

CLIMATE EMERGENCY STRATEGY 2022-2032



TOWN *of*
EAST FREMANTLE



John Tonkin Reserve following storm surge - May 2021

EAST FREMANTLE 
CARG
CLIMATE ACTION REFERENCE GROUP

Inclusive community, balancing growth,
lifestyle and sustainability



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Acknowledgment of Country

The Town of East Fremantle acknowledges the Whadjuk people of the Nyoongar nation as the Traditional Custodians of the lands on which the East Fremantle exist. We pay our respects to ancestors and Elders, past, present and emerging and acknowledge their continued custodianship of Country. We are committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, water and sea and their rich contribution to society. We acknowledge the thousands of years of caring for Country.

We acknowledge that Aboriginal and Torres Strait Islander people are often more vulnerable to the impacts of climate change due to the social and economic inequality they experience as a result of colonialism. We acknowledge Aboriginal and Torres Strait Islander culture as the oldest continuous living culture in the world. Responding to the climate emergency offers the opportunity to embrace Aboriginal and Torres Strait Islander perspectives, science, knowledge and working together to ensure sustainable land use practices and climate change mitigation and adaptation.

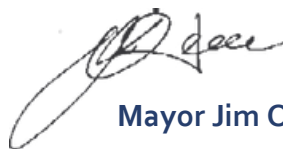


Message from the Mayor



Mayor Jim O'Neill

I am pleased to present our Climate Emergency Strategy 2022–2032 to the people of East Fremantle. Globally, communities are taking up the challenge of fighting climate change. In 2019, the Town declared a Climate Emergency and in 2020 formed the Climate Action Reference Group (CARG) comprising Environmental Scientists, Engineers and community members. CARG has set ambitious net zero emissions targets for both Council operations and the community. This bold new Strategy reflects the views of the community and the Town's commitment to action on climate change. We aim to lead by example and work hard to cut the Town's own carbon footprint. We will support the East Fremantle community by educating, informing, facilitating, and mobilising a transition to a low-carbon lifestyle. The commitment of each and every member of our community is essential. We will also advocate for stronger policy and legislation with the Western Australian and Federal Government for a better future. All of Council's future decisions will be considered through the lens of future impacts from climate change. The objectives outlined in this Strategy will guide us in working together to create a sustainable, liveable, and resilient East Fremantle.



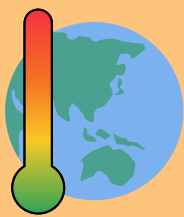
Mayor Jim O'Neill

What is Climate Change?

In Australia, the climate has warmed on average by 1.44 °C since national records began in 1910. There has been global warming of 1.1°C in the same time frame. This change is largely linked to human activities such as the increased burning of fossil fuels and land clearing.

Climate change is the shift in the long-term weather pattern of an area, this includes rainfall, temperatures, and wind. When fossil fuels such as coal, oil and gas are used for energy production, greenhouse gases such as carbon dioxide and methane are released into the atmosphere. Greenhouse gases become trapped in the Earth's atmosphere leading to the Greenhouse effect, where heat is trapped in the atmosphere leading to altered weather patterns.

Climate modeling has shown that the southwest region of Western Australia will experience a 14% reduction in average annual rainfall by 2030 with a 0.7°C rise in temperature. The southwest of Western Australia continues to become warmer and drier, consequently, this will lead to less inflow into the state's dams with depleted recharge to groundwater. Due to Perth location, it has had access to large stores of groundwater which have ensured a vibrant and green lifestyle. Now, with limited rainfall and a changing environment, the once healthy system is under strain.



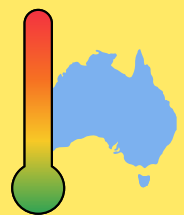
+1.1°C

increase in global average temperatures above pre-industrial levels, with global temperatures likely to reach 1.5°C between 2030 and 2052.



50%

of all Australian forests and bushlands have been destroyed, replaced or degraded since pre-European arrival.



+1.4°C

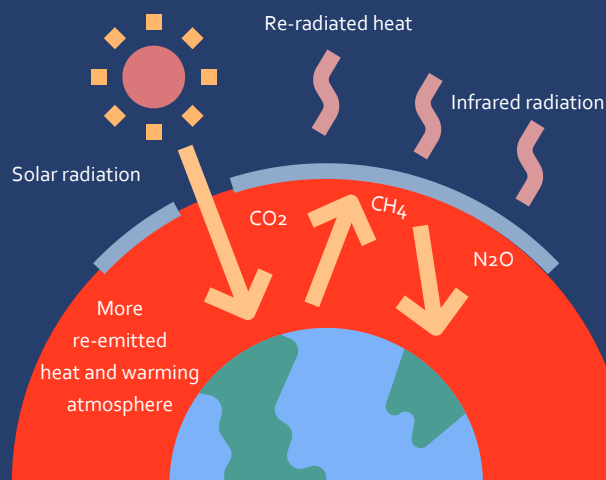
increase in average temperatures in Australia since 1960.



20%

reduction in rainfall across Western Australia since the 1970s resulting in a 80% reduction of runoff into Perth's Dams.

Human Enhanced Greenhouse Effect



What is the Climate Emergency?

The Climate Emergency is a time in which urgent action is required to reduce or limit emissions to avoid potentially irreversible warming and environmental damage. Climate change is evident, its impacts are already affecting our environment, economy, health and society. Whilst global efforts to tackle climate change are increasing, the science is clear that action needs to be focused on achieving zero net carbon emissions as an initial target, followed by working to reduce atmospheric carbon to eventually reduce global average temperatures.

If global average temperatures do not decrease, the likelihood and risk associated with extreme weather events such as heatwaves, severe storms, major floods, extreme bush fires, and coastal erosion and inundation will increase. Impacts can be exacerbated in urban environments for example where large areas of impervious surfaces such as concrete and bitumen lead to increased flooding during heavy downpours. Further, roads, footpaths, and household roofs trap large quantities of heat in the warmer months, increasing urban temperatures and thus the need for energy-intensive cooling, exacerbating our demand for and use of fossil fuels.

Recognising this, in November 2019 the Town joined a growing number of Local Governments around Australia by declaring a 'Climate and Ecological Emergency' and demonstrating leadership by setting a target to become a net zero carbon emission Local Government. To guide and assist with this, the Town has developed this strategy which aims to aligns with the Paris Climate Agreement and the international effort to stay below a 1.5°C rise in global average temperatures.



Message from the Climate Action Reference Group

The Climate Action Reference Group would like to thank East Fremantle Council for inviting interest from the community to participate in addressing the Council's declaration that there is a climate emergency and to assist in developing strategies to mitigate and adapt to the changing impacts of climate change. The CARG in co-operation with Council has set strategic objectives for the Climate Emergency Strategy for the future of East Fremantle.

The CARG was formed after members of the community lobbied for Council to assist the community in taking local action on climate change. It has been a pleasure to work with the Council on behalf of the residents and ratepayers and we are very much looking forward to meeting you in the future at any information, cultural, or climate related event.

East Fremantle Climate Action Reference Group



East Fremantle Climate Action Reference Group 2021

L-R back row Cr Tony Natale, Paul Van der Beeke, Leigh Nicholas, Christine Finlay, Wendy Wisniewski, Miles Dracup and Jane Melvin. Front row L-R: Connor Warn, Rebecca James, Maureen Flynn, Fraser Maywood, Shelley Cocks, Duanne Ginger, absent from photo Cr Cliff Collinson, Cr Dean Nardi, Andrew Malone, Emma McSweeney and Gary Tuffin.

Purpose of the Climate Action Reference Group

At the Ordinary Council meeting on 19 November 2019, the Town of East Fremantle recognised the Climate Emergency and declared its position in reducing the impact onto the environment from emissions.

As a result of a community member's request at the Annual Electors meeting on 17 March 2020, the Town resolved to form a Climate Action Reference Group to assist with the formulation of a Climate Emergency Strategy (CES) and Climate Emergency Action Plan (CEAP).

The Town supported the community call to action in reducing the carbon emissions of Council owned assets and operations and to support all residents and ratepayers of East Fremantle in minimising their own carbon footprint.

In June 2020, the Town invited residents to express an interest in forming a CARG to assist with the following:

- Identifying targets, projects, and actions that the Town and its community can undertake to assist with meeting the challenges of the future in relation to climate change.
- Act as a conduit between Council and the community in providing recommendations to assist the Town in developing a CES and CEAP.

Riverside Road, East Fremantle 2021



Working with the Community on the Climate Emergency Strategy

What is this Strategy?

The Climate Emergency Strategy is a guiding document that provides a framework for Council to address the Climate Emergency from both a Council and community perspective. The CES was formulated in partnership with the CARG, Elected Members and staff from the Town of East Fremantle. The CES is the first part of a three-part response to mitigate and adapt to the impacts of climate change.

Step 1: Climate Emergency Strategy

Includes visions and high-level goals (Strategic Objectives) to set the direction for how the Town responds to the climate emergency.

Step 2: Climate Emergency Action Plan

Includes detailed programs, projects, and actions to meet the high-level strategic objectives set out in the Strategy.

Step 3: Implementation

Implementation of the programs, projects, and actions set out in the Action Plan, meeting the strategic objectives set out in the Strategy.

What will the Strategy do?

The CES provides a framework for Council to follow, ensuring both Council and the community move beyond business as usual in addressing the impacts of climate change. This Strategy will incorporate both mitigation and adaptation methods to address climate change. Mitigation actions focus on reducing greenhouse gas (GHG) emissions that cause climate change and adaptation actions refer to responding to and preparing for the risks of climate change.



Council has acknowledged the Climate Emergency and this Strategy supports the commitment to address climate change

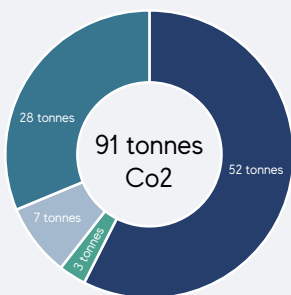


CORPORATE EMISSIONS PROFILE 2020/2021

The Town's emissions profile is categorised into three key areas:

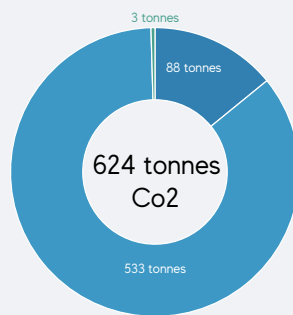
- Scope 1** direct emissions resulting from activities undertaken by the Town (typically fuel from Council fleet vehicles and gas consumption).
- Scope 2** indirect emissions from the production of electricity used by the Town. Emissions are created during the production of the energy which is then used by the organisation. For example 'indirect emissions' come from the use of electricity produced by the burning of coal in another facility.
- Scope 3** Indirect emissions from activities and sources not produced by the Town or not directly under the Town's control. Usually, scope 3 emissions account for the greatest share of the carbon footprint, including transportation of goods, purchased fuels, and contractor travel.

Emissions Scope 1 2020/21



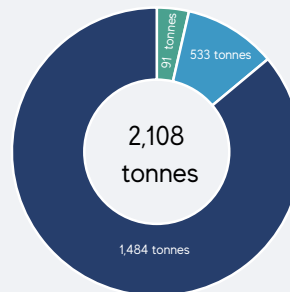
- Fleet - Diesel
- Fleet - Premium Unleaded
- Mains Gas
- Fleet - Unleaded Petrol

Emissions Scope 1 and 2 2020/21



- Fleet - Petrol and Diesel (Scope 1)
- Mains Gas (Scope 1)
- Electricity (Scope 2)

Emissions all Scopes 2020/21



- Sum of Emissions Scope 1
- Sum of Emissions Scope 2
- Sum of Emissions Scope 3

Figure 1: Town of East Fremantle Emissions profile for 200/21 by Scope

Emissions all Scopes by activity in tonnes	2019/20	2020/21	% change
Waste GHG Emissions from Methane (Scope 3)	3,820	1,464	-62%
Electricity (Scope 2) including Street Lighting	463	533	+15%
Street Lighting (Scope 2)	190	186	-2%
Fleet - Petrol and Diesel (Scope 1)	161	93	-42%
Mains Gas (Scope 1)	8	3	-63%
Total	4,485	2,108	-53%

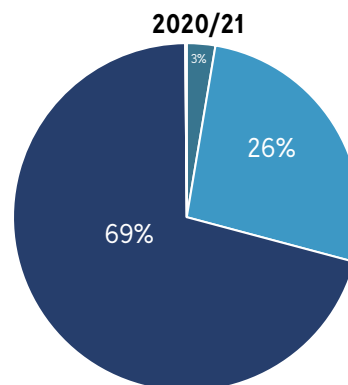


Figure 2: Town of East Fremantle Emissions profile all scopes by activity 2019/20 vs 2020/21

Seven Strategic Objectives

The Town's CARG has identified seven strategic objectives. The strategic objectives identify the ways Council can enact change, assist the community to enact change and advocate for broader change. The strategic objectives outline how Council will mitigate and adapt to the current and future impacts of climate change whilst ensuring the community is involved in the combined journey to net zero emissions.



ENERGY



PROCUREMENT



TRANSPORT



INFRASTRUCTURE



WASTE



WATER



GREEN SPACES



The Sustainable Development Goals

The Sustainable Development Goals are 17 global goals that the United Nations General Assembly set in 2015 for completion by 2030. The Sustainable Development Goals address the global challenges currently faced world-wide, including climate change, environmental degradation, poverty, inequality, prosperity, and peace and justice.

In order to help the Town and the community prepare for the increased future impacts of climate change, the seven strategic objectives set by CARG address and reflect a number of the Sustainable Development Goals.



IT IS TIME TO ACT - Council, Community and Advocacy

Seven Strategic Objectives

Each strategic objective is divided into three parts: Council, Community, and Advocacy. 'Council' refers to how the Town will combat and manage the effects of climate change; 'Community' is how Council will assist the community to adapt and mitigate the effects of climate change, and 'Advocacy' is how the Town will advocate with multidisciplinary organisations and agencies on behalf of the community to ensure climate change has a pivotal focus in the Town's future.



STRATEGIC OBJECTIVE 1 ENERGY

- Council commits to net zero greenhouse gas emissions and transitioning to renewable energy by 2030.
- Council will encourage the community to transition to zero emissions by 2030.
- Council will advocate to service and infrastructure providers to accelerate the transition to zero carbon energy for both Council and the community.



STRATEGIC OBJECTIVE 2 GREEN SPACES

- Council commits to increasing the Town's total vegetation canopy cover to 30% by 2030.
- Council will support greening initiatives on both public and private land.
- Council will collaborate with multi-disciplinary organisations to increase and protect green spaces.



STRATEGIC OBJECTIVE 3 WATER

- Council will reduce the consumption of scheme and groundwater by 3% per year.
- Council will support the community with incentives and education to reduce water consumption.
- Council will collaborate with stakeholders and external organisations to protect and preserve the state's water supplies.



STRATEGIC OBJECTIVE 4 **TRANSPORT**

- Council commits to no greenhouse emissions from its fleet by 2030.
- Council will enhance active transport infrastructure and encourage active and public transport options .
- Council will advocate for better access to public transport with lower emissions technology.



STRATEGIC OBJECTIVE 5 **INFRASTRUCTURE**

- Council commits to ensure adaptation and mitigation measures in all new and modified Council assets and infrastructure.
- Council will encourage the use of “Environmental Sustainable Design” through policy and incentives to promote green commercial premises and residential dwellings.
- Council will advocate and work with other government agencies to adapt and mitigate infrastructure to the impacts of climate change.



STRATEGIC OBJECTIVE 6 **PROCUREMENT**

- Council commits to incorporating sustainable procurement and circular economy principles as key considerations for procurement.
- Council will support the community in making informed environmentally responsible purchasing decisions through education and information programs.
- Council will advocate to service providers for environmentally responsible purchase and investment decision making.





STRATEGIC OBJECTIVE 7 **WASTE**

- Council aims to achieve zero waste to landfill by 2030.
- Council will support community groups, residents, and commercial operations to achieve zero waste to landfill by 2030.
- Council will advocate for waste management solutions to achieve zero waste to landfill by 2030.

based on figures taken from 2020/21*

STRATEGIC OBJECTIVE 1

ENERGY ⚡

3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	7 AFFORDABLE AND CLEAN ENERGY 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	17 PARTNERSHIPS FOR THE GOALS 
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STRATEGIC OBJECTIVE 1

ENERGY ⚡



VISION

- Council commits to net zero greenhouse gas emissions and transitioning to renewable energy by 2030.
- Council will encourage the community to transition to zero emissions by 2030.
- Council will advocate to service and infrastructure providers to accelerate the transition to zero carbon energy for both Council and the community.

WHAT WE KNOW

Electricity markets around the world are seeing rapid transitions away from fossil fuels with an increased uptake of renewable sources of energy. This transition is increasing pressures on pre-existing market operators as they fail to ensure supply, security, affordability, and sustainability of traditional energy products.

Many Local Governments are stepping away from traditional energy providers through joint renewable power purchase agreements which ensure the purchase of renewable energy. The Town was recently involved in a power purchase agreement involving 50 other Local Governments through (WALGA) for the purchase of renewable energy. Under a power purchase agreement, Local Governments pool their demand for energy, purchase it together, and negotiate more favorable terms of supply and associated prices.



46%

of the Town's electricity consumption is generated from street lighting alone. 991 GJ from a total 2174 GJ in 2020/21 financial year emitting 186 tonnes of CO₂.



54%

of the Town's electricity consumption comes from Council owned and operated assets. 1,183 GJ from a total 2174 GJ in 2020/21 financial year

The Town will continue to support the community by providing factual information based on credible scientific information to promote a low carbon lifestyle. In December 2021, the Town partnered with Climate Clever to provide residents with methods to measure and reduce the carbon footprint of their household.

WHAT WE ARE DOING

ENERGY



The Town engaged Ironbark Sustainability to provide a business case for the transition to LED street lighting with a total cost of \$340,000. This would cut 140 tonnes of emissions and reduce the Towns annual energy costs by approximately \$80,000 .



The Town partnered with 50 other Local Governments in a power purchase agreement negotiated by WALGA to purchase green energy for contestable sites in the Town.



The Town has committed to installing an electric car charger at the Town Hall (135 Canning Highway) to assist residents in the uptake of EV technology.



The Town has installed solar panels at Dovenby House and Tricolore Community Centre. The Town has supported various Clubs in installing solar panels such as the Bowling, Tennis and Rowing Clubs.



The Town partnered with Climate Clever in 2021 to provide subsidised subscriptions for residents, schools and businesses. Climate Clever provides residents , schools and businesses with tailored actions to cut energy consumption and reduce carbon emissions.



The Town has been tracking energy use of Council controlled buildings via a subscription service to Planet Footprint (now Azility) since 2009.



The Town continues to investigate the purchase of energy efficient modes of transport and energy efficient upgrades to infrastructure.



The Town purchased its first hybrid vehicle in 2021 which is expected to be available in early 2022.

STRATEGIC OBJECTIVE 2

GREEN SPACES

3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



15 LIFE ON LAND



17 PARTNERSHIPS FOR THE GOALS



STRATEGIC OBJECTIVE 2

GREEN SPACES



VISION

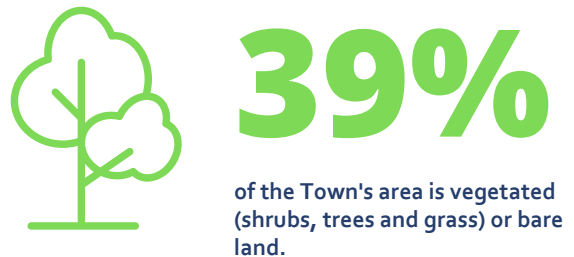
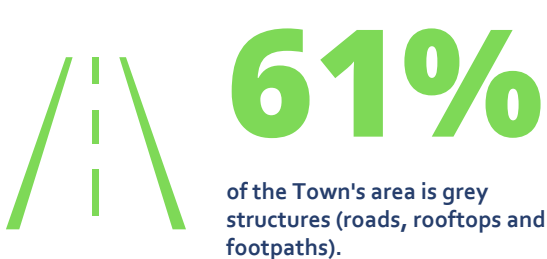
- Council commits to increasing the Town's total vegetation canopy cover to 30% by 2030.
- Council will support greening initiatives on both public and private land.
- Council will collaborate with multi-disciplinary organisations to increase and protect green spaces.

WHAT WE KNOW

Urban green spaces include nature reserves, parks, private gardens, and street trees; all of which are vital for healthy and sustainable communities. Urban green spaces act as the lungs for urban environments, aiding in the filtration of pollutants, reducing the levels of urban heat, providing habitat for wildlife, improving the aesthetics and improving the physical and mental health of the community.

Interconnected green spaces across public and private land are crucial to creating resilient communities in light of the current and future effects of climate change. Urban heating is exacerbated by vehicles, industry, roads, and concrete structures.

Due to East Fremantle's high urban footprint, green spaces in the Town are crucial for both the community and biodiversity. The Town's current grey surfaces (roads, rooftops, and footpaths) account for 61.1% of the area. The Town's total vegetated area is 39%. This consists of 20.5% green cover including shrubs under 3m and trees over 3m, and a further 18.4% of grassed and bare land.



WHAT WE ARE DOING GREEN SPACES



Successfully secured \$70,000 in grant funding from the State Government to plant 400+ trees in urban heat hotspots.



Marmion Street median strip revegetation undertaken in 2020.



Riverside Road revegetation involving planting of 98 trees to increase shade and activation along the Riverside Road foreshore.



Over 1,000 plants installed along John Tonkin Reserve and Niergarup Track revegetation.



New Waterwise Verge Policy and Verge Greening Guidelines constructed to aid residents in the construction of waterwise verges and gardens.



Development and adoption of the Public Realm and Urban Streetscape Style Guide to form consistency and protect the current canopy by diversifying streetscapes.



The Town has partnered with APACE for over 10 years to provide native plants to residents at a subsidised price.



New verge tree request form and the planting of over 200 verge trees in 2021 increasing the shade of many streets in East Fremantle.



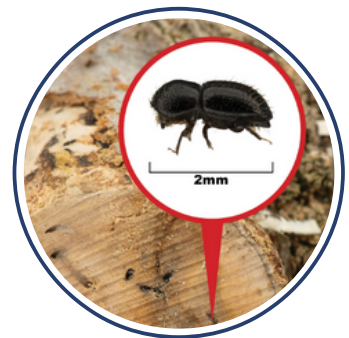
Free waterwise tubestock available at the East Fremantle George Street Festival and Youth Meetup in 2021.



In 2020 mulch and FOGO compost were made available to residents at the Fremantle Recycling Centre.



Two green waste collections per year for residents in the Town to assist with the management of garden waste.



Working with DPIRD for the management of the invasive shot hole borer including hosting an information workshop to support vegetation health and longevity.

STRATEGIC OBJECTIVE 3

WATER



STRATEGIC OBJECTIVE 3

WATER



VISION

- Council will reduce the consumption of scheme and groundwater by 3% per year.
- Council will support the community with incentives and education to reduce water consumption.
- Council will collaborate with stakeholders and external organisations to protect and preserve the state's water supplies.

WHAT WE KNOW

Climate change is disrupting weather patterns, leading to more extreme weather and decline rainfall in many areas including the South West of WA.

Despite the drying climate, heavy rainfall events are expected to be more common. Leading to increased risks to urban environments with drainage infrastructure being overwhelmed, exacerbated by the increasingly impervious environment. Seasonal rain now starts later in the year with more warm and dry winter days and reduced runoff into dams. Consequently, there is greater dependence on varied water sources such as desalination, wastewater recycling, groundwater replenishment, and groundwater. However, these alternative water resources are more energy intensive which results in increased greenhouse gas emissions.

In 2019 the Town was accredited with Waterwise status and continues to work to reduce its corporate water consumption. This can be seen below:

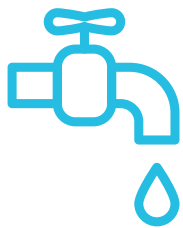
7,700kL

of potable water used across all Town owned and operated assets in 2020/21 with a 26% reduction from the previous financial year.

125,500kL

of nonpotable water was used to irrigate all the sports grounds, foreshore parks, nature reserves and the East Fremantle Oval in the 2020/21 financial year with a 17% reduction from the previous financial year.

WHAT WE ARE DOING WATER



26%

reduction in the Town's corporate scheme water consumption since 2018/19.



17%

reduction in the Town's corporate groundwater water consumption in 2020/21 compared to 2019/20.



The Town was accredited WaterWise status in both 2019/20 and 2020/21 and awaits confirmation on its accreditation for 2021/22.



The Town encourages the use of pool and spa covers with the development of a Waterwise Pool and Spa Cover Policy in 2021. The Town also assisted residents with the construction of an Evaporation Calculator to determine the amount of water lost in pools/spas over summer months due to evaporation.



The Town continues to upgrade drainage across the Town to account for changes in weather. For example the drainage upgrade along Silas Street to account for increased rainfall conditions and reduce frequency of flash flooding.



Ongoing marine and land based cleanups in partnership with local community groups and dive clubs.



The development of a new Waterwise Verge Policy and Greening Guidelines to assist residents in the construction of water saving gardens.



Irrigation audit undertaken in 2020 with all recommended actions undertaken in 2020/21.



Development and adoption of the Public Realm and Urban Streetscape and Public Realm Style Guide in 2021 which aims to improve the structure of the Urban Forest in East Fremantle.



Waterwise education provided to 120 students from Richmond Primary School by the Water Corporation in 2020.

STRATEGIC OBJECTIVE 4

TRANSPORT

3 GOOD HEALTH AND WELL-BEING



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



17 PARTNERSHIPS FOR THE GOALS



STRATEGIC OBJECTIVE 4

TRANSPORT



VISION

- Council commits to no greenhouse emissions from its fleet by 2030.
- Council will enhance active transport infrastructure and encourage active and public transport options .
- Council will advocate for better access to public transport with lower emissions technology.

WHAT WE KNOW

In Australia, transport is the third-largest emitter of greenhouse gases, with cars being responsible for around half of all transport emissions. Electric vehicles (EVs) and plug in hybrid vehicles (PHEV's) uptake is on the rise, supported by improvements in battery storage technology and cost incentives. These new forms of efficient transport are a means of reducing emissions, pollution, and the associated running costs of a standard combustion engine. This is reflected in initiatives by many Governments and major vehicle manufacturers to phase out vehicles with internal combustion engines (ICE) and transition to EVs and hydrogen powered vehicles.

On average, a Western Australian vehicle will drive around 11,400 kilometers every year, generating over 3 tonnes of carbon dioxide. The phase-out of ICE passenger vehicles associated with transport will see a drastic reduction in carbon emissions. Electric car sales in WA tripled in 2021, to 20,665 sales - up from 6,900 in 2020, however this is still only 1.95% of the market.

The Town currently owns 19 vehicles consisting of 13 light fleet vehicles (cars and utilities) and 6 heavy fleet vehicles (2 buses and 4 trucks) as well as ride-on machinery. The Town will transition all of the fleet to electric and hybrid technology based on appropriate alternatives with remaining emissions offset using carbon credits.



14% of emissions

emitted by the Town in 2020/21 was a result of Council-owned fleet vehicles all of which use diesel or petrol fuel. The total consumption in 2020/21 was 34,667L with 55% Diesel, 35% Premium Unleaded Petrol and 9% Unleaded Petrol.

WHAT WE ARE DOING

TRANSPORT

East Fremantle purchased its first hybrid car in 2021 which is expected to be available in early 2022. The Town is currently planning the best method to diversify its current fleet of 13 cars and two buses as well as the electrification of ride-on machinery. There are a number of EV and hybrid vehicles privately owned in the Town. However, currently there are no publicly accessible charging stations within the Town and owners are required to charge at home or outside the Town. EV charging infrastructure is planned to be installed at a number of locations across the Town in the future to account for EV uptake. Council is also recommending planning conditions for major new developments to ensure EV infrastructure is provided allowing for future-proofing of needs.

To promote a low carbon lifestyle the Town continues to upgrade passive infrastructure, such as bicycle lanes around Riverside Road, footpath infrastructure, and the provision of bicycle racks and end of journey facilities at popular public destinations. The Town is also advocating for increased integrated bus and train timetabling, to improve passive movement to and from the Town. The Town is also working hard to better improve the connection between the Town and neighboring areas through the “Your Move” program aimed to support active transport throughout the Town.



The Town continues to investigate the purchase of energy efficient modes of transport and energy efficient upgrades to infrastructure.



Promotion of active forms of transport to both staff and residents, with the provision of access to walking areas, cycling tracks and infrastructure for public transport.



The Town has committed to installing an electric car charger at the Town Hall, 135 Canning Highway. The Town purchased its first hybrid vehicle in 2021 which is expected to be available in early 2022.



Staff is encouraged to use public transport instead of Council vehicles when travelling to training, seminars and conferences outside the Town.

STRATEGIC OBJECTIVE 5 INFRASTRUCTURE

3 GOOD HEALTH AND WELL-BEING



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



17 PARTNERSHIPS FOR THE GOALS



TOWN of
EAST FREMANTLE

Private Jetty

Authorised
personnel
only

Trespassers will be
prosecuted



NO
DIVING
NO
JUMPING

STRATEGIC OBJECTIVE 5

INFRASTRUCTURE



VISION

- Council commits to ensure climate change adaptation and mitigation measures are included for all new and modified Council assets and infrastructure.
- Council will encourage the use of “Environmental Sustainable Design” through policy and incentives to promote green commercial and residential premises.
- Council will advocate and work with other government agencies to reduce the impacts of climate change on Council and community assets by 2030.

WHAT WE KNOW

In order to combat climate change, we need to radically rethink how the Town infrastructure is planned, constructed, and managed to ensure it is suitable for a resilient and emission-free future. It is essential that proactive investment is undertaken to ensure sustainable infrastructure that adapts to future adverse climate conditions.

Much of the Council-owned infrastructure at risk of climate change is located along the Swan River (clubs, jetties, and businesses) as seen in the 2020 and 2021 storm surges. Many of these assets are at risk from the future effect of climate change, specifically inundation and erosion. As global sea levels continue to rise from a combination of thermal expansion (water expanding as it warms) and the increased melting of glaciers, infrastructure will need to be able to cope with a changing estuarine environment. In 2021 the Town was awarded \$77,500 to develop a Climate Hazard Risk Management and Adaptation Plan (CHRMAP) which will identify areas at risk from inundation and erosion, and recommend future actions to mitigate harm and protect prominent natural and man-made assets.

The Town can be part of the climate solution by supporting low emission development. Unlike the standard household, higher density apartments, and units translates to lower per capita greenhouse gas emissions. Urban planners can utilise designs that consider passive cooling techniques to aid in reducing urban temperatures, such as incorporating shade (trees, overhead shade, and screens), as well as maximising passive cooling with windows and doors that align with the direction of the movement of air. Town staff can continue to develop methods to encourage the use of “Environmentally Sustainable Design” through policy and incentives promoting low carbon commercial premises and residential dwellings.

WHAT WE ARE DOING INFRASTRUCTURE



The Town was awarded \$77,500 in 2021 for the formation of a Coastal Hazard Risk Management and Adaptation Plan to determine associated risk from inundation and erosion along the river.



\$75,000 was awarded for the design and construction of an ecological river wall to both improve ecological health in the area and protect Riverside Road from inundation.



Resurfacing of Riverside Road was constructed using approximately 800,000 plastic bags, 252,000 glass bottles, unused toner from 1900 printer cartridges and 20% reclaimed asphalt pavement.



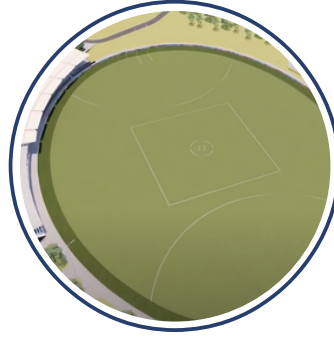
Purchase of Replas benches made from 15,000 to 17,500 pieces of soft plastic.



Installation of solar panels at Tricolore, Dovenby House and the Bowling Club as well as solar panels installed on the Tennis Club with plans for the Rowing Club and East Fremantle Kindergarten.



The Town continues to upgrade drainage across the Town to account for changes in weather patterns. Including the upgrade to the drainage along Silas Street to account for increased rainfall, flash flooding and changing weather conditions.



The Town will investigate appropriate environmentally sustainable design in the redevelopment of the East Fremantle Oval Precinct redevelopment.



The Wood Encouragement Policy is in place to encourage the use of wood in construction to increase embedded carbon

Riverside Road redevelopment 2020



STRATEGIC OBJECTIVE 6 PROCUREMENT



STRATEGIC OBJECTIVE 6

PROCUREMENT



VISION

- Council will incorporate sustainable procurement and circular economy principles as key considerations for procurement by 2024.
- Council will support the community in making informed socially responsible purchasing decisions through education and information programs.
- Council will advocate to service providers for renewable energy in coordination with WALGA and other appropriate partners.

WHAT WE KNOW

Sustainable procurement is the process of making purchasing decisions that meet an organization's needs for goods and services in a way that benefits not only the organization but society as a whole while minimising its impact on the environment. New Zealand and Sweden are examples of countries that are already implementing procurement policies that require emissions reduction across the entire supply chain. The Federal and State governments have developed sustainable procurement guidelines and the Town has begun to incorporate sustainability into procurement.

In June 2016, the Town carried a unanimous motion to introduce a new procurement policy which gives preference to financial institutions that are deemed not to invest in or finance the fossil fuel industry, and consideration of sustainable objectives including: "ensure that the sustainable benefits, such as environmental, social and local economic factors are considered in the overall value for money assessment. For formal procurement decisions sustainability may be weighted, up to a total of 20%, with a maximum of 10% able to be assigned to 'Environmental'.

Going forward, the Town will aid residents by providing workshops and information sessions that provide information on methods to reduce greenhouse gas emissions in their households, purchasing decisions. The Town continues to work with external partners in the best interest of the community to limit and reduce the emissions of the community.

WHAT WE ARE DOING PROCUREMENT



Riverside Road was constructed using approximately 800,000 plastic bags, 252,000 glass bottles, unused toner from 1900 printer cartridges and 20% reclaimed asphalt pavement.



Purchase of Replas benches made from made out of around 15,000 to 17,500 pieces of soft plastic.



Provision of two smart riders for staff use for when travelling to training, seminars and conferences.



The Town partnered with 50 other local governments in a power purchase agreement negotiated by WALGA to purchasing green energy for contestable sites in the Town.



The Town has been tracking energy use of Council controlled buildings via a subscription service to Planet Footprint (now Azility) since 2009.



Ironbark Sustainability has provided a business case for the transition to LED street lighting - with a total cost of \$340,000, however this would offset energy costs of \$190,000 per annum on street lights alone.



The Town partnered with Climate Clever in 2021 to provide subsidised community subscriptions to residents, schools and businesses to provide tailored information to cut energy consumption and reduce individual carbon footprints.

At the 2021 East Fremantle George Street Festival, \$9,000 was invested to provide 20,000 reusable items to all vendors on the day and to cut unnecessary waste and associated landfill emissions from the event. In total the event produced 43kg of landfill waste or 82kg of Co2 emissions.



STRATEGIC OBJECTIVE 7

WASTE

3 GOOD HEALTH AND WELL-BEING



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



17 PARTNERSHIPS FOR THE GOALS



STRATEGIC OBJECTIVE 7

WASTE



VISION

- Council aims for zero waste to landfill by 2030.
- Council will commit to supporting community groups, residents, and commercial operations to achieve zero waste to landfill by 2030.
- Council will advocate solutions to support community groups, residents, and commercial operations to achieve zero waste to landfill by 2030.

WHAT WE KNOW

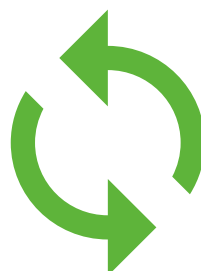
Greenhouse gas emissions from the waste sector result from the decomposition of waste that releases methane gas. Despite numerous programs and waste diversion strategies across Australia aimed at curbing the generation of waste, waste material going to landfill has increased moderately since 1990. The State Waste Avoidance and Resource Recovery Strategy 2030 introduced significant transformations aimed at WA becoming a circular economy, with a greater focus on avoidance by setting targets for material recovery and environmental protection in addition to landfill diversion. A key factor of the Waste Strategy is for a consistent three-bin kerbside system, which separates food organics and garden organics from other waste bins across all Local Governments in the Perth and Peel regions by 2025.

In 2019 the Town rolled out the FOGO three-bin system to residents, commercial properties, and community groups consistent with the State Waste Strategy. In the future, the Town will send its residual waste (red top bin) to Energy from Waste processing which will convert waste to an energy product. The Town continues to support the community in reducing the amount of waste it produces through rebates, programs, educational workshops, and waste facility tours to change behaviors around waste production and disposal. The Town continues to collect various hard-to-recycle items with over 500kg worth of items diverted from landfill in 2021 alone.



62%

reduction in the waste sent to landfill per year since rollout of FOGO in 2019/20. 3820 tonnes of greenhouse gases emitted in 2018/2019 compared to 1464 in 2020/21.



95%

recovery of FOGO contents, 85 % recovery of recyclable material with general waste being sent to landfill.

WHAT WE ARE DOING

WASTE



Rollout of the Food Organics, Garden Organics (FOGO) service in 2019 to residents, businesses and community groups.



One bulk waste collection and two green waste collections per year for residents in the Town.



Provision of 720 compostable liners to residents from the Town Hall in 2020/21.



Over 500kg of difficult to recycle items dropped off at the Town Hall for special recycling in 2020/21.



Partnering Council of Garage Sale Trail promoting the reuse of items.



Partnering Council of Plastic Free July aimed at educating the community in ways to avoid plastic waste



Provision of cloth nappy rebate and cloth nappy workshops for residents to assist in reducing household waste.



Plastic Free July promotion with local coffee businesses providing over 60 reusable keep cups to promote reusables.



Six elected members and the Town's CEO taking part in Plastic Free July challenge in 2021.



Two fishing line bins installed along Riverside Road to capture discarded fishing line waste.



Reusable party sets are available for residents to hire to cut party waste.



Residential and school based incursions and tours of local waste facilities.



Ongoing marine and land based cleanups removing discarded waste from the Swan River and local reserves.



Residential access to the Fremantle Recycling Centre for bulk, hazardous and recyclable waste



Waste reduction at the East Fremantle George Street Festival 2021 - with only 43kg of waste sent to landfill for the whole day with over 10,000 attendees.



Development of the Sustainable Events Policy banning all single use plastics at Council run events with the provision of reusable alternatives.

WHAT IS NEXT?

The next step will be the formulation of a Climate Emergency Action Plan which will ensure the strategic objectives set out in this document are completed. The Action Plan will include programs, initiatives, and education activities to support the East Fremantle Council and the East Fremantle community in mobilisation towards to a low-carbon lifestyle.

Implementation will address the Strategic Objectives and 21 sub-objectives through direct action and the Town will work with community stakeholders and organisations to implement these actions and protect the future of East Fremantle.





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