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BELIEVE IN YOUR SUSTAINABILITY

annual progress report
2015/16

toward zero

Toward Zero is the City of Port Phillip's sustainable environment strategy to 2020.

Toward Zero has nine challenges covering:

- greenhouse gas emissions
- sustainable urban design and development
- potable water use
- net loss of natural heritage
- waste
- sustainable purchasing and procurement
- contamination and pollution
- climate change
- sustainable transport

Each challenge has targets to achieve the strategy by 2020. The Annual Report communicates Council's progress on these targets. It also provides an overview of pathways to achieve these targets by 2020.

Australia's climate is changing

Current projections for Melbourne for 2030 under a moderate greenhouse gas emissions scenario include temperature increases of 0.6 degrees, annual rainfall decrease of two per cent, sea level rise increase of 11 cm, and a notable increase in the number of days above 35 degrees. Under a high emissions scenario these projections increase significantly. Council is committed to contributing to the worldwide effort to reduce emissions and address climate change. Toward Zero aims to address this challenge and respond to emerging evidence that can assist Council to improve efforts to respond to a changing climate.

Source: CSIRO and Bureau of Meteorology, website at www.climatechangeinaustralia.gov.au

Major milestones in 2015/16

August
2015

Installed 330 new energy efficient streetlights in the final stage of the streetlight upgrade project

September
2015

Council adopted the United Nations Sustainable Development Goals

November
2015

Ministerial approval of local planning policy Amendment C97 (Environmentally Sustainable Development) to the Port Phillip Planning Scheme

December
2015

Toward Zero Community Forum launched to support sustainability efforts of local residents, organisations and businesses

January
2016

St Kilda Town Hall heating and ventilation upgrade project completed to save energy by more efficiently heating and cooling the building

January
2016

First delivery of harvested stormwater from the Elwood / Elsternwick Stormwater Harvesting Scheme

April
2016

Council signed the Melbourne Renewable Energy Project participation agreement, which aims to reduce Council's electricity emissions by up to 100 per cent by 2018

May
2016

Council fulfilled all requirements to join the Global Compact of Mayors, committed to reducing greenhouse gas emissions and enhancing resilience to climate change

May
2016

Construction commenced on the 172kW solar panels at the St Kilda Town Hall

June
2016

Council joined the South East Council's Climate Change Alliance to partner with other local governments and organisations in responding to climate change

June
2016

Installed 2.5 km of on-road bike lanes and 21 new on-street car share bays over 2015/16

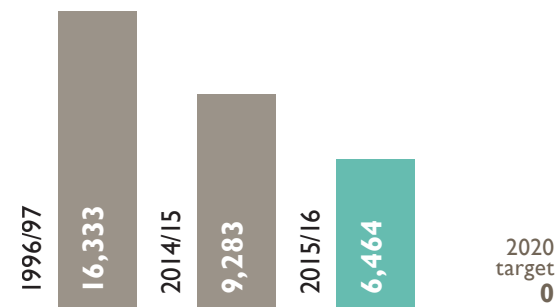
June
2016

Completed raingarden construction at six locations across the City

greenhouse gas emissions

The City of Port Phillip is committed to achieving and sustaining zero net greenhouse gas emissions from Council operations and services by 2020

Tonnes CO₂e



Notes on data

Council's 2015/16 net greenhouse gas emissions were 6,464 tonnes carbon dioxide equivalent (tCO₂e), a 60 per cent reduction on baseline emissions. Emissions are attributed to electricity use in streetlights (38 per cent), gas and electricity use in council buildings (52 per cent), vehicle use (9 per cent), and organic waste sent to landfill (1 per cent).

Council's actions in 2015/16 to reduce emissions

- St Kilda Town Hall heating and cooling upgrade saved at least 28 per cent electricity and 23 per cent gas compared to 2014/15
- the streetlight upgrade program reduced emissions by 15 per cent on 2014/15 levels
- 5,328 tonnes of carbon were purchased (National Carbon Offset eligible).

How is Council going to reach the 2020 target?

- in 2016/17 Council will assess the feasibility of Energy Performance Contracting (EPC) to design, implement and verify savings from energy efficiency projects. If feasible, an EPC will deliver emission reductions and guaranteed savings across Council's largest buildings
- Council plans to deliver up to 1.4 MW of solar energy on Council buildings over five years
- Council will develop minimum energy performance standards for Council buildings and public lighting
- from 2018, and subject to project feasibility, electricity will be supplied from new utility-scale renewable energy facilities.

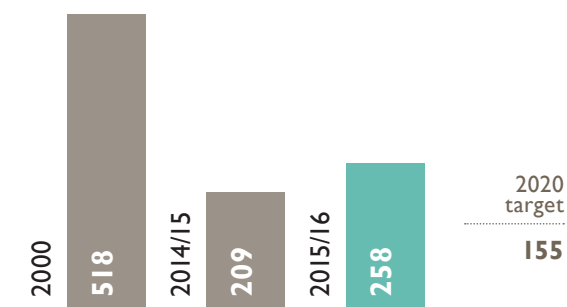
Further information

- Greenhouse Plan - Low Carbon City (2011).

potable water use

The City of Port Phillip is committed to minimising water use to achieve and sustain a 70 per cent reduction in Council's potable water use by 2020 (based on 2000 levels of water use).

Megalitres (ML)



Notes on data

Total Council water use was approximately 50 ML more than in 2014/15.

Responding to community demand, Council started irrigating additional sites including Turner, William Street, Elwood Primary School, Marina and Lagoon reserves. The challenge of reducing potable water use is also affected by increased community use of open space, which we highly encourage, and an extended dry spell resulting in 20 per cent less rainfall over the past two years.

There was a 16 per cent reduction (5 ML) at South Melbourne Market. However, this was offset by increased consumption across other council and community buildings. This could be due to increased garden watering, and will be further investigated.

Council's actions in 2015/16 to reduce potable water use

- Council continues to work with partners to plan for a major stormwater harvesting scheme at Albert Park Lake and has worked to ensure the Elwood/Elsternwick Stormwater Harvesting Scheme will provide consistent supply into the future. If feasible, the Albert Park Lake project will be a significant contributor to Council achieving its 2020 target for potable water use.

How is Council going to reach the 2020 target?

- Council will employ strategies to manage demand as well as implement stormwater harvesting in line with the proposed Toward Zero Pathways to 2020. Submetering of large water usage sites is a key component of understanding and responding to changing levels of water use.

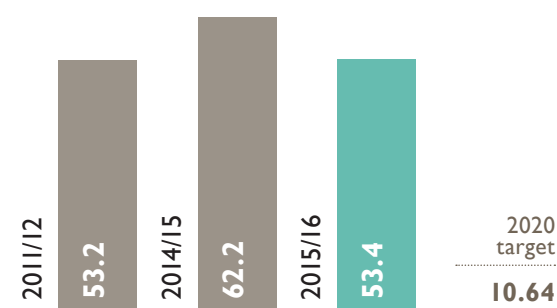
Further information

- Water Plan - Toward a Water Sensitive City (2010).

waste

The City of Port Phillip is committed to minimising Council's waste to achieve and sustain an 80 per cent reduction in Council's waste to landfill by 2020 (based on 1999 levels).

Tonnes



Notes on data

Data is gathered as part of regular bin audits of council facilities, and extrapolated for the year. In 2015/16 data sets were incomplete and it was necessary to estimate usage. Council is reviewing its methodology for 2016/17, and will implement a more robust auditing methodology. This will provide a more complete picture of our organisation's waste and the recovery of items such as soft plastics, batteries, electrical waste and others.

Council's actions in 2015/16 to reduce waste

- Council introduced improved waste management and resource recovery at significant town hall events to reduce the amount of waste to landfill. A three day sale event in December 2015 generated 690 kilograms of waste, of which 97 per cent was diverted for recycling
- trialled diverting barbecue fat from council-owned barbecues used by the public to a biofuel manufacturer
- completed comprehensive waste audits at two Council-managed Early Years Services and a Council-owned Early Years building
- managed Council's worm farm system at St Kilda Town Hall, which processes 2,940 kilos of organic waste annually.

How is Council going to reach the 2020 target?

- Council has allocated \$25,000 in 2016/17 to develop a new Waste Management and Resource Recovery Strategy. The strategy will address both council and community waste and will clarify and improve on current data collection methodologies for council waste.

contamination and pollution

The City of Port Phillip is committed to maintaining and increasing the health and quality of its natural assets

Council reduces contamination and pollution by capturing stormwater pollutants through installing water sensitive urban design systems, such as raingardens and stormwater harvesting. Stormwater pollutants such as sediment, nitrogen, pathogens and phosphorous are naturally filtered through plants in these systems and captured before they impact the health of Port Phillip Bay.

Council's Water Plan sets targets for stormwater pollutant reduction, and is delivered through an annual raingardens capital works program. Raingardens also improve streetscape amenity, contributing to cooler and greener streets that are more accessible and aesthetically pleasing for pedestrians. Raingardens can be integrated into pedestrian improvements and traffic calming treatments.

The projects delivered in 2015/16 collected 3.7 tonnes of total suspended solids, bringing the cumulative annual reduction potential to 38.9 tonnes a year. This is slightly under the 2015/16 target of 39.2 tonnes; however, we made progress towards our target.

Council's actions in 2015/16 to reduce contamination and pollution

- designed and installed six raingarden projects across the City, in Perrins Street (South Melbourne), Farrell Street, Stokes Street, Princes Street, Nott Street (Port Melbourne) and Fitzroy Street (St Kilda)
- advocated to the Victorian Government on the draft Victorian Water Plan 2016.

How is Council going to reach the 2020 target?

- ongoing delivery of the annual raingardens capital works program
- advocate for the proposed Albert Park Lake stormwater harvesting scheme which is critical to delivering Council's targets.

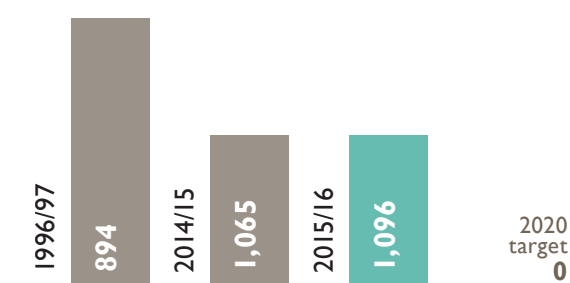
Further information

- Water Plan - Toward a Water Sensitive City (2010).

sustainable transport

The City of Port Phillip is committed to ensuring it achieves a low-emissions or no-emissions fleet by 2020.

Tonnes CO₂e



Notes on data

This year's figure represents a 2.7 per cent increase in emissions on updated emission levels for 2014/15 (1,065tCO₂e), with diesel purchased increasing 3 per cent and unleaded petrol purchased decreasing 1 per cent.

Council's actions in 2015/16 to reduce fleet emissions

- made minor improvements to end of trip facilities to encourage staff use of active forms of travel
- delivered bicycle skills education program to staff
- introduced one electric vehicle to the Council fleet
- continued to advocate to the Victorian Government to improve access to public transport.

How is Council going to reach the 2020 target?

- develop and implement a Green Fleet Action Plan, including enhanced travel choices for work related travel and administrative controls to reduce emissions
- offset vehicle emissions to deliver a zero emissions vehicle fleet.

Further information

- Sustainable Transport Strategy (2011).

sustainable urban design and development

The City of Port Phillip is committed to ensuring all council buildings and facilities minimise their environmental impact and maintain measurable environmental performance standards.

Council's actions in 2015/16 to improve sustainable urban design and development

- continued to ensure environmentally sustainable design features were integrated into the new St Kilda Life Saving Club clubhouse throughout the construction phase by benchmarking the design against a 5 Star Green Star standard
- set sustainable design performance benchmarks for projects currently in the design phase, including South Melbourne Life Saving Club, South Melbourne Community Centre, Liardet Street Community Centre and Peanut Farm Pavilion redevelopment
- promoted past capital works projects that received industry recognition, such as the Port Melbourne Football Club redevelopment, which won the Sustainability Category of the Australian Timber Design Awards.

How is Council going to improve sustainable urban design to 2020?

Council will continue to strongly advocate for the inclusion of sustainable design criteria for new building projects and major refurbishments. This will be done by revising and improving Council's Sustainable Design Strategy to ensure the standards align with, and exceed, the best practice standards set for the development community through the Port Phillip Planning Scheme amendment (Clause 22.13).

Further information

- Sustainable Design Strategy (2013).

net loss of natural heritage

The City of Port Phillip is committed to maintaining and enhancing its natural heritage values, significant sites, and regional biodiversity and habitats.

Council's actions in 2015/16 to improve natural heritage.

- removed significant dead, dying and hazardous vegetation from Fraser Street dunes and Point Ormond Reserve during the first year of implementation of the Foreshore and Hinterland Vegetation Management Plan
- completed replanting 8,990 plants at these sites between May and July 2016
- planted over 130 healthy trees at Hester Reserve, J.L. Murphy Reserve and Garden City Reserve (Port Melbourne)
- planted over 1,010 street trees across the municipality
- replaced hard and impermeable surfaces in residential streets, including James Service Place (South Melbourne) and extended the St Vincent Street Median strip (Albert Park)
- streetscape upgraded to sections of Nelson Street (South Melbourne), Nott Street and Dow Street (Port Melbourne)
- advocated to the Victorian Government on Protecting Victoria's Environment - Biodiversity 2036.

How is Council going to improve natural heritage to 2020?

- continue to increase tree canopy cover based on canopy mapping
- increase the number of trees in streets and parks, reducing impermeable surfaces through tree plots and garden beds
- implement a new street and park tree priority list for the next five years
- continue to implement the Foreshore and Hinterland Vegetation Management Plan priorities, to improve biodiversity, plant quality and shade/protection. The year two priorities are Tea Tree Reserve and Point Ormond.

Further information

- Greening Port Phillip 2010-2015
- Foreshore Management Plan.

sustainable purchasing and procurement

The City of Port Phillip is committed to ensuring the sustainability of what Council purchases and procures for its operations and services, to achieve and maintain a 70 per cent reduction in the use of unsustainable products by 2020 (based on 2007 levels).

In 2015/16, 2.6 per cent of council's purchases were sustainable, down from 5.6 per cent in 2014/15.

There are challenges in tracking the green procurement of services, and Council must review its approach in order to gather a more robust dataset. This activity should be undertaken as part of the development of a Green Procurement Action Plan.

Council's actions in 2015/16 to improve sustainable purchasing and procurement

Council will continue to encourage green procurement on its purchasing system. In the absence of a Green Procurement Action Plan, no additional actions were undertaken. The development of a plan is proposed for 2017/18.

How are we going to reach the 2020 target?

- review and enhance methodologies for green procurement tracking and reporting in 2016/17
- develop a Green Procurement Action Plan, outlining actions to reach the Toward Zero 2020 target
- assess and provide resources to assist officers with green procurement alternatives
- develop targeted training for key users.

climate change

The City of Port Phillip is committed to helping prevent further climate change and actively reducing regional greenhouse gas emissions.

Taking action on climate change requires a commitment to creating assets that have the capacity to positively adapt to a changing climate, and to increasing our community's resilience to changing weather patterns.

Council's actions in 2015/16 to adapt to climate change

- Council joined the South East Council's Climate Change Alliance, a collaboration of nine councils taking a regional response to climate change by delivering projects to reduce greenhouse gas
- developed a building vulnerability assessment framework for building managers to identify how climate change will impact council buildings. Assessments of coastal buildings have identified actions to prevent future climate impacts and Council is proactively working to include these considerations in the design of new assets such as the St Kilda and South Melbourne life saving clubs
- Council endorsed the Resilient Melbourne Strategy and the Port Phillip and Westernport Flood Management Strategy, and committed to working collaboratively to ensure successful delivery of these strategies
- ongoing delivery of the Bay Blueprint for Port Phillip Bay, in partnership with the Association of Bayside Municipalities, to create a consistent, baywide approach to responding to coastal climate adaptation.

How are we going to reach the 2020 target?

- Council will continue to advocate to the Victorian Government and stakeholders for a Coastal Hazard Vulnerability Assessment
- Council will continue collaborating with the Victorian Government, other councils and researchers, to identify appropriate adaptation pathways to protect Council's coastal infrastructure, parks and buildings.

Further information

- Climate Adaptation Plan - Climate Adept City (2010).

community challenges

Council aims to support the community to achieve aspirational community targets. While it is not possible to accurately report community usage due to lack of access to up-to-date emissions data, we would like to reflect on highlights during 2015/16 that support a sustainable community.

Greenhouse gas emissions

Port Phillip community solar bulk buy was delivered with Council support, resulting in 193 registrations and a total of 120 kW of solar panels installed on 45 households.

Water and contamination and pollution

Around 20 Elwood residents participated in the 'Water Sensitive Elwood' community visioning process. The outcomes of this process were exhibited at the Monash Art Design and Architecture Gallery in June 2016.

Waste

This year, Council diverted approximately 40 per cent of household waste from landfill.

Since 2007 the tonnage of recyclable materials collected from the Resource Recovery Centre increased by approximately 59 per cent, and household waste to landfill has increased by approximately 9 per cent.

Sustainability in Fishermans Bend

Council endorsed five sustainability principles to underpin best practice environmental performance in the redevelopment of Fishermans Bend.

Sustainable transport

Council has made significant improvements to encourage low emissions travel and improve safety for pedestrians and bike riders, including:

- improved eight intersections across the City
- reduced speed limits from 50 kph to 40 kph in three new areas
- installed 2.5 kilometres of on-road bike lanes, along with 42 new bike hoops and three public bike pumps
- installed 21 new on-street car share bays to encourage shared resources and reduce the need for car ownership
- added two new Melbourne Bike Share stations outside Gasworks Park on Pickles Street and next to the West Beach Pavilion, to provide a total of 12 bike share stations across Albert Park, South Melbourne and Port Melbourne.

Additionally, Public Transport Victoria and Yarra Trams delivered a platform upgrade on the corner of St Kilda Road and Dorcas Street (South Melbourne).

Sustainable urban design and development

In 2015/16, 78 per cent of eligible planning applications complied with Council's sustainable design requirements. Council will continue to support compliance.

A key milestone was achieved this year with the gazettal of the Environmentally Sustainable Development Local Planning Policy (Clause 22.13), which applies to all residential developments of two dwellings or more and all non-residential developments of 50 m² or over. This amendment to the Port Phillip planning scheme will ensure that environmental performance is considered in the assessment of development proposals.

Council will continue to advocate to the Victorian Government for the adoption of a statewide Environmentally Sustainable Development planning policy, which would require sustainable design to be considered holistically throughout the planning process for all Victorian councils.

Net loss of natural heritage

Twenty five thousand indigenous plants were planted by members of the community and Council. Council continues its partnership with the St Kilda Indigenous Nursery Cooperative to encourage residents to plant local indigenous species.

The Port Phillip EcoCentre has been active in continuing to develop the community's appreciation and care for our local environment, and runs a number of school and community education programs. The EcoCentre's local youth ambassador Gio Fitzgerald was awarded the 2016 UN World Environment Day Award for his efforts towards increasing urban biodiversity.

Climate change

Council leads the Sustainability Community Action Network (SCAN), which stimulates community ideas for tackling climate change. In 2015/16, attendance at SCAN meetings increased, with 337 attendees across five events and hundreds on event waiting lists. SCAN participants have been surveyed to better understand the impact of SCAN on their behaviour, with 91 per cent indicating they were likely to take action after attending SCAN events.

Fifty one free energy audits were provided to the community by the Council's Greenhouse Programs Officer.

case studies

St Kilda Town Hall Solar

The St Kilda Town Hall is Council's largest energy consuming building, accounting for 20 per cent of total building related emissions. Between 2012 and 2016, energy saving measures reduced electricity use by 35 per cent and gas use by 32 per cent, and reduced emissions by 39 per cent. The new 172kW solar photovoltaic system for St Kilda Town Hall is expected to generate 230,000kWh of electricity, reduce emissions by 300tCO₂e, and save \$44,000 each year. Together, the renewable energy and ongoing energy saving initiatives should reduce St Kilda Town Hall emissions by 55 per cent compared to 2012 levels



Early Years Sustainable Leadership Program

In 2015/16 the Early Years program was delivered across 14 services across the City. Clarendon Children's Centre installed a 14kW solar panel system in October 2015 and is working hard to reduce its emissions, demonstrating leadership in sustainability and mentoring other local centres. Council has collated and analysed water and energy use data from participating centres to provide targeted support, enabling centres to reduce water and energy usage per child per opening hour. Clark Street Early Childcare Centre identified and repaired a significant underground leak that had been contributing to high water use figures, reducing their daily water use by 57 per cent.



School Travel Program

Council coordinated upgrades and behaviour change interventions to make walking and bike riding easier, safe and more convenient for children attending Albert Park Primary School. Initiatives included:

- area-wide speed reductions from 50 to 40 kph
- blackspot treatments including raised zebra crossings, bike lane markings and increased pedestrian priority at crossings
- installation of a footpath along the Gasworks side of Foote Street and Bridport Street West (Albert Park)
- installation of four 'Active Paths' routes to Albert Park Primary School
- development of a School Travel Plan with activities to create an active travel culture.



Summer Ranger Work Experience Program

Port Phillip's annual summer waste management campaign helps reduce the impact of increased activity on our local amenity and environment. In the Summer Ranger Work Experience Program, students from Montague Continuing Education Centre worked alongside Port Phillip's Summer Rangers to implement our anti-litter campaign. Students gained valuable experience conducting litter audits and cleanups, surveying visitors on environmental issues and conducting sustainable education activities with both visitors and the local community.



Melbourne Renewable Energy Project

Council is a member of the Melbourne Renewable Energy Project (MREP). This partnership project aims to collectively invest in a renewable energy facility built specifically for MREP participants. This is an Australian first in collective renewable energy purchasing, and will allow Council to reduce its greenhouse gas

emissions by 90 per cent. If the project proceeds, it will supply zero emissions electricity to all council buildings and streetlights commencing in 2018. This project complements Council's ongoing commitment to improving energy efficiency and installing on site renewables on council buildings.

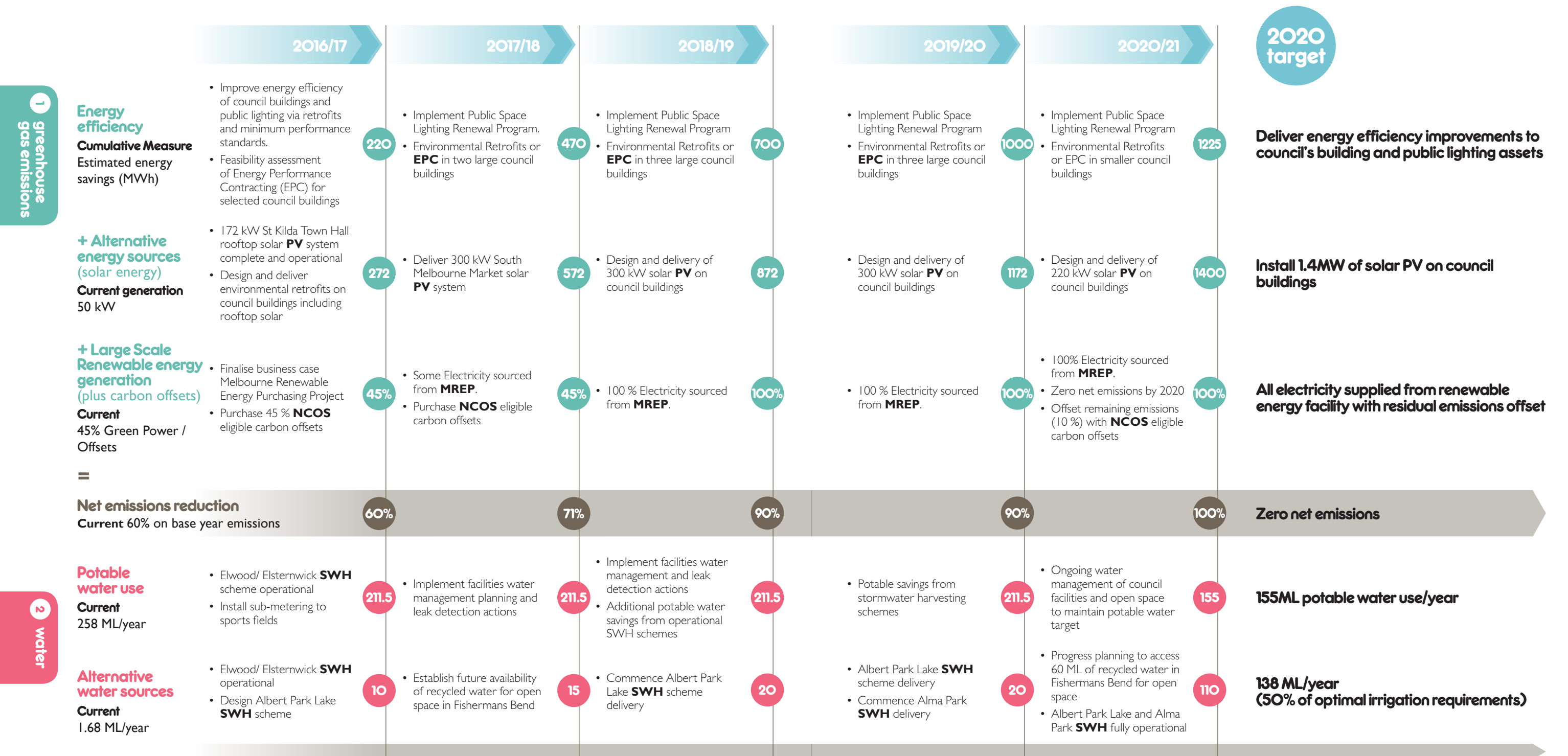
South Melbourne Market Recycling machine

In 2015/16 the South Melbourne Market concluded a short trial of a 100kg Capacity Gaia Recycle Machine. This machine creates fertilizer from waste as diverse as fish offal, green waste and food waste, reducing raw waste by-product 90 per cent. The Market will permanently install

a 1,200 kg capacity recycle machine that converts raw organic material into certified fertilizer within 10 hours. Approximately 360 tonnes of organic waste plus approximately nine tonnes of coffee will be processed through the machine annually. Other by products include 288,000 litres per year of clean water for bin cleaning and other uses, and a reduction of 529 tonnes of Council greenhouse gas emissions.

Pathways to 2020

These pathways provide an overview of the possible major actions that Council could implement between now and 2020 to deliver on Toward Zero targets. Each pathway outlines the likely annual target trajectories arising from these actions. All actions are subject to funding approval through the annual budgeting process and rely on ongoing investment and partnerships with external stakeholders.



Descriptions

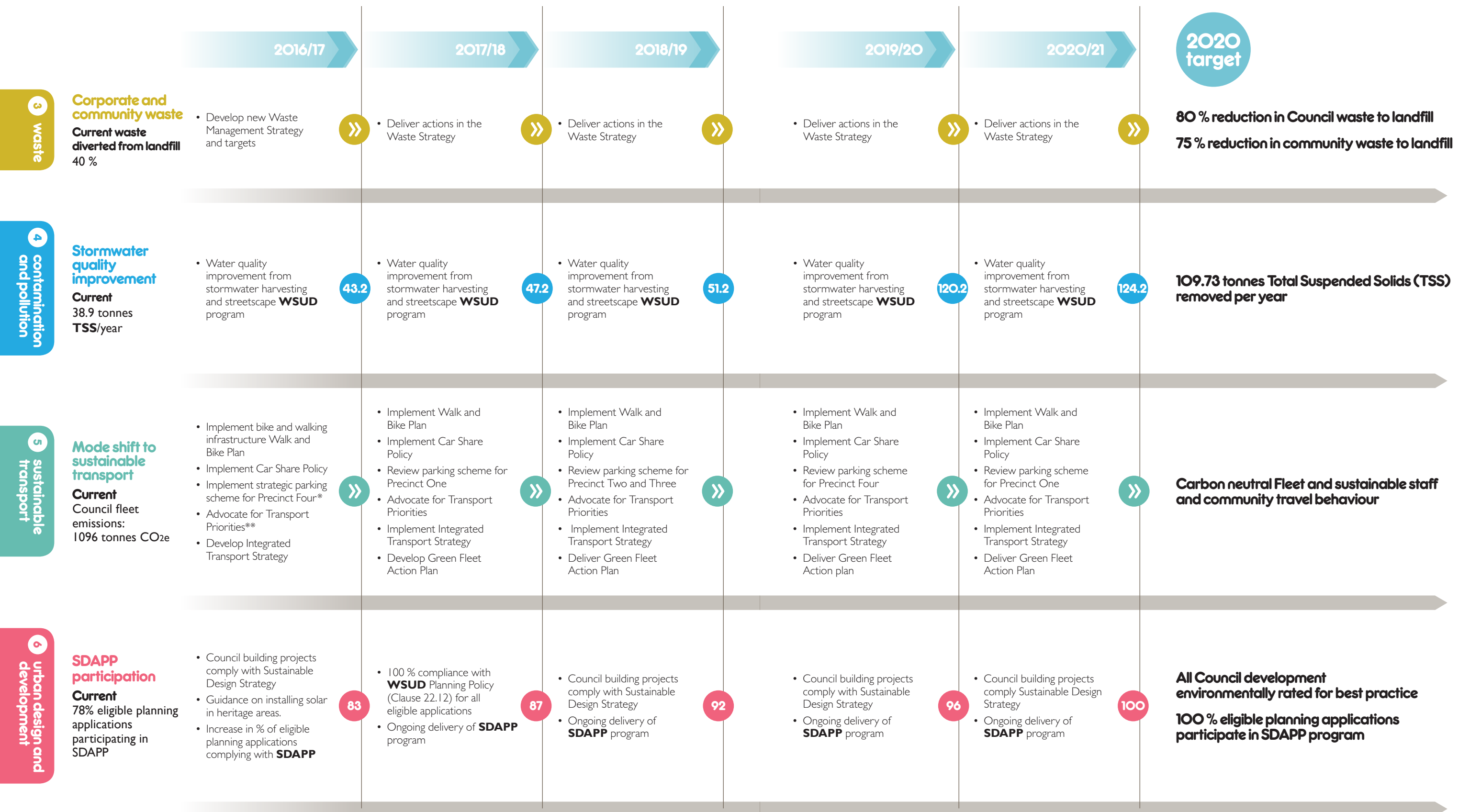
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*Strategic parking scheme precincts

One South Melbourne **Two** Port Melbourne **Three** Balaclava, Ripponlea and Elwood **Four** Albert Park, Middle Park and St Kilda West **Five** St Kilda East, Windsor and Melbourne

**Transport advocacy priorities

St Kilda Road protected bike lanes, Park Street tram link and Collins Street tram extension



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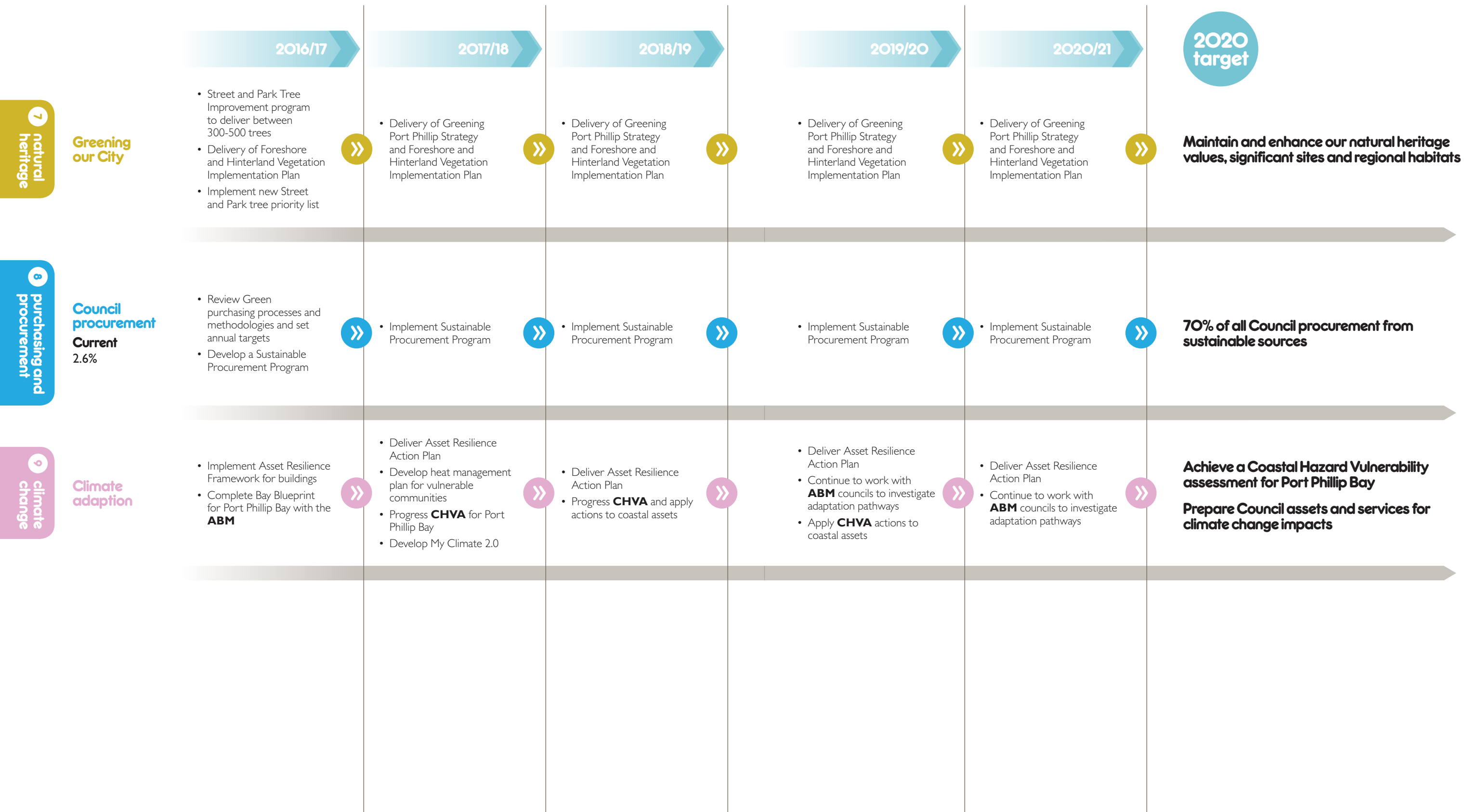
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