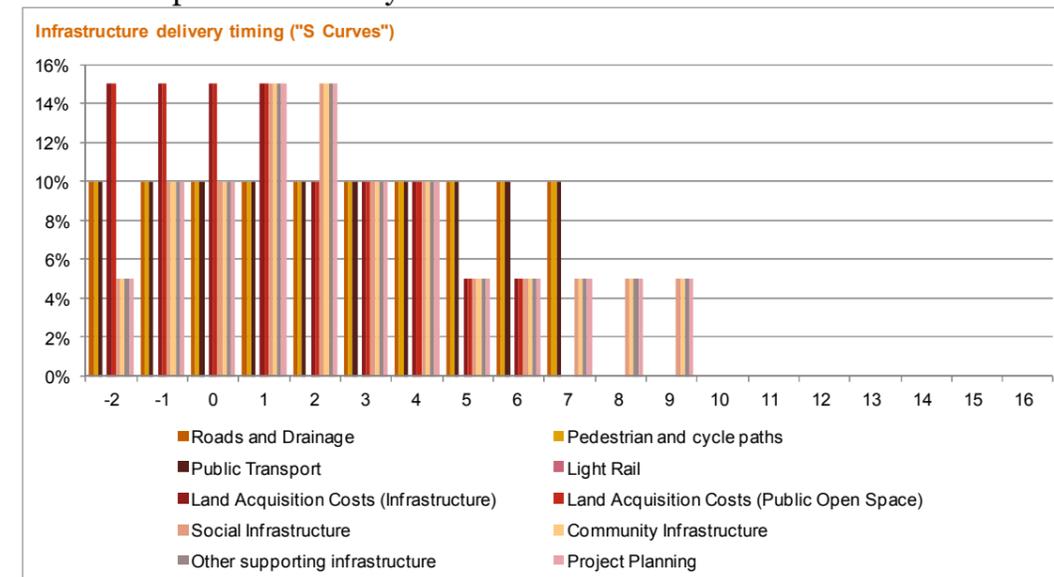
Our infrastructure costs are based on information drawn from a number of sources, and our assumptions are based on a unit cost basis:

- **Roads and Drainage:** Urban Enterprise - Development Contributions Study - Oct 12
- **Light Rail:** AECOM, FBURA Transport Study, 2012. Phasing and Staging assumptions from Places Victoria and DOT

- **Land Acquisition costs (both infrastructure and public open space):** p 24 Fishermans Bend Progress Report December 2012
- **Social Infrastructure:** total build requirements sourced from ASR Research, however build costs were based on high level indicative costs sourced by PwC from other health projects.
- **Community Infrastructure:** ASR Research - 2012 - Original report (Addendum assumes a different number)
- **Project planning:** Urban Enterprise - Development Contributions Study - Oct 12

Infrastructure timing

Infrastructure timing is based on the following profile. The 0 year represents the start of precinct delivery.



Discussion Scenario Infrastructure costs

As no direct infrastructure costs or units were available for the Discussion Scenario, these numbers have been calculated based either on a ratio (for cost), or a midpoint method (midpoint of Scenarios B and C) for number of units (for example units of community infrastructure) required for the Discussion Scenario.

Risk

Risk has only been included for infrastructure costs. For our base case we have not assumed any risk elements, however as a potential risk scenario we have tested Funding Package 4 under Discussion Scenario, and used a risk component of 15%.

GST

For simplicity we have not applied any GST on any of our underlying costs. Further GST work will be required to test each cost category for GST implications.

No escalation of revenues or costs

The analysis assumes no escalation of infrastructure costs, construction costs, underlying land value (other than increases as a result of infrastructure delivery), or other sources of revenue (e.g. apartment prices, etc). The model does allow for escalation to be “switched on”, however the numbers presented in this report are without escalation.

Discount rate assumption

The discount rate applied to calculate NPV has been calculated based on the CAPM model, and standardised inputs. These inputs are:

Risk Free Rate: 4.18% (TCV 10yr bond, Dec 2012)

Market Risk Premium: 6% (industry practice)

Asset Beta: 0.3 (DTF guidelines)

Total discount rate = 4.18% + 0.3 (6%) = 5.98%

Land escalation as a result of infrastructure delivery

The analysis assumes that land value will escalate as a result of infrastructure delivery. The assumption used in the model for land escalation as a result of infrastructure delivery is 3.16%. This has been calculated as follows:

Assume basis of land escalation is Macro estimate of 3.5x increase in land prices in FBURA over a 20 year period. Implied growth rate for this increase is 6.46% (all in costs). The approach in this analysis is to reduce the above rate by underlying land escalation (without delivery of additional infrastructure). The underlying land escalation figure that has been removed from the all in rate is 3.5%, leaving an infrastructure related escalation of %.

Land value uplift is applied to demand units using a demand unit to land ratio, which provides the overall land used to deliver underlying demand units.

Starting land values (Unimproved Land Value)

We have based starting land values on Macroplan’s Real Estate Market report, these are set at:

Montague: \$3,000 psm

Lorimer, Sandrige and Wirraway: \$850 psm

Relationship between Unimproved Land Value (ULV), Capital Improved Value (CIV) and Net Annual Value (NAV)

- ULV is equal to 25% of CIV
- NAV is equal to 5% of CIV.

Assumptions for DCP calculation

The DCP is calculated based on the methodology outlined in the Urban Enterprise report, and costs are apportioned on the basis of demand units. Not all DCP costs are allocated to all three demand unit types. Costs specifically related to infrastructure supporting residential development (e.g. community infrastructure) are applied to dwellings only. The model allows for flexibility whether transport costs are included in the DCP. Social Infrastructure costs are not included in the DCP at all.

We have assumed a maximum of \$15,000 per dwelling as a DCP cap, which results in a Cost apportionment in the Discussion Scenario of approx. 73%.

Assumptions for CIL calculation

We have assumed that the Community Infrastructure Levy only covers costs captured under the “Social Infrastructure” cost category, up to a maximum of \$900. This \$900 is then charged each time a demand unit is developed.

Assumptions for IRC calculation

The IRC is charged based on Development Value (Construction Cost + Land Value) of as site.

We have used standard construction cost estimates from Rawlinsons to estimate psqm construction costs, and have used our land value calculations to estimate land value per demand unit.

IRC rate for our scenario modelling is set at 5%.

Construction cost psqm of Residential GFA: \$2095 psqm (with a 70sqm dwelling size assumption).

Construction cost psqm of Retail GFA: \$2,115 psqm

Construction cost psqm of Commercial GFA: \$2,180 psqm

To reflect IRC exemptions (based on RCD experience), we have included an exemption rate of 10% (i.e. a reduction in revenue of 10%).

Assumptions for Transport Levy calculation

We have assumed that a flat Transport Levy is applied to cumulative demand units, which increase as new demand units are developed. We have not as yet assumed that the Transport Levy will apply to existing FBURA demand units, however provision has been made in the model to allow for this if required. For our scenarios, we have set this at \$140 p.a (\$38 p.q.)

Assumptions for Betterment Levy calculation

The Betterment levy is calculated in the same manner as the Transport Levy. For our scenarios we have set this at \$300 p.a (\$75 p.q.)

Assumptions for ring-fenced stamp duty calculation

Ring-fenced stamp duty calculations are done based on uplift in Capital Improved Value (CIV) as result of infrastructure development (as outlined above). We have assumed:

- that a portion (40%) of the uplift that is captured through Stamp Duty can be used as a revenue source.
- Assumed that resale of demand units also results in stamp duty and any uplift resulting from this process (see churn rate assumption) is captured
- A flat stamp duty of 5%
- Stamp duty sales are reduced by a factor of 70% (due to off the plan sales which attract no stamp duty).

Assumptions for ring-fenced council rates calculation

Ring-fenced council rates calculations are done based on uplift in Net Annual Value as a result of infrastructure development (as outlined above). We have assumed:

- council rates are based on rateable value, which is a proportion of market value (default set at 70% which can be flexed).
- only a portion of the total uplift is captured (default set at 40%)

Modelling assumptions

- The base case rates calculation is 3.84c per NAV dollar (sourced from City of Port Phillip's annual report for 2011/12).

Assumptions for ring-fenced land tax calculation

Ring-fenced land tax calculations are done based on uplift in Unimproved Land Value as a result of infrastructure development (as outlined above). We have assumed:

- Land tax only applies to owned land that is not a Primary Place of Residence. We have approximated a PPR ratio of 45%, and this was agreed with Places Victoria.
- simplified land tax assumption (2% of unimproved land value) as the basis for land tax, which is charged on an annual basis.
- That only 40% of the uplift is captured and attributed to the FBURA

Churn rate

The churn rate is used for the Stamp Duty calculation, and was sourced from Places Victoria. It is set at each demand unit being sold at a 7.5yr mark, based on the average mortgage lifespan for apartments.

Appendix E Sources of information

12.2 Sources of Information

The following are the sources of information that we have relied on in preparing our report.

Development Contributions Options Study – FBURA (October 2012) Urban Enterprises

<http://www.revitalisingcentraldandenong.com>

Macroplan Real Estate Market Analysis, 2012

ASR Research, Fishermans Bend Preliminary Community Infrastructure Needs Assessment, 2012

Infrastructure Charges Taskforce – Interim Consultation Report Proposed reform of Local Government development infrastructure charges arrangements (November 2010)

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Infrastructure Finance and Funding Reform – April 2012- Joint property development/ sale of air rights -
http://www.infrastructure.gov.au/infrastructure/iff/files/IFWG_Report.pdf

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