



CITY OF VINCENT

IMPLEMENTATION PLAN

SUSTAINABLE ENVIRONMENT STRATEGY

2019-2024



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INTRODUCTION

To achieve the targets in the City of Vincent Sustainable Environment Strategy 2019-2024 the City intends to work collaboratively with the community and other stakeholders and to lead by example in its operations.

This Implementation Plan sets out actions to deliver the desired outcomes and to progress toward the targets set out in the Sustainable Environment Strategy. For each of the Strategy's Key Opportunity Areas, actions are grouped into tables according to their mode of delivery. There are three modes of delivery available to the City:

- (i) Control** – Actions that the City has management responsibility for and control over as service provider. These include local government infrastructure, services and policy settings;
- (ii) Influence** – Actions that the community can take and that the City can attempt to influence through education, support and incentives; and
- (iii) Advocacy** – Actions that neither the City nor the community control, but which the City can advocate for on behalf of the community. This includes State and Federal policy settings and regulation.

This Implementation Plan will inform the City's Corporate Business Plan, Long Term Financial Plan and Annual Budgets for the period 2019-2024. It is intended to be a flexible document, allowing for new opportunities and technological solutions to be added as they arise.

In the tables that follow, the strategy numbers under each Key Opportunity Area correspond to the strategy numbers in the City's Sustainable Environment Strategy 2019-2024. Some strategies will be delivered via more than one mode of action (control, influence or advocacy) and will therefore appear in more than one table.

Actions earmarked for delivery between 2019 and 2024 have been numbered for ease of reference and reporting during the five-year life of this Implementation Plan.

A number of actions that will contribute to the outcomes and targets identified in Sustainable Environment Strategy 2019-2024 were delivered during the 2018/19 financial year, prior to the adoption of Sustainable Environment Strategy 2019-2024. While these actions contribute to progress made against the 2017/18 baseline, they fall outside the five-year period covered by the Strategy. As a result, they are listed separately in a column titled 'Actions delivered in 2018/19'.

Some actions commenced in 2018/19 but will continue into the period 2019-2024. These are shown in both 2018/19 and 2019-2024 columns.

Actions that have been identified for delivery after 2024 have been captured separately in a column titled 'Actions to be delivered beyond 2024'. Opportunities may arise to bring these actions forward into the 2019-2024 implementation period. If this does not occur, they will inform the next iteration of the Strategy and Implementation Plan beyond 2024.

KEY OPPORTUNITY AREA: ENERGY

Control – Infrastructure/Services/Policy					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated Resourcing requirements 2019-2024	Actions to be delivered beyond 2024
1.	Reduce the energy demand of City-owned buildings through physical modifications	Install block-out blinds at the City's Administration Centre Plant deciduous shade trees to the north of the City's Administration Centre and replace bitumen adjacent to the building with garden	1. Consider installing additional external shading to the northern side of the City's Administration Centre to further reduce summer heat load 2. Ensure all renovation/redevelopment of City owned facilities meets the energy performance standards set out in the City's Built Form Policy	Additional \$20,000	
2.	Increase the efficiency of energy use in City-owned building by upgrading energy using plant and equipment	LED lighting retrofits at Beatty Park Leisure Centre (gym and corridor) LED lighting retrofits at Administration Centre (level 1) plus installation of lighting master switch HVAC system adjustment at Administration Centre, plus installation of ceiling fans to offices A portion of indoor lighting at Beatty Park Leisure Centre added to building management system (BMS) for improved control Upgrade HVAC system in the Canteen Building at the City's Works Depot	1. Complete LED lighting retrofit at Beatty Park Leisure Centre (fitness studios and administration offices) 2. Investigate and implement if feasible the addition of all lighting at Beatty Park Leisure Centre to the existing BMS for improved control; alternatively consider upgrading the BMS at Beatty Park to capture all functions on site 3. Upgrade HVAC system and controls at the City's Administration Centre 4. Complete LED lighting retrofit at the City's Administration Centre, Works Depot Canteen Building, Library & local History Centre and Loftus Community Centre 5. Install a BMS at the City's Administration Centre 6. Display switch-off signage around manually-operated energy using equipment 7. Investigate the benefits of changing irrigation pumps to variable speed drives and prepare a replacement plan if feasible 8. Install variable speed drives to motors throughout City-owned facilities where efficiency gains can be demonstrated 9. Ensure all energy using plant and equipment requiring upgrade is replaced with the highest efficiency alternative 10. Consider upgrading the HVAC system at Loftus Recreation Centre and Gymnastics WA facilities 11. Consider upgrading BMS at Beatty Park to capture all functions at that site 12. Consider upgrading to a single, multi-user BMS to cover Beatty Park Leisure Centre, Library & Local History Centre and Administration Centre 13. Consider including leased facilities in Loftus Centre in the above multi-user BMS to give leaseholders greater control over energy use	Additional \$20,000 Additional \$50,000-\$100,000 Additional \$1,000,000 Additional \$60,000 Additional \$120,000 - - Additional \$100,000 - TBD following investigation TBD following investigation TBD following investigation TBD following investigation	Install additional skylights/solar tubes at Loftus Community Centre and Loftus Recreation Centre Implement voltage optimisation technology where appropriate after other energy efficiency upgrades are completed
3.	Increase solar energy generation on City-owned buildings	Commence the project to install solar photovoltaic (PV) systems at four of the City's	1. Complete the project to install solar photovoltaic (PV) systems at four of the City's major facilities – Administration	Existing capital Budget	Pilot emerging technologies (such as energy storage and energy

		major facilities – Library & Local History Centre and Works Depot completed.	Centre and Beatty Park Leisure Centre to be completed in 2019/20 2. Investigate the feasibility of additional solar PV systems at the City's remaining facilities and sites – include consideration of battery storage, emerging innovations such as solar shade structures and opportunities for energy sharing 3. Install solar PV at additional facilities that are found to be feasible 4. Monitor developments in energy sharing technology and consider adopting it for sites with existing solar PV when regulatory changes make it possible	Additional \$66,000 Additional \$610,000	sharing) in City owned facilities that have solar PV systems
4.	Increase the use of renewable energy for water heating in City-owned buildings		1. Complete a feasibility study for solar hot water system retrofits for the remaining City-owned facilities that were not included in the previous round of solar hot water system installations	\$10,000	Undertake solar hot water system retrofits at feasible sites
5.	Increase the use of ground source geothermal energy at Beatty Park Leisure Centre	Replace existing large single gas boiler with small modular boilers to allow the geothermal heating system to cover a larger share of the heating load and to be expanded to include space heating in future	1. Upgrade and integrate the space heating system with the geothermal heating system (space heating to shift from using gas to geothermal energy)	Existing Capital Budget	
6.	Reduce grid-supplied energy use for public open space and carpark lighting through energy efficiency and solar power	Retrofit LED fittings to existing public space lighting around the City's Administration Centre Install solar park lighting in selected locations Complete LED car park and outdoor building lighting at Beatty Park Leisure Centre LED path lighting upgrade commenced at Hyde Park	1. Retrofit all remaining carpark and public open space lighting infrastructure with LED lights 2. Where possible, make new public open space lighting solar powered 3. Investigate and implement where feasible the installation of motion-sensor linked controls on public open space and car park lighting	Additional \$150,000 Existing operational Existing operational	
7.	Increase the energy efficiency of street lighting		1. Upgrade City owned and maintained street lighting to LED (around 5% of streetlights) 2. Prioritise and where feasible upgrade selected Western Power owned and maintained street lighting to LED	Additional \$270,000 Cost to be determined	Upgrade remaining streetlighting to LED
8.	Embed energy efficient behaviours within the City's operations	Monitor real-time energy use at the City's Administration Centre, Beatty Park Leisure Centre and Library and Local History Centre – follow up and correct anomalies to prevent energy wastage Commence work on the City's new Leasing and Licensing framework to ensure appropriate accountability for energy use is built into lease agreements for City-owned facilities	1. Expand real-time energy monitoring to the City's Works Depot 2. Track month-to-month energy bills and follow up anomalies with responsible officers 3. Make energy efficient operation of facilities a priority for staff with sign-off authority for energy bills at City managed facilities	Additional \$7,000 Additional 0.2 full time equivalent staff (Sustainability or Assets)	Identify and implement mechanisms to offset any residual greenhouse gas emissions resulting from energy use that remain after energy efficiency upgrades, renewable energy use and energy efficient behaviours have been operationalised
9.	Promote and facilitate energy efficiency in the community	Amend the City's Built Form Policy to drive continuous improvement in the energy performance of new developments	1. Maintain provisions within the City's planning policies that continue to drive improvements in the energy performance of new developments	Existing operational	
10.	Promote and facilitate the adoption of solar energy in the community		2. Provide ongoing training to the City's Planning Officers relating to environmentally sustainable design 3. Review and amend the Sustainability Implications section of Council report templates to ensure that relevant information is	Existing operational Existing operational	

			captured and linked in a meaningful way to the outcomes of the City's Sustainable Environment Strategy		
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Influence – Community Education/ Support/Incentives					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated Resourcing requirements 2019-2024	Actions to be delivered beyond 2024
9.	Promote and facilitate energy efficiency in the community	Continued membership by the City of the Switch Your Thinking Program to provide residents with free energy saving guidance, workshops and discounts on energy saving products Deliver events focused on promoting sustainable building design and energy efficiency (Sustainable House Day and Sustainability Pop-up Hub) Collaborate and partner with industry to deliver events and educational materials to the community	1. Update the City's community education resources relating to energy efficiency 2. Continue to deliver events to communicate the importance of energy efficiency and to share resources on how to implement this in the home 3. Continue to seek opportunities to collaborate and partner with industry to deliver events and educational materials to the community 4. Measure and report on the effectiveness/impact of events and educational materials to guide future decisions about investment in different forms of community education/engagement 5. Provide developers with information about energy efficient building design and technologies as part of the development approval process 6. Report annually on the City's energy use, the installation of energy efficient technologies and the associated greenhouse gas and cost savings to motivate energy efficiency actions by the community	Existing operational Existing operational Existing operational Existing operational Existing operational Existing operational	Facilitate owners of rented dwellings to install solar PV systems Provide advice and support to local businesses to improve energy efficiency and install solar PV
10.	Promote and facilitate the adoption of solar energy in the community	Deliver a solar PV and battery energy storage workshop Deliver a Sustainability Pop-up Hub featuring solar technology Maintain an up-to-date solar resources page on the City's website Offer discounts on solar PV and battery storage for Vincent residents and businesses through Switch Your Thinking program	1. Continue solar community education and promotion activities as per 2018/19 2. Investigate and implement additional marketing opportunities for the promotion of solar resources and incentives to increase community exposure 3. Work with the Switch Your Thinking program to expand the range of solar incentives available to the City's community 4. Report on the City's installation of solar PV and the associated greenhouse gas and cost savings to motivate the uptake of solar PV by the community 5. Investigate and implement if feasible mechanisms for providing ongoing funding to sustainability focussed community groups that have a proven track record of delivering actions in line with the City's Sustainable Environment Strategy	Existing operational Existing operational Existing operational Existing operational	

Advocacy – Submissions/Forums/Working Groups					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated Resourcing requirements 2019-2024	Actions to be delivered beyond 2024
11.	Advocate to both State and Federal government for higher building design standards for new builds and retrofits (all building types)		1. Identify best practice adopted in other States and internationally 2. Take advantage of opportunities to make submissions to State and Federal reviews into building standards to advocate for adoption of best practice 3. Partner with other organisations when opportunities arise to strengthen advocacy efforts 4. Proactively engage with relevant agencies to seek support for energy performance provisions within local, State and Federal policies and standards to drive continuous improvement in new developments	Existing operational Existing operational Existing operational Existing operational	
12.	Advocate to State Government to require increased energy performance standards in new developments	Proactively engage with the Western Australian Planning Commission to seek support for energy performance provisions within State and local planning policy	1. Take advantage of opportunities to advocate to State and Federal Governments – this may be in response to direct consultation or as part of proactive campaigns led by partner organisations such as the Western Australian Local Government Association or the Green Building Council of Australia	Existing operational	
13.	Advocate to State Government and relevant government agencies in relation to energy sharing and renewable energy technologies		1. Proactively engage with the Western Australian Planning Commission to encourage increased energy performance standards in State Planning Policy and seek support for additional energy performance provisions within local planning policies to drive continuous improvement in new developments 2. Proactively engage with relevant government agencies to seek opportunities for the City and its community to be included in trials of innovative renewable energy technologies such as community solar battery storage and microgrids 3. Advocate to State Government for the removal of regulatory barriers to peer-to-peer energy sharing and the facilitation of energy sharing technologies	Existing operational Existing operational	

KEY OPPORTUNITY AREA: TRANSPORT

Control – Infrastructure/Services/Policy					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
1.	Support and encourage City employees to use public transport, active transport and car sharing	Deliver Active Transport program for staff comprising a monthly BBQ breakfast and quarterly gift vouchers for staff who consistently use active and public transport and those who car-share to commute to work Provide new employees with resources about active transport options and incentives Provide an electric bike fleet for staff to use for travel during the work day Continue to provide corporate Smart Rider cards for staff to use for work-related travel on public transport	1. Continue the staff Active Transport program 2. Review and update the Vincent TravelSmart Workplace Plan with a view to creating new initiatives to encourage and grow the confidence of staff in using active/public transport 3. Investigate and consider offering staff Active Transport credits in lieu of free staff parking 4. If feasible, implement a program offering staff Active Transport credits in lieu of free staff parking	Existing operational Existing operational Existing operational Cost to be determined	
2.	Support and encourage the community to increase use of public and active transport	Improve the pedestrian environment in North Perth Town Centre through the development of a town centre shared space (North Perth Common) Trial reduced vehicle speeds in local streets (40 km/h speed zones) Install additional bike parking facilities in town centres Deliver workshops and events to support active transport use (bike maintenance pop-ups & courses, bike-based community events) Install bike network infrastructure along Oxford Street North Complete Loftus Street bike lanes Improve the pedestrian and cycling environment in Mount Hawthorn Town Centre with a raised pedestrian plateau in Fairfield Street (north side of intersection with Scarborough Beach Road)	1. Provide active transport accommodation at City-run events (e.g. temporary bike parking infrastructure) 2. Deliver bike lane along Florence/Carr/Strathcona/Golding streets 3. Implement train station access improvements as determined through consultation with the Perth Transport Authority and Department of Transport	Existing operational Subject to State funding Subject to State funding	

3.	Reduce the use of petroleum-based fuels in the City's vehicle fleet via renewable alternatives and increased fuel efficiency	Begin transition to a hybrid passenger vehicle fleet (in lieu of suitable fully electric vehicles which are not yet available and/or affordable) For work utility vehicles that are not yet available as hybrids or fully electric, purchase the highest fuel efficiency and lowest emission vehicles in their class to minimise both greenhouse gas and fuel particulates being emitted into the local environment	1. Progressively transition the City's passenger vehicles fleet to fully electric or alternative technologies with zero tailpipe emissions as suitable vehicles become available 2. For work utility vehicles seek hybrid or zero emission alternatives before purchasing conventional combustion engine technology 3. For heavy vehicles purchase the highest fuel efficiency and lowest emission vehicles in their class to minimise both greenhouse gas and fuel particulates being emitted into the local environment; and take opportunities as they arise to trial renewable alternatives in collaboration with partner organisations such as vehicle manufacturers, the City's waste contractors and the Australian Renewable Energy Agency (ARENA)	Additional \$150,000 Cost to be determined once alternatives become available	For heavy vehicles, seek hybrid or zero emission alternatives before purchasing conventional combustion engine technology and consider purchasing carbon credits to offset residual emissions Consider purchasing green power to cover any shortfall from solar at facilities where the City's EVs are charged to ensure zero greenhouse gas emissions from the electric vehicle fleet (alternatively purchase carbon credits to offset any residual emissions from electricity used to charge vehicles)
4.	Facilitate investment in electric vehicle (EV) charging infrastructure		1. Ensure the City's planning processes and property management framework are ready to handle applications for public EV charging stations 2. Identify and engage with businesses seeking to invest in public electric vehicle charging infrastructure in the metropolitan area 3. Work with charge station providers to ensure and infrastructure they install is in appropriate locations 4. Identify and implement mechanisms to encourage developers to incorporate EV charging management systems in new developments	Existing operational Existing operational Existing operational Existing operational	
5.	Facilitate the establishment of electric micro-transport in the city		1. Ensure transport planning by the City includes consideration of the impact of electric micro-transport	Existing operational	
6.	Develop, adopt and implement an Integrated Transport Plan to set the future course for mode share, car parking and the City's bike network	Commence work on the City's Integrated Transport Plan	1. Complete the City's Integrated Transport Plan, including: setting targets around mode share shift; review and update of the City's Parking Strategy; and review and update of the City's Bike Network Plan to grow the bike network and increase connectivity within Vincent and across local government boundaries 2. Review and amend the Sustainability Implications section of Council report templates to ensure that relevant information is captured and linked in a meaningful way to the outcomes of the City's Sustainable Environment Strategy	Existing operational Existing operational	Continue implementation of the City's Integrated Transport Plan

Influence – Community Education/ Support/Incentives					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
2.	Support and encourage the community to increase use of public and active transport		1. Include active transport information in the promotion of City-run events 2. Investigate and implement if feasible mechanisms for providing ongoing funding to sustainability focussed community groups that have a proven track record of delivering actions in line with the City's Sustainable Environment Strategy	Existing operational Existing operational	Consider trialling additional part-time pedestrian friendly spaces using temporary road closures in town centres
5.	Facilitate the establishment of electric micro-transport in the city		1. Use the City's communication platforms to encourage the use of electric micro-transport (including the City's community Bike Library)	Existing operational	
7.	Encourage and support the transition to zero emission vehicles by the community		1. Use the adoption of hybrid and zero emission vehicles by the City as an opportunity to promote similar technologies to the community 2. Include resource links on the City's website to educate and encourage the community to shift to EVs and to install charging stations at home (include information about safety considerations for home charging) 3. Promote the air quality benefits of zero-emission vehicles to the community 4. Offer free parking for zero emission vehicles in the City's car parks for the term of this Strategy (to 2024)	Existing operational Existing operational Existing operational	Review incentives offered to the community to encourage and support the transition to zero emission vehicles Implement further initiatives to encourage and support the transition to zero emission vehicles if appropriate

Advocacy – Submissions/Forums/Working Groups					
	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
4.	Facilitate investment in electric vehicle charging infrastructure		1. Collaborate with State Government on planning for public EV charging stations	Existing operational	
5.	Facilitate the establishment of electric micro-transport in the city	Start engaging with e-mobility providers and the State Government to establish principles/framework to deployment of e-mobility	1. Continue engaging with e-mobility providers and the State Government to establish principles/framework to deployment of E-mobility (in particularly shared e-scooters and e-bikes)	Existing operational	

8.	Work with the State Government to improve public transport services in Vincent	Participate in the Inner-City Local Government Transport Working Group – seek opportunities to maximise public and active transport Work with the Perth Transport Authority and the Department of Transport on improving train station access strategies Work with the Perth Transport Authority to improve existing bus stops/shelters	1. Continue to work with the Perth Transport Authority to improve existing bus stops/shelters 2. Work with the State Government to expand public transport services in Vincent for improved connectivity 3. Work with the State Government to encourage the use of public transport – specifically work with the Department of Transport to deliver and coordinate the roll-out of the Your Move program in Vincent 4. If the trial of reduced speed zones is successful, advocate to the State Government for additional reduced speed zones in Vincent	Existing operational Existing operational Existing operational Existing operational	
9.	Advocate to State Government for the promotion of electric vehicle charging and management infrastructure in new developments		1. Advocate to State Government for building regulations relating to electric vehicle charging infrastructure in multi-dwelling developments 2. Advocate to State Government to empower local government to require the inclusion of electric vehicle charging infrastructure in new developments 3. Advocate to State Government on issues and opportunities identified in the City's Integrated Transport Plan	Existing operational Existing operational Existing operational	

KEY OPPORTUNITY AREA: WATER

Control – Infrastructure/Services/Policy					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
1.	Increase water use efficiency in City-owned buildings by upgrading water-using fittings and fixtures and embedding water efficient behaviours within operations	Install a dedicated hot water main to the health and fitness area within Beatty Park Leisure Centre to prevent cold water wastage Commence work on the City's new Leasing and Licensing framework to ensure appropriate accountability for water use is built into lease agreements for City-owned facilities	1. Install water sub-meters at City-owned facilities that have multiple tenancies or are large complex sites 2. Install real-time water monitoring at facilities with high water use and where leaks are difficult to detect 3. Develop, adopt and implement a new Water Efficiency Action Plan in accordance with the Waterwise Councils Program 4. Continue to install the most water efficient fixtures available in facility upgrades/retrofits 5. Track month-to-month water bills and follow up anomalies with responsible officers 6. Make water efficient operation of facilities a priority for staff with sign-off authority for water bills at City managed facilities – prepare and implement a process to facilitate this	Existing operational Existing operational Existing operational Existing operational Additional 0.2 full time equivalent staff to deliver Actions 5 and 6	Continue participation in the Waterwise Council Program Continue participation in the Waterwise Aquatic Centre program Implement actions that emerge from the 2024 Water Sensitive Cities Benchmarking Workshop Consider undertaking the Water Sensitive Cities visioning process and development of a transition framework specifically for the City.

2.	Increase groundwater use efficiency in the City's irrigation areas and work with the Department of Water and environmental Regulation to prepare for further reductions in groundwater allocation	Seek information from the Department of Water and Environmental Regulation about potential changes to future groundwater allocations and how these may affect the City Complete minimum of 4,000m ² of Eco-zoning	1. Develop, adopt and implement a new Water Efficiency Action Plan in accordance with the Waterwise Councils Program 2. Review the irrigation requirements of the City's reserves based on the Public Open Space Hierarchy 3. Complete implementation of the City's centralised irrigation control system; identify and implement ways to optimise performance 4. Ensure irrigation and parks maintenance crews are correctly trained to operationalise water efficient irrigation practices 5. Maintain the rate of eco-zoning at 4,000m² per year 6. Complete further analysis of high water-use reserves specifically to identify further water saving opportunities (including landscaping treatments and changes to hydro-zoning)	Existing operational Existing operational Existing operational Existing operational Existing operational Additional \$5,000	Take further actions to prepare for possible future reductions in groundwater licence volumes as a response to the impacts of climate change and declining aquifer availability Consider full automation of irrigation schedules in response to weather conditions using soil moisture sensors and one or more weather stations
3.	Identify and utilise alternative (fit-for purpose) water sources, in partnership with relevant government agencies where appropriate	Seek to partner with Water Corporation to access alternative fit-for-purpose water sources for irrigation	1. Continue to engage with Water Corporation to keep abreast of opportunities to access alternative fit-for-purpose water sources for irrigation 2. Undertake a greywater feasibility study at City-owned facilities with a view to offsetting scheme water use for irrigation of amenity plantings (consider lessons learnt by other organisations, cost of health approvals, management plans and ongoing monitoring and maintenance)	Existing operational Additional \$26,000	Based on the outcome of the feasibility study, consider installing greywater systems at one or more City-owned facilities
4.	Implement the Action Plan* developed at the City's 2018 Water Sensitive Cities Index benchmarking workshop	<i>Action 6:</i> Explore options for localised resource recovery <i>Action 8:</i> Improve the City's collaboration with the Water Sensitive Transition Network (and with Water Corporation)	1. <i>Action 6:</i> Explore options for increased use of recycled water and other fit-for-purpose water supplies 2. <i>Action 8:</i> Improve the City's collaboration with New Water Ways to build water sensitive urban design capacity within the City 3. Repeat benchmarking of the City against the Water Sensitive Cities Index in 2023/24 to measure progress toward targets	Additional 0.1 full time equivalent staff to deliver Actions 1 and 2 Additional \$10,000	<i>Actions 4:</i> Focus on lowering greenhouse gas emissions associated with water infrastructure (primarily water pumping) <i>Action 5:</i> Undertake work to quantify the benefits and opportunities associated with water-related services/activities in the City <i>Action 7:</i> Evaluate the outcomes of planning processes related to water to measure the degree of success

5.	Develop and adopt a Water Sensitive Urban Design (WSUD) Plan aligned with the Vision and Transition Strategy for Greater Perth: Capture, use and infiltrate environmental water to benefit environment and community; make use of alternative water sources; and better integrate water into green spaces	Commence Brisbane Street car park upgrade – install tree pits to capture and infiltrate storm water Trial non-chemical alternatives to standard herbicides that persist in the environment and affect the ecosystems of receiving waters	1. Complete Brisbane Street car park upgrade – if feasible implement permeable carpark technology to increase stormwater infiltration into the local groundwater system 2. Review and update the City's Asset Management Plan for Transport Assets, addressing the following: i. Future road and car park upgrades designed to divert stormwater to passively irrigate trees and garden beds; ii. Disconnection from centralised drainage systems where possible; iii. Biofiltration systems included in upgrade works to increase local infiltration into the groundwater system and improve the quality of receiving waters (by removing nutrients, hydrocarbons, organic carbon and pesticides); and iv. Replacement of hardstand where possible, to be replaced by permeable surfaces (preferably planted). 3. Continue to trial and adopt new forms of weed control to reduce the City's use of chemical herbicides (to protect receiving waters)	Existing operational and capital budgets Existing operational Additional \$10,000	Review and update the City's Asset Management Plan for Transport Assets to include WSUD principles and align with the City's WSUD Plan
6.	Facilitate WSUD in private development		1. Investigate and implement mechanisms to encourage WSUD in private development 2. Provide ongoing training to the City's Planning Officers relating to environmentally sustainable design 3. Follow the outcomes of greywater trials for green roofs and walls and consider introducing planning requirements for the inclusion of such green infrastructure in new developments 4. Review and amend the Sustainability Implications section of Council report templates to ensure that relevant information is captured and linked in a meaningful way to the outcomes of the City's Sustainable Environment Strategy	Existing operational Existing operational Existing operational Existing operational	

*For further details refer to City of Vincent Water Sensitive Cities Benchmarking and Assessment Report

Influence – Community Education/Support/Incentives					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
4.	Implement the Action Plan* developed at the City's 2018 Water Sensitive Cities Index benchmarking workshop	Action 2: Improve understanding of domestic bore (groundwater) use in the City of Vincent	1. Action 2: Promote responsible domestic bore (groundwater) use with guidance from the department of Water and environmental Regulation and Water Corporation	Existing operational	

7.	Expand the City's Adopt a Verge program to further reduce community water use on verges and actively promote the program to encourage continued participation	Facilitate 100 verge transformations in 2018/19	1. Consider expanding the Adopt a Verge program by 50% and implementing a marketing campaign to encourage increased community participation in the Adopt a Verge program 2. At the time of the next Greening Plan review (2023) also review the Adopt a Verge program and its ongoing resource requirements	Additional \$250,000 Additional 0.2 full time equivalent staff to deliver Action 1 Existing Operational	
8.	Encourage and assist residents and businesses to understand, apply for and install on-lot rain water and greywater systems	Ongoing participation by the City in the Switch Your Thinking program entitles residents and businesses to discounts on rainwater tanks	1. Use the City's website and social media to share up-to-date information about rainwater and greywater system suitability, installation, use and maintenance 2. Share with the community lessons learned from the City's feasibility study (and potential implementation) of greywater systems 3. Deliver workshops and events including information and advice on rainwater and greywater 4. Undertake a survey to determine the extent/success of greywater use in households where greywater systems have previously been installed	Additional \$10,000 Additional 0.2 full time equivalent staff to deliver Actions 1 to 4	Informed by the community greywater survey, consider: 1. Implementing mechanisms for incentivising residents and businesses to install greywater systems; 2. Resourcing the City's Environmental Health team to provide more in-depth information and guidance to residents and businesses on the application process and installation of rainwater and greywater systems
9.	Increase community water literacy, including the understanding of water efficiency, the local water cycle and connection to and ownership of local wetlands	Deliver a Sustainability Pop-Up Hub event featuring Water Corporation and Greywater Industry representatives to educate the community on water saving and reuse options Provide discounts on rainwater tanks to community and business via the City's participation in the Switch Your Thinking program Include a River-friendly Garden category in the City's garden competition	1. Use the City's website and social media to share water-related information and resources produced by the City and third parties such as Water Corporation, Switch Your Thinking and River Guardians 2. Continue to seek opportunities to collaborate and partner with industry to deliver events and educational materials to the community 3. Measure and report on the effectiveness/impact of events and educational materials to guide future decisions about investment in different forms of community education/engagement 4. Use signage at local wetlands to communicate their value and vulnerability to contaminants, pollutants and other human impacts (to be deployed in alignment with the Public Open Space Signage Strategy) 5. Investigate and implement if feasible stormwater drain marking to raise awareness of the impact of pollutants on receiving environments (consider delivering this in collaboration with the community – City to supply materials and traffic control) 6. Investigate and implement if feasible mechanisms for providing ongoing funding to sustainability focussed community groups that have a proven track record of delivering actions in line with the City's Sustainable Environment Strategy	Existing operational Existing operational Existing operational Additional \$2,000 Additional \$80,000	Implement further community education actions that emerge from the 2024 Water Sensitive Cities Benchmarking Workshop

*For further details refer to City of Vincent Water Sensitive Cities Benchmarking and Assessment Report

	Advocacy – Submissions/Forums/Working Groups				
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
10.	Advocate to both State and Federal Government for higher building design standards for new builds and retrofits (all building types)		1. Take advantage of opportunities to advocate to State and Federal Governments – this may be in response to direct consultation or as part of proactive campaigns led by partner organisations such as the Western Australian Local Government Association or the Green Building Council of Australia	Existing operational	
11.	Advocate to State Government to require increased water performance standards in new developments and to facilitate greywater use		1. Proactively engage with the Western Australian Planning Commission to encourage increased water performance standards in State Planning Policy and seek support for additional water performance provisions within local planning policies to drive continuous improvement in new developments 2. Consider advocating to the State Government for the relaxation of greywater regulations that currently limit uptake (determined if current regulations are unnecessarily restrictive in the local context)	Existing operational Existing operational	

KEY OPPORTUNITY AREA: WASTE

Control – Infrastructure/Services/Policy					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
1.	Implement sustainable procurement practices to minimise waste generation within the City's operations	Start to replace single-use vinyl event banners with recyclable pressed cardboard signs – install five permanent roadside frames and make available for community use Change all dog waste bags in Vincent parks to a compostable material Change bin liners at City facilities to compostable waste bags Introduce kitchen waste composting and recycling stations throughout City of Vincent offices	- Complete replacement of all vinyl roadside banners used by the City (via display frame installations) - Replace the use of pole-mounted single-use vinyl banners with recyclable pressed cardboard signs (install pole-mounted frame structures to hold cardboard signs) - Prohibit the use of single-use vinyl roadside banners by the community (provide community access to the City's permanent frames for displaying recyclable signs)	Existing operational Existing operational Existing operational	Investigate feasibility of ending the sale of specific single use items (particularly plastic) in the City
2.	Maximise diversion of waste from landfill through existing waste collection processes	Work with Mandarie Regional Council to allow all of the City's kerbside collections waste trucks to deliver waste to the Resource Recovery Facility for composting			
3.	Implement the City's Waste Strategy 2018 – 2023* Note: Waste Strategy actions are grouped together under projects. These are shown here for context.	<i>Project 1: Recovery of Organic Material Food and Green Options Appraisal</i> Undertake an Options Appraisal to explore options to improve the management of food organics and green organics (FOGO)	Actions to increase recovery of organic waste to be guided by outcomes of <i>Project 1: Recovery of Organic Material Food and Green Options Appraisal</i> Give consideration to the greenhouse gas emissions resulting from organic material recovery and processing options.	Resourcing requirements to be determined	Identify and implement mechanisms to offset any residual greenhouse gas emissions resulting from organic material recovery and processing
		<i>Project 2: Bulk Hard Waste (junk) Service Options Appraisal</i> Undertake an options appraisal to assess alternative means of collection	Actions to increase resource recovery from bulk hard waste to be guided by outcomes of <i>Project 2: Bulk Hard Waste (junk) Service Options Appraisal</i>	Resourcing requirements to be determined	
		<i>Project 3: Improving Collection and Waste Recovery in Multi-Unit Developments (MUDs)</i> Undertake a cross-boundary collaborative partnership program with the City of Perth, City of Stirling and Western Australian Local Government Association to investigate better practice solutions for MUDs		Resourcing requirements to be determined	

		<i>Project 5: Research Alternative Waste Treatment Options</i> Find alternatives to landfill in line with the waste hierarchy	3. <i>Project 5: Research Alternative Waste Treatment Options – Find alternatives to landfill in line with the waste hierarchy</i> Give consideration to the greenhouse gas emissions resulting from alternative waste treatment options.	Existing operational	Identify and implement mechanisms to offset any residual greenhouse gas emissions resulting from waste treatment
		<i>Project 7: Develop Business Systems for Waste Services for Accurate Records and Reporting</i> Improve business systems to deliver higher level customer service and service efficiency	4. <i>Project 7: Develop Business Systems for Waste Services for Accurate Records and Reporting – Improve business systems to deliver higher level customer service and service efficiency</i>	Resourcing requirements to be determined	
		<i>Project 8: Commercial Waste Collections Options Appraisal</i> Review the City's commercial waste services and consider separating the waste charge for businesses from property rates	5. Actions to ensure the best service provision to businesses and provide transparency around waste collection costs to be guided by the outcomes of <i>Project 8: Commercial Waste Collections Options Appraisal</i>	Resourcing requirements to be determined	
		<i>Project 9: Separate Waste Charge Options Appraisal</i> Investigate the potential to incentivise waste reduction and recovery through separating the waste charge for residential properties from property rates	6. Actions to create a transparent charging mechanism that will incentivise residents to minimise waste to landfill will be guided by the outcomes of <i>Project 9: Separate Waste Charge Options Appraisal</i>	Resourcing requirements to be determined	
4.	Investigate and implement mechanisms to ensure that developments demonstrate best practice in reducing waste associated with construction and maintenance	Built Form Policy review to include waste performance in environmentally sustainable design provisions (using either the Green Star rating system or Life Cycle Assessment)	1. Provide ongoing training to the City's Planning Officers relating to environmentally sustainable design 2. Review and amend the Sustainability Implications section of Council report templates to ensure that relevant information is captured and linked in a meaningful way to the outcomes of the City's Sustainable Environment Strategy	Existing operational Existing operational	

*For further details, refer to City of Waste Strategy 2018 - 2023

Influence – Community Education/Support/Incentives					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
3.	Implement the City's Waste Strategy 2018-2023* Note: Waste Strategy actions are grouped together under projects. These are shown here for context.	<i>Project 6: Waste and Recycling Education, Awareness and Promotional Programs</i> Identify barriers, improve awareness and provide solutions to drive community behaviour higher up the waste hierarchy (maximise waste avoidance and recovery)	1. <i>Project 6: Waste and Recycling Education, Awareness and Promotional Programs – Identify barriers, improve awareness and provide solutions to drive community behaviour higher up the waste hierarchy (maximise waste avoidance and recovery)</i>	Resourcing requirements to be determined	

5.	Provide feedback to the community about its waste impacts and support community waste projects that benefit the environment	Support Transition Town Vincent to establish a community compost hub Support the establishment of a Repair Cafe	1. Continue to support community groups to set up local projects that reduce waste generation and increase waste diversion 2. In community education material include information about: i. The amount of greenhouse gas emissions produced by the average Vincent household through its waste; ii. Waste tonnages collected by the City (to help residents understand the volumes of waste landfilled and recycled) 3. Investigate and implement if feasible mechanisms for providing ongoing funding to sustainability focussed community groups that have a proven track record of delivering actions in line with the City's Sustainable Environment Strategy	Community Budget Submissions (to be determined year to year)	
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*For further details, refer to City of Waste Strategy 2018 - 2023

Advocacy – Submissions/Forums/Working Groups					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
3.	Implement the City's Waste Strategy 2018 – 2023* Note: Waste Strategy actions are grouped together under projects. These are shown here for context.	<i>Project 4: Regional and Cross Boundary Collaborative Partnership</i> Identify solutions to shared issues (cross-boundary); Explore economies of scale; Develop consistent approach to waste on a regional level	1. <i>Project 4: Regional and Cross Boundary Collaborative Partnership</i> – Identify solutions to shared issues (cross-boundary); Explore economies of scale; Develop consistent approach to waste on a regional level	Existing operational	
		<i>Project 10: Advocacy and Lobbying for Change to State and Federal Waste Legislation and Policy</i> Advocate for change in waste management legislation and policy at State and Federal levels to enable, encourage or mandate new/alternative approaches to waste production, manufacturing, management and disposal	2. <i>Project 10: Advocacy and Lobbying for Change to State and Federal Waste Legislation and Policy</i> – Advocate for change in waste management legislation and policy at State and Federal levels to enable, encourage or mandate new/alternative approaches to waste production, manufacturing, management and disposal	Existing operational	

*For further details, refer to City of Waste Strategy 2018 - 2023

KEY OPPORTUNITY AREA: URBAN GREENING & BIODIVERSITY

Control – Infrastructure/Services/Policy					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
1.	Implement the City's Greening Plan 2018 – 2023* Note: Greening Plan actions are grouped together based on their objectives. These are included here for context.		1. <i>Objective 1: Increase Canopy Cover on Public Land</i> - Plant more trees than are lost or removed - Complete 1.5 kilometres of additional greenway planting per year - Select trees to maximise overall canopy cover for each planting area - Implement quality pruning & management techniques to maximise the canopy of each individual tree	Additional \$1,200,005	
		<i>Objective 2: Enhance Habitat and Promote Biodiversity</i> Identify existing areas of biodiversity value Preserve, enhance and expand existing areas of biodiversity value through supplementary planting Connect existing areas of biodiversity value through additional planting of biodiversity linkages across the City Prioritise the preservation & improvement of native habitat and biodiversity in all greening activities	2. <i>Objective 2: Enhance Habitat and Promote Biodiversity</i> - Identify existing areas of biodiversity value - Preserve, enhance and expand existing areas of biodiversity value through supplementary planting - Connect existing areas of biodiversity value through additional planting of biodiversity linkages across the City - Prioritise the preservation & improvement of native habitat and biodiversity in all greening activities	Additional \$300,000	
		<i>Objective 3: Greening the Town Centres</i> Select trees and amenity plantings based on the functional needs of each Town Centre and in consultation with relevant stakeholders Develop a program of tree planting in City-managed open-air car parks to achieve 60% tree canopy cover in accordance with the City's Built Form Policy	3. <i>Objective 3: Greening the Town Centres</i> - Select trees and amenity plantings based on the functional needs of each Town Centre and in consultation with relevant stakeholders - Develop a program of tree planting in City-managed open-air car parks to achieve 60% tree canopy cover in accordance with the City's Built Form Policy	Existing operational	

		<i>Objective 4: Greening Private Land and New Development</i> Use available planning instruments to mandate and incentivise the retention or reinstatement of vegetation Investigate incentives for encouraging tree retention by property owners outside the development approval process Review the Built Form Policy canopy requirements to determine if the current canopy requirements are sufficient to achieve the identified target of 12% in the private domain	4. <i>Objective 4: Greening Private Land and New Development</i> - Use available planning instruments to mandate and incentivise the retention or reinstatement of vegetation - Investigate incentives for encouraging tree retention by property owners outside the development approval process - Review the Built Form Policy canopy requirements to determine if the current canopy requirements are sufficient to achieve the identified target of 12% in the private domain 5. Provide ongoing training to the City's Planning Officers relating to environmentally sustainable design 6. Review and amend the Sustainability Implications section of Council report templates to ensure that relevant information is captured and linked in a meaningful way to the outcomes of the City's Sustainable Environment Strategy	Existing operational	
		<i>Objective 5: Greening the Community</i> Invite community input and participation in City driven greening initiatives Invite the community to nominate greening projects and initiatives to be delivered by the City	7. <i>Objective 5: Greening the Community</i> - Invite community input and participation in City driven greening initiatives - Invite the community to nominate greening projects and initiatives to be delivered by the City	Additional \$304,000 + Community Budget Submissions (to be determined year to year)	
2.	Implement the Action Plan** developed at the City's 2018 Water Sensitive Cities Index benchmarking workshop to further support the growth of the City's tree canopy and improve connection between Vincent's "green" and "blue" assets		1. <i>Action 1:</i> Prioritise local streets that connect neighbourhoods to bodies of water for biodiversity plantings to improve the walkability to nearby lakes and to the river	Existing operational	

*For further details, refer to City of Vincent Greening Plan 2018-2023 - Appendix 2: Five Year Implementation Plan

**For further details refer to City of Vincent Water Sensitive Cities Benchmarking and Assessment Report

Influence – Community Education/Support/Incentives					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
1.	Implement the City's Greening Plan 2018 – 2023*	<i>Objective 2: Enhance Habitat and Promote Biodiversity</i> Identify existing areas of biodiversity value Preserve, enhance and expand existing areas of biodiversity value through supplementary planting Connect existing areas of biodiversity value through additional planting of biodiversity linkages across the City Prioritise the preservation & improvement of native habitat and biodiversity in all greening activities	1. <i>Objective 2: Enhance Habitat and Promote Biodiversity</i> - Identify existing areas of biodiversity value - Preserve, enhance and expand existing areas of biodiversity value through supplementary planting - Connect existing areas of biodiversity value through additional planting of biodiversity linkages across the City - Prioritise the preservation & improvement of native habitat and biodiversity in all greening activities	Additional \$400,024	
		<i>Objective 3: Greening the Town Centres</i> Proactively engage with and provide technical advice to stakeholders involved in greening activities	2. <i>Objective 3: Greening the Town Centres</i> - Proactively engage with and provide technical advice to stakeholders involved in greening activities	Existing operational	
		<i>Objective 4: Greening Private Land and New Development</i> Educate the community on the benefits of trees and soft landscaping Support and advise residents in choosing appropriate tree and landscaping species Engage and educate developers on the value of trees and soft landscaping to developments Advise developers in choosing appropriate tree and landscaping species	3. <i>Objective 4: Greening Private Land and New Development</i> - Educate the community on the benefits of trees and soft landscaping - Support and advise residents in choosing appropriate tree and landscaping species - Engage and educate developers on the value of trees and soft landscaping to developments - Advise developers in choosing appropriate tree and landscaping species	No additional resourcing required at current level of service Additional staff will be needed if the level of service is to increase	

		<i>Objective 5: Greening the Community</i> Provide effective communication, education and networking opportunities centred on urban greening Support the community to deliver greening projects and initiatives through financial and in-kind support from the City	4. <i>Objective 5: Greening the Community</i> - Provide effective communication, education and networking opportunities centred on urban greening - Support the community to deliver greening projects and initiatives through financial and in-kind support from the City - Investigate opportunities to create further free community mulch piles and implement where possible - Place informative signage in eco-zoned areas to educate and encourage residents to undertake similar plantings on their properties and verges – to be aligned with the Public Open Space Signage Strategy 5. Investigate and implement if feasible mechanisms for providing ongoing funding to sustainability focussed community groups that have a proven track record of delivering actions in line with the City's Sustainable Environment Strategy	Additional \$4,000 No additional staff resourcing needed at current level of service Additional staff will be needed if the level of service is to increase (Parks & Environment) Existing operational	
2.	Implement the Action Plan** developed at the City's 2018 Water Sensitive Cities Index benchmarking workshop to further support the growth of the City's tree canopy and improve connection between Vincent's "green" and "blue" assets	<i>Action 1:</i> Provide guidance on plant selection and free waterwise native plants to Adopt a Verge participants	6. <i>Action 1:</i> Continue and expand the Adopt-a Verge program to incentivise and assist residents to create native verge gardens that contribute links to the chain of "biodiversity islands" being established by the City to connect green and blue spaces	Additional resourcing needed for expansion of the Adopt a Verge program is set out in the Water section above	

*For further details, refer to City of Vincent Greening Plan 2018-2023 - Appendix 2: Five Year Implementation Plan

**For further details refer to City of Vincent Water Sensitive Cities Benchmarking and Assessment Report

Advocacy – Submissions/Forums/Working Groups					
No.	Strategies	Actions delivered in 2018/19	Actions to be delivered 2019-2024	Estimated resourcing over five years from 2019/20 to 2023/24	Actions to be delivered beyond 2024
1.	Implement the City's Greening Plan 2018 – 2023*		1. <i>Objective 4: Greening Private Land and New Development</i> - Advocate for changes to State planning legislation and policy to facilitate protection of both trees on privately owned land and their owners against tree-related liability	Existing operational	

2.	Implement the Action Plan** developed at the City's 2018 Water Sensitive Cities Index benchmarking workshop to further support the growth of the City's tree canopy and improve connection between Vincent's "green" and "blue" assets	Action 3: Advocate for changes to State legislation to facilitate tree protection by local government	1. Action 3: Continue to advocate for changes to State legislation to facilitate tree protection by local government	Existing operational	
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*For further details, refer to City of Vincent Greening Plan 2018 - 2023 - Appendix 2: Five Year Implementation Plan

**For further details refer to City of Vincent Water Sensitive Cities Benchmarking and Assessment Report

EVALUATION

The City's Sustainable Environment Strategy 2019-2024 will be reviewed and updated in 2024. In the interim the City's Administration will continually track the completion of actions and measure progress toward targets. Reporting will occur annually in the form of a Council Information Bulletin prepared at the end of each financial year. Our community will also be updated on the delivery of actions and progress toward targets via the City's Annual Report and through a range of community education initiatives.

WHO DO I CONTACT FOR MORE INFORMATION?

To find out more about our *Sustainable Environment Strategy*, or any of our programs, contact:

The City of Vincent

Address: 244 Vincent Street (corner of Loftus Street), Leederville, Western Australia, 6007

Tel: (08) 9273 6000. **Fax:** (08) 9273 6099

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