

Table 12: Service Life

Component	Low	Medium	High
Substructure	46 Yr(s)	50 Yr(s)	54 Yr(s)
Superstructure	46 Yr(s)	50 Yr(s)	54 Yr(s)
Finishes	9 Yr(s)	10 Yr(s)	11 Yr(s)
Fitments	6 Yr(s)	7 Yr(s)	8 Yr(s)
Services	14 Yr(s)	15 Yr(s)	16 Yr(s)
External Works	14 Yr(s)	15 Yr(s)	16 Yr(s)
External Services	14 Yr(s)	15 Yr(s)	16 Yr(s)

For escalation, the maximum and minimum annual changes to the index for building construction within Western Australia over the sample period were utilised as parameters, producing the following results.

Table 13: Capital Escalation

	Low	Medium	High
Escalation	2.51%	4.67%	6.97%

5 Utilities

This section considers the cost of utilities that the City of Joondalup will incur as part of operating the JPACF.

5.1 Current Assumptions

The FOE details the following assumption relating to utilities.

Table 14: Current Utilities Assumptions

Utilities	Cost
Energy	\$12.00 per square metre
Water Rates	\$0.45 per square metre
Water	\$0.75 per square metre

5.2 Evaluation of Current Assumptions

The FOE does not provide the source of the utilities assumptions, although reference is made to the previous business case.

The area used to multiply the square metre rates does not appear to be consistent with ARM's design. The FOE assumes only 11,000 square metres is to be used for building costs, however, this is the area associated with the car park rather than the remaining building which has an area of 13,000 sqm. This will be causing the City of Joondalup's financial evaluation to understate utilities costs.

As the car park and the remainder of the facility are likely to have different utility usage rates, it is appropriate to estimate these separately.

Where possible, it is also more appropriate to provide estimates of usage per square metre rather than cost. This provides a clearer basis for assumptions and allows assumed usage rates to be tested if further technical reports are conducted. This methodology also allows volume and price to be projected independent of one another.

5.3 Proposed Assumptions

Proposed assumptions for utilities are set out in the following sections.

5.3.1 Energy

Minimum, maximum and most likely estimates for general facility energy use were taken from benchmark facilities in order to generate a distribution of potential outcomes.⁴ Table 15 presents the resulting low, medium and high estimates.

⁴ The benchmark facility information sourced utility costs from facilities management providers at a number of Western Australian and other Australian performing arts and educational facilities, using costs from recent years.

Table 15: General Facility Energy Usage

	Low	Medium	High
Energy Use	72.64 kWh / sqm p.a.	78.19 kWh / sqm p.a.	84.75 kWh / sqm p.a.

The applicable tariff is \$0.303104/kWh.

For the car parking area, benchmark usage data was not available. However, the following medium cost per square metre is based on a recent Western Australian car-parking project and should provide a reasonable forecast of utilities costs for the JPACF car park. The low and high estimates provide a range at a 20% discount and premium to the benchmark.

Table 16: Car Parking Utilities Cost

	Low	Medium	High
Car Park Utilities Cost	\$2.15 / sqm p.a.	\$2.69 / sqm p.a.	\$3.23 / sqm p.a.

5.3.2 Water

Assumptions relating to water service charges were taken from the Water Corporation’s website.

Table 17: Water Service Charges

Charge	Value	Basis
Water Service Charges	\$13,287.95	Rate for Up to 150mm in absence of technical advice.
Sewerage Service Charges	\$45,317.91	Based on full rate for 82 fixtures detailed in Appendix 10 to Schematic Design Report Volume 2.
Drainage Service Charge	\$8,640.00	Based on rateable value of \$100 million.

The JPACF may qualify for a 100% discount on water service charges. Generally, these discounts are available to the following groups:

- non-government schools, churches and community facilities;
- charitable organisations;
- regional local government; and
- non-profit homes for the age.

Assuming the JPACF qualified, the water service charge would not be applicable and there would be a reduced cost per fixture for the sewerage service charge.

Water use is charged at \$2.187 per kilolitre, and the following range of assumptions are proposed for usage.

Table 18: Water Usage

	Low	Medium	High
Water Use	0.77 kL / sqm p.a.	0.84 kL / sqm p.a.	1.01 kL / sqm p.a.

The low, medium and high assumptions represent best practice, efficient, and fair usage respectively utilising Sydney Water's benchmarks for commercial office buildings and shopping centres. Whilst not a perfect benchmark, this was the most analogous to the JPACF of those available.

These calculations should not include the car park, as the utilities estimate for that space is all inclusive.

6 Photovoltaic Cells

A possibility raised during the Schematic Design phase was for the installation of photovoltaic cells (also known as solar panels) on the roof of the JPACF. This section considers recommended assumptions in order to assess the financial viability of installation of solar cells.

6.1 Current Assumptions

The possibility of photovoltaic cell installation is not currently included in modelling. As a result, there are currently no assumptions available to test.

6.2 Modelling Approach

Paxon undertook the following steps in order to ascertain the viability of the installation of photovoltaic cells:

1. Determine the size of the potential photovoltaic cell installation at JPACF and thus the amount of energy it would be able to generate
2. Conduct market research relating to the cost of electricity and the price able to be received for selling power back into the grid
3. Ascertain installation costs, including any incentives
4. Create a financial model over twenty years, modelling the result of both installing photovoltaic cells and continuing to purchase all electricity requirements from the grid

The following sections detail these steps.

6.2.1 Determine Size and Energy of Potential Installation

The size of the proposed photovoltaic array was sourced from architectural designs, as demonstrated in Figure 2.

Figure 2: Joondalup Performing Arts and Cultural Facility Roof Plan

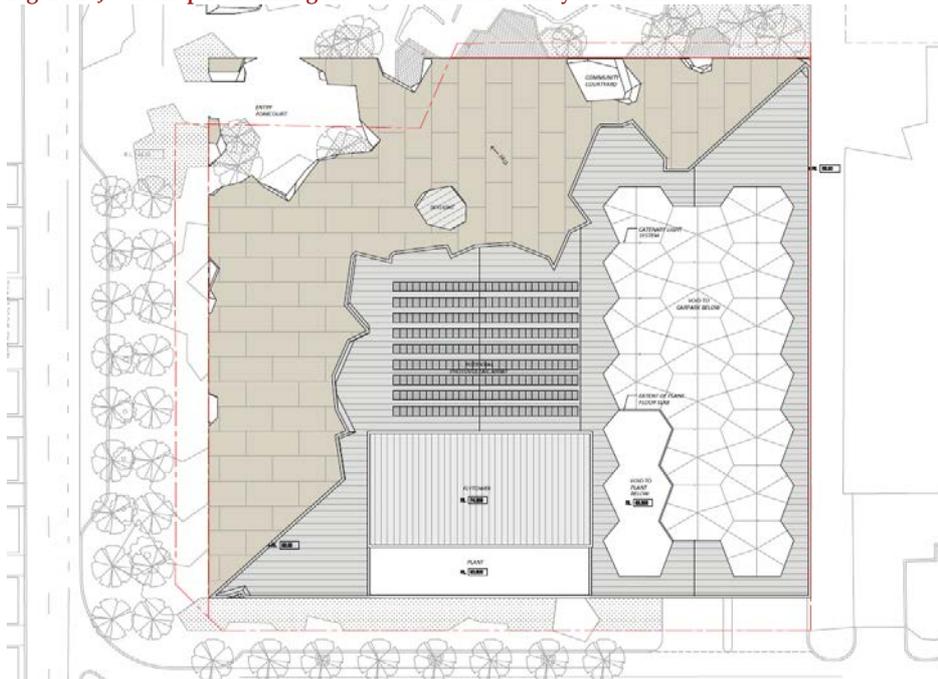


Figure 3 shows this equivalent area on a map of the precinct in which the JPACF will be located.

Figure 3: Location of Photovoltaic Cells



Making an allowance for the space between the arrays, this has an area of approximately 560 square metres.

In order to evaluate the output of this area, an efficiency factor must be estimated. Table 19 demonstrates the efficiency of the two photovoltaic cell models available through Synergy.

Table 19: Synergy Photovoltaic Cells

Model	Efficiency
Q.Cells Q.Plus G4	16.2%-16.8%
Hanwha Solar HSL 60 S Poly	15.6%-16.2%

Based on the information in Table 19, an efficiency of 16% was assumed. Additionally, a standard assumption of solar irradiance of 1,000W per square metre was used.

Thus, an area of 560 square metres is equivalent to a system capacity of approximately 90 kWdc under currently available technology as demonstrated in **Equation 1**.

Equation 1: System Capacity

$$Size (kW) = Array Area (m^2) \times Solar Irradiance \left(\frac{W}{m^2}\right) \times Module Efficiency (\%)$$

$$90.4 kW = 565m^2 \times 1,000 W/m^2 \times 16\%$$

A standard fixed roof mount module arrangement is assumed, with the parameters outlined in Table 20 also utilised, based on manufacturer recommendations and industry research.

Table 20: Further Modelling Parameters

Assumption	Value	Rationale
System Losses		
Soiling	2%	Losses due to dirt and other foreign matter on the surface of the PV module that prevent solar radiation from reaching the cells. Benchmark estimate.
Shading	3%	Reduction in the incident solar radiation from shadows caused by objects near the array such as buildings or trees, or by self-shading. Benchmark estimate.
Mismatch	2%	Electrical losses due to slight differences caused by manufacturing imperfections between modules in the array that cause the modules to have slightly different current-voltage characteristics. Benchmark estimate.
Wiring	2%	Resistive losses in the DC and AC wires connecting modules, inverters, and other parts of the system. Benchmark estimate.
Connections	0.5%	Resistive losses in electrical connectors in the system. Benchmark estimate.
Light-Induced Degradation	1.5%	Effect of the reduction in the array's power during the first few months of its operation caused by light-induced degradation of photovoltaic cells. Benchmark estimate.
Nameplate Rating	1%	The nameplate rating loss accounts for the accuracy of the manufacturer's nameplate rating. Field measurements of the electrical characteristics of photovoltaic modules in the array may show that they differ from their nameplate rating. Benchmark estimate.
Age	0%	This is not modelled initially, but degradation is included in output modelling over time (see Section 6.2.4). Benchmark estimate.
Availability	2%	Reduction in the system's output cause by scheduled and unscheduled system shutdown for maintenance, grid outages, and other operational factors. Benchmark estimate.
Total System Losses	14%	
Panel Positioning		
Tilt	41.7°	10 degrees are added to Joondalup's latitude of 31.7° South to allow for an anticipated extra load during winter. This extra load is due to both extra heating requirements for evening shows/performances and the lesser utilisation of the space anticipated over summer.
Azimuth	0°	This allows the panels to be as north-facing as possible, maximising overall output.

Assumption	Value	Rationale
Inverter Characteristics		
DC to AC Size Ratio	1.30	This is the ratio of the inverter's AC rated size to the array's DC rated size. Increasing the ratio increases the system's output over the year, but also increases the array's cost. The chosen value of 1.30 means that a 90 kW system size would be for an array with a 90 DC kW nameplate size at standard test conditions and an inverter with a 69.2 AC kW nameplate size. This value is based on estimates of equivalent ratios of larger systems.
Inverter Efficiency	97%	This is the inverter's nominal rated DC-to-AC conversion efficiency, defined as the inverter's rated AC power output divided by its rated DC power output. This value is estimated from currently available products available from Synergy as indicated in Table 21.

Table 21: Synergy Inverters

Model	Efficiency
Fronius Symo Hybrid	97.6%
Fronius Symo	98.1%
Fronius Primo	97.8%
Fronius Galvo	96.1%

Using resources provided by the US-based National Renewable Energy Laboratory, these parameters produced an annual output of 146,687 kWh per year. A monthly breakdown of this figure is provided in Table 22.

Table 22: Annual Output

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	6.75	14,374
February	6.71	12,891
March	6.52	13,900
April	6.00	12,549
May	4.69	10,403
June	4.40	9,589
July	4.61	10,416
August	4.88	11,070
September	5.62	12,070
October	6.09	13,577
November	5.92	12,472

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
December	6.25	13,376
Total	5.70	146,687

As battery technology is not yet mature, nor commercially viable for large scale installations, no batteries were assumed in the model.

6.2.2 Electricity Costs

Current Synergy prices from the Business Plan (L1) Tariff were used as the costs for purchasing electricity. As described in Section 6.2.4, these are escalated forward appropriately for future years.

As the system exceeds the 5kW threshold for the Renewable Energy Buyback Scheme, enhanced rates were not able to be accessed by JPACF. An indicative value based on market analysis was chosen.

Table 23 summarises these costs.

Table 23: Electricity Cost Parameters

Parameter	Value
Cost of Electricity - Normal	\$0.303104/kWh
Cost of Electricity - Excess	\$0.273503/kWh
Excess Electricity Threshold	1,650
Daily Supply Charge	\$0.461185/day
Price Received for Electricity	\$0.06/kWh

6.2.3 Installation Costs

Architectural assumptions indicate that the photovoltaic cells would cost between \$350,000 and \$450,000. The upper bound of these figures was chosen in order to minimise any adverse cost risks.

There are currently no governmental solar incentives available, so the full cost of installation was modelled.

6.2.4 Modelling

A number of other parameters had to be selected before modelling could proceed. These were determined through desktop analysis and are outlined in Table 24. The discount rate used was chosen for consistency with other discounted cash flow analysis conducted in this report.

Table 24: Further Modelling Parameters

Parameter	Value
Macroeconomic Cost Escalation	3%
Electricity Use Escalation	1.5%

Parameter	Value
Annual Deterioration of Photovoltaic Cells	0.5%
Discount Rate	7.70%

Modelling was conducted over 20 years. A summary of the results of the modelling is included in Table 25.

Table 25: Modelling Results

Model	NPV
Option 1: No Photovoltaic Cells	-\$2,009,384
Option 2: Photovoltaic Cells Installed	-\$1,916,622

Table 25 indicates that there is marginal difference between the two options modelled, with the installation of photovoltaic cells showing approximately a \$100,000 benefit in NPV terms over the 20-year period. This however excludes any additional maintenance or lifecycle costs associated with the installation of cells.

This analysis suggests that the installation of photovoltaic cells is not supported by compelling financial reasons. If, however, their installation is preferred from a sustainability perspective, this is not likely to come at a high financial cost, and may lead to a marginal saving dependent on maintenance expenses.

6.3 Sensitivity Analysis

The assumptions utilised in developing the modelling are based on industry benchmarks, and are likely to be dependent on the design of the building and characteristics of cells to suit installation on the specific built form proposed. As a result, sensitivity analysis is not considered to be appropriate without further design and input from electrical and renewable energy specialists on the likely characteristics of a solar cell installation as part of the facility.

7 Repairs and Maintenance

Regular repairs and maintenance are required for any facility through normal use. This section considers both building repairs and maintenance, and a number of associated operating costs which are not captured in other components of the modelling and assumptions.

7.1 Current Assumptions

A number of parameters required assumptions regarding building maintenance and repair. These are detailed in Table 26.

Table 26: Building Maintenance and Repair – Modelling Assumptions

Item	AUD
Insurance	\$50,000 p.a.
Air-conditioning	\$3.17 p.sqm.
Fire protection	\$1.40 p.sqm.
Cleaning	\$18.00 p.sqm.
Security	\$1.50 p.sqm.
Repairs and Maintenance	\$18.41 p.sqm.
Rubbish Collection	\$1.00 p.sqm.

Insurance is costed at a lump sum of \$50,000 annually, while the other maintenance costs are quoted as a per square metre figure on a per annum basis. The source of most of these assumptions is not clarified in the current model.

Of further note is the Pracsys report which also includes a number of assumptions relating to building operations and maintenance costs.

Table 27: Building Maintenance and Repair – Pracsys Assumptions

Item	Cost (\$/m ²)
Rates and Taxes	-
Insurance	7.60
Air-Conditioning	8.30
Lifts	6.70
Fire Protection	1.40
Energy	25.90
Cleaning	14.90
Buildings Staff	6.90
Security	2.80
Repairs and Maintenance	6.20
Management	11.00

Item	Cost (\$/m ²)
Sundries	4.30
Void Allowance and Contingency	2.70

The source of these assumptions is quoted as being the Rawlinsons Australian Construction Handbook (2012).

7.2 Evaluation of Current Assumptions

The assumptions used in the modelling and the Pracsys assumptions differ in a number of ways. This section explores these differences and evaluates each assumption.

7.2.1 Insurance

Current modelling uses a fixed insurance amount, while the Pracsys report uses a per square metre rationale. If the per square metre rate quoted in the Pracsys report is taken as representative of insurance costs, its value would increase by 67% in current modelling.

A fixed rate is considered as the more reasonable approach as it is the industry standard. The Pracsys report most likely reported insurance at a per square metre rate due to uncertainty around the overall facility specifications.

However, the current fixed amount used in modelling is believed to be low based on industry experience and the likely nature of the facility.

7.2.2 Air Conditioning

Air-conditioning costs are significantly lower in the modelling than in the Pracsys report, with a cost of \$3.17 vs \$8.30 per square metre respectively.

The approach used of apportioning costs per area does not provide accuracy around the outcome of the values. An alternative approach is outlined in Section 7.3.

7.2.3 Fire Protection

Fire protection costs are consistent across the modelling and the Pracsys reports, with both utilising an apportionment based on floor area. This approach does not achieve optimum efficiency as an overall system approach to maintenance is preferred, with an alternative approach is outlined in Section 7.3.

7.2.4 Cleaning

The modelling utilises an assumption of \$18 per square metre as an annual allowance for cleaning. This is higher than the Pracsys assumption of \$14.90 per square metre.

Paxon's analysis of the market indicates that a more realistic value may lie in between these two amounts. This is further detailed in Section 7.3.

7.2.5 Security

Security costs of \$1.50 per square metre were used in the modelling, higher than the Pracsys recommendation of \$2.80 per square metre.

While the modelled value accorded with the upper range of market evidence, Paxon suggests that a lower figure may be able to be obtained. This is discussed in Section 7.3.

7.2.6 Repairs and Maintenance

There was a significant disparity between the amounts quoted for repairs and maintenance across the modelling and the Pracsys report. The former totalled \$18.41 per square metre, almost three times the amount in the latter of \$6.20.

This disparity is likely due to a number of other areas of required recurrent spending individually identified by Pracsys being combined in the modelling. These areas include the following:

- Lifts;
- Energy;
- Buildings staff;
- Management;
- Sundries; and
- Void allowance & contingency.

As outlined in Section 7.3, this approach of apportioning costs per square metre does not provide accuracy around the outcome of the values.

7.2.7 Rubbish Collection

This individual cost is not identified in the Pracsys report, but is allocated a value of \$1.00 per square metre in modelling.

Market evidence suggests that this cost is reasonable, although it is subject to the operating model employed, particularly in regards to food and beverage and function catering. There is a possibility of operators of sections of the facility being responsible for elements of rubbish disposal which would lower the assumed value.

7.3 Alternative Assumptions

Section 7.2 indicates that the majority of costs associated with repair and maintenance are provided on a square metre basis. Paxon's market experience indicates that for a number of costs modelled, providing costs in this structure does not provide values as accurate as apportioning costs by proportion of the overall capital cost for maintenance, as maintenance costs include a significant fixed component. These are explored in this section.

7.3.1 Costs to Apportion by Capital Cost

Air-conditioning and fire protection form part of the overall fitments of the building, and as such, artificially segregating one element of the repairs budget makes little sense.

Thus an overall cost of repairs and maintenance, inclusive of air-conditioning as well as other fitments and finishes, is suggested. The breakdown of these costs accords with the building component model defined in section 4.3. The repairs and maintenance expense for each component was estimated as a proportion of capital cost based on a benchmark capital project.⁵

⁵ The referenced project was based on operating cost estimates developed as part of business case development for a metropolitan project in WA of comparable nature to the JPACF, with a capital cost of between \$40m and \$60m.

Table 28 shows the estimated repairs and maintenance expense for each building component, and a total repairs and maintenance expense as a proportion of the total capital cost.

Table 28: Inventory of Building Components

Component	Capital Value	R&M%	R&M
Substructure	\$3,554,600	0.10%	\$3,699
Superstructure	\$36,761,400	0.10%	\$38,228
Finishes	\$4,858,400	1.56%	\$75,790
Fitments	\$8,564,400	0.78%	\$66,804
Services	\$20,577,000	0.52%	\$107,001
External Works	\$4,677,000	0.26%	\$12,160
External Services	\$1,175,000	0.52%	\$6,110
TOTAL	\$80,167,800	0.39%	\$309,792

The assumed escalation was 4.28% per annum, representing the average annual change in the price index for building construction within Western Australia from September 1998 through to June 2016.

7.3.2 Costs to Apportion by Area

Per square metre rates are appropriate for cleaning costs. However, as discussed in Section 7.2.4, market evidence suggests that the cleaning cost will be less than the \$18 allowed for in the modelling. For a facility of the size and specialisation of the JPACF, market analysis suggests a figure of \$16 per square metre to be more accurate.

Security costs are also suited to being modelled on a floor area basis. The chosen value of \$1.50 per square metre appears to accord with market evidence although is on the high end of a scale of costs for similar facilities. Similarly, the rubbish collection parameters are acceptable, although potentially overstated.

It is noted that these costs are dependent on the operating model for the facility, or elements therein. For example, should an external caterer assume control for functions, they are likely to absorb elements of the security, cleaning and rubbish disposal costs.

7.3.3 Fixed Costs

The fixed approach to modelling insurance costs was found to be accurate by Paxon. However, the value used in the modelling is believed to be low. An annual cost closer to \$100,000 is likely to be required, based on the projected capital cost and the nature of the facility.

7.3.4 Summary

These alternative assumptions are summarised in Table 29.

Table 29: Building Maintenance and Repair – Alternative Assumptions

Item	Value (per annum)
Apportioned by Capital Cost	
Repairs and Maintenance	0.39% of Capital Cost
Apportioned by Area	
Cleaning	\$16 p.sqm.
Security	\$1.50 p.sqm.
Rubbish Collection	\$1.00 p.sqm.
Fixed Costs	
Insurance	\$100,000

In order to determine a low medium and high estimate for these assumptions, minimum, maximum and most likely estimates were gleaned from benchmark facilities in order to generate a distribution of potential outcomes. Table 30 presents the resulting low, medium and high estimates.

Table 30: Repairs and Maintenance Range

	Low	Medium	High
Repairs and Maintenance	0.33%	0.39%	0.47%
Cleaning	15.48	16.25	17.11
Security	1.42	1.49	1.55
Rubbish Collection	0.86	1.00	1.14
Insurance	85,998	97,451	108,085

8 Food & Beverage and Restaurant

Plans for the JPACF include a restaurant area (indicated as a café in the *JPACF Schematic Design Report*). In addition to this, there are areas for serving food and beverages to patrons of events held at the JPACF. The assumptions around revenue generated from these areas are discussed in this section.

The catering aspects of any externally hired function held at the JPACF are discussed in Section 3.

8.1 Current Assumptions

The current assumptions used in the modelling are outlined in Table 31. Assumptions are provided in two broad categories, as outlined above.

Table 31: Food/Beverage and Restaurant Assumptions

Assumption	
Food and Beverage	
Income	8% Primary and Secondary Theatre Revenue
Cost of sales	66% of F&B Income
Restaurant	
Area	180 sqm
Turnover	\$5,000 p.sqm.
Rent	10%

8.2 Evaluation of Current Assumptions

This section evaluates the assumptions outlined in Section 8.1.

8.2.1 Food and Beverage Current Assumptions

The model assumes that food and beverage revenue is structured as a proportion of the overall theatre revenue earned by the JPACF. The assumed value of 8% is unable to be validated due to a lack of information available for comparable facilities, with overall performance of food and beverage sales more readily tested.

A cost of sales of 66% is also assumed, implying a gross profit margin of 34%. This does not accord with the Pracsys report, which stated that this part of JPACF is intended to be cost-neutral. Cost neutrality implies a cost of sales equivalent to the total amount raised as income, with analysis of similar sites elsewhere showing a similar outcome. As the primary purpose of food and beverage provision is to supplement visitor amenity rather than make a profit, the assumed value is considered to be low.

8.2.2 Restaurant Current Assumptions

The restaurant assumptions used in the modelling are taken from the Pracsys report. However, this report mentions the need to independently assess the viability of the restaurant and its ability to achieve industry average turnover.

The restaurant mentioned in the modelling is assumed to be equivalent to the café indicated on the *JPACF Schematic Design Report*. The modelling indicated an area of 180 square metres. Turnover of \$5,000 per square metre per annum was also assumed, with a rent/commission of 10% payable.

The structure of the modelling indicates that a private operator is assumed to run the restaurant. This conforms with the industry practice of a private operator being contracted to manage the food and beverage services offered by a facility. This operator then pays a variable amount to the owner of the facility (in this case, the City of Joondalup) which is structured as a percentage of revenue generated through food and beverage sales. The modelling assumes that this payment amount (termed “rent”) is 10%. This accords with market evidence elsewhere.

Overall, the assumptions indicate total annual revenue received by the management of the facility from the restaurant lease of \$90,000 (unindexed). Based on local market analysis, this appears to be somewhat higher than expected. This is likely due to the high level of turnover assumed to be received per square metre of \$5,000.

8.3 Alternative Assumptions

The following sections provide alternative parameters for the two categories of assumptions listed in Table 31.

8.3.1 Food and Beverage Proposed Assumptions

Without further market evidence, it is difficult to ascertain a realistic proportion of total ticket sales translating to food and beverage revenue. For this purpose, it is recommended that the current modelling structure of 8% is retained until further evidence is obtained.

As discussed in Section 8.2.1, it is recommended that the assumption relating to the proportional cost of sales be modified to 100% in order to allow the food and beverage area to be considered revenue neutral rather than a source of income.

8.3.2 Restaurant Proposed Assumptions

An important issue for consideration is whether there exists sufficient demand for the restaurant and whether its location is attractive enough as a dining option such as to warrant dedicated foot traffic outside of theatre operational times. A clear benchmark here is the Perth Concert Hall, which does not have its restaurant open on non-concert nights. Initial analysis indicates that demand is likely to be lower at JPACF than at a CBD-based location, which is likely to limit the rent or commission payable by a private operator.

As stated in Section 8.2.2, the proposed assumptions result in a higher level of revenue received as commission than would be expected. Reducing the turnover expected to be received per square metre, from \$5,000 to \$3,500, would result in commission more in line with market expectations and a realistic operating profile of the restaurant.

9 Opportunities for Annual Grants & Sponsorship

At present the Financial Projections have not assumed any grant income to support annual operations. This section investigates whether the JPACF is in a position to access State or Commonwealth grant programs.

9.1 Approach

Paxon investigated potential opportunities for annual grants or sponsorship and identified the following six possible funding avenues:

- Lotterywest;
- Australia Council for the Arts;
- State Government (Department of Culture and the Arts);
- Federal Government (Department of Communications and the Arts);
- Creative Partnerships Australia; and
- Direct corporate sponsorship.

These opportunities are explored in the subsequent sections.

9.1.1 Lotterywest

Lotterywest, formerly known as the Lotteries Commission of Western Australia, run the State lottery in WA. Established in 1932, it offers a variety of lottery and instant win tickets. Approximately 33% of funds raised by Lotterywest are disseminated in the form of grants, either directly managed by Lotterywest or through the State Government.

Lotterywest manage several programmes through which it awards grant money to community and local government organisations. Of relevance to the JPACF is Lotterywest's Big Ideas scheme, which is for the following purposes:

- Assets that relate to WA's social, natural and built features that add significantly to WA's resources and capital base and benefit many people over a long period of time; or
- Large scale projects that create exceptional opportunities, address important community issues and/or have a major community impact.

The JPACF relates to the first of these criteria.

However, due to the scale and scope of funding required, Lotterywest funding is likely to be difficult to obtain for a material portion of the anticipated capital cost. It may be possible to access funding, either for specific elements of the build or a contribution to the overall capital cost.

9.1.2 Australia Council for the Arts

The Australia Council for the Arts ("Australia Council") is the official arts funding body of the Australian Government. It is responsible for funding arts projects around Australia as well as formulating and implementing policies to foster and promote the arts in Australia. The Australia Council also advises governments and industry on arts-related issues. In addition, it supports strategies to develop new audiences and markets for the arts both in Australia and overseas. The Council is accountable to the Australian Parliament and to the Government through the Minister for the Arts.

Since moving to a new grant model in 2014, the Australia Council has one main stream of recurrent funding – the Four Year Funding for Organisations. This program provides multi-year core program funding for small to medium arts organisations of significant regional, national or international standing. Four Year Funding aims to enable organisations to plan their artistic programs with longer term certainty and increase their capacity to leverage other support and collaborations.

The most recent round of grants was made in May 2016, with 128 organisations receiving a total of \$28 million a year. Applications for the following round of grants will open in 2019.

Acquiring funding through this program is a highly competitive process and is for a limited time. It is also targeted to organisations as opposed to venues, and as such, it is not considered a viable long-term funding strategy.

9.1.3 WA Department of Culture and the Arts

The Department of Culture and the Arts (“DCuA”) is the State Government department responsible for the arts in WA. It is responsible for State-level arts facilities such as the Art Gallery of WA, the WA Museum and the State Library of WA.

DCuA supports the development and delivery of culture and the arts in WA through the provision of funding to individual artists and organisations, devolved funding through selected organisations, and partnerships with Commonwealth, State and local government agencies. It provides funding to non-government arts organisations as a base from which they can then generate additional income through sponsorship, box office earnings and funding from other bodies to support their annual program of activities.

The Lotteries Commission Act requires that 5% of net subscriptions each year are paid to the Arts Lotteries Account, which is then distributed by DCuA through recurrent funding agreements as a contribution towards the delivery of annual programs of activity.

In 2015, DCuA introduced the Organisations Investment Program, a new model for providing recurrent funding for arts and cultural organisations in WA. However, this program is not available to governmental organisations, which precludes any annual grant being allocated to JPACF.

9.1.4 Federal Department of Communication and the Arts

The Australian Department of Communications and the Arts (“DCoA”) is a department of the Government of Australia charged with responsibility for communications policy and programs and cultural affairs.

In November 2015, DCoA commenced a new arts funding program, Catalyst – Australian Arts and Culture Fund (“Catalyst”). This program complements funding arrangements by the Australia Council, Creative Partnerships Australia and other programs.

Catalyst gives priority to small or medium organisations, but also supports some gallery, library, archive, museum, arts education and infrastructure projects.

This funding is highly competitive and it is unlikely that JPACF will be successful in attaining recurrent funding through catalyst given it prioritises smaller organisations.

9.1.5 Creative Partnerships Australia

Creative Partnerships Australia (“CPA”) was established following the merger of Australia Business Arts Foundation and Artsupport in 2013. It invests in the professional and business development of the arts sector by working with business and philanthropists to facilitate arts partnerships and investment. Additionally, it runs matched funding programs for artists and arts organisations. CPA is funded by the Australian Government through DCoA.

CPA administers the Australian Cultural Fund, a collective giving platform for Australian artists founded in 2003 that encourages and facilitates tax-deductible donations to the arts. This platform is targeted towards artists and would not seem to be suitable for the JPACF.

Another option is Plus1, a program for not-for-profit arts and cultural organisations to develop and undertake a dollar-for-dollar matched fundraising campaign. This program does not provide yearly recurrent funding and as such would be unsuitable for JPACF’s requirements.

9.1.6 Direct Corporate Sponsorship

A potential option for funding JPACF’s ongoing requirements are a commercial sponsor, either a company or private donor.

While there are numerous examples of corporate sponsorship of the arts more broadly, this most often involves sponsoring a specialist arts organisation or project (e.g. national/regional tour). There is limited precedent for a private entity to directly sponsor a performing arts facility. As such, it is considered that there is little possibility of the JPACF being successful in sourcing direct corporate sponsorship.

9.1.7 Summary

Overall, it is unlikely for JPACF to be able to source annual grants or sponsorship over the long term, with the possible exception of Lotterywest contribution towards the capital expenditure.

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Appendix 11 - City of Joondalup Financial Evaluation and Review -
Briefing Note: Pracsys (September, 2016)



City of Joondalup

Financial Evaluation and Review

Final Briefing Note

September 2016



Document Control				
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Disclaimer

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1 INTRODUCTION

1.1 Background

The City of Joondalup (the City) will be presenting the Business Case for the proposed Joondalup Performing Arts and Cultural Facility (JPACF) to Council in October 2016. This represents a critical milestone in progressing towards financial investment decision and in order to equip decision-makers with sufficient information a robust financial evaluation of the project is required.

The City identified the need for a critical review of assumptions used the existing *Financial and Options Evaluation Assessment* (City of Joondalup, 2016) for community spaces, gallery/exhibition spaces and conference/event spaces.

This briefing note includes a review of assumptions on the utilisation, fees and operating expenses associated with:

- Conference/Function Rooms (x2)
- Drawing & Painting Studios (x2)
- Craft Studio
- Dance Studios (x2)
- Practice Rooms (x4)
- Music Studio
- Rehearsal Rooms (x2)
- Gallery
- Foyer/Exhibition space

1.2 Primary and Secondary Research

The preparation of this review involved primary and secondary data collection from range of benchmark facilities including:

- Joondalup Resort - Joondalup
- Moores Building Contemporary Art Space - Fremantle
- Mandurah Performing Art Centre (MPAC) – Mandurah
- Alcoa Gallery - Mandurah
- PS Art Space (PSA) – Fremantle
- Salamanca Arts Centre – Tasmania
- Joondalup Art Gallery - Joondalup
- Linton & Kay Galleries – Perth
- All Joondalup community facilities
- Bunbury Regional Art Centre – Bunbury



-
- Albany Entertainment Centre
 - Fremantle Recording Studio
 - Perth Convention Bureau

1.3 Assumption Spreadsheet

This briefing note should be read with the accompanying Assumption Spreadsheet (Appendix 1).

2 ASSUMPTIONS OVERVIEW

2.1 Area Schedule

The following area schedule underlies pricing and usage assumptions in the JPACF operation model.

Table 1: Area Schedule

Area	Number	Approximate Size (m ²)	Operating assumptions	Other Assumptions
Conference and Function Rooms	2	250 m ² and 300 m ²	Hired out for corporate functions/events and general community use.	-
Drawing & Painting Studios and Craft Studio	3	190 m ² each	Hired out under a residency arrangement to community or commercial users. Hirers charged a monthly rate. Hire periods of 6 months to 1 year.	As per the Schematic Design, the 378m ² Drawing and Painting studio can be separated into two rooms. It has been assumed that this separation will be in place for everyday use.
Dance Studios	2	190 m ² each	Hired out to community and commercial users under existing City of Joondalup facility hire model.	As per the Schematic Design, the 378m ² Dance studio can be separated into two rooms. It has been assumed that this separation will be in place for everyday use.
Music Studio	1	90m ²	Hired out to community and commercial users under existing City of Joondalup facility hire model.	-
Practice Rooms	4	25 m ² each	Hired out to community and commercial users under existing City of Joondalup facility hire model.	As per information provided by CoJ, total floors space across practice rooms is approx. 100m ² .
Rehearsal Rooms	2	200 m ² each	Hired out to community and commercial users under existing City of Joondalup facility hire model.	Total area not defined in Schematic Design, however drawings indicate that the two rooms are equal in size to the gallery (400 m ²)
Art Gallery	1	400 m ²	See Section 3 for more detail on the art gallery and the foyer/exhibition spaces.	
Foyer/Exhibition Area	1	2,000 m ²		

Source: City of Joondalup 2016, Pracsys 2016

2.2 Costing Assumptions

This review considers costs specifically related to the operation/hire out of the following spaces, outside of the overarching management, maintenance and operational costs of running the facility on a day to day basis:

- Conference/Function Rooms (x2)
- Drawing & Painting Studios (x2)
- Craft Studio
- Dance Studios (x2)
- Practice Rooms (x4)
- Music Studio
- Rehearsal Rooms (x2)
- Gallery
- Foyer/Exhibition space

Through consultation with a range of multi-use performing arts and cultural facilities, the costs associated with managing community use spaces within facilities should be considered within the broader management model for the facility itself. Centres/facilities consulted are typically staffed from 9am to 5pm, seven days a week. Staffing numbers that range from one full-time staff member to nine full-time staff members depending on the size of the facility. These staff are responsible for the day to day management and supervision of the facility, including primary, secondary and community use spaces.

Specific operation/hire costs for the gallery/exhibition space, the music studio and the conference/function rooms have been included in this review. These include:

- The preferred management model for the gallery/exhibition space would see a full time curator engaged
- The preferred management model for music studio would see a full time sound technician engaged
- The preferred pricing model for events held at conference/function venues would be based on a per head cost including catering

3 ART GALLERY MANAGEMENT MODEL

Direct consultation informed usage, pricing, cost and management assumptions for the gallery space. These include:

- Moores Building Contemporary Art Space - Fremantle
- Alcoa Gallery - Mandurah
- PS Art Space (PSA) – Fremantle
- Salamanca Arts Centre – Tasmania
- Joondalup Art Gallery - Joondalup
- Linton & Kay Galleries – Perth

The following management options were identified:

- Option 1: Community-driven Gallery
- Option 2: 'A' Class Gallery
- Option 3: Commercial Gallery

3.1 Option 1: Community-driven Gallery

JPACF could engage a local arts organisation to manage the art gallery for the City of Joondalup. While this option would likely reduce operational costs it may limit revenue generation opportunities. Importantly, it would reduce curatorial control over the content in the gallery; a high risk factor according to consultation.

3.2 Option 2: 'A' Class Gallery

Engaging an experienced curator was the most common management model among the facilities that were consulted. This is generally the preferred option as an experienced curator maintains the standard of exhibitions, with an opportunity for the gallery to operate as an 'A' Class gallery capable of showcasing touring exhibitions. Although this option is likely to increase costs for the City it could potentially provide a steady revenue stream through higher fees charged to exhibit in the space.

3.3 Option 3: Commercial Gallery

Engaging a commercial manager/ art dealer to manage the space would maintain a high standard of content exhibited. This option presents the opportunity for higher returns through commissions earned on sales but potentially increases the commercial risk bore by the City.

3.4 Multi-Criteria Analysis

A multi-criteria analysis was used to assess the management options. Options were scored against criteria of cost, control over content, quality of content (5 meaning the option scores well), for each criteria.

Table 2: MCA – Gallery Management Model

Criteria	Community-driven Gallery	A Class Gallery	Commercial Gallery
Cost	4	3	4
Control	2	4	2
Quality of content	3	5	5
Revenue	3	4	5
Risk	4	5	3
Flexibility	3	5	4
Total	19	26	23

Source: Pracsys 2016

The MCA found Option 2: A Class Gallery to be the preferred management option and this management arrangement has informed price, usage and cost assumptions for the gallery/exhibition space.

3.5 Recommended Option and Assumptions

Under Option 2, the gallery curator would invite artists to make submissions for exhibitions. These submissions would be reviewed by the curator and successful applicants would work with the curator to ensure the exhibition meets the standard of art expected at the gallery.

Most local metropolitan art galleries consulted as part of this review are booked for the next 12 to 18 months, indicating a high level of demand for art space across the Metropolitan area.

A combination of primary consultation and secondary research were used to develop the following assumptions for the gallery/exhibition space. Bolded text represents the assumption that should be included in the financial model.

Table 3: Gallery Space - Assumptions

	Low	High	Recommended
Hire rate	\$150/week	\$2,000/week	\$1,000/week
Hire rate source	CASM Gallery (Mandurah)	Moores Contemporary Art Gallery (Fremantle) – Includes multiple spaces, 350 m ² in total.	\$1,000/week has been used as a conservative estimate, towards the high option given similarity to PS Art Space (Fremantle). PS Art Space charges \$2,000/2 weeks and supports changeover arrangements. PSA Art space host one exhibit at a time likely model for JPACF – and host high quality, A Class exhibits.

	Low	High	Recommended
Utilisation (weeks per year, assuming 50 weeks available in total per year)	34 weeks of gallery time 16 weeks of change over time (2-week exhibition, 1 week change over)	43 weeks of gallery time 7 weeks of change over time (6-week exhibition, 1 week change over).	37 weeks of gallery time, 13 weeks of change over (3-week exhibition, 1 week change over) Note: 32 weeks of <u>chargeable</u> gallery time given the assumption for 5 weeks of gallery time dedicated to the community and invitation art exhibitions as proposed under the program model.
Utilisation Source	PS Art Space (Fremantle)	ALCOA Gallery (within Mandurah Performing Art Centre)	Conservative middle-range estimate.
Commission	No Commission	15% on all sales	No Commission
Commission Source	PS Art Space (Fremantle)	CASM Gallery (Mandurah)	Conservative, there is an option for JPACF to obtain a commission on sales.
Staffing Costs	1 curator full time	1 curator part time, 1 other staff part time	1 Curator at \$75,000 per annum.
Cost Source	Moore's Contemporary Art Gallery (Fremantle)	PS Art Space (Fremantle)	Pascale.com. (Low = \$38,000 p.a., High = \$81,000 p.a.) Towards the high option given assuming the City engages senior curator.

Source: Pracsys 2016

3.6 Exhibition/Foyer Space

The foyer space will be available for exhibitions. Given the preferred option to operate the gallery as an 'A' Class Gallery the foyer space can be used to showcase local, community-based art.

The above assumptions regarding utilisation and staffing for the gallery also apply to the foyer space, with potential for **37 weeks of gallery time per annum**. The existing program accounts for 12 weeks of exhibition time dedicated to showcasing work from local schools, leaving 25 weeks available for other community-based exhibits.

The curator would manage the exhibitions within the foyer space. No additional labour costs for this responsibility are included in the review. Foyer hire prices have been adjusted to \$150 per week to meet the needs of local community art organisations.

There are a variety of opportunities that exist for the foyer space. The Mandurah Performing Arts Centre foyer is hired to a range of community users in need of a large open space and is used regularly for activities such as acrobatics classes as well as special events such as monthly art sales.

4 UPDATED ASSUMPTIONS

The following table outlines the event assumption recommendations for the JPACF financial model. For detail behind these assumptions as well as price and cost assumptions see the attached Assumptions Workbook.

It is assumed that the building will be open for 50 weeks of the year.

Table 4: Number of Hires - Assumptions

Space	Total Capacity p.a. (all rooms)	Utilisation	Total Events
Conference/Function Room (x2)	610	0.35%	304
Practice Room (x4)	4,200	25%	1,050
Craft Studio, and Painting and Art Studios (x2)	6 uses per year (based on 6 month residency arrangements)	80%	5
Dance Studios (x2)/Rehearsal Rooms (x2)	4,200	20%	840
Music Studio	1,050	50%	525
Art Gallery	12 (3 week exhibitions)	100%	12
Foyer/Exhibition Space	12 (3 week exhibitions)	100%	12
Art Gallery and Foyer/Exhibition Functions	n/a	n/a	30

Source: Pracsys 2016

Total general hires under the improved assumptions is 2,629, across all spaces considered within the scope of this review. This does not include the daily use of the gallery and foyer/exhibition areas. The 2014 *Financial Evaluation* assumed 1,425 hiring events including a combination of gallery and function room events. The financial implications of the improved assumptions are detailed in Table 5.

**Table 5: Recommended Assumptions – Financial Implications**

Revenue (\$/p.a.)	
Music Studio	99,000
Practice Rooms (x4)	37,000
Dance Studios (x2)/ Rehearsal Rooms (x2)	150,000
Corporate/Function Rooms General Hire (x2)	62,500
Gallery hire	32,000
Foyer hire	5,000
Craft Studio, and Painting and Art Studios (x2)	42,000
Corporate Functions Revenue	292,500
Gallery Functions Revenue	97,500
Total Profit	817,500
Costs (\$/p.a.)	
Corporate Functions Costs	(243,000)
Gallery Functions Cost	(37,500)
Curator	(75,000)
Sound Engineer	(70,000)
Total Costs	(425,500)
Gross Position	392,000

Source: Pracsys 2016

The adoption of the recommended improved assumptions results in an operating surplus of approximately \$390,000 per annum for the community spaces, gallery/exhibition spaces and conference/event spaces.

A range of high, medium, low and recommended assumptions is provided in the attached Assumptions Workbook.

The Gross Position does not take into account the maintenance, administrative overheads, utilities or the indirect facility management labour costs. It is assumed that these staff will oversee the community spaces, gallery/exhibition spaces and conference/event spaces on a daily basis.

Appendix 12 - Financing Review: City of Joondalup (September, 2016)

Project Name: Financing Review September 2016

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- Attachment 1 – SFP Model as adopted June 2016
- Attachment 2 – Option 1 SFP Model
- Attachment 3 – Option 2 SFP Model
- Attachment 4 – Option 3 SFP Model
- Attachment 5 – Option 3 vs. Option 1

EXECUTIVE SUMMARY

Purpose of Report & Scope

This report is prepared in support of the Business Case (Sept 2016) for the Joondalup Performing Arts and Culture Facility (JPACF). This report will include a detailed evaluation of financing options for the City and an evaluation of options. Although the main driver for this review is the JPACF project, it is more practical and meaningful to evaluate the impacts of different financing options on the overall City finances. For example one of the key hurdles to consider for borrowings is the Debt Service Coverage Ratio which can only be evaluated on at an overall City basis and not for an individual project.

The City currently (as at July 2016) has circa \$15m outstanding on borrowings set up during the past few years. The analysis assumes that the repayment arrangements of these existing borrowings will continue as they are and those cash flows are included equally in all options.

The Strategic Financial Plan (SFP) as adopted in June 2016 has been used in the starting point in the analysis. The City has recently received a reduced forecast for Tamala Park proceeds, and this has been used to update the SFP. Therefore the baseline used for all options is a restated SFP with reduced Tamala Park proceeds.

Repayment Terms – no one size is best

The analysis in this report does not make a recommendation that there should be a standard term applied to all borrowings (5, 10, 15 or 20 years). The report finds that the current process of considering the term relative to the size of the borrowings is the most appropriate. The analysis is conclusive in respect of a 20 year repayment term; this is inefficient because of the high interest payments. Despite the intergenerational inequality that may appear to arise with shorter repayments, it is normally always better to repay borrowings as quickly as possible (depending on cash flow). The analysis is also conclusive regarding 5 year or 10 year terms, they are useful in most cases but may not be universally applied to all borrowings because the high loan repayments would cause the Debt Service Coverage Ratio to fail.

The table below summarises the evaluation of the different repayment terms against 5 key metrics and then calculates an overall average, the lower the score the higher the ranking. Option 1a (mixed terms) has the lowest overall average score and therefore the best overall ranking. There is no ‘one case that fits all’ for borrowings for Local Government and some options are better than others in one criteria but not so in other factors.

Rankings based on above	Option 1a 5/10/15 years	Option 1b 5 Years	Option 1c 10 Years	Option 1d 15 Years	Option 1e 20 Years
1 Borrowings	2	5	4	2	1
2 Interest Payments Total	3	1	2	4	5
3 Net Cash	3	1	2	4	5
4 Debt Service Coverage Ratio	1	5	4	1	1
5 Ratios	3	5	4	2	1
6 Average of above	2.4	3.4	3.2	2.6	2.6

Evaluation of Arrangement Types

Three different arrangement types have been evaluated:

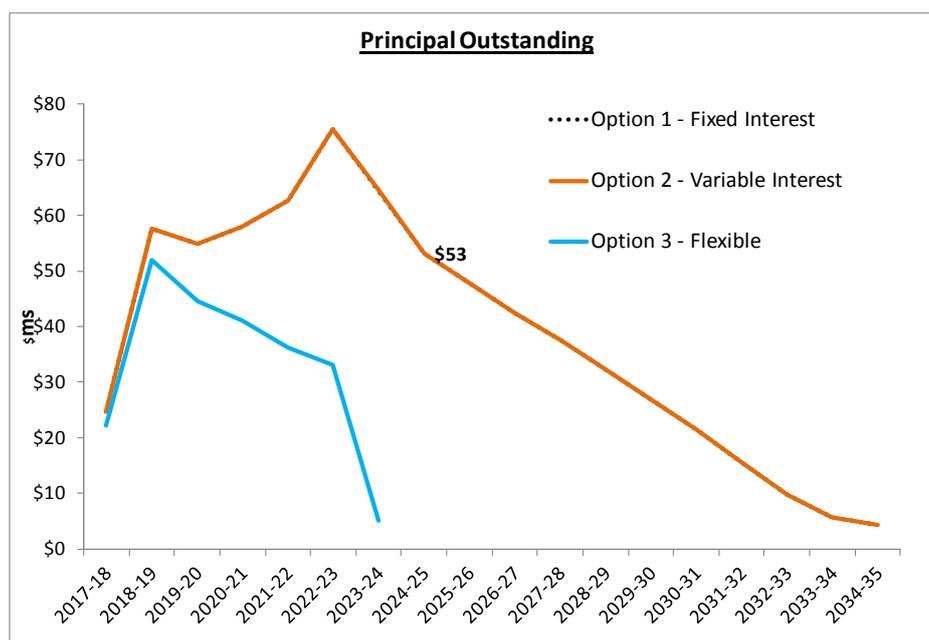
1. Option 1 - Fixed Interest
2. Option 2 - Variable Interest
3. Option 3 – Flexible Repayment

There are different features that could apply to these three types, and in particular option 3, Flexible. Option 3 has assumed that:

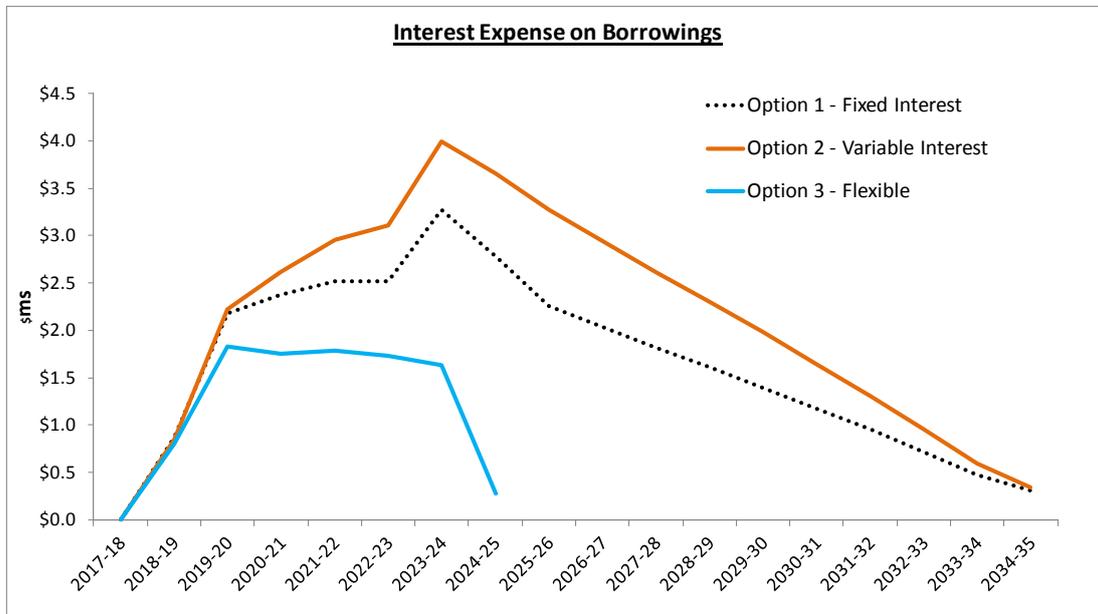
- Principal should be repaid as quickly as possible, whilst still retaining a balanced budget.
- Surplus municipal funds should repay the loan before topping up the Strategic Asset Management Reserve. This is based on the principle that the interest rate on borrowings is higher than the interest rate that could be earned from cash.
- Repayment is prioritised ahead of allocation to unidentified Capital Renewals.
- Surplus cash is used to reduce the need for new borrowings before repayment of principal
- Interest rate would be variable.

The graph below shows the principal outstanding for each option. This indicates that at Year 20 (2034/35) Options 1 and 2 still have principal outstanding on loans but Option 3 though has repaid all principal by 2024/25. At 2024/25 there is still \$53m principal for Option 1 and 2. The large difference of \$53m between Option 3 and Options 1 & 2 is mostly caused by having \$18m less transferred into the Strategic Asset Management Reserve and \$29m less set aside for unidentified capital renewals. From 2024/25 onwards Option 3 makes up for these issues as it is in a stronger position than Option 1 and 2 with no borrowings and therefore by 2034/34 Option 3 has more cash in reserves.

The ability to reduce the principal to zero by 2024/25 is also underpinned by the other assumptions in the SFP, most notably the increase in General Rates between 4% and 5% for the next few years. If the City does not increase General Rates by 4% to 5% in the next few years then the principal could not be repaid by 2024/25. However the General Rates increases are the same in all three options so the differences in the options would be the same.



Meanwhile the graph below shows that Option 3 would have a much lower cost of interest than Option 1 or Option 2, this is because Option 3 repays more quickly. Option 3 would result in \$10m interest expense on borrowings, compared to \$29m for Option 1 or \$37m for Option 2.



Option Summary

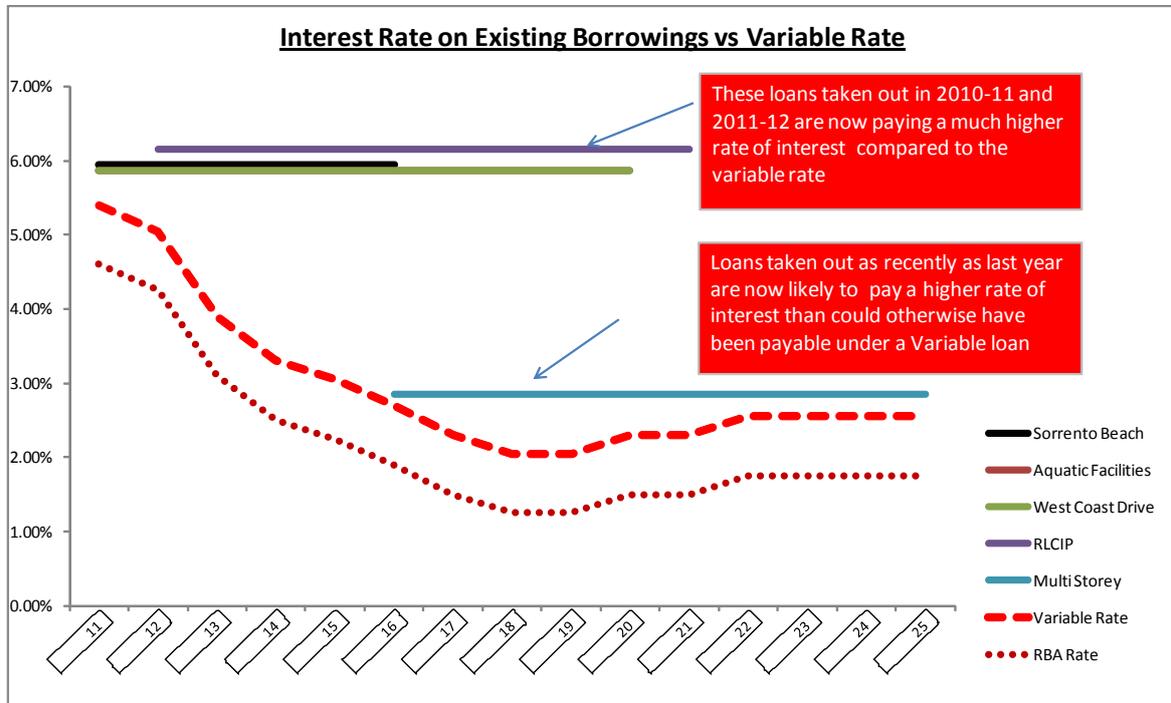
The table below summarises the 3 options against several key metrics. This shows that Option 3 is better than Option 1 and 2 in most criteria.

Option Summary		Option 1	Option 2	Option 3	Best
		Fixed Interest	Variable Interest	Flexible	
Borrowings & Cash					
New Borrowings	Year 3 to Year 20 \$m	\$91	\$91	\$52	Option3
Year that Borrowings paid off	What year paid off ?	2037-38	2037-38	2024-25	Option3
Repayments Total (P+I)	20 Year Total (\$m)	(\$116)	(\$124)	(\$62)	Option3
Interest Expense on Borrowings	Total 20 Year Costs \$m	(\$29)	(\$37)	(\$10)	Option3
Capital Renewal	20 Year Total \$m	(\$742)	(\$742)	(\$712)	Option1
Net Cash less Borrowings	\$m at 2034-35	\$231	\$219	\$288	Option3
Key Ratios					
Key Ratios	Total out of 100	85	85	82	Option3
Treasury Borrowings Criteria	No of Years Failed	0	1	2	Option1

Other Features of Fixed Interest and Other Options

One of the major disadvantages with fixed interest arrangements is the lack of flexibility. It could be advantageous for the City to reduce borrowings if more funds were available than expected (e.g. Tamala Park proceeds) but with a Fixed Interest arrangement this is not normally possible without resetting the loan at a cost. Furthermore if the variable interest rates eventually become lower than the fixed rates then the City could pay higher interest

costs than it could have otherwise done. This is illustrated in the chart below which compares the interest rate applicable in existing loans versus the variable rate.



RAG Evaluation

The table below compares each of the 3 options in simplified RAG format, where Green is the better option and red the worst option. The scoring does not necessarily mean that Red is bad for that option, but just not as good as the other options

Issue			Option 1	Option 2	Option 3
Issue	Description		Fixed Interest Fixed Term	Variable Interest Fixed Term	Interest Only
1	TRANSPARANCY	How easy is it to identify the exact repayments for each project ?	Green	Yellow	Red
2	MANAGEMENT	Ensure that payments are made accurately in accordance with contract and on time.	Green	Yellow	Red
3	RISK / CERTAINTY	Could the City be subject to unforeseen external economic impacts that result in significant impacts to long term plans.	Green	Yellow	Yellow
4	LOST OPPORTUNITY	Does the option limit the ability to have lower repayment costs?	Red	Green	Green
5	SPECULATING	Is the method used a form of speculating that the City will beat the Market	Red	Green	Green
6	FLEXIBILITY	Ability to react to changing circumstances	Red	Red	Green

Flexible Repayment Approach – Other Considerations

Option 3 could be structured in different ways, for example

- Balloon payments. Fixed balloon payments, but these are normally tied to specific events rather than a general approach to repay as quickly as possible
- Reserves freed up. Review the use of other reserves and consider whether they could be used to repay borrowings, as long as the reserve was repaid at a future point in time.
- Day to Day surpluses could reduce costs of borrowing. Similar to an offset facility, use surplus day to day cash to reduce borrowing expense (albeit temporarily) rather than earn interest from the surplus.
- Market options instead of WATC. It is highly unlikely that this would be viable due to the unique nature of Local Government finances and the benefits that WATC provide.

WATC have been informally consulted about some of the options in this paper. Whilst most Local Government tends to use Fixed Interest Fixed Term arrangements, WATC did suggest that alternative flexible arrangements could be put in place. For example to accommodate the JPACF loan of circa \$50m, rather than just put it on a 15 year repayment term it could be split up into different bundles with different repayment terms which allows the flexibility to repay the principal earlier if possible. If the surplus doesn't materialise (e.g. Tamala Park reduce their distributions yet again), the loan could just be refinanced using up-to-date market rates.

Financing for Other Local Government

There are few examples of Local Government in WA doing anything different other than the standard fixed term fixed interest arrangements. The City of Cockburn recently completed the construction of a new sports facility and borrowings were used for a 10 year fixed interest fixed term with WATC. The City of Gosnells uses a short-term (3 years) overdraft arrangement to help with the construction of projects. Meanwhile the City of Wanneroo has taken on a \$60m loan at interest-only which will have to be repaid at an agreed point in time; this loan was linked to Developer contributions and quite unique to the growth in Wanneroo.

Recommendation

It is recommended that the City sets up future borrowings on a Flexible basis with flexible repayment terms. This recommendation is made taking account of all the information in this report, specifically that:

- Key metrics have been evaluated (interest payments, net cash, ratios). Option 3 (Flexible) comes out on top in most areas, only failing slightly with the Asset Sustainability Ratio.
- Borrowings could be repaid by 2024-25 (Option 3) rather than 2033-34 (Option 1 and as per the Adopted SFP)
- Sensitivity analysis has been rigorous and also indicates that Option 3 is preferable and presents less overall risk than fixed interest.
- Fixed Rates provide less flexibility

Next Steps

The City should be cautious though with changing the approach and the following next steps are recommended:

- Independent Review - findings to be validated and further consideration of risk.
- JPACF Business Case (October 2016) – no change to the assumptions within the JPACF model, continue to assume a traditional 15 year Fixed Interest Fixed Term loan. However the JPACF Business Case can mention that a detailed financing review is underway.
- WATC Master Borrowing Agreement – would have to be reviewed at some stage as only currently allows for Fixed Interest arrangements.

INTRODUCTION & BACKGROUND

1 INTRODUCTION & BACKGROUND

1.1 Purpose of Document / Scope

This report is prepared in support of the Business Case (Sept 2016) for the Joondalup Performing Arts and Culture Facility (JPACF). This report will include a detailed evaluation of financing options for the City and an evaluation of options. The contents include:

- Research
- Option Evaluation
- Risks, Opportunities & Sensitivity Analysis
- Summary & Next Steps

1.2 Scope – Overall City Impacts, not Just JPACF

Although the main driver for this review is the JPACF project, it is more practical and meaningful to evaluate the impacts of different financing options on the overall City finances. For example one of the key hurdles to consider for borrowings is the Debt Service Coverage Ratio which can only be evaluated on at an overall City basis and not for an individual project. The vast majority of projected new borrowings in the 20 year Strategic Financial Plan relate to the JPACF anyway.

This report will make a recommendation of the assumptions to be applied in the JPACF business case.

1.3 Out of Scope

The following are out of scope:

- Project Justification for JPACF – included in business case;
- Operational model, income and expenses for the JPACF. This report will only deal with the financing of the JPACF. The JPACF operating model is loss-making and it is therefore not viable to attempt any link between the operating values and the costs of financing.
- Scheduling of the Capital Expenditure. The options evaluated will simply use the scheduling that is assumed within the Adopted 20 Year SFP
- Depreciation factors and rates
- Capital replacement
- Asset Renewal Reserve

All of the above factors are considered in the separate financial paper for the JPACF (“Financial and Options Evaluation”).

1.4 Disclaimer

This report does not contend that the financial projections will come to pass exactly as shown, but are merely a guide to help evaluate options. The projections are best estimates at this point in time, but there is a level of risk and uncertainty in all of the projections. The actual costs and income will vary, due to the following:

- Capital costs of projects and scheduling
- Interest Rates for borrowings
- Interest Earnings for cash
- All other inputs within the SFP which impact on the City's ability to borrow and repay for example General Rates
- Economic Factors.

Whilst this report makes recommendations regarding changes to the financing of borrowings, there are a number of actions which are recommended for review of this review and also other actions for the City to monitor the situation closely going forwards.

The risks and sensitivity should be considered as much as the financial projections.

2 KEY REFERENCE POINTS & RESEARCH

2.1 Local Government Act 1995

The relevant provisions within the Act allow for borrowings and stipulate:

- Local government in Western Australia may borrow money or obtain credit to enable it to perform the functions and exercise the powers conferred to it under the Local Government Act 1995 (WA)
- where a Council proposes to borrow money, and this has not been accounted for in the budget for that financial year, the Council must first obtain an absolute majority in order to exercise the power to borrow, and then give one month's public notice of the proposal
- Local government may only provide security in limited forms, as set out in s 6.21 of the Local Government Act 1995.

2.2 City of Joondalup Positioning Statement on Sustainable Borrowings

The City has adopted a Positioning Statement on Sustainable Borrowings as follows:

“The City supports borrowing as an appropriate form of financing capital expenditure in the achievement of objectives contained within the Strategic Community Plan 2012-2022 and the 20 Year Strategic Financial Plan.

Sustainable borrowing parameters should be determined as follows:

1. *Long term borrowing requirements will be identified as part of the 20 Year Strategic Financial Plan and specific borrowings will be approved as part of the annual budget process.*
2. *Borrowings should only be considered where the impacts are within the range of the key ratio targets contained within the 20 Year Strategic Financial Plan – Guiding Principles, in particular, the Debt Service Coverage Ratio.”*

The positioning statement has replaced the Borrowing Strategy that was adopted by Council in 2010, this has now been revoked. The position above is now a lot more flexible than the previous Borrowings Strategy and therefore allows consideration of different options that are considered in this report.

2.3 Guiding Principles – 20 Year Strategic Financial Plan

The Positioning Statement refers to the Guiding Principles within the 20 Year SFP. The Guiding Principles first of all refer to 7 key principles which are worth bearing in mind when considering the different financing options:

- Sustainability
- Transparency
- Prudence
- Consistency
- Performance and Accountability
- Flexibility and Long-Term Approach
- Service Levels and Asset Management

The Guiding Principles also have a specific section regarding Funding/Treasury as follows:

“The City is an asset intensive business, and as such loan funding could be expected to be used to fund Capital Expenditure. The Borrowings should be consistent with the City’s Strategic Positioning Statement on Sustainable Borrowings. The primary measure of evaluation is the Debt Service Coverage Ratio which is not to exceed five consecutive years with an annual debt service cover ratio of between three and five, with all other periods exceeding a ratio of five.

Revenue from the Tamala Park land sale should be applied in accordance with the City’s adopted Strategic Position Statement.

The Strategic Asset Management Reserve is able to be applied to fund projects based on an internal payback mechanism. Municipal funds should pay back to the Strategic Asset Management Reserve principal and interest over a 10 year period. The payback mechanism should only be used where affordable for the municipal fund such that the overall objective of achieving a net nil closing balance each year is achieved.”

2.4 Strategic Community Plan

This report supports the City of Joondalup Strategic Community Plan as follows:

- Financial Sustainability – manage liabilities and assets through a planned long-term approach
- Optimise funding options for new projects that take advantage of favourable economic conditions

2.5 ACELG (Australian Centre of Excellence for Local Government)

The ACELG have commissioned various reports during the past few years to assist the industry with considering best practice. In 2014 a report was issued called “Debt is Not a Dirty Word”, which considered current practices for financing, other options for borrowings and changes that the industry should consider.

The ACELG report indicated that the industry (in general) was stuck in its ways regarding borrowing options and financing. The industry generally fears debt and a well run Local Government is often recognised as one that has minimal or no debt – however this can be short-sighted and is not necessarily a good indicator of a well run Local Government. Debt is underutilised within the industry and when it is used it is often the wrong type of debt that is used due to a lack of understanding of the risk, costs and options available.

One of the other key observations is regarding ‘Tied Reserves’, which for most Local Governments are regarded as sound healthy financial management. However from an overall Treasury Management perspective the use of “Tied Reserves” is often sub-optimal and lacks the foresight to minimise overall financing costs. In essence the use of “Tied Reserves” is akin to shoebox accounting.

The ACELG has many useful observations and will be referred to throughout this report. However the ACELG report also makes the key observation that there is not one size that fits all, every Local Government must consider carefully the available options and evaluate those which are right for them. Therefore the recommendations in this report are not necessarily made just because they may have been repeated in the ACELG report.

2.6 West Australian Treasury Corporation (WATC)

WATC are the body used by Local Government in WA to assist with borrowings. WATC have been referred/consulted in several ways regarding the JPACF project and this review:

- 2015 – The City began to have informal discussions regarding the City’s SFP and more importantly the assumption that it would be in a position to secure large borrowings for the JPACF.
- 2016 – WATC were again provided with a copy of the City’s draft SFP and asked to provide comment. They reviewed the plans based on their standard assessment criteria and confirmed that if all assumptions remained the same then the City would qualify for the proposed borrowings. This was an informal exercise.
- Local Govt. Circulars – during the past year WATC have issued 4 circulars to provide background information regarding borrowings and different types of arrangements that could be used. These circulars have been referred to in this report.
- Additional Borrowing Capacity Model – WATC issued a financial model to all Local Government which helps evaluate borrowing criteria and plan for future borrowings. The City has used this model to enhance the SFP model; this will be explained in more detail later on.
- Informal discussions September 2016 regarding alternative arrangements reviewed in this report (variable rates, interest only).

Whilst discussions have taken place with WATC during the past 2 years regarding the JPACF borrowings, it must be emphasised that these are INFORMAL, and at no point has there been any formal confirmation that the City would definitely obtain the borrowings. Indeed since those discussions some of the key assumptions in the SFP have worsened (Tamala Park Proceeds are now lower) or at risk of being lower (General Rates increases may be lower than the SFP increases of 4% to 5%) It is therefore vital that the City continues to have open regular dialogue with WATC, and indeed when the City commits to the JPACF it will need to formally secure the borrowings before it can invest further.

Some of the key observations from WATC in their circulars are:

- An LGA with a no-debt policy may regard itself as financially conservative or not wanting to burden constituents with debt. However, such a policy may not be consistent to achieving an appropriate balance in intergenerational equity or in providing services to the community expected.
- LGAs that only borrow where they expect an independent source of revenue to service the loan are subjecting themselves, and ultimately their ratepayers, to a higher degree of financial risk. This arises as the alternative income streams expected to support such loans are generally subject to a degree of uncertainty in comparison to an LGA’s core sources of income (i.e. rates and regular grants).
- A quote for a Fixed Rate loan is expected to be higher than for a Variable rate loan of an equivalent term.

2.7 Terminology

The table below summarises some of the key terms referred to throughout the report (tbc)

	Item	Definition
1	Loans or Borrowings	<ul style="list-style-type: none"> ○ The amount of money financed by a 3rd party ○ The term Loan and Borrowings are used interchangeably to describe the original amount that is borrowed.
2	Principal	<ul style="list-style-type: none"> ○ The amount of the original loan outstanding at any point in

		<p>time.</p> <ul style="list-style-type: none"> o At the time of creating the loan the principal will equal the loan amount. However the principal will be repaid over time and eventually be zero.
3	Interest Expense	<ul style="list-style-type: none"> o The additional expense that is payable regularly (normally quarterly) on top of any repayment of principal o Interest expense is calculated as a % of the outstanding principal. o Sometimes referred to as the “Costs of Borrowing”
4	Repayment	<ul style="list-style-type: none"> o The total cash flow paid at a given point in time. o Repayment comprises of both the Principal being repaid and the Interest Expense
5	Earnings on Cash	<ul style="list-style-type: none"> o This term is used in this report to denote that earnings that are earned by the City at financial institutions with cash that has been banked. o This term is referred to because each of the options will affect cash flow differently and therefore the earnings on cash will be affected by the amount differently
6	Interest Rate	<ul style="list-style-type: none"> o % figure that is relevant for either Interest Expense or Earnings on Cash o Interest Rate applicable for borrowings can either be fixed or variable. o The term interest rate can be interchangeable applied to interest expense (on borrowings) or relating to the income received through cash banked
7	Financing & Funding	<ul style="list-style-type: none"> o The term Financing and Funding are often used interchangeably but in this report and commonly in public finance the terms have different meanings. Funding refers to the raising of revenue (e.g. general rates, fees/charges), whereas Financing describes how a payment for an outlay is accommodated. o Financing could be through an entity utilising its financial assets (e.g. cash reserves) or by an arrangement to use another entity’s funds (e.g. raising a borrowing). o While financing and funding are different functions they are interrelated i.e. the repayment of a finance arrangement has to be funded by revenue.
6	Net Cash is Not Unencumbered Cash	<ul style="list-style-type: none"> o Net Cash is a key metric used in the evaluation of the options. o This is calculated as the difference between Total Cash Reserves and principal owing. o Care has to be taken in the interpretation of this metric though, because Net Cash cannot be assumed to be total cash available to the City for projects or the like. Within the Reserves figure there will be tied reserves whose purpose are legally/contractually tied and cannot be available for projects. o Therefore Net Cash is not the same as Unencumbered Cash, which is term meaning cash available. It would overcomplicate this report to split out Net Cash and Unencumbered Cash and in any case it would not serve any purpose in evaluating the difference between options.

OPTION EVALUATION

3 BASELINE & KEY ASSUMPTIONS

3.1 Adopted 20 Year Strategic Financial Plan (June 2016)

As mentioned earlier it is necessary to consider financial options for the overall City, not just for one project in isolation. The starting point of the analysis is the 20 Year SFP that was adopted by Council in June 2016. This is shown in Attachment 1.

3.2 Restated SFP based on Reduced Tamala Park Land Sales

The Adopted SFP included estimated land proceeds from Tamala Park based on 2015 projections from TPRC (Tamala Park Regional Council). Since the SFP was adopted the City has received updated projections from TPRC. The expected distribution during the next few years (when JPACF is planned for construction) is reduced by \$7m and the overall distribution forecast (up to 2028/29) is also \$7m lower. The shortfall in the next few years means fewer reserves available to contribute to the JPACF which result in higher borrowings which have to be repaid from municipal funds. It is therefore deemed prudent to restate the SFP for the purposes of this report using the reduced Tamala Park Land Sales.

3.3 Projected New Borrowings

The SFP (restated) now estimates approx \$93m of new borrowings based on the current assumptions (Fixed Interest). This comprises of the following projects:

- \$55m JPACF
- \$4.5m Hockey
- \$12m Edgewater Quarry (self-financed with land proceeds to repay borrowings)
- \$17m Second Multi Storey Car Park (self-financed using surpluses from parking operations)
- \$4.5m Admin Building Refurbishment

Of the total \$93m borrowings, approx \$29m can be regarded as self-financed to some extent (Edgewater Quarry and Multi Storey Car Park). Of the remaining \$64m, the vast majority (\$55m) is for the JPACF. Therefore whilst the analysis in this report relates to the overall City finances the major driver regarding borrowings is the JPACF.

3.4 Interest Rate Forecasts

The analysis in this report uses various interest rate forecasts as shown in Appendix 1. These are based on information provided recently by WATC, although they have only provided estimated rates up to the 2025/26 the forecasts thereafter are by the City.

WATC have provided estimated rates for Fixed Interest loans. This evaluation also includes options for Variable Interest Rates and an assumption has been made that the Variable Interest Rates would be 0.5% less every year than the Fixed Interest Rates. This is a reasonable assumption because in the long run it is normal for Fixed Rates to be higher than Variable Rates as Fixed Rates include a premium above the prevailing market rate.

Appendix 1 also shows the cost of the Govt Guarantee of 0.7% which would apply to all options, albeit the impact would be different as it is calculated on the principal owing which would be different for each option.

3.5 Earnings on Cash

Appendix 1 also indicates the assumption for interest earned on cash reserves by the City. The assumption is that the City would earn 1% less than the costs of borrowing; this is a generally recognised prudent assumption and has been the standard assumption within the Adopted SFP for a number of years. These assumptions are important because the 20 Year SFP recalculates the earnings from cash based on the various cash flows, and therefore any option which has a bigger drain on cash flow will result in fewer earnings for the City.

3.6 Existing Borrowings Assumed to Continue on Same Terms

The City currently (as at July 2016) has circa \$15m outstanding on borrowings set up during the past few years. Appendix 2 provides a summary of the borrowings, the principal repayments and the end date. The City is paying almost \$3m per year in principal and interest, most of which will reduce by 2020/21, just as the JPACF borrowings come on line. Whilst the reduced burden of the existing borrowings will help in some respects with the new borrowings for the JPACF this is already factored into the SFP.

The analysis assumes that the repayment arrangements of these existing borrowings will continue as they are and are included equally in each of the models. Therefore there is no consideration of refinancing existing borrowings. The graphs which compare the cashflows of each option will EXCLUDE existing borrowings and only show the impacts for new borrowings.

3.7 Edgewater Quarry Borrowings – assumptions same in all options

The Edgewater Quarry borrowings are set up within the SFP as follows:

- Borrowings of \$12.2m split mostly between 2 years 2020/21 and 2021/22
- Interest only loan for a short-time
- Sales proceeds of \$12.2m received in 2023/24 and 2024/25 are used to repay the principal
- Interest Rate of 5% assumed for the years when principal is outstanding
- Interest expense on borrowings costs \$2.5m

All options have used the same assumptions for Edgewater Quarry because it is a unique self-funded loan.

3.8 Parameters for Evaluation

The various options are modelled on a like for like basis. The key parameters for the model are:

- SFP model is used to calculate all the impacts for each individual option, so a full 20 year impact up to 2034/35 is assessed. Whilst there are some options (e.g. 20 year repayment terms) which still have many years to run to repay borrowings beyond 2034/35, this has been taken account of in the key metrics – for example the Net Cash at 2034/35 takes account of borrowings outstanding.
- All whole of life cash flow impacts are considered in the SFP model, including the earnings on cash reserves. The earnings on cash reserves are affected by the different cashflows of different arrangements.
- Reserves – the use of reserves for all options is the same as the Adopted 20 Year SFP except the Strategic Asset Management Reserve. The assumptions for Reserves are:
 - Tamala Park proceeds are only used for the JPACF
 - JPACF reserve only used for JPACF
 - Parking Surpluses go to the Parking Reserve which is then used to repay borrowings for Parking Facilities
 - Strategic Asset Management Reserve used for a variety of projects and where it is used the municipal fund has to pay back to the reserve over a 10 year period or until such time as the Municipal Fund can afford to do so. The Flexible option will be explained later in the report treats this principal differently.

The key metrics used to summarise the impacts comprise of the impacts on cash flow, operating results, debt ratios and overall ratios.

4 LIST OF OPTIONS

4.1 List of Options

The Chart below lists the 13 different options that have been evaluated. These are categorised as follows:

- A. Arrangement Type - Fixed, Variable or Flexible
- B. Repayment Terms. For option 1 and 2 this is 5, 10, 15 or 20 years or a mix thereof. For Option 3 Flexible there are 3 different types of repayment terms

Arrangement	Option	Term
Option 1) Fixed Interest Fixed Terms	Option 1a	5/10/15 years
	Option 1b	5 Years
	Option 1c	10 Years
	Option 1d	15 Years
	Option 1e	20 Years
Option 2) Variable Interest Fixed Terms	Option 2a	5/10/15 years
	Option 2b	5 Years
	Option 2c	10 Years
	Option 2d	15 Years
	Option 2e	20 Years
Option 3) Interest Only	Option 3a	Balloon Payments
	Option 3b	Repay Quickly
	Option 3c	Free up Reserves

4.2 Approach for Evaluation

Financial Evaluation has been completed for all 13 options. However it is impractical to compare the 13 options all at once i.e. 13 lines on a graph would not be clear. The evaluation will therefore comprise of 2 separate parts:

- I. Firstly the Repayment Terms (5, 10, 15 or 20 years) that are relevant for Options 1 and 2 will be evaluated first. This analysis will then make a recommendation for the appropriate repayment term(s).
- II. Secondly, and most importantly, the three Arrangement Types will then be assessed (Fixed, Variable or Flexible). For Option 1 and 2 just one subset of repayment terms will be considered and for Option 3 only Option 3b will be used in the report, the reasons for this will be explained later.

5 REPAYMENT TERMS (5, 10, 15 OR 20 YEARS)

5.1 Current Practice – Mixed Terms

The City has traditionally fixed the repayment term at either 5 years or 10 years, depending on the size of the borrowings. For example, the \$8.5m for the Multi Storey Car Park is repaid over a 10 year period, whereas the Bramston Park Clubrooms \$1.8m is repaid over a 5 year basis. The SFP has assumed 15 year terms for JPACF borrowings projected in 2017-18 and 2018-19, the 15 year term was suggested by WATC in 2015 rather than the 10 year term previously assumed. The City does not currently, nor was it intending to have 20 year repayments, but these are evaluated in this section.

5.2 Key Features

The different repayment terms have the following features:

- Longer the term the higher the interest costs
- Shorter the term the higher the annual repayment and the more pressure there is on operating cash flow to afford the repayments.

5.3 Repayment Options Evaluated

Five options have been evaluated for the different repayment terms.

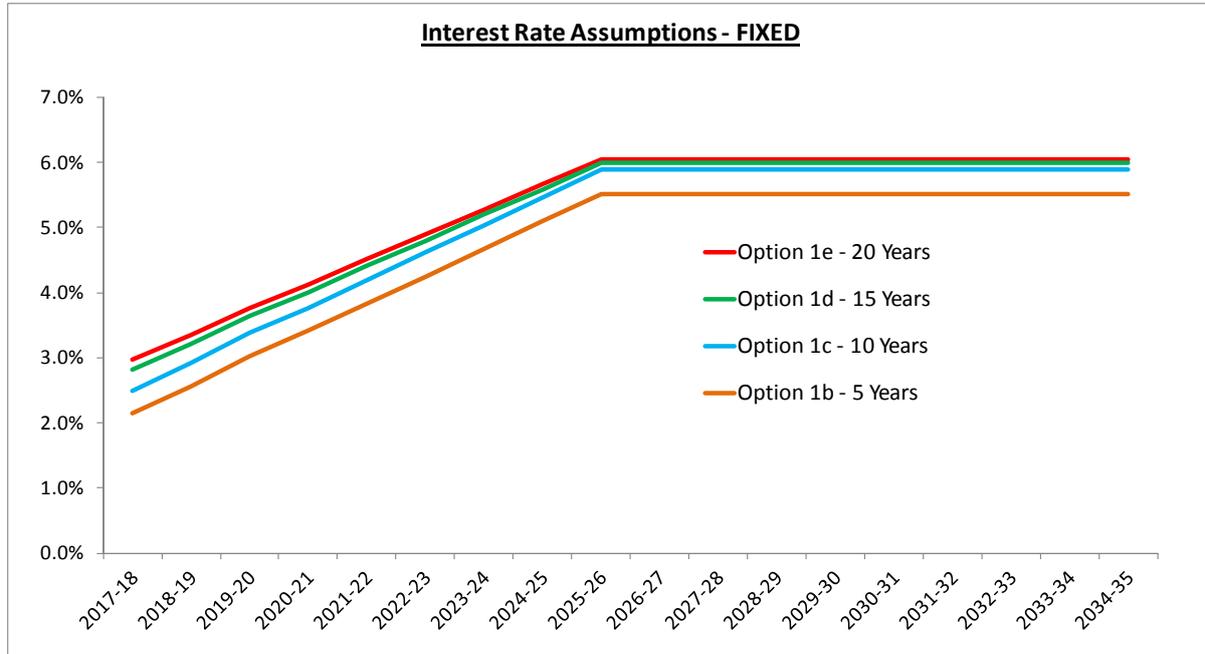
- a) Option 1a - Firstly, the current practice of mixed terms (5, 10 or 15 years) is the first option.
- b) Option 1b - Then a separate option where all borrowings are taken on a 5 year repayment term
- c) Option 1c – All borrowings on a 10 year repayment term
- d) Option 1d – All borrowings on a 15 year repayment term
- e) Option 1e – All borrowings on a 20 year repayment term

For ease of comparison the arrangement method assumed for all 5 options is just a Fixed Interest arrangement.

5.4 Interest Assumptions

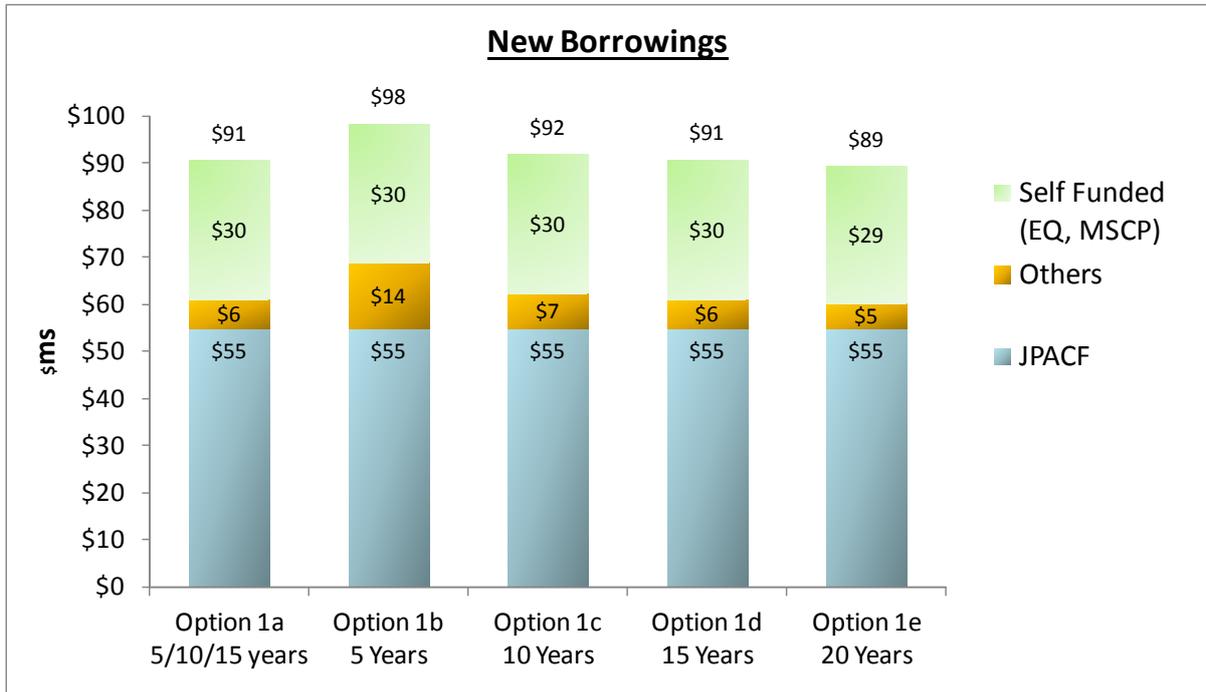
The graph below shows the assumptions applied in the evaluation. The key features are:

- All options are assumed to have increased costs of borrowing with increases from 2017-18 to 2026/27.
- The longer the term the higher the rate is.



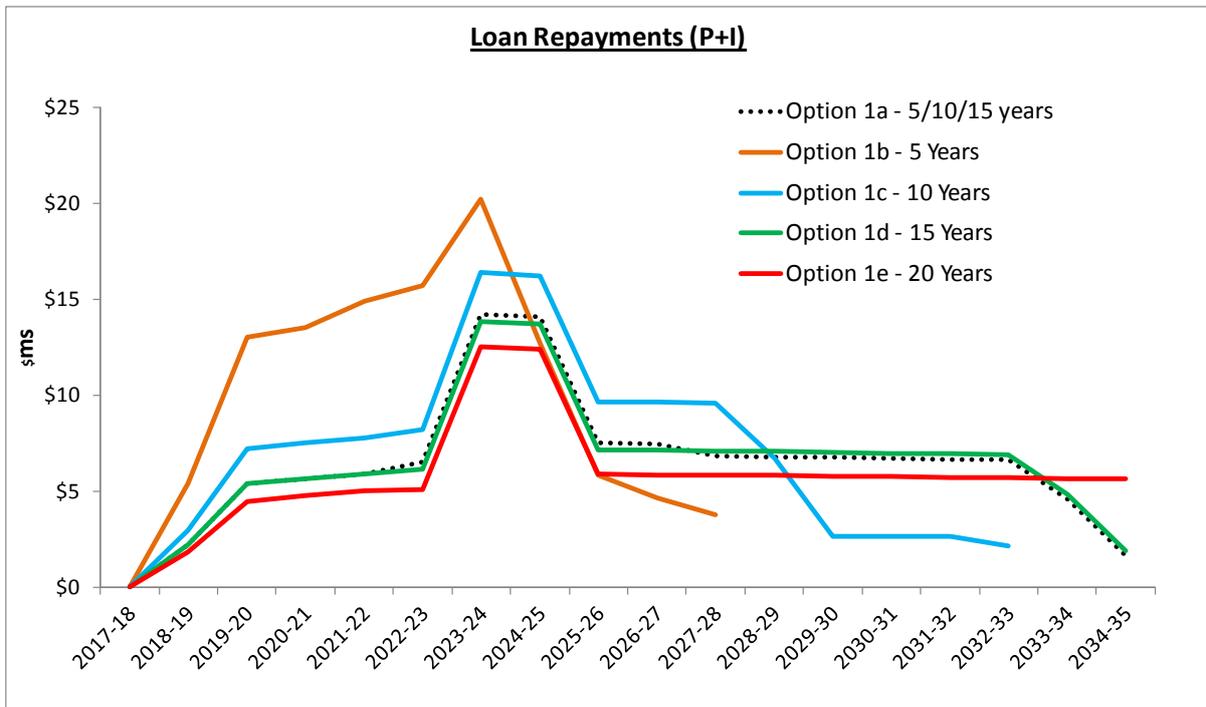
5.5 Borrowings Estimates

The graph below summarises the total estimated borrowings for the 20 years of the plan for each option. Bear in mind that all options are now based on a restated SFP which has \$7m less Tamala Proceeds. There are differences in the amount of borrowings for each option because each option affects cashflows in a different way and has different levels of municipal funds/reserve funds available before borrowings are considered. For example Option 1b (5 year repayment term) would result in higher borrowings because there would be a short term drain on cash due to the higher repayments which ultimately results in more borrowings than the other options.



5.6 Loan Repayments

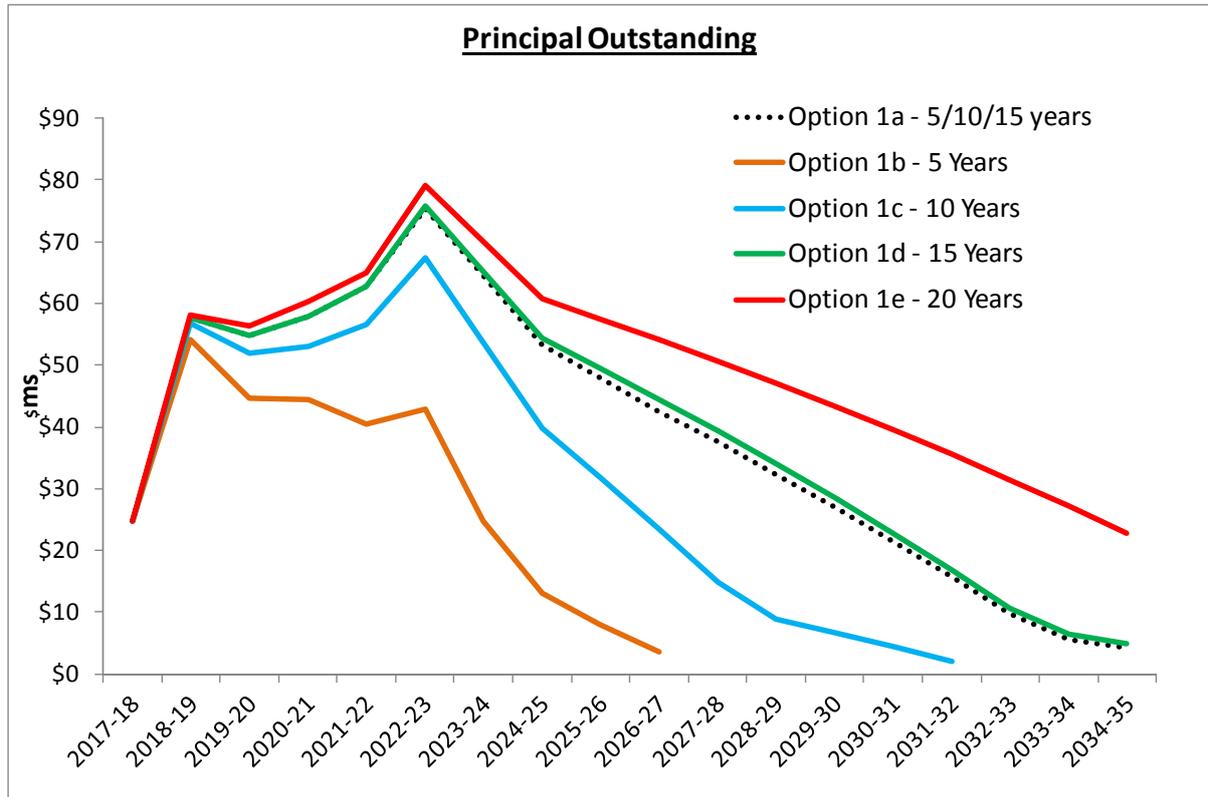
The graph below summarises the annual loan repayments for each option. This shows that Option 1b has much higher loan repayments in the earlier years but this reduces greatly in 2024/25 as the principal is reduced. Meanwhile the 20 year option provides a much more steady repayment profile.



5.7 Principal Owing

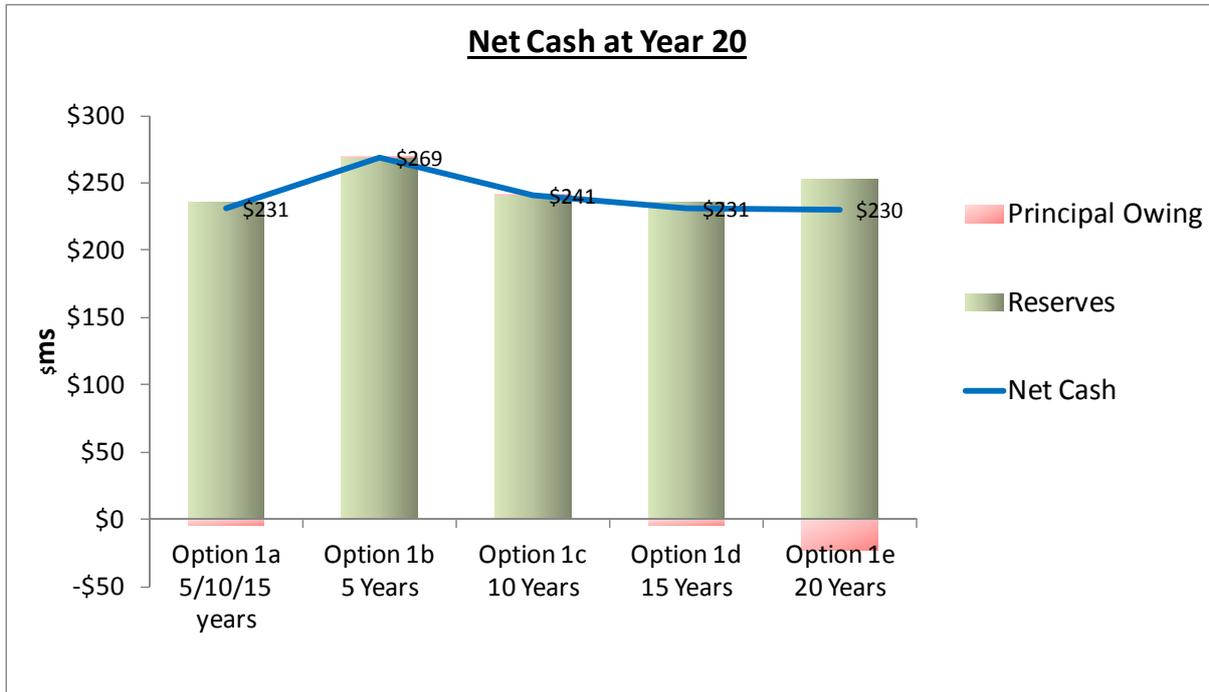
The graph below shows the principal outstanding for each option: Key issues to note are:

- Year 20 – at 2034/35 Options 1d (15 year repayment terms) and Option 1e (20 year repayment terms) still have principal outstanding on loans. All other options have repaid their borrowings before year 20 and most notably Option 1b has repaid by 2026/27
- Maximum borrowings – the highest point of borrowings outstanding is in 2022/23 for Option 1e (20 year repayment terms)



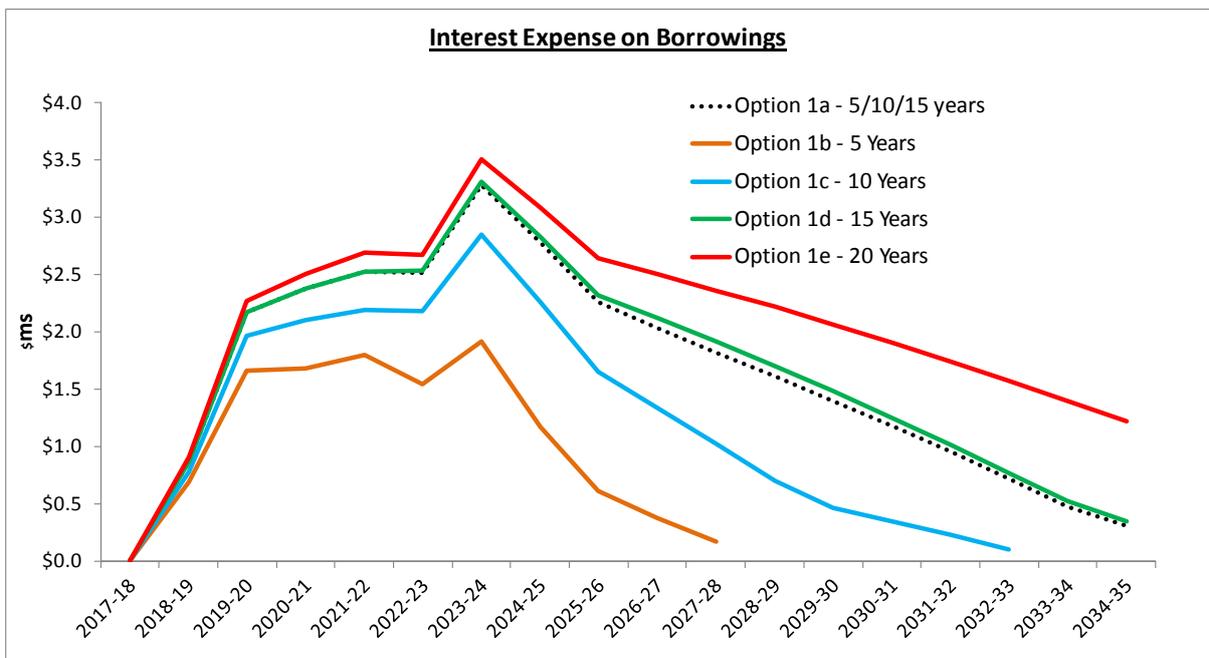
5.8 Net Cash at Year 20

The graph below is the total net cash at 2034/35, which is the difference between cash reserves and principal outstanding. This indicates that Option 1b has a much higher outcome than any of the other options with approx \$28m more cash than the next highest option.



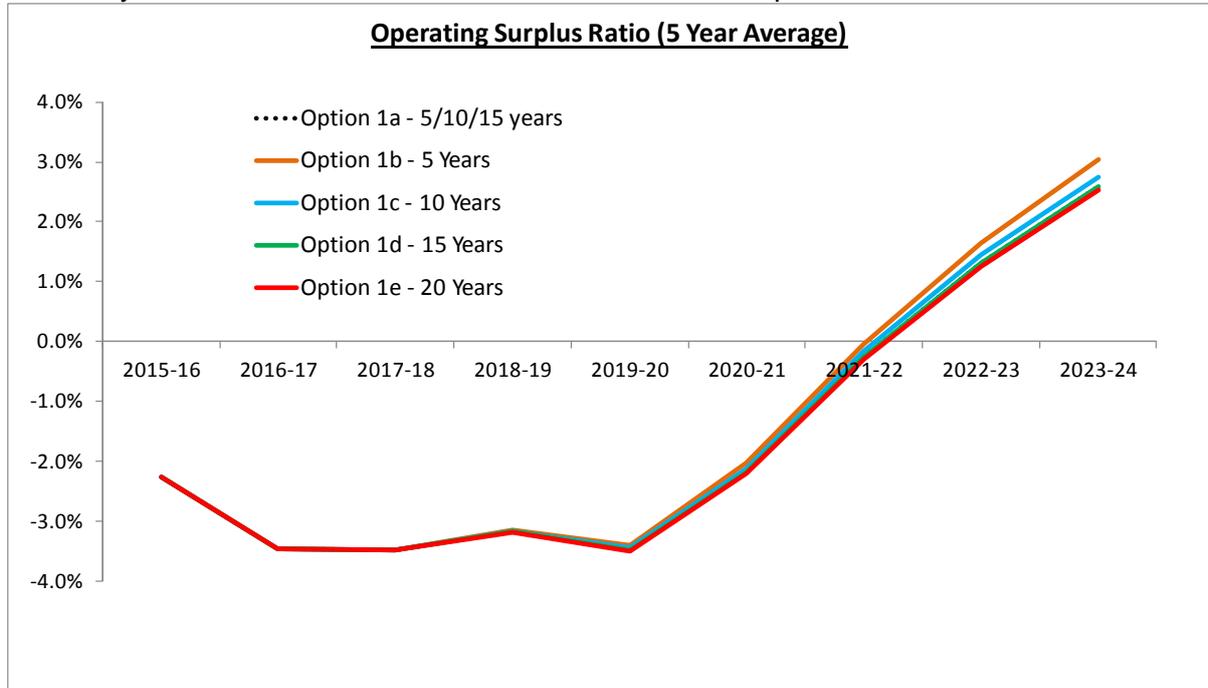
5.9 Interest Paid

The graph below shows that the 5 year repayment terms would only result in Interest costs of \$17.1m which is less than 50% of the current method (Option 1a) where \$37.7m interest is paid and far lower than the \$46.8m paid in Option 1e. Indeed the 20 year repayment term results in interest costs which are approx 50% of the total amount borrowed, this is inefficient.



5.10 Operating Surplus Ratio

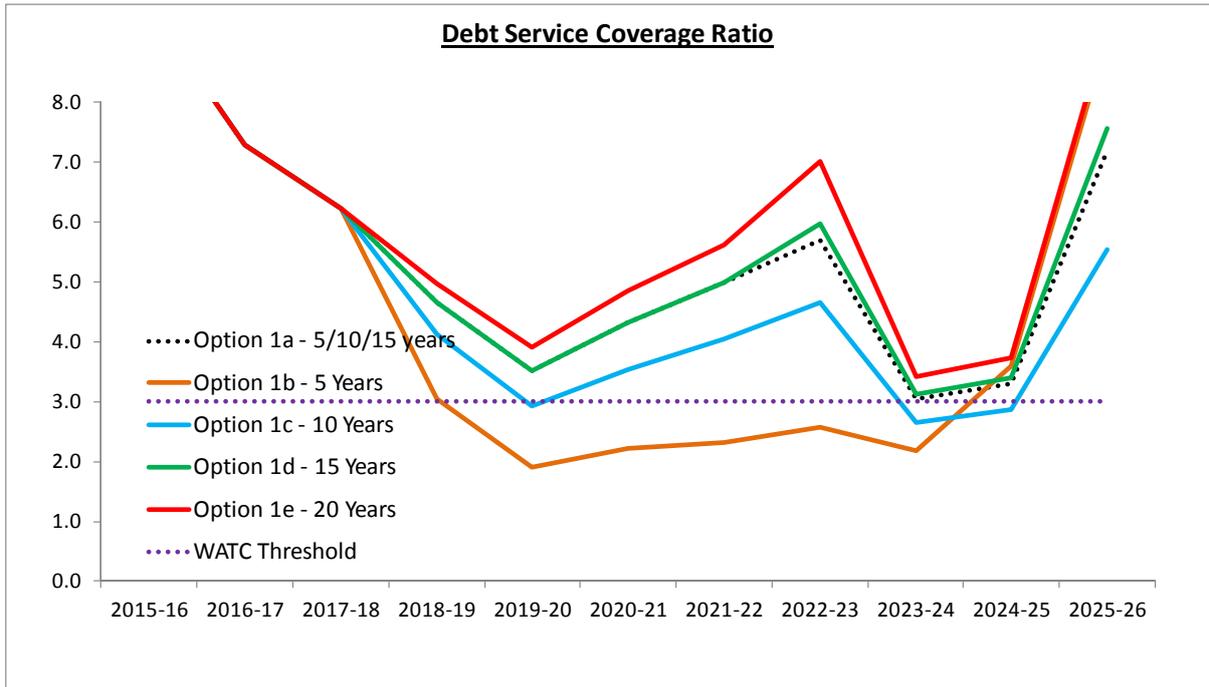
The most important indicator for financial sustainability is the Operating Surplus Ratio, which includes both the Interest Expense and the Earnings on Cash Reserves. Option 1b would initially have a negative impact due to the higher interest expense and drain on cash but eventually the benefits in cash would make this the better option.



5.11 Debt Service Coverage Ratio

The Debt Service Coverage Ratio compares the amount of Loan Repayments (Principal + Interest) versus Operating Surplus before interest and depreciation. The Ratio is a key ratio within the City’s SFP, and is also used by WATC to assess capacity. Ideally the City strives to achieve a multiple of 5 or more, i.e. Operating Surplus is at least 5 times more than loan repayments, although the WATC threshold for a City the size of Joondalup is a multiple of 3.

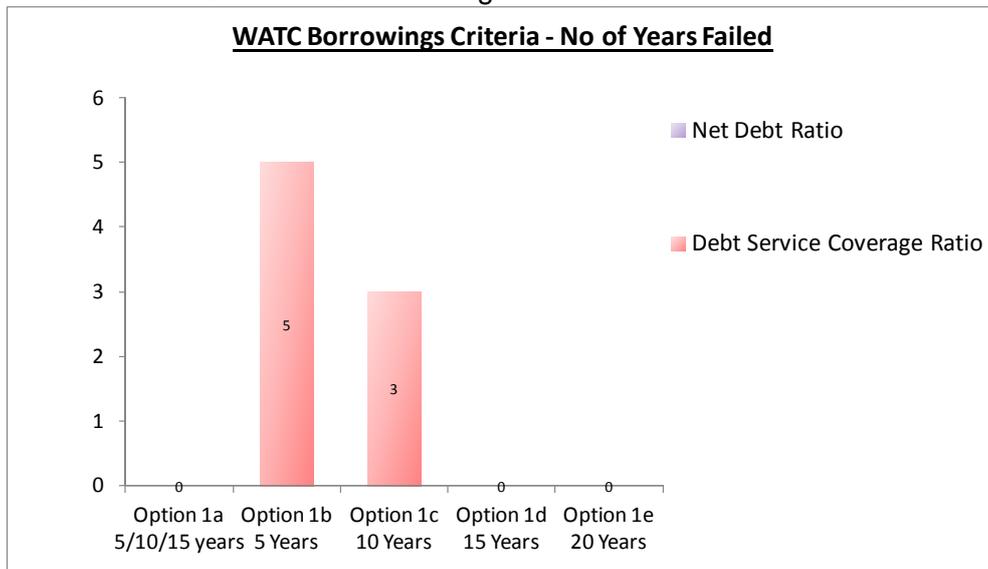
Option 1b presents a challenge in this ratio due to the higher loan repayments and as a result fails the test in 3 out of 20 years; likewise Option 1c fails the ratio in some years.



5.12 WATC Indicative Additional Borrowing Capacity Model

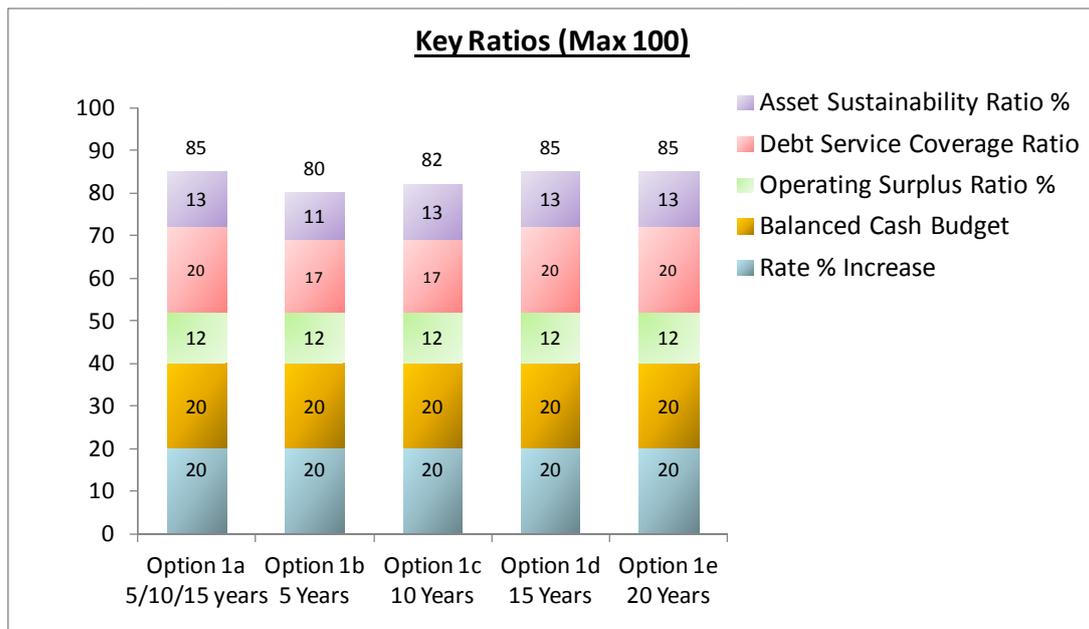
WATC have provided a tool to assist Local Government in assessing their borrowing capacity. The City has added the key parts of the WATC model to the SFP model so that the borrowing criteria can be assessed automatically as the SFP is updated. There are 2 main elements to the WATC model, the Debt Service Coverage Ratio as described above and the Net Debt Ratio. The Net Debt Ratio compares the Principal owing versus Cash Reserves and indicates a maximum of 50%.

The graph below summarises the total failures of the WATC criteria for each option, identified as either a failure of the Debt Service Coverage Ratio or the Net Debt Ratio. The only failures are for the Debt Service Coverage Ratio where it falls below a threshold of 3.



5.13 Key Ratios

The graph below summarises the overall impact on Key Ratios. The achievement of a Balanced Cash budget is a must for all 20 years which is the case for all options. Likewise it is crucial that the Debt Service Coverage Ratio is achieved in all 20 years, this is not the case for the 5 year repayment option or 10 year repayment option.



5.14 Summary

The table below ranks each option against 5 of the key metrics and then calculates an overall average, the lower the score the higher the ranking. This indicates that Option 1a (mixed terms) has the best overall ranking.

There is no ‘one case that fits all’ for borrowings for Local Government and some options are better than others in one criteria but not so in other factors. However the analysis does help to rule out the use of 5 year or 10 year borrowings for all borrowings, as the Debt Service Coverage Ratio is failed. This doesn’t mean to say though that the City would not enter into 5 or 10 year terms for some borrowings, just not for all of them. Meanwhile, the disadvantage with the 15 year terms and 20 year terms is the higher interest repayments and the lower net cash.

In summary the current method of having different terms (5, 10 or 15 years) is a more effective approach when using Fixed Interest arrangements. This will be the same for Option 2 (Variable Interest Rates). Therefore Options 1b, 1c, 1d, 1e, 2b, 2c, 2d, 2e can now be ruled out for the remainder of this paper.

Rankings based on above	Option 1a 5/10/15 years	Option 1b 5 Years	Option 1c 10 Years	Option 1d 15 Years	Option 1e 20 Years
1 Borrowings	2	5	4	2	1
2 Interest Payments Total	3	1	2	4	5
3 Net Cash	3	1	2	4	5
4 Debt Service Coverage Ratio	1	5	4	1	1
5 Ratios	3	5	4	2	1
6 Average of above	2.4	3.4	3.2	2.6	2.6

6 FIXED VS VARIABLE VS FLEXIBLE ARRANGEMENT

6.1 Current Practice

At present the City uses Option 1 whereby it fixes the interest rate at the time of setting up the loan. This is common practice for most Local Governments and provides the City with a guaranteed no-change set of cashflows that it can include in budgets and long-term plans.

6.2 Arrangement Options Evaluated

Three different arrangement types have been evaluated:

- Option 1 - Fixed Interest
- Option 2 - Variable Interest
- Option 3 – Flexible Repayment

There are several different types of ways that these 3 options can be set up. The table below explains some of these features and also specifies the assumptions used for the evaluation in this report. There are some other different options which are subject to comment later on in the report.

Arrangements Evaluated		<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>
		Fixed Interest	Variable Interest	Interest Only
1	Currently	Yes	No	No
2	Term	Assumed 5, 10 or 15 years as per previous section. The larger borrowings (e.g. JPACF) would be 15 years		Maximum 15 Years, but attempt to pay back earlier
3	Interest Rate	Fixed at time of setting up loan.	Varies according to WATC costs of borrowing. Eg. 90 Day Bank Bill Swap Rate (tbc)	Could be Fixed or Variable. Model has assumed the interest rate is variable
4	Principal Repayment	Principal is paid frequently and continually reduces.		This could vary depending on different circumstances, for example a large one-off repayment (a 'balloon' payment could be planned as is the case with Edgewater Quarry). Alternatively a minimum repayment could be established. For the purposes of the evaluation it is assumed that principal is repaid if affordable to do so. Also see Key Features
5	Frequency of Payments	Quarterly	Quarterly	Probably Quarterly (tbc). Alternative mechanisms could be evaluated
6	Cashflows	Fixed Repayments throughout the term of the loan, so the future cashflows are known with 100% certainty.	The cashflows will vary depending on the interest rate. However the amount of principal repaid is assumed to be same as Option1	Would vary significantly depending on interest rate, amount of surplus cash.

Arrangements Evaluated		Option 1	Option 2	Option 3
		Fixed Interest	Variable Interest	Interest Only
7	Reserves - impact on repayments	Parking Surpluses are used to repay loans for Multi Storeys		This option could provide flexibility for the City to adapt the use of reserves and potentially minimise interest expenses.
8	Disposal Proceeds e.g. Tamala Park	Would not have a direct impact on the borrowings as a fixed term schedule is set up		Can be used to repay principal. If the proceeds are higher than more principal can be repaid.
9	Day to Day Cash	No impact	No impact	Where surplus cash is available in early part of year (due to Rates Income) it may be a better overall position for the City to repay borrowings and hence reduce interest costs - this impact may be better than the earnings that the City would otherwise earn from banking surplus cash. This type of arrangement could be similar to an "offset" account.
10	WATC Approval	Likely (as long as criteria is sound)	Less Likely but still probable (as long as the criteria is sound)	Less Likely but still possible (as long as the criteria is sound)

6.3 Option 3 Key Features

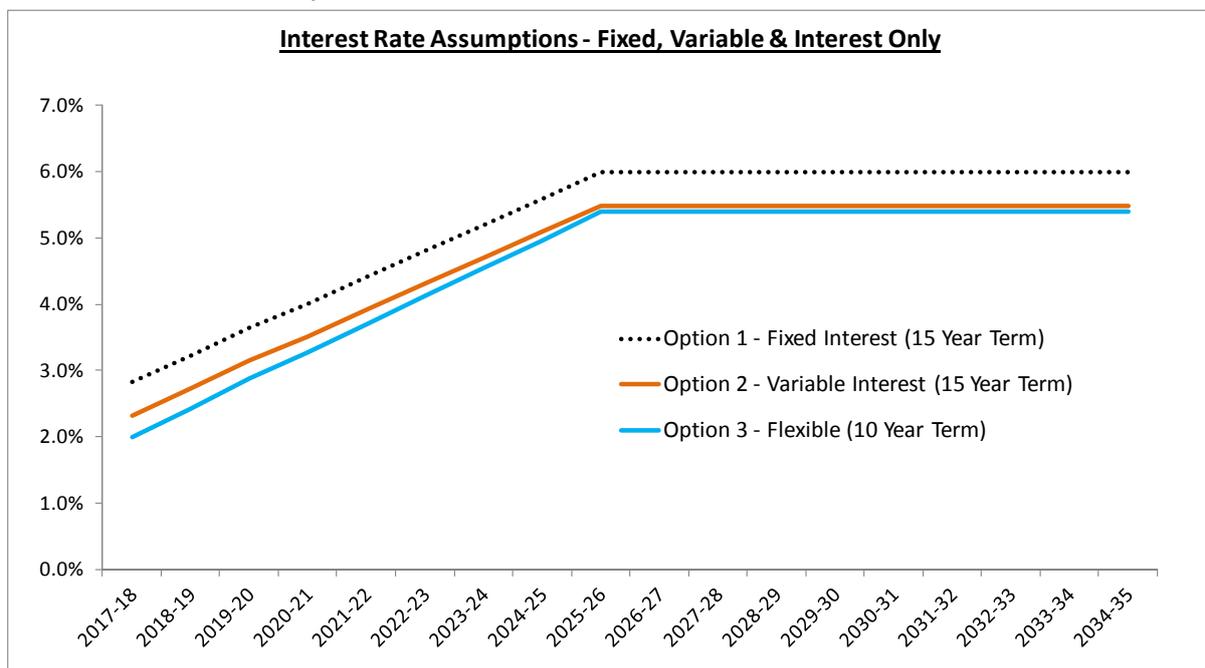
Option 3 has a wide number of variations on how it could work in practice. The model has had to make the following assumptions, but these could be different in practice:

- Principal is paid back as quickly as possible, but a balanced budget must be achieved each year. Therefore a calculation is made each year of the amount of municipal funds that are available for loan repayments but only after achievement of a balanced budget.
- New Borrowings – before any repayment is made to principal any surplus cash is first of all reduced against any new borrowings that are estimated.
- Repayment of principal is prioritised ahead of expenditure on the "CWP renewal" line. The SFP has set aside expenditure from 2020/21 to "CWP Renewal" which is required to achieve an Asset Sustainability Ratio of 90%. There is no specific program where this expenditure has been identified, although there are already increases for specific programs from 2020/21 onwards. Whilst the need to have adequate planning for capital renewals is vital, Option 3 is based on the premise that surplus funds should be used to repay principal. As a result of this assumption, Option 3 has lower capital expenditure for some of the earlier years in the plan and the Asset Sustainability Ratio falls below 90% where Option 1 & 2 it doesn't.
- Option 3 also prioritises Loan repayments ahead of payback to the Strategic Asset Management Reserve. The SFP currently has a mechanism in place whereby the Strategic Asset Management Reserve is topped up by surplus funds from the Municipal Fund. The rationale for Option 3 prioritising repayment of debt ahead of reserve is that it is a better use of funds to repay debt which has a higher interest rate than putting into reserve which earns a lower rate. Meanwhile Option 1 and 2 stretch out the repayments for larger loans to 15 years which results in surplus cash which has to go to reserve (even though it earns less than the cost of borrowings).

6.4 Interest Assumptions for the 3 Options

The graph below shows the assumptions applied in the evaluation. The key features of the assumptions are:

- All options are assumed to have increased costs over time, at the same increments.
- Fixed Interest Rates are assumed to be 0.5% more expensive than the variable rates. It is reasonable to assume that variable rates are cheaper than Fixed Interest.
- Rates shown on the graph for Fixed and Variable relate to 15 year terms, which are the key assumptions for Option 1 and 2 due to the due to the JPACF borrowings.
- Flexible assumptions (Option 3) – the rates shown on the graph for Flexible are for a 10 year variable term. As Option 3 is repaying quicker it is assumed that the prevailing rate would be a 10 year variable rate.



6.5 Interest Rates assumed for JPACF

The table below explains the rates assumed for the JPACF borrowings for each option. These are shown separately as they are by far the biggest borrowings and the biggest impact on the differences between each option

Option	Interest Rates	Comments
Option 1 Fixed	2017/18 – 2.82% 2018/19 – 3.22%	These rates are the fixed rates for a 15 year term for those 2 years. The model then locks down those rates for the duration of the 15 year term
Option 2 Variable	2017/18 – 2.32% to 2034/35 - 5.49%	Under option 2 the rates would vary each year. The rates would initially be lower than the Fixed Rates, but are then projected to increase and eventually be higher than the Fixed Interest rates. The final year of the 15 year term is 2034/35 when the rates are estimated to be 5.49%
Option 3 Flexible	2017/18 – 1.99% to	Option 3 is based on 10 year variable rates. The initial rate in 2017/18 is therefore assumed to be 3.2%,

	2023/24 – 4.54%	<p>which is slightly lower than the 15 year variable rate. As per Option 2, Option 3 also assumes that the rates increase and by 2021/22 they are assumed to be higher than the Fixed Rates that have been locked down in Option 1. However Option 3 pays back the principal much quicker and the final year without borrowings is 2023/24 with an interest rate of 4.54% assumed.</p>
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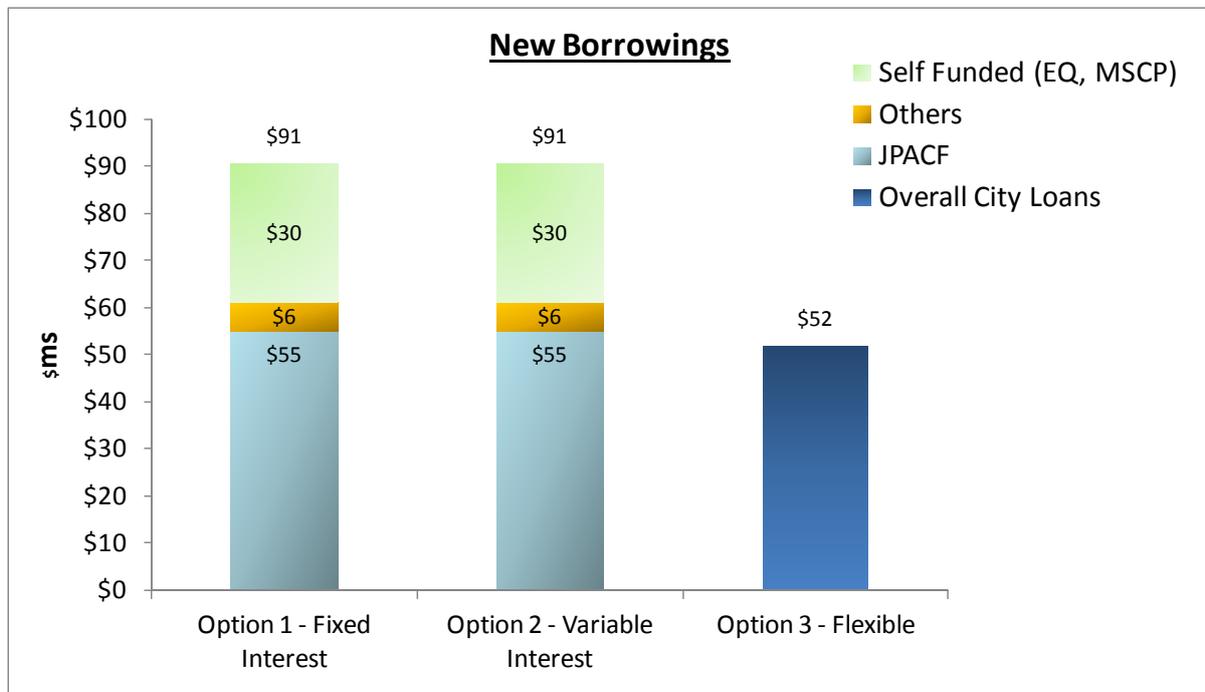
6.6 Attachments

As explained earlier, Attachment 1 is the Adopted 20 Year SFP, as at June 2016. Attachments 2 to 5 are the updated versions of the SFP based on the assumptions explained above:

- Attachment 2 – Option 1 Fixed Interest Fixed Term
- Attachment 3 – Option 2 Variable Interest Fixed Term
- Attachment 4 – Option 3 Flexible Repayment
- Attachment 5 – Option 3 vs. Option 1

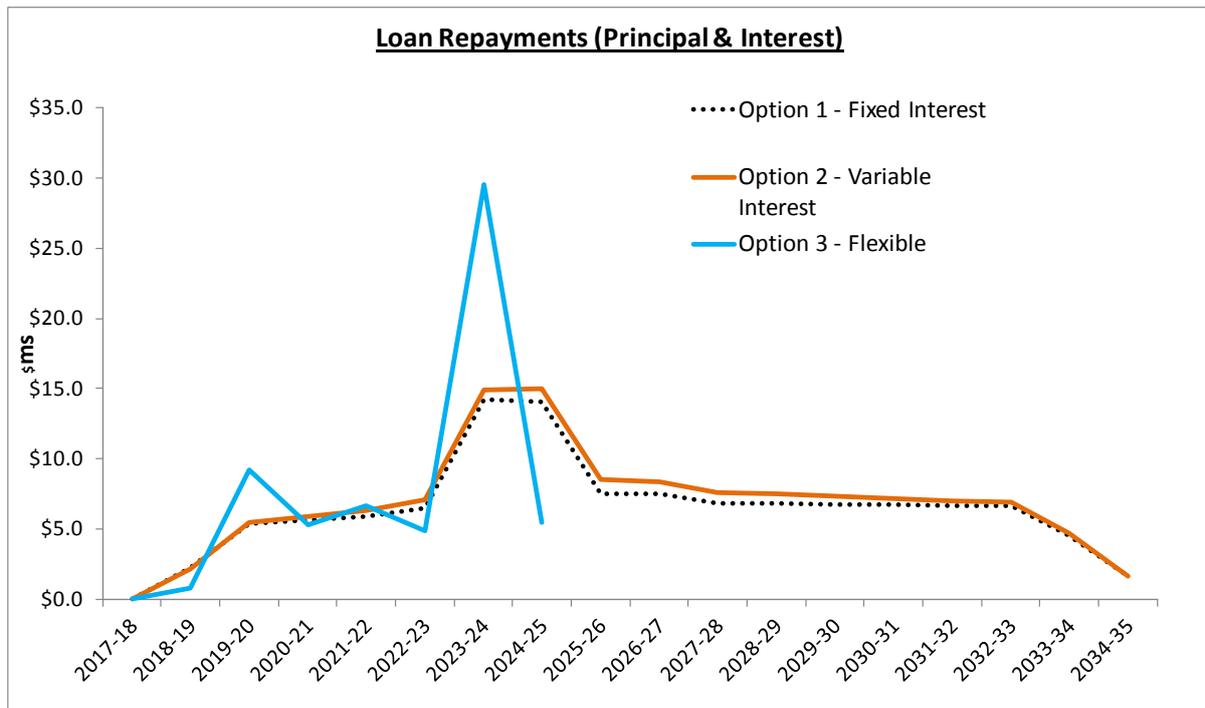
6.7 Borrowings Estimates

The graph below summarises the total estimated borrowings for the 20 years of the plan for each option. Bear in mind that all options are now based on a restated SFP which has \$7m less Tamala Proceeds. The graph indicates that the borrowings would be similar for Option 1 and Option 2, but much lower for Option 3. As explained in section 6.3, Option 3 assumes that surplus municipal funds should first of all be used to reduce the raising of new borrowings before repaying existing borrowings.



6.8 Loan Repayments

The graph below shows the annual loan repayments for each option. Options 1 & 2 have a stable set of repayments in comparison to the volatile repayments of Option 3. Option 3 has large repayments in 2023-24 due to Edgewater Quarry sales proceeds and surplus municipal funds), which then reduce the principal outstanding significantly and causing future repayments to be lower.



6.9 Principal outstanding

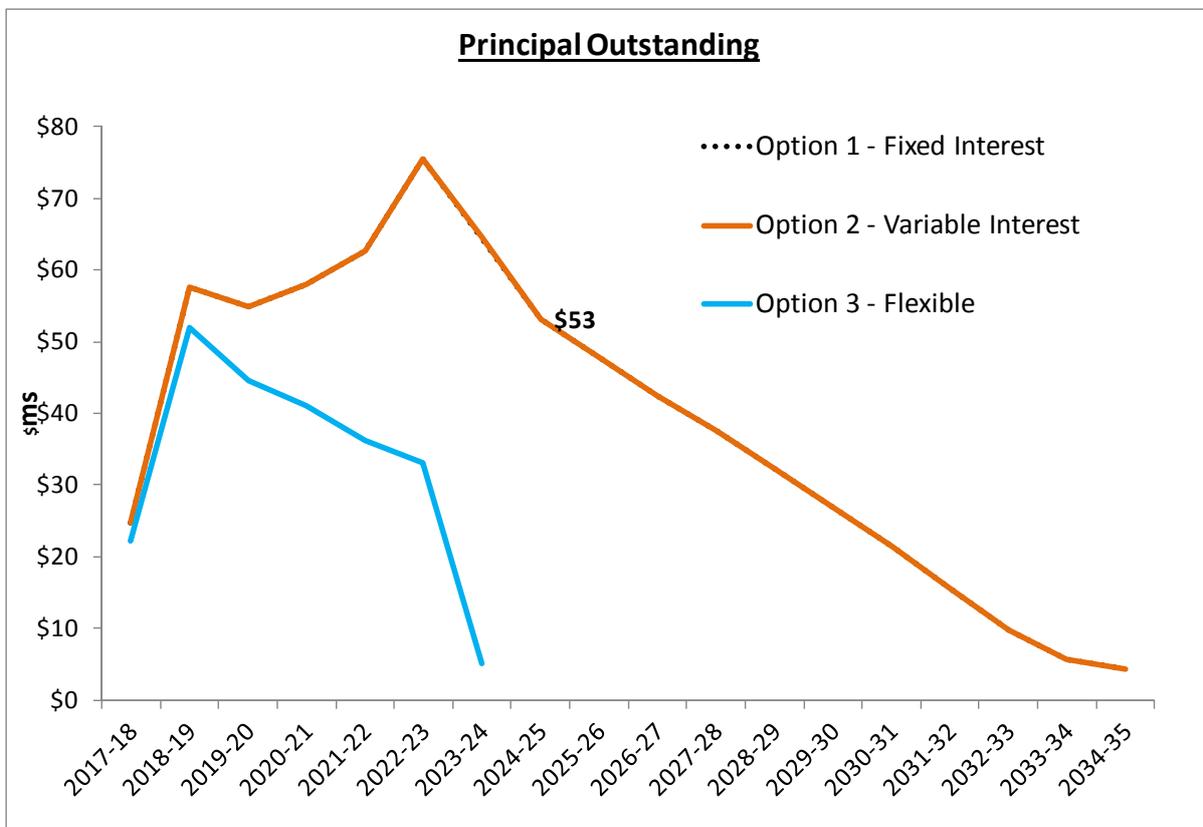
The graph below shows the principal outstanding for each option. This indicates that at Year 20 (2034/35) Options 1 and 2 still have principal outstanding on loans but Option 3 though has repaid all principal by 2024/25. At 2024/25 there is still \$53m principal for Option 1 and 2 this large gap to Option 3 is caused mostly by the following two factors:

- \$18m less transferred into Strategic Asset Management Reserve (SAMR) for Option 3. The mechanism for Option 3 assumes that surplus funds should be used to repay borrowings before the reserve is topped back up. The issue of paying \$18m less in Option 3 may appear to give it an unfair advantage to Option 1 and 2, but this is not the case – under Option 1 and Option 2 the loan repayments are stretched out over a longer period (15 years for the JPACF) resulting in surplus cash - to balance the books the cash has to go to either Reserve or Capital Renewal as described below – it is therefore completely appropriate the Option 3 has the benefit of less transferred into reserves.
- \$29m less set aside for Capital renewal in Option 3. The SFP model currently strives to achieve an Asset Sustainability Ratio of between 90% and 110% and to achieve this surplus funds are shown as Backlog Capital Replacement. The allocation to Capital renewal is arbitrary and is not identified against specific programs. There is already large increases built into the SFP in specific programs from 2020/21 (e.g. Road Resurfacing increases from \$7m to \$10m) and it is possible that the arbitrary allocation to Backlog Replacement is unnecessary – this will ultimately be determined by the completion of all Asset Management Plans. In the meantime Option 3 has assumed that

priority can be given for repayment of borrowings rather than the allocation to unidentified backlog capital replacement.

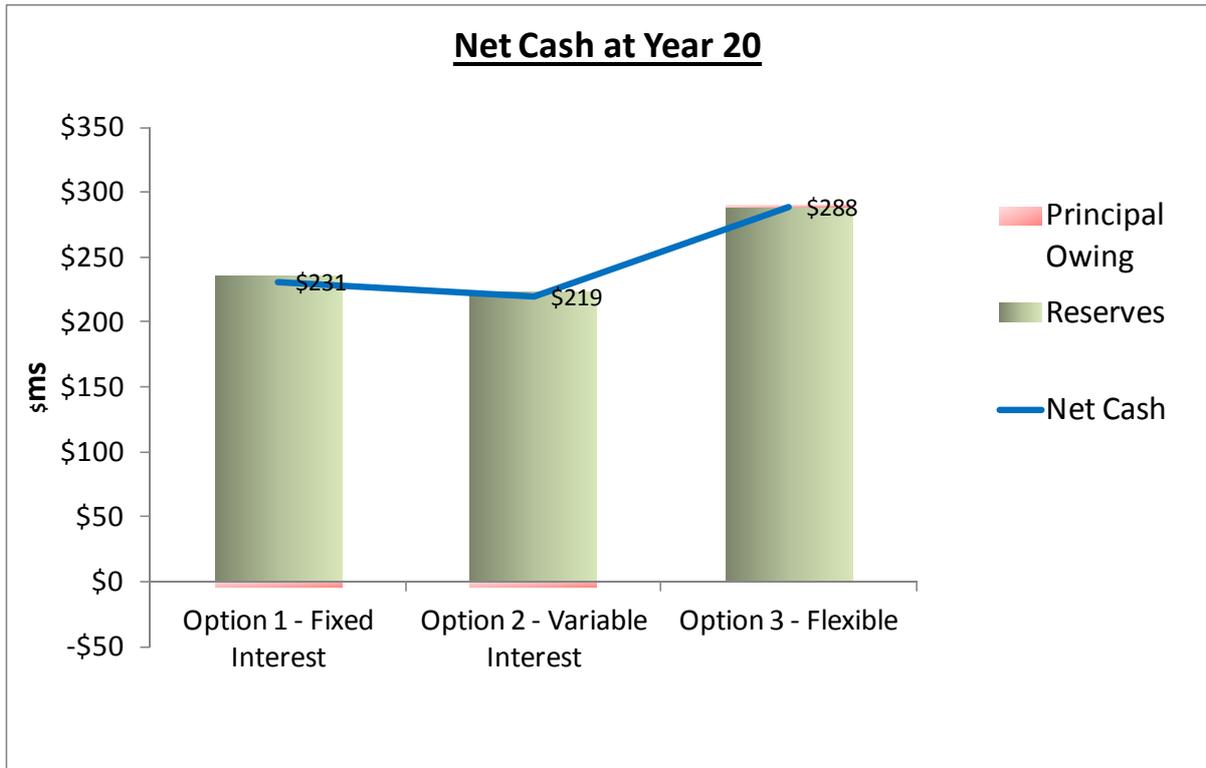
From 2024/25 onwards Option 3 makes up for the above two factors as it is in a stronger position than Option 1 and 2 with no borrowings. Therefore by Year 20, Option 3 has more in reserve than Option 1 or Option 2.

The ability to reduce the principal to zero by 2024/25 is also underpinned by the other assumptions in the SFP, most notably the increase in General Rates between 4% and 5% for the next few years. If the City does not increase General Rates by 4% to 5% in the next few years then the principal could not be repaid by 2024/25. However the General Rates increases are the same in all three options so the differences in the options would be the same.



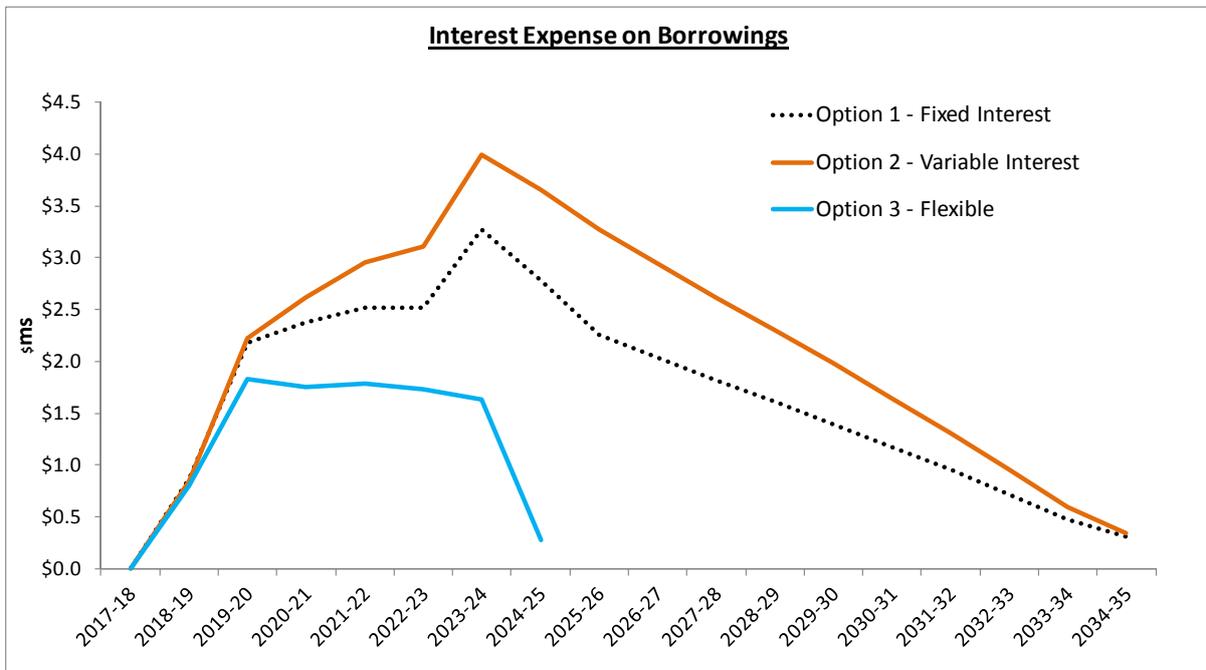
6.10 Net Cash at Year 20

The graph below is the total net cash at 2034/35, which is the difference between cash reserves and principal outstanding. Option 3 has the better outcome with Options 1 and 2 lagging behind. This is because Option 3 makes a much better use of cash than Option 1 and 2.



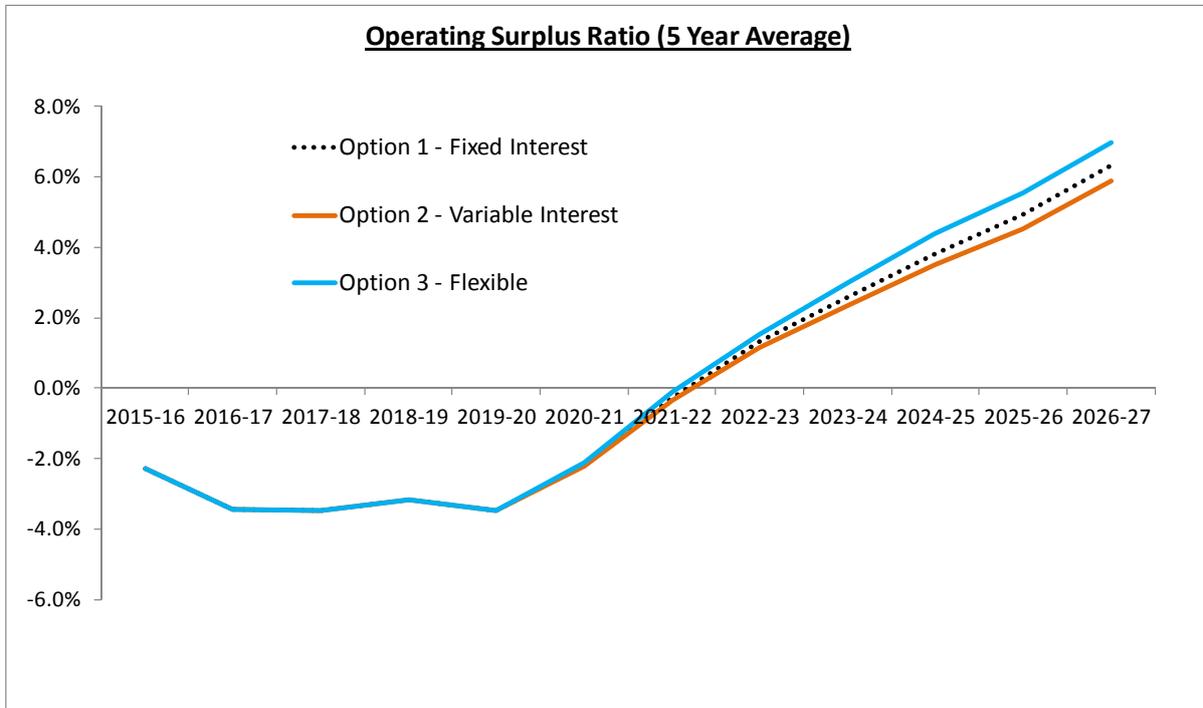
6.11 Interest Paid

The graph below shows that Option 3 would have a much lower cost of interest than Option 1 or Option 2, this is because Option 3 repays more quickly.



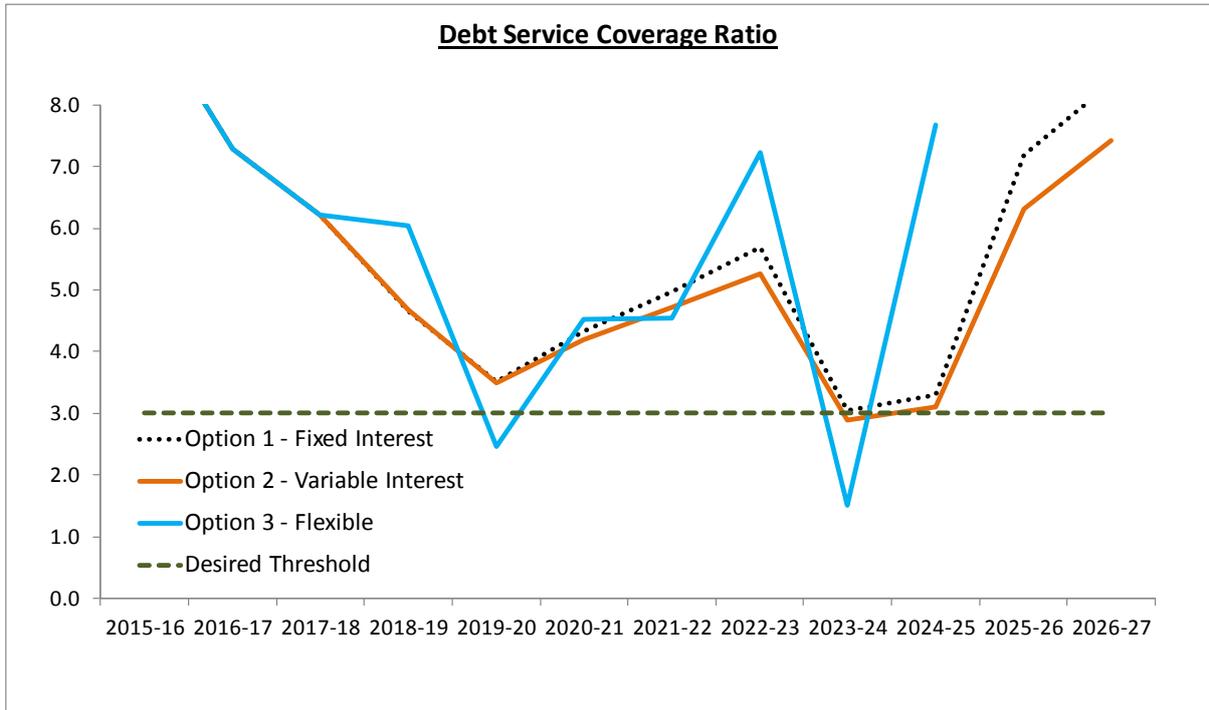
6.12 Operating Surplus Ratio

Option 3 has lower interest payments and higher interest earnings compared to Options 1 and 2 and therefore has a better Operating Surplus Ratio outcome.



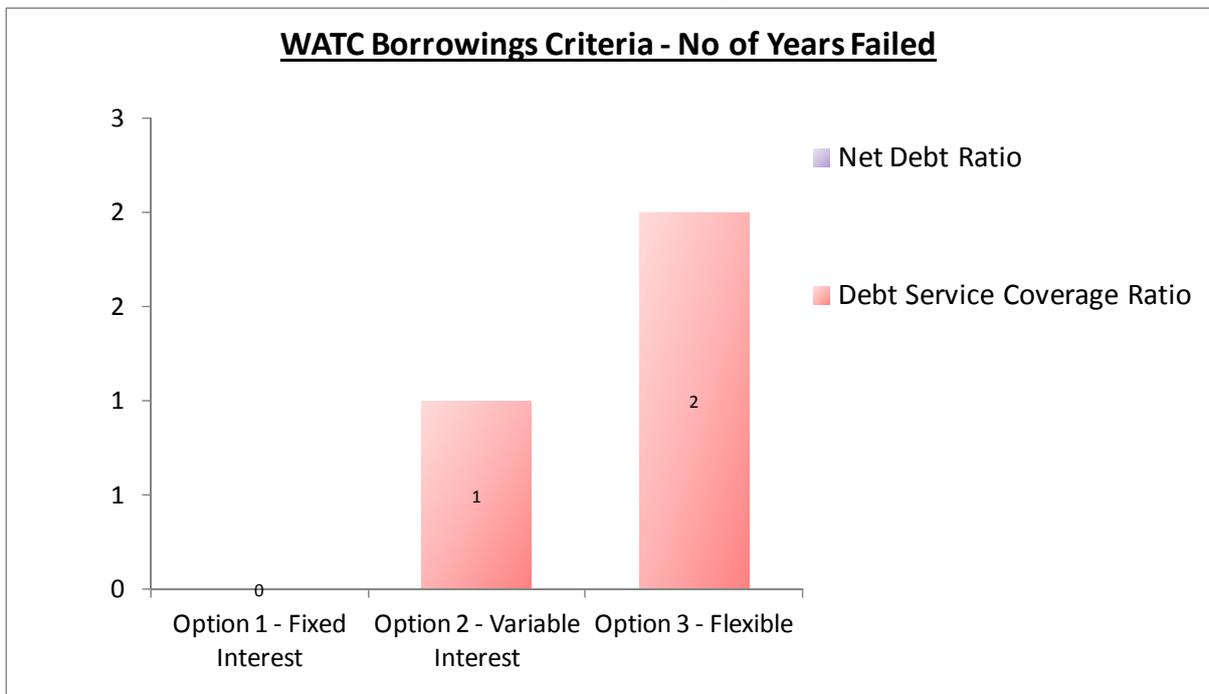
6.13 Debt Service Coverage Ratio

As explained in section 5, the City strives for a multiple of 5, but the minimum threshold can be a multiple of 3 as advised by WATC. Option 3 falls below the multiple of 3.0 in 2 years, and these 2 years show as failures in the WATC Borrowings Criteria. However one of the problems with the Debt Service Coverage Ratio is that it fails to acknowledge one-off events which trigger large repayments (e.g. sales proceeds from Edgewater Quarry) which accounts for 1 of the years that has failed. The other year that is failed is again due to a healthy reason, the projection that the loan repayments in 2019/20 could be high so as to pay back as much principal as possible. Both failures of the ratio for Option 3 may therefore be acceptable, but there would need to be detailed discussions anyway with WATC if Option 3 was preferred.



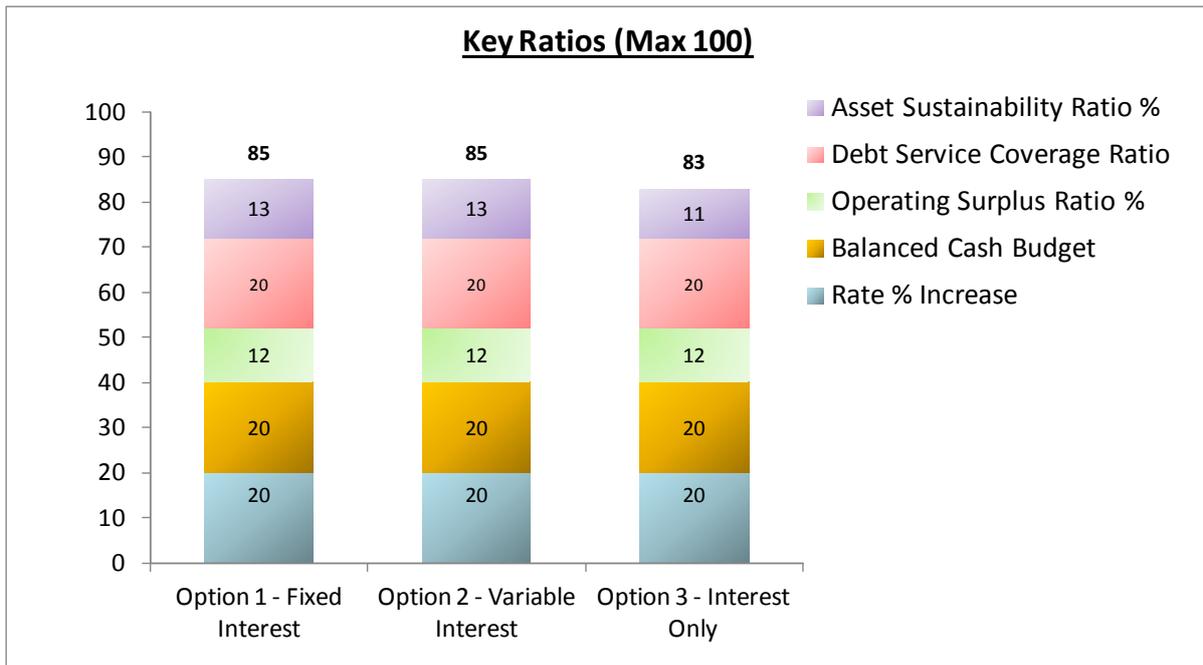
6.14 WATC Criteria

The graph below shows that Option 2 and Option 3 would fail the WATC criteria in some of the years, the failure is due to the Debt Service Coverage Ratio falling below a multiple of 3.



6.15 Key Ratios

The graph below summarises the overall impact on Key Ratios. The achievement of a Balanced Cash budget is a must for all 20 years which is the case for all options. Likewise it is crucial that the Debt Service Coverage Ratio is achieved in all 20 years. The only difference between the options is the Asset Sustainability Ratio because the repayments under option 3 are given a higher priority than expenditure to backlog replacement. The Key Ratios are there to help guide the development and review of the plan, but it may not be necessary or ideal for the City to achieve every ratio every year.



6.16 Option Summary

The table below summarises the projections for each of the 3 options for all key metrics described above and others.

Option Summary		Option 1 Fixed Interest	Option 2 Variable Interest	Option 3 Flexible	Best
Borrowings					
1	New Borrowings Year 3 to Year 20 \$m	\$91	\$91	\$52	Option3
2	Maximum Amount Owed Maximum Principal Owing	(\$77)	(\$77)	(\$63)	Option3
3	Principal owing at Year 20 Principal Owing at 2034-35	(\$4)	(\$4)	\$0	Option3
4	Year that Borrowings paid off What year paid off ?	2037-38	2037-38	2024-25	Option3
5	Repayments Total (P+I) 20 Year Total (\$m)	(\$116)	(\$124)	(\$62)	Option3
6	Interest Expense on Borrowings Total 20 Year Costs \$m	(\$29)	(\$37)	(\$10)	Option3
Cash					
7	Interest Earned Total Earned \$m	\$124	\$120	\$131	Option3
8	Capital Renewal 20 Year Total \$m	(\$742)	(\$742)	(\$712)	Option1
9	Reserves Cash Reserves 2034-35 \$m	\$235	\$223	\$288	Option3
10	Net Cash less Borrowings \$m at 2034-35	\$231	\$219	\$288	Option3
Key Ratios					
11	Rate % Increase Increase 5% or less	20	20	20	Same
12	Balanced Cash Budget Balanced Budget	20	20	20	Same
13	Operating Surplus Ratio % 5 Year Average > 2%	12	12	12	Same
14	Asset Sustainability Ratio % Between 90% and 110%	13	13	10	Option1
15	Debt Service Coverage Ratio Ratio not below 5 for 5 yrs	20	20	20	Same
16	Total Total out of 100	85	85	82	Option3
17	Treasury Borrowings Criteria No of Years Failed	0	1	2	Option1
18	Financial Health Indicator Year 1 to 10	74	74	71	Option1

6.17 Ranking Summary

The table below ranks the 3 options against key metrics. Option 3 is far superior in cash terms to Option 1 and 2 but is far from ideal in the ratios. In overall terms Option 3 has the lowest score and therefore the highest ranking, but this doesn't mean that Option 3 should be recommended just because of this, there are a range of other factors that have to be considered.

Rankings based on above	Option 1 - Fixed Interest	Option 2 - Variable Interest	Option 3 - Interest Only
1 Borrowings	3	2	1
2 Interest Payments Total	2	3	1
3 Net Cash	2	3	1
4 Debt Service Coverage Ratio	1	1	1
5 Ratios	1	1	3
6 Average of above	1.8	2.0	1.4

7 FIXED INTEREST AGREEMENTS – OTHER ISSUES

7.1 Lack of Flexibility

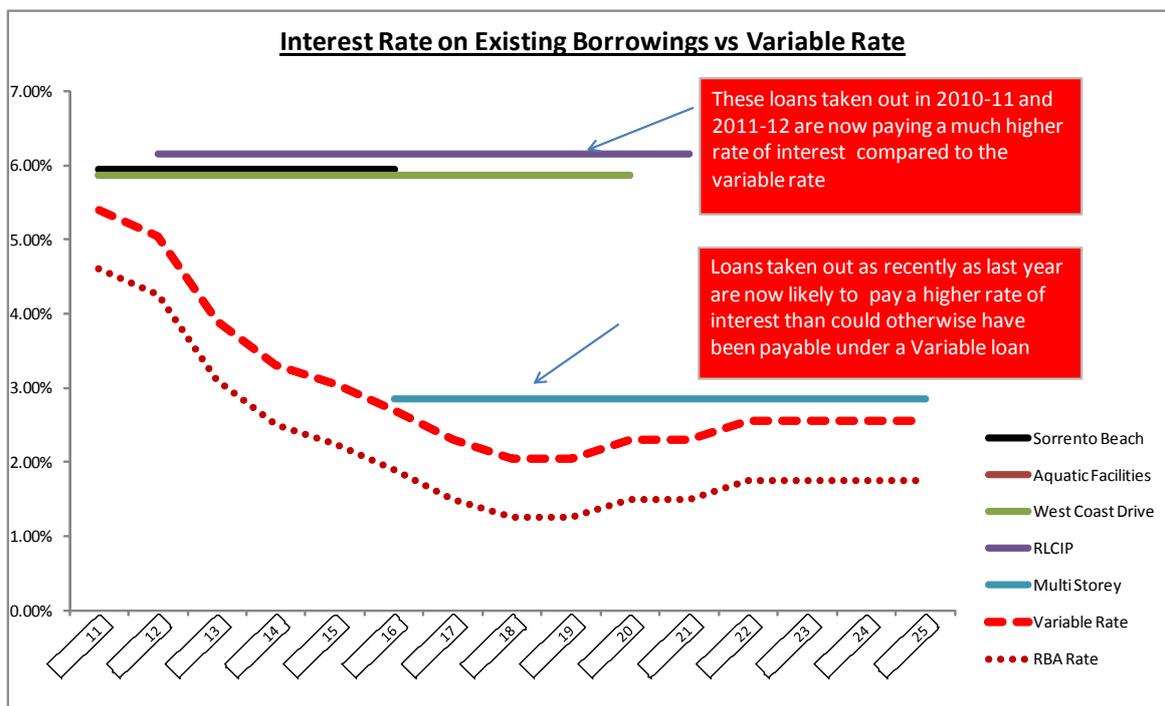
One of the major disadvantages with fixed interest arrangements is the lack of flexibility and ability to adapt to changing circumstances. If the City sets up a 15 year Fixed Interest Fixed Term for the JPACF project it is stuck with it. This may not be ideal if there were changes in some circumstances. For example it is intended that the proceeds from Tamala Park land sales are used to assist in the repayment of the JPACF borrowings. If the property market improved and the Tamala Park land sales were higher than the loan repayments in one year, then the surplus proceeds would just have to be put into reserve. This may not be the optimal treasury solution if there was flexibility – it is likely that the earnings on those reserves would be less than the benefit that the City would otherwise have had, had it been able to reduce the borrowings outstanding and reduce the interest costs. Unfortunately a Fixed Interest arrangement does not provide for flexible repayments without there being a cost (“early termination charges”).

Furthermore if the variable interest rates eventually become lower than the fixed rates (which they are likely to), then the City is paying higher interest costs than it may be. This is illustrated further in the next paragraph with regards the existing borrowings that the City has.

7.2 Existing Borrowings

The chart below compares the interest cost (%) for all existing City borrowings and compares to the RBA cash rate and the estimated variable rate that the City may have paid had it set up the borrowings on a variable rate basis. This shows that all borrowings have paid a higher cost than it may otherwise have had to. Had variable interest rates been used instead of fixed rates, this could have reduced the interest expense on borrowings of circa \$2m (this is based on the full costs of interest over the terms of the loans).

It is vital to emphasise that this does not mean that the City made any bad judgement/error in setting up these loans. Fixed Interest Loans have significant advantages over other arrangements i.e. certainty, transparency. The City doesn't have a crystal ball and cannot be expected to foresee the trend in interest rates. At the time of setting the earlier loans which are at over 5% it may well have been a view that the interest rates would increase in the years ahead not reduce. The economy (both nationally and globally) has been subject to significant volatility since the GFC.



7.3 ACELG

The ACELG report provides further comments regarding the use of Fixed Interest Rates and other general observations regarding local government approach to borrowings

- In Local Government, debt levels should not be as “low as possible” in an absolute sense but should instead be as low as possible relative to what is needed by a Local Government in order to provide affordable, preferred service levels on an ongoing basis.
- Any well managed organisation that is dependent on large investment in infrastructure assets to deliver its service objectives is probably justified in having a considerable level of borrowings.
- It might be appropriate for households or businesses to borrow at fixed rates as they have little capacity to accommodate potential increase in variable rates, but local governments differ fundamentally as they have a high degree of certainty regarding future income projections and can set their own income levels.
- A sound long term financial plan can help make decisions about affordable and appropriate levels of debt.
- A rational person would pay off credit card debt in full if possible (and thereby avoid interest charges) rather than only make the required minimum monthly payment rather than keep money in the bank for a rainy day. Local Governments could operate in the same manner, potentially avoiding raising borrowings when they have sufficient cash and liquidity to meet immediate foreseeable needs
- A Local Government is exposed to interest rate risk whenever it borrows, or lends money, regardless of whether the interest rates fixed or variable. Locking into a long term fixed interest rate borrowing effectively means that a Local Government is taking a risk that the variable interest rates over the period of the borrowing will be higher than the fixed rate. If a Local Government takes out a fixed interest rate loan and interest rates on average fall over the duration of the loan then the Local Government will be worse off than it would have been if it had taken out a variable interest rate. Such a Local Government may not

have been intending to risk on interest rate movements but choosing a fixed interest rate does not obviate risk, it only removes only one risk, the risk from higher average variable interest rates.

- On average fixed interest rate borrowings are usually slightly more expensive than variable rate borrowings because of the certainty they offer. Fixed Interest effectively reflect the market's expectations of likely variable interest rates over the term plus a margin for the interest rate risk borne by the lender
- Fear of debt is a key barrier to the optimal use of debt financing in local government.
- Many Local Governments have traditionally engaged in single purpose borrowings to finance a particular project regardless of their current holdings or future cash flow projections
- Even when Local Governments have undertaken borrowings to finance specific assets it may be more fruitful for them to think of those borrowings as simply part of the overall mix from their total stock is financed. This will enable borrowing to be managed holistically and to focus on reducing interest costs. It can be misleading to link the cost of borrowings to the acquisition of some assets and not to others; such an approach is arbitrary, illusory and distracting. Local Governments need to manage their total expenses, total assets and total liabilities.

7.4 Intergenerational Inequality

One of the problems with quick repayment terms is that it puts the burden of payment on existing ratepayers whereas future ratepayers enjoy the benefit of the asset. To improve intergenerational equality a longer repayment term in line with the life of the asset/project (e.g. 40 years) could be considered. However loans that are too long are inefficient because the costs of interest end up being higher than the principal. Indeed a 20 year repayment term is considered to be inefficient but for comparative purposes is included in this evaluation.

Future ratepayers will have the burden of capital replacement and the ongoing operational subsidy from a new project/facility.

8 NON FINANCIAL EVALUATION

8.1 RAG

The table compares each of the 3 options in a simplified RAG format. The scoring is made with comparison to the other options i.e. where an option is shown as red this just means it is not as good as the other options but this does not necessarily mean that that particular metric is a major concern. In summary this shows that there are dis/advantages with the different options, Option appears to be an arrangement that provides more certainty but has significant disadvantages to the other methods.

<u>Issue</u>		<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>	<u>Comments</u>
<u>Issue</u>	<u>Description</u>	Fixed Interest Fixed Term	Variable Interest Fixed Term	Interest Only	Reason for different scores
1	TRANSPARANCY How easy is it to identify the exact repayments for each project ?				The existing method of setting up and monitoring repayments is extremely transparent and can be clearly identified to each project that the borrowings are set up for. If the City moved to an Interest only arrangement it would make the cashflows attributable to each project slightly more tricky to identify.
2	MANAGEMENT Ensure that payments are made accurately in accordance with contract and on time.				Similar to above, Option 2 would be slightly more cumbersome to manage than Option 1 (but not that much more difficult). Option 3 would require a set of new actions and monitoring processes to manage the risks.
3	RISK / CERTAINTY Could the City be subject to unforeseen external economic impacts that result in significant impacts to long term plans.				Existing method (Option 1) provides great certainty and minimises risk because if Interest Rates were to unexpectedly to increase the borrowing terms would be fixed. Option 2 would be subject to fluctuations in interest rates. Option 3 is also assumed to be variable
4	LOST OPPORTUNITY Does the option limit the ability to have lower repayment costs?				Fixed Interest Rates provide little opportunity to take advantage of lower rates. Existing arrangements can be amended, but this comes with a cost.
5	SPECULATING Is the method used a form of speculating that the City will beat the Market				Option 1 provides certainty but is a form of speculating because the City is speculating that it is better to have a fixed rate rather than go with market rates (variable rates). There is normally a premium to pay for Fixed Interest Rates. Options 2 and Options 3 would take advantage of the market rates and are NOT speculative.
6	FLEXIBILITY Ability to react to changing circumstances				Option 3 would be able to react more quickly to changing circumstances

SENSITIVITY ANALYSIS

9 ECONOMIC CLIMATE

9.1 Global & National

The Global economy is arguably in a worse position than it was at the time of the GFC. There is a huge amount of uncertainty, and there are growing concerns from many parties that the next global financial crisis is looming. Some of the danger signs regarding the global economy are:

- China – slowdown of growth.
- Quantitative Easing – financial institutions around the globe (US, Japan, Europe, UK) have printed money with the aim of the keeping their economies afloat. They can't keep printing forever.
- Oversupply - It is now confirmed also that there is an oversupply of many items, for example apartment units in Australian Cities. The low supply of money has fed the production and growth without this being backed up by demand.
- Interest Rates are at an unprecedented level. Indeed in some economies (e.g. Japan), there are negative rates on govt bonds. Meanwhile the UK recently reduced their rates from 0.5% to 0.25%
- Inflation – under any normal circumstances the vast amount of printing money would have resulted in inflation but it hasn't. It is possible at some stage that there could be high inflation (and potentially much higher interest rates).
- Overpriced stock markets – most major stock markets are generally accepted as being overpriced. The principal measure for this is the Price/Earnings ratio which compares the price of a share to the earnings (dividends) received. The overall average in Australia is much higher than the long term average which indicates that stocks are offering a very low rate of return compared to their price

The above issues are not necessarily issues that the City of Joondalup can be overly concerned about, after all the City is not an investor. However there is a risk of volatility in the future which could have a significant impact on interest rates and depending on the arrangements in place for repayments could have a major impact. Whilst the issues regarding a potential further collapse may appear to be scaremongering one should remember the catastrophic impacts that one would not have thought possible in 2007 (major investment houses going bust and banks bailed out by governments).

9.2 West Australia

The West Australian economy has also suffered from slower growth in the past couple of years and is in a period of transition from a resources boom. Some key impacts have been

- Property market slowdown, causing a reduction in the Tamala Park proceeds
- Unemployment increases
- Wages increase are much smaller
- Rates revenue increases smaller
- Closure of some major retail enterprises (e.g. Masters, Dick Smith). Whilst the business model for these businesses may have had an impact, the slowing economy also contributed.

9.3 OECD (22nd September 2016)

The OECD (Organisation for Economic Co-operation and Development) issued a global economic warning on 22nd September 2016, saying conditions are worsening with low interest rates threatening the future of the entire banking system. The OECD referred to risks growing in China and continuing problems in the US, Europe, Britain and Japan.

The report said that the world appeared trapped in a cycle of low growth, stagnant wages and ebbing productivity and that lower interest rates could not solve the global economy's woes. Whilst the Reserve Bank in Australia has taken interest rates to a record low, government debt in 35 per cent of the developed world is being sold at negative rates.

10 SENSITIVITY ANALYSIS (1) – CHANGES IN INTEREST RATES

10.1 Overview

The sensitivity analysis is arguably more important than the evaluation in the earlier section. The projected values are only estimates based on assumptions, and the final outcome will be different for one reason or another. The interest rate assumptions shown in Appendix 1 will not come to pass exactly as stated; they will either be higher or lower.

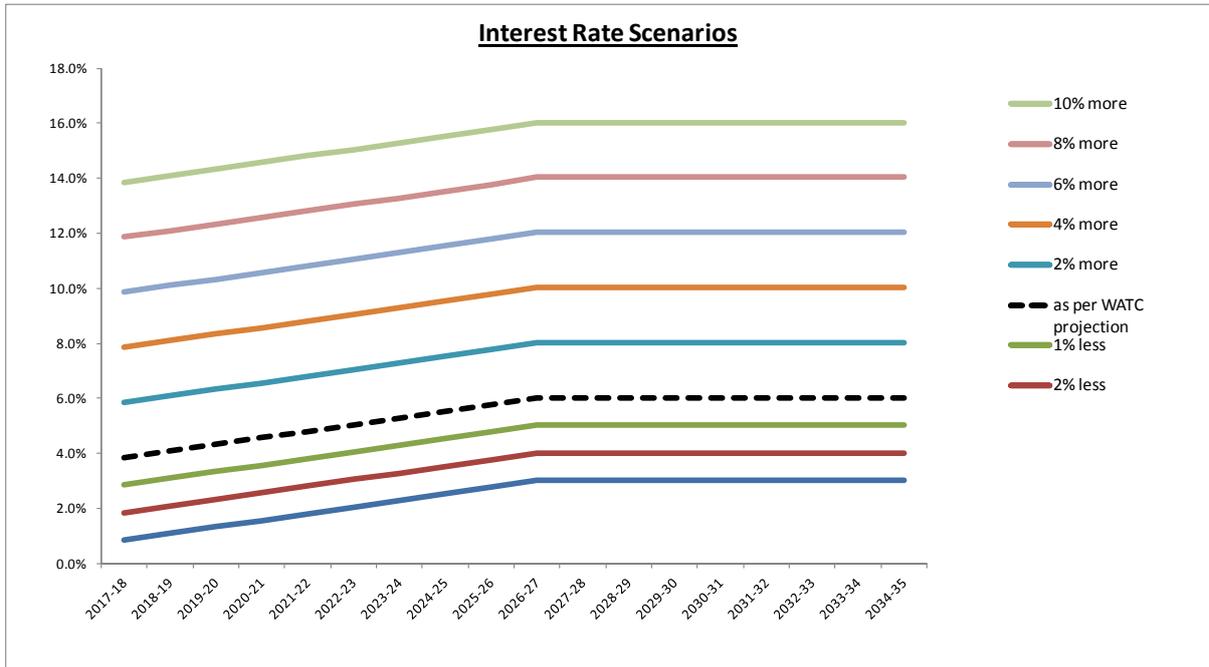
The key issue is to consider how much higher or lower the rates could be and what the impacts could be for each option. The next few paragraphs will provide analysis of some of the key metrics, based upon the scenario of the interest rates being lower or being higher than projected. This information must be assessed just as importantly as the projections in section 7.

10.2 Scenario Analysis – 8 Interest Rate Scenarios

There are 8 scenarios applied for the 3 options (Fixed, Variable or Flexible) across a range of different metrics. The 8 scenarios are all based on the interest rate projections being lower or higher than the projections in Appendix 1 and used in earlier evaluation. The 8 scenarios are explained as follows

- Scenarios 1 to 3 - The first 3 scenarios all consider the impact if the interest rate were lower than the projected interest rates. The sensitivity analysis has only went as far as considering a reduction of 1%, 2% or 3% because the interest rates in the early years are already low
- Scenarios 4 to 8 then evaluate the costs of interest rate rises, in 2 per cent increments i.e. 2%, 4%, 6%, 8%, 10%. There are more scenarios for interest rate increases just so the magnitude of the risk can be considered in more depth than the opportunity. It is not suggested that it is more likely that interest rates will increase, indeed in the short-term (next 2 to 5 years) it is generally accepted that interest rates will reduce further.

The graph below shows the interest rate scenarios applied to Option 1 (Fixed). The dashed line is the assumption used earlier. The graph shows the 3 scenarios considered where interest rates are lower than the projections and then the 5 scenarios where interest rates are higher.



10.3 Interest Expense on Borrowings – Sensitivity Analysis

The first metric considered in the Sensitivity Analysis shows the overall 20 year cost of the interest expense on borrowings. This shows similar trend for each option, with reduced interest costs for Scenarios 1 to 3 and higher interest payments for Scenarios 4 to 8. Option 3 has the better results for all scenarios, and the worse the interest rate becomes the better it is compared to the other options.

Interest Expense on Borrowings - Sensitivity Analysis	Option 1 - Fixed Interest	Option 2 - Variable Interest	Option 3 - Flexible
<u>Interest Rate LESS than projected</u>			
1 3% less	(\$9)	(\$17)	(\$2)
2 2% less	(\$16)	(\$23)	(\$5)
3 1% less	(\$22)	(\$30)	(\$7)
Interest Rate as projected			
	(\$29)	(\$37)	(\$10)
<u>Interest Rate MORE than projected</u>			
4 2% more	(\$44)	(\$53)	(\$16)
5 4% more	(\$60)	(\$69)	(\$22)
6 6% more	(\$76)	(\$86)	(\$30)
7 8% more	(\$94)	(\$105)	(\$40)
8 10% more	(\$115)	(\$130)	(\$51)

10.4 Borrowings – Sensitivity Analysis

The table below shows the projected 20 year borrowings for each scenario and option. There is little variation between the scenarios because most of the borrowings are in the early years of the plan and the scenarios have less impact in the earlier years.

Borrowings 20 Year Total Sensitivity Analysis	Option 1 - Fixed Interest	Option 2 - Variable Interest	Option 3 - Flexible
<u>Interest Rate LESS than projected</u>			
1 3% less	\$89	\$89	\$51
2 2% less	\$90	\$90	\$51
3 1% less	\$90	\$90	\$52
<u>Interest Rate as projected</u>			
	\$91	\$91	\$52
<u>Interest Rate MORE than projected</u>			
4 2% more	\$92	\$92	\$52
5 4% more	\$92	\$92	\$53
6 6% more	\$93	\$93	\$53
7 8% more	\$94	\$94	\$56
8 10% more	\$95	\$95	\$60

10.5 Net Cash – Sensitivity Results

The difference between Option 3 and the others below is much more profound with the Net Cash results summarised below. Options 1 and 2 would have significantly lower net cash at year 20 due to the prolonged (15 year) term of high interest rates, whereas Option 3 would pay off principal as quickly as possible and negates the higher rates as much as possible

Net Cash Sensitivity Analysis	Option 1 - Fixed Interest	Option 2 - Variable Interest	Option 3 - Flexible
<u>Interest Rate LESS than projected</u>			
1 3% less	\$259	\$248	\$292
2 2% less	\$250	\$239	\$291
3 1% less	\$241	\$229	\$289
<u>Interest Rate as projected</u>			
	\$231	\$219	\$288
<u>Interest Rate MORE than projected</u>			
4 2% more	\$210	\$200	\$285
5 4% more	\$194	\$182	\$283
6 6% more	\$172	\$158	\$277
7 8% more	\$150	\$139	\$264
8 10% more	\$131	\$117	\$249

10.6 Debt Service Coverage Ratio

The table below shows that Option 1 and Option 2 would be more exposed to failures in the Debt Service Coverage Ratio as a result of higher interest costs. Option 3 would only fail the ratio under Scenario 3.

Treasury Borrowings Criteria Number of Years Failed out of 20	Option 1 - Fixed Interest	Option 2 - Variable Interest	Option 3 - Flexible
<u>Interest Rate LESS than projected</u>			
1 3% less	0	0	2
2 2% less	0	0	2
3 1% less	0	0	2
Interest Rate as projected			
<u>Interest Rate MORE than projected</u>			
4 2% more	1	2	2
5 4% more	2	3	3
6 6% more	3	3	3
7 8% more	3	3	3
8 10% more	5	5	4

10.7 Total Ratios

The table below shows that Option 3 achieves fewer ratios than Option 1 and 2.

Total Ratios Number Achieved out of 100	Option 1 - Fixed Interest	Option 2 - Variable Interest	Option 3 - Flexible
<u>Interest Rate LESS than projected</u>			
1 3% less	86	86	84
2 2% less	85	85	84
3 1% less	85	85	83
Interest Rate as projected			
<u>Interest Rate MORE than projected</u>			
4 2% more	84	81	82
5 4% more	81	80	81
6 6% more	79	79	81
7 8% more	78	76	80
8 10% more	76	75	75

10.8 Summary Sensitivity Analysis

In summary, the sensitivity analysis indicates that Option 3 is more responsive to higher interest rates than Option 1 and Option 2. This is demonstrated in lower interest costs, higher net cash and better Debt Service Coverage Ratio. The only metric where Option 3 is worse off is the Total Ratios, due to the Asset Sustainability Ratio.

10.9 Likelihood of Interest Rate Changes

It is expected that there will be further reductions in the RBA rate (currently at 1.5%) and therefore further reductions in the cost of borrowings. However it is impossible to predict with any great certainty where the rates may go and taking account of the economic climate, there is also a possibility that rates will increase. Either way the scenarios show that Option 3 provides a better outcome than Option 1 or Option 2 because of the quicker repayment of principal.

11 SENSITIVITY ANALYSIS (2) – GENERAL RATES

11.1 Current Assumptions

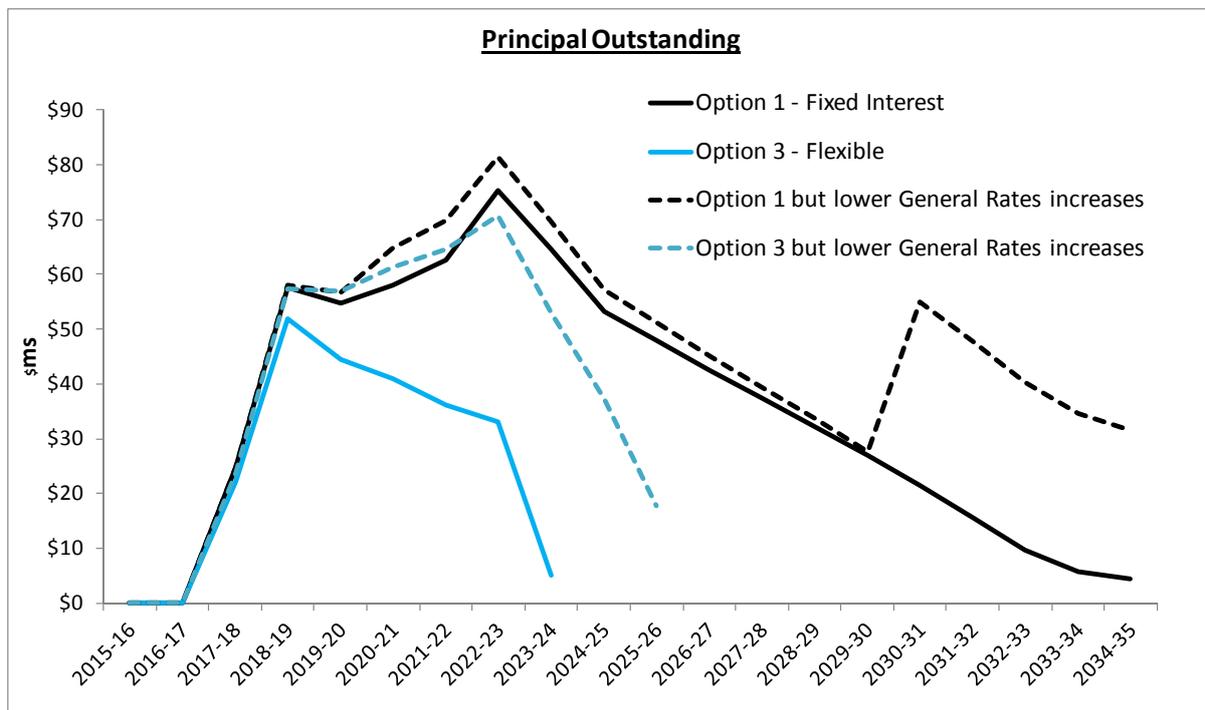
All of the options evaluated previously, and all of the scenarios above, all assume the same Rates % Increases as per the Adopted SFP. The SFP has assumed rates increases of between 4% to 5% for future years. Increases of 4% to 5% for the next few years appear high because the rate increase for 2016/17 was 2.5% and also because the next few years are forecast to be low inflation. Meanwhile the SFP has already included low increases for costs (2% for Employment Costs in next few year and 2% to 2.5% for Materials & Contracts), and therefore the income projections appear to be out of step with the cost increases.

11.2 Lower Rates Increases

It is therefore worth considering the impact on borrowings if there were lower General Rates increases. The graph below shows the current assumptions within the adopted SFP and the alternative scenario of having a 2.5% increase for the next 3 years.

11.3 Longer to Repay Principal

The graph below compares the impacts for Option 1 and 3 of having lower increases in General Rates. Also shown on the graph is the projections based on the earlier analysis. This shows that for Option 3 it will take a couple of more years for the principal to be repaid.



11.4 Impact on 3 Options

The table below summarises the impact of the lower General Rates increases on each option. Net Cash would be much worse off for all options, but Option 3 would still have the higher outcome.

Sensitivity Analysis (2) General Rate Increases Lower than planned		Option 1	Option 2	Option 3	Best	
		Fixed Interest	Variable Interest	Flexible		
Borrowings						
1	New Borrowings	Year 3 to Year 20 \$m	\$132	\$137	\$80	Option3
2	Maximum Amount Owed	Maximum Principal Owing	(\$83)	(\$83)	(\$73)	Option3
3	Principal owing at Year 20	Principal Owing at 2034-35	(\$31)	(\$35)	\$0	Option3
4	Year that Borrowings paid off	What year paid off ?	2037-38	2037-38	2026-27	Option3
5	Repayments Total (P+I)	20 Year Total (\$m)	(\$140)	(\$150)	(\$101)	Option3
6	Interest Expense on Borrowings	Total 20 Year Costs \$m	(\$39)	(\$48)	(\$21)	Option3
Cash						
7	Interest Earned	Total Earned \$m	\$84	\$83	\$82	Option4
8	Capital Renewal	20 Year Total \$m	(\$710)	(\$707)	(\$689)	Option1
9	Reserves	Cash Reserves 2034-35 \$m	\$79	\$76	\$84	Option3
10	Net Cash less Borrowings	\$m at 2034-35	\$47	\$40	\$84	Option3
Key Ratios						
11	Rate % Increase	Increase 5% or less	20	20	20	Same
12	Balanced Cash Budget	Balanced Budget	19	19	20	Option3
13	Operating Surplus Ratio %	5 Year Average > 2%	8	8	8	Same
14	Asset Sustainability Ratio %	Between 90% and 110%	10	10	8	Option1
15	Debt Service Coverage Ratio	Ratio not below 5 for 5 yrs	17	16	20	Option3
16	Total	Total out of 100	74	73	76	Option3
17	Treasury Borrowings Criteria	No of Years Failed	3	3	4	Option1
18	Financial Health Indicator	Year 1 to 10	66	64	64	Option1

12 SENSITIVITY ANALYSIS (3) – HIGHER INTEREST RATES 2020

12.1 Increase in 2020

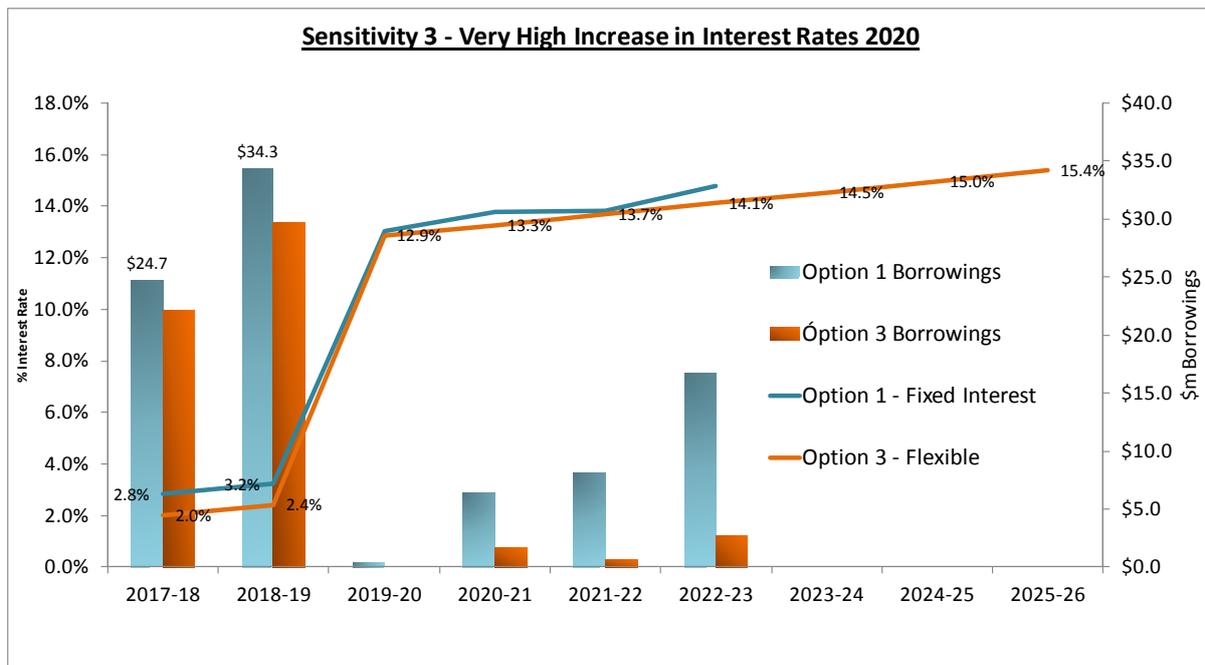
The scenarios in Sensitivity Analysis (1) assumed that the interest rates would vary equally for all scenarios from 2017/18. The majority of the borrowings are for the JPACF in 2017/18 and 2018/19 and it is therefore worth considering the impacts if there were a large increase (e.g. 10%) in Interest Rates from 2019/20, after the JPACF had been constructed. Whilst a 10% increase in one year is of course highly unlikely it is worth evaluating because it tests the extremes of Option 1 and Option 3.

So if there were a 10% increase in 2019/20 for Option 1 (Fixed Rates) the majority of the borrowings would be locked down at a lower rate in 2017/18 and 2018/19. Meanwhile for Option 3 the higher variable rates from 2019/20 would be applicable to the JPACF borrowings and the principal would be more exposed.

This analysis helps to evaluate the higher risk that Option 3 may be perceived to have compared to option 1. This sensitivity analysis only compares Option 1 and Option 3 so that it is easier to review.

12.2 Summary of Options

The Chart below summarises the assumptions for this analysis. This shows that for Option 1 the large JPACF borrowings in 2017/18 and 2018/19 are secured at a low rate of 2.8% and 3.2%. Meanwhile Option 3 is exposed to the higher rates on borrowings from 2019/20 onwards. Option 1 becomes exposed to the higher rates when it has to borrow in the 3 years 2020/21 to 2022/23, but the size of the borrowings are much smaller than the JPACF borrowings.



12.3 Summary Impacts

The table below summarises the impact of the sensitivity analysis. The impacts have a mixed set of results. Option 3, whilst exposed to much higher interest rates than Option 1, still has lower borrowings than Option 1 and is still able to repay all borrowings by 2025-26. The impacts on cash are mostly beneficial for Option 3 with more reserves at Year 20, albeit there is \$47.9m less spent on Capital Renewal. The Key Ratios are much more of a concern for Option 3, with 9 fewer ratios achieved; this is driven by the assumptions in Option 3 to repay debt as quickly as possible whilst still achieving a balanced budget. There are 3 years where the Debt Service Coverage Ratio fails for Option 3 compared to just one for Option 1, but this is actually driven by large loan repayments and a failure of the ratio to take account of the one-off large repayments.

Sensitivity Analysis (3) Very large increase in Interest Rates from 2020		Option 1	Option 3	Difference	
		Fixed Interest	Flexible	Opt 3 vs Opt 1	Best
Borrowings					
1	New Borrowings Year 3 to Year 20 \$m	\$91	\$57	(\$34)	Option3
2	Maximum Amount Owed Maximum Principal Owing	(\$77)	(\$63)	\$15	Option3
3	Principal owing at Year 20 Principal Owing at 2034-35	(\$6)	\$0	\$6	Option3
4	Year that Borrowings paid off What year paid off ?	2037-38	2025-26	12 yrs	Option3
5	Repayments Total (P+) 20 Year Total (\$m)	(\$132)	(\$102)	\$30	Option3
6	Interest Expense on Borrowings Total 20 Year Costs \$m	(\$47)	(\$45)	\$2	Option3
Cash					
7	Interest Earned Total Earned \$m	\$118	\$116	(\$1)	Option1
8	Capital Renewal 20 Year Total \$m	(\$742)	(\$694)	\$48	Option1
9	Reserves Cash Reserves 2034-35 \$m	\$214	\$256	\$42	Option3
10	Net Cash less Borrowings \$m at 2034-35	\$207	\$256	\$49	Option3
Key Ratios					
11	Rate % Increase Increase 5% or less	20	20	0	Same
12	Balanced Cash Budget Balanced Budget	20	20	0	Same
13	Operating Surplus Ratio % 5 Year Average > 2%	12	10	-2	Option1
14	Asset Sustainability Ratio % Between 90% and 110%	13	9	-4	Option1
15	Debt Service Coverage Ratio Ratio not below 5 for 5 yrs	20	17	-3	Option1
16	Total Total out of 100	85	76	-9	Option1
17	Treasury Borrowings Criteria No of Years Failed	1	3	2	Option1
18	Financial Health Indicator Year 1 to 10	74	66	-8	Option1

13 FINANCING BY OTHER LOCAL GOVT

13.1 WATC Consultation

WATC have been informally consulted about some of the options in this paper. Whilst most Local Government tends to use Fixed Interest Fixed Term arrangements, WATC did suggest that alternative flexible arrangements could be put in place. For example to accommodate the JPACF loan of circa \$50m, rather than just put it on a 15 year repayment term it could be split up into different bundles with different repayment terms which allows the flexibility to repay the principal earlier if possible. If the surplus doesn't materialise (e.g. Tamala Park reduce their distributions yet again), the loan could just be refinanced using up-to-date market rates.

13.2 Financing by other Local Government

There are few examples of Local Government in WA doing anything different other than the standard fixed term fixed interest arrangements. The City of Cockburn recently completed the construction of a new sports facility and borrowings were used for a 10 year fixed interest fixed term with WATC. The City of Gosnells uses a short-term (3 years) overdraft arrangement to help with the construction of projects. Meanwhile the City of Wanneroo has taken on a \$60m loan at interest-only which will have to be repaid at an agreed point in time; this loan was linked to Developer contributions and quite unique to the growth in Wanneroo.

14 OTHER OPTIONS & ISSUES

14.1 Flexible with Balloon Payments

It is possible to set up Flexible arrangements without any principal repayments during the course of the loan and only paid at the end of the loan (referred to a 'balloon' payment). This type of mechanism can be useful for specific projects which have a certain event that is expected to provide funds to assist with the principal repayment, such as the Edgewater Quarry project which assumes land proceeds are received 3 years after construction and can be used to repay in full the borrowings.

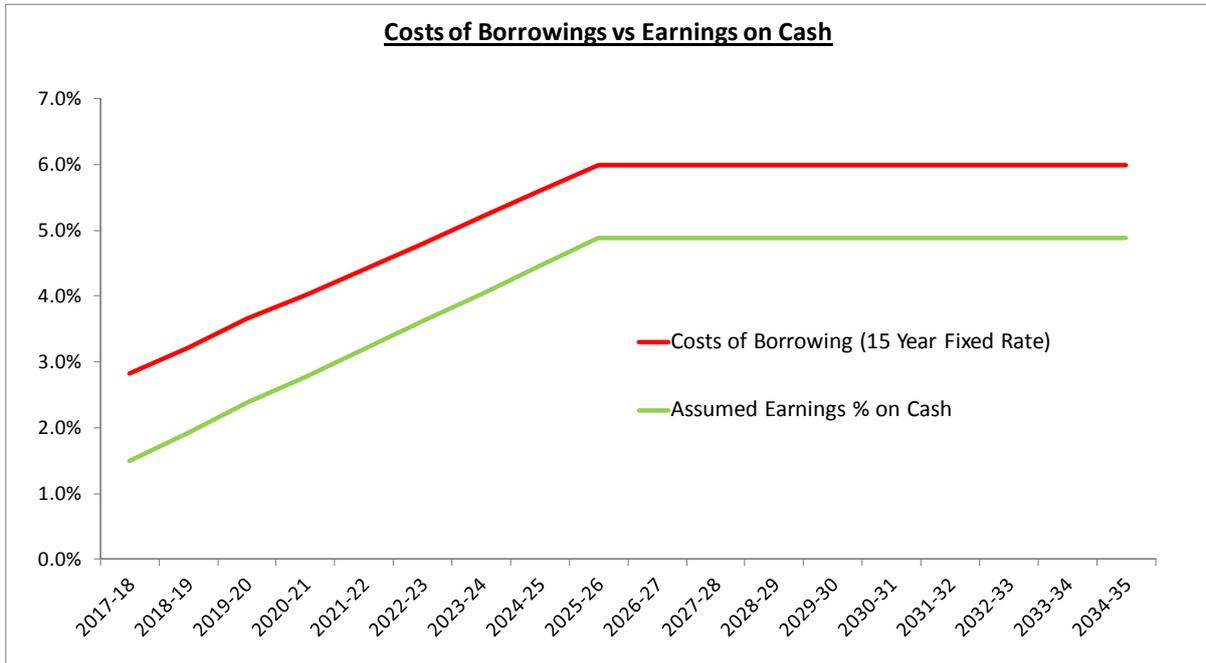
However balloon payment type structures should only be considered for projects that have a specific event. In the case of the JPACF there is no specific year where proceeds are received to assist with principal repayments. Also there is no timeframe in which the JPACF becomes profitable and should be used to repay principal. The key component for JPACF repayments is the Tamala Park proceeds, which are uneven and whose schedule changes each year due to property market conditions. Therefore for projects such as JPACF which can be regarded as traditional type borrowings which have to be honoured against general municipal funds, a balloon type structure is not viable.

14.2 Reserves Freed Up

There is a further opportunity the City could consider in the use of reserves. The graph below summarises the assumptions for costs of borrowings (15 year term) versus the expected % earnings on cash. This shows that the costs of borrowings are expected to be higher than cash reserves. In reality this is not always the case, but this is a reasonable assumption for this report and indeed for considering future borrowing arrangements.

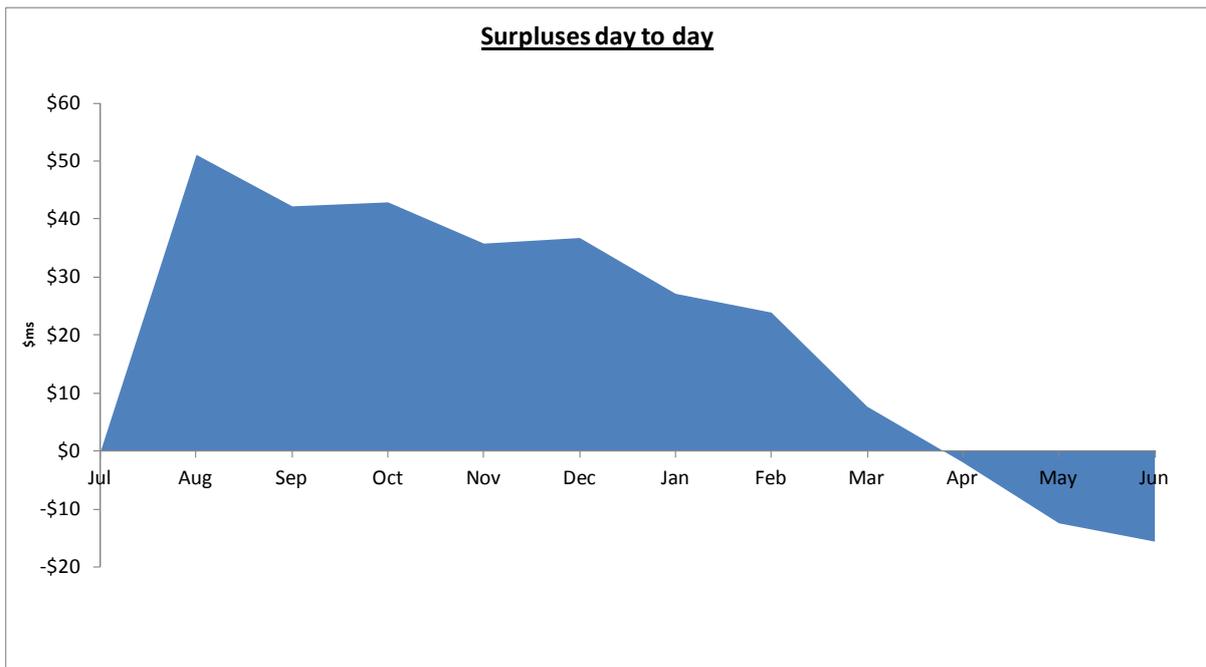
On this basis, the overall City cashflows would be better off by using cash to minimise interest costs rather than tied up in reserves. There are several reserves which cannot be considered in this way as they are tied up for legislative reasons (e.g. employee provisions), However where there are reserves established at the direction of Local Government (e.g. Parking Reserve) which are designated for a specific purpose, the funds could be freed up (on Local Government approval) to reduce borrowings.

This option has been modelled (Option 3c) and was combined with other features of Option 3b (i.e. repay principal as quickly as possible) – there were marginal benefits and it is worth considering at a later point in time. There is enough to consider in this report with interest-only borrowings without complicating the scenarios further with changing the use of reserves.



14.3 Day to Day Surpluses Could Reduce Costs of Borrowing

Following on from above there is yet another scenario that could potentially be evaluated. On a day to day basis short-term surpluses could be used to offset (reduce) the costs of borrowing rather than banked. This facility could operate in the same way as an offset account works for a household mortgage. The graph below shows the surplus funds that are available to the City during the year as General Rates are received in advance of expenditure during the year. This option has not been explored in detail and is potentially an issue for future consideration.



14.4 Existing Borrowings Refinanced and/or use existing Reserves to pay off

As explained in Section 3, the analysis in this report has simply assumed that the cashflows for all existing borrowings will continue as they are, and are therefore treated equally in all options. However the existing borrowings were set up on Fixed Interest Rate arrangements, which are higher than the current prevailing rate and much higher than the interest being earned on cash reserves. If the City did adopt a more holistic approach to financing and the use of reserves, then it could re-evaluate the existing borrowings by reviewing the use of all existing reserves.

14.5 Market Options instead of WATC

WATC is the primary provider of borrowings to Local Government. It is highly unlikely the City would want to consider alternative forms of finance from other providers. In any case, other lenders would expect borrowings to be secured against assets, whereas WATC borrowings are simply secured against general municipal funds.

14.6 Lock in Low Fixed Interest Rates Now

A potential option for the City if it is intent on the continued use of Fixed Interest is to lock in a rate in advance of needing it. For example if the JPACF was approved then the borrowings could be secured 2 or 3 years ahead of when the final construction payments are made. This option is an extreme version of Option 1, it would provide great transparency/certainty to the City, but suffers even more from all of the other disadvantages of Option 1 (lack of flexibility, costs more in the long run compared to Option 3)/

14.7 Financing Increased Renewal Expenditure / Asset Renewal Reserve

The City is relatively young in terms of the age of its assets and infrastructure, most of which will not yet have required replacement. However the City will eventually need to increase the amount of Capital Renewal expenditure to ensure that the infrastructure provide the levels of service that the Community expects. The Adopted SFP has already built in estimated increases for several capital programs, and has identified potential additional expenditure to ensure that it can renew assets in line with consumption. The exact levels of capital renewals required for each program will be determined from detailed Asset Management Plans; these are in the process of being updated.

The City will need to assess how it plans and finances increased renewal expenditure. The City could just continue with the current default approach within the SFP where higher capital renewals are built into the projections in the year in which they are expected to be required and there are adequate municipal funds to finance the expenditure. Alternatively, the expenditure could be smoothed out to avoid large lumps of expenditure. Another financing approach is to set aside funds each year in advance into a reserve (e.g. an Asset Renewal Reserve) which is then built up and finances the expenditure when required.

This report does not seek to recommend the best approach for financing increased renewals. However the establishment of an Asset Renewal Reserve would be at odds to the recommendation for Option 3 where surplus funds are better used to repay borrowings, rather than build up reserve funds. At this stage the City has insufficient information regarding future renewal requirements to evaluate the optimum financing route, this will be

assessed each year as part of the updates to the SFP and as Asset Management Plans for each program are finalised. The key issue though is that the City must be aware of increased renewal expenditure in years ahead and that it will need to plan for this – at present the SFP and the various options evaluated in this report have included indicative estimates of increased renewal expenditure.

SUMMARY – RECOMMENDATION & NEXT STEPS

15 RECOMMENDATION

15.1 Repayment Terms – Maximum 15 years

The analysis in this report does not make a recommendation that there should be a standard term applied to all borrowings (5, 10, 15 or 20 years). The report finds that the current process of considering the term relative to the size of the borrowings is the most appropriate.

The analysis is conclusive in respect of a 20 year repayment term, this is inefficient due to the size of the interest payments and despite the intergenerational inequality that may appear to arise with shorter repayments, it is normally always better to repay borrowings as quickly as possible (depending on cash flow).

15.2 Recommendation - Flexible Arrangements with Flexible Repayment

With regards the type of arrangement (Fixed, Variable or Flexible) it is recommended that the City sets up borrowings from 2017/18 onwards on an interest only basis with flexible repayment terms. This recommendation is made taking account of all the information in this report, specifically that:

- Section 6 has assessed Option 1, 2 and 3 against a range of metrics. Option 3 (Flexible) comes out on top in most areas, only failing slightly with the Asset Sustainability Ratio.
- Borrowings could be repaid by 2024-25 (Option 3) rather than 2037/38 (Option 1 and Option 2)
- Sensitivity analysis also indicates that Options 1 and 2 would be worse for the City with higher rates. Option 3 provides the ability to repay much quicker and therefore mitigates this risk. This may appear to be at odds with normal understanding that Fixed Interest mitigates risk, but the risk is only mitigated after the borrowings are set up and only if the Variable rate increases much more than the Fixed Rate.
- RAG Analysis – Fixed Rates provide less flexibility

Option 3 is also better off when the Guiding Principles are considered because:

- Prudent – Option 3 pays off borrowings quicker which is a more prudent approach than a protracted 15 year repayment term
- Long Term approach – the analysis in this report has considered the long-term
- Flexibility

15.3 Additional Monitoring Processes for Flexible Repayment Arrangements

The traditional method of financing (Fixed Interest) provided a clear view of City cashflows that would provide certainty in the annual budget. There would be no issues during the financial year in terms of the amount to be repaid because it would be known. However with a Flexible Repayment arrangement there would need to be additional tasks to ensure the City was proactively managing the process. This could involve one or more of the following:

- Finance Committee – it may be useful for the City to prepare a bi-monthly report to the FC which provides details of:
 - Interest Rate currently applicable on borrowings ?
 - How is the interest rate compared to the budget ?

- When is next repayment of borrowings due, and is there capacity to pay more ?
- Mid Year Review – may also be a useful opportunity to review the current position with borrowings, risks and whether there is potential for more repayments than budgeted ?
- Report to Audit Committee to comment on the risks/sensitivity of the new approach

16 NEXT STEPS

16.1 Independent Review of this Report Required

Whilst it is recommended to move to a Flexible arrangement, it is recognised that this is a significant change to the apparently safe haven of fixed interest arrangements. It would be beneficial for the City and Elected Members to have an independent external review of this recommendation before it is accepted. An external consultant should be used to validate the evaluation in this report and to provide further commentary on the risks and issues of this approach. The review must be as objective as possible.

16.2 JPACF Business Case (October 2016)

There should not be any changes to the financing assumptions in the JPACF business case as the findings in this report need to be validated. The JPACF Financial Model should continue to assume a 15 year repayment term with Fixed Interest.

However the Business Case can mention that a detailed review of financing options is underway and that there is a potential for interest costs to be reduced significantly from circa \$23m to \$10m.

16.3 When Could New Arrangements be Implemented by?

The new approach should be aimed to be implemented by 2017/18, not 2016/17. The 2016/17 Budget has assumed that there would be new borrowings in the traditional format (Fixed Interest) for the Warwick Hockey Facility – as this has already been subject to the adopted budget by Local Government this arrangement should just be set up in this way. In 2017/18 there is supposed to be borrowings for the JPACF, however this was on the premise of construction commencing in 2017/18 which is highly unlikely. In any case there is already a large budget (\$11.4m) in 2016/17 a large part of which will be carried over to 2017/18 and there would be adequate reserves to manage any other costs in 2017/18. Therefore the earliest that any new arrangement would be required would be for financial year 2018/19 so there is plenty of time to consider this report, have the findings reviewed in more detail and implemented. Whilst there is plenty of time though, Elected Members should be briefed so that they are aware of the work to minimise the overall costs to the City of the JPACF borrowings.

16.4 Master Borrowing Agreement with WATC

The City currently has a master borrowing agreement with WATC, which only allows for Fixed Interest arrangements. This would have to be amended. In any case there would need to be more detailed discussions with WATC regarding the change in approach.

APPENDIX 1 – INTEREST RATE ASSUMPTIONS

2017-18 2018-19 2019-20 2020-21 2021-22 2022-23 2023-24 2024-25 2025-26 2026-27 2027-28 2028-29 2029-30 2030-31 2031-32 2032-33 2033-34 2034-35

a) Earnings on Cash *Assumed to be 1% less than the Fixed 10 Year Term*

Cash Reserves earnings	1.49%	1.92%	2.38%	2.77%	3.19%	3.62%	4.04%	4.46%	4.89%	4.89%	4.89%	4.89%	4.89%	4.89%	4.89%	4.89%	4.89%	4.89%
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b) Length of Loans

Lower Limits	\$0	\$5,000	\$10,000	\$60,000
Higher Limits	\$5,000	\$10,000	\$60,000	
Length of Loan (Yrs)	5	10	15	20

c) External Funding Costs & Earnings - FIXED *Data highlighted in Yellow derives from WATC*

Loan Term 1	5	2.14%	2.56%	3.02%	3.41%	3.83%	4.25%	4.67%	5.10%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Loan Term 2	10	2.49%	2.92%	3.38%	3.77%	4.19%	4.62%	5.04%	5.46%	5.89%	5.89%	5.89%	5.89%	5.89%	5.89%	5.89%	5.89%	5.89%
Loan Term 3	15	2.82%	3.22%	3.65%	4.01%	4.41%	4.80%	5.20%	5.59%	5.99%	5.99%	5.99%	5.99%	5.99%	5.99%	5.99%	5.99%	5.99%
Loan Term 4	20	2.97%	3.35%	3.77%	4.12%	4.51%	4.89%	5.28%	5.66%	6.05%	6.05%	6.05%	6.05%	6.05%	6.05%	6.05%	6.05%	6.05%
Govt Guarantees on Loans		0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%

d) External Funding Costs & Earnings - VARIABLE *(0.5% less than Fixed)*

Loan Term 1	5	1.64%	2.06%	2.52%	2.91%	3.33%	3.75%	4.17%	4.60%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%
Loan Term 2	10	1.99%	2.42%	2.88%	3.27%	3.69%	4.12%	4.54%	4.96%	5.39%	5.39%	5.39%	5.39%	5.39%	5.39%	5.39%	5.39%	5.39%
Loan Term 3	15	2.32%	2.72%	3.15%	3.51%	3.91%	4.30%	4.70%	5.09%	5.49%	5.49%	5.49%	5.49%	5.49%	5.49%	5.49%	5.49%	5.49%
Loan Term 4	20	2.47%	2.85%	3.27%	3.62%	4.01%	4.39%	4.78%	5.16%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%

APPENDIX 2 – EXISTING BORROWINGS

Purpose	Year Drawn	Year Final	Borrowed	Balance 30 June 2016	Interest	Principal	Balance 30 June 2017
Aquatic Facilities Upgrade	2009-10	2019-20	5,800,000	2,730,654	166,775	624,200	2,106,454
West Coast Drive	2009-10	2019-20	885,000	416,660	25,418	95,244	321,413
Seacrest Sports Facility	2010-11	2020-21	841,320	463,584	29,861	86,735	376,848
Forrest park Sports Facility	2010-11	2020-21	553,500	304,989	19,646	57,063	247,926
Fleur Frame Pavilion Upgrade	2010-11	2020-21	1,529,180	842,609	54,277	157,652	684,958
Multi Storey Car Park	2014-15	2024-25	8,500,000	7,754,454	263,585	767,022	6,987,432
Bramston Park	2015-16	2020-21	1,769,000	1,686,388	54,889	336,375	1,350,013
SES Facility Upgrade	2015-16	2020-21	729,000	694,956	22,407	138,619	556,337
Warwick Hockey Centre	2016-17	2021-22	4,545,423	0	0	0	4,545,423
				\$14,894,594	\$636,858	\$2,262,910	\$17,176,804

Appendix 13 - Joondalup Performing Art Centre Facility – Schematic Design Report: ARM Architecture (July, 2016)