



# REGIONAL ENVIRONMENT STRATEGY 2016 - 2020



Protecting Perth's Eastern Region 



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# Executive Summary

The Eastern Metropolitan Regional Council (EMRC) is a regional local government working on behalf of six member councils located in Perth's Eastern Region. The EMRC aims to be a responsive and innovative leader in assisting Perth's Eastern Region to be a great place to live, work, play and do business. The region has significant environmental assets that require protection and optimal management.

With this *Regional Environment Strategy 2016-2020*, the EMRC and its member councils will be one of the first organisations in Australia to progress regional environmental management under the global United Nations Sustainable Development Goals (SDGs) framework. The SDGs emphasise critical aspects and opportunities for environmental management within the context of wider objectives for development. The document that describes the SDGs, the *2030 Agenda for Sustainable Development*, was adopted by 193 United Nations member states in September 2015 and was ratified by the Federal Government of Australia for implementation nationwide. The Global Taskforce of Local and Regional Governments actively participated in the consultations on the Agenda, successfully advocating for the inclusion of Sustainable Development Goal 11 on sustainable cities and human settlements and pushing for all goals to take into account local challenges and opportunities.

Seven of the 17 SDGs are particularly relevant to the environment and Perth's Eastern Region. These seven SDGs have been used as a basis for the development of the *Regional Environment Strategy 2016-2020* and through consultation and research have resulted in the development of strategic objectives that relate to each SDG:

- **Strategic Objective 1:**

Our region has sufficient and sustainably managed water resources and good water quality in rivers and wetlands.

- **Strategic Objective 2:**

Our region adopts sustainable, affordable and modern energy sources and promotes energy efficiency.

- **Strategic Objective 3:**

Our region fosters safe, resilient, resource efficient and environmentally sustainable urban areas.

- **Strategic Objective 4:**

Our region fosters sustainable consumption and production patterns and promotes sustainable lifestyles.

- **Strategic Objective 5:**

Our region addresses climate change and its impacts through mitigation and adaptation.

- **Strategic Objective 6:**

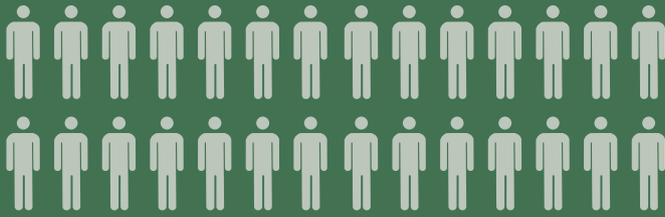
Our region protects, restores and enhances terrestrial ecosystems, addresses land degradation and prevents biodiversity loss.

- **Strategic Objective 7:**

Our region contributes to the global partnership for sustainable development and achievement of relevant SDGs and targets.

Initiatives that were identified through research and member council and stakeholder consultation have been grouped under these strategic objectives into an Action Plan. These initiatives have an aim of contributing towards achieving the strategic objectives as well as contributing towards the achievements of the SDGs. Sustainable development enablers will also guide the implementation of the *Regional Environment Strategy 2016-2020*. These include regional advocacy; education, information and engagement; cross regional programs; funding; strategic consulting; technical support; research and innovation; and collaboration.

## Population



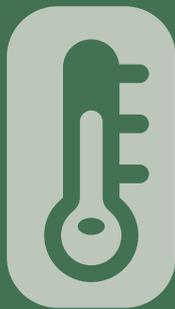
**365,500** People



Area

**2,100**  
km<sup>2</sup>

February  
2016 global  
temperature  
hottest on  
record in



**137** years



Estimated **3,000**  
tonnes CO<sub>2</sub>-e abatement  
and electricity savings of  
**\$950,000**



**6**



Community water consumption  
is lower than the Perth average



Iconic  
Swan  
River



Area of national parks  
over  
**220** km<sup>2</sup>



# Introduction

## 2.1 The Importance of Local Government in Environmental Strategy

The Eastern Metropolitan Regional Council (EMRC) is a regional local government working on behalf of six member councils located in Perth's Eastern Region. The EMRC aims to be a responsive and innovative leader in assisting Perth's Eastern Region to be a great place to live, work, play and do business. The region has significant environmental assets that require protection and optimal management as well as residents, businesses and infrastructure to support and manage sustainably.

Environmental protection is a key role for all local governments and environmental management is a core function. As the level of government closest to community, it is vital that environmental strategies reflect current barriers to protection and sustainable management of the environment, as well as identifying opportunities to achieve positive outcomes through partnerships, activities and advocacy.

Environmental programs and services are no longer separate from other strategies, programs and projects, they are foundational and integral. Environmental management is only one part of an interlinked and cross-dependent set of activities between environmental, social, governance and economic strategy. It is important that environmental considerations are understood and integrated into other aspects of regional growth. In particular, there is a greater need for environmental management and sustainability to be embraced within planning and land use frameworks, economic development, infrastructure management and to consider community concerns and health impacts. A holistic approach to reaching future goals is required, particularly given the diversity of the region, its assets and development pathways.

## 2.2 A New Strategic Framework

With this *Regional Environment Strategy 2016-2020*, the EMRC and its member councils will be one of the first organisations in Australia to progress regional environmental management under the global Sustainable Development Goals (SDGs) framework (see Figure 1). The 17 SDGs were the result of a substantial, two year global consultation across governments, private sector and civil society to ensure balanced, strategic and sustainable progress worldwide. The document that describes the SDGs, the *2030 Agenda for Sustainable Development*, was adopted by 193 United Nations member states in September 2015 and was ratified by the Federal Government of Australia for implementation nationwide. The SDGs are a new universal set of goals, targets and indicators that governments, businesses and organisations can use to frame their agendas and political policies over the next 15 years. The SDGs emphasise critical aspects and opportunities for environment management within the context of wider objectives for development.

<b>1</b>	<b>NO POVERTY</b>	End poverty in all its forms everywhere.
<b>2</b>	<b>ZERO HUNGER</b>	End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
<b>3</b>	<b>GOOD HEALTH AND WELL-BEING</b>	Ensure healthy lives and promote well-being for all at all ages.
<b>4</b>	<b>QUALITY EDUCATION</b>	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
<b>5</b>	<b>GENDER EQUALITY</b>	Achieve gender equality and empower all women and girls.
<b>6</b>	<b>CLEAN WATER AND SANITATION</b>	Ensure availability and sustainable management of water and sanitation for all.
<b>7</b>	<b>AFFORDABLE AND CLEAN ENERGY</b>	Ensure access to affordable, reliable, sustainable and modern energy for all.
<b>8</b>	<b>DECENT WORK AND ECONOMIC GROWTH</b>	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
<b>9</b>	<b>INDUSTRY, INNOVATION AND INFRASTRUCTURE</b>	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.
<b>10</b>	<b>REDUCED INEQUALITIES</b>	Reduce inequality within and among countries.
<b>11</b>	<b>SUSTAINABLE CITIES AND COMMUNITIES</b>	Make cities and human settlements inclusive, safe, resilient and sustainable.
<b>12</b>	<b>RESPONSIBLE CONSUMPTION AND PRODUCTION</b>	Ensure sustainable consumption and production patterns.
<b>13</b>	<b>CLIMATE ACTION</b>	Take urgent action to combat climate change and its impacts.
<b>14</b>	<b>LIFE BELOW WATER</b>	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
<b>15</b>	<b>LIFE ON LAND</b>	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
<b>16</b>	<b>PEACE, JUSTICE AND STRONG INSTITUTIONS</b>	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
<b>17</b>	<b>PARTNERSHIPS FOR THE GOALS</b>	Strengthen the means of implementation and revitalise the global partnership for sustainable development.

Figure 1. The Global Sustainable Development Goals

# Context

## 3.1 Perth's Eastern Region

Perth's Eastern Region is an area of Perth defined by the boundaries of six local governments: Town of Bassendean, City of Bayswater, City of Belmont, Shire of Kalamunda, Shire of Mundaring and the City of Swan.

The region constitutes around one-third of Perth's metropolitan area encompassing a land area of about 2,100 square kilometres and an estimated population of 365,500 people.

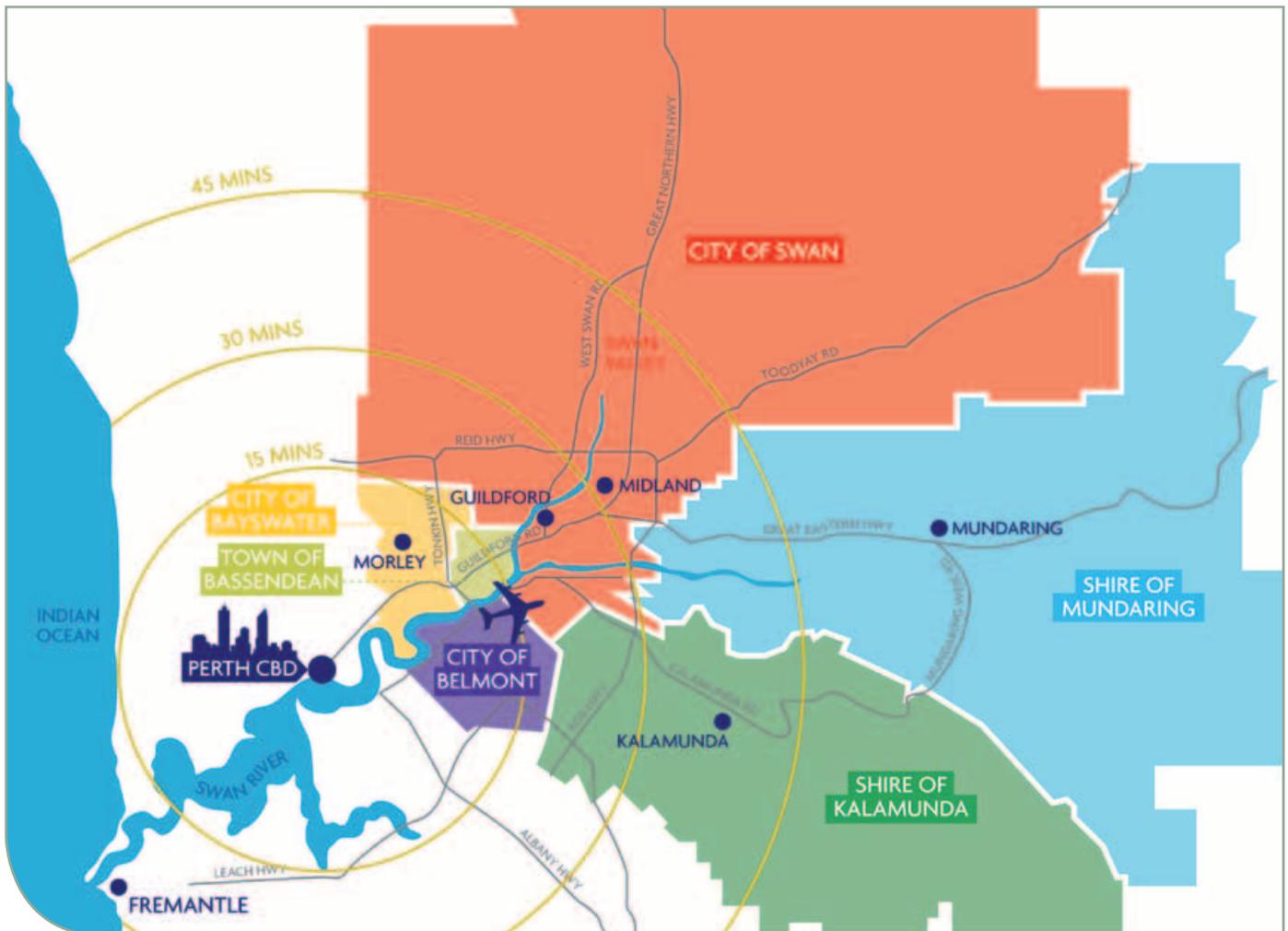


Figure 2. Map of Perth's Eastern Region

Perth's Eastern Region represents an attractive destination for visitors and provides a high quality of life for residents. The region is home to a number of core assets including: national parks; walking and cycling trails; numerous picturesque parks and reserves on the banks of the Swan River; an extensive range of heritage, culture and arts attractions including Guildford, which is one of the oldest settled areas in WA; the popular Swan Valley and boutique wineries in the Perth Hills.

A range of community events and recreation facilities provide for community activity. Both the Swan Valley and Perth Hills have been identified as key attractors for the Greater Perth Metropolitan Area.

The Greater Perth Metropolitan Area sits on the Swan Canning River system which is a key natural environmental feature with cultural and historical significance that also generates economic, community and recreation benefits for the population.

### 3.2 Eastern Metropolitan Regional Council

The Eastern Metropolitan Regional Council (EMRC) is a progressive and innovative regional local government working on behalf of the six councils located in Perth's Eastern Region.

The EMRC is an incorporated body established under the *Western Australian Local Government Act 1995*. The EMRC's operations are governed by its council under an Establishment Agreement. In brief, the Establishment Agreement states that the EMRC will:

- Work in consultation with member councils to facilitate local government to enhance its service delivery to the community;

- Be efficient and effective in delivering quality services and facilities;
- Promote and market the role of local government in the community;
- Implement a strategic plan that is regularly reviewed; and
- Avoid providing any service or facility that adversely impacts on the services or facilities of any member council.

In line with this brief, the EMRC provides a broad range of services across the region including waste management and education, resource recovery, environmental management and regional development. Working in partnership with our member council's and other stakeholders, the EMRC delivers local and regional scale projects across each of these areas for the benefit of the region.



#### OUR VISION

To be a responsive and innovative leader in assisting Perth's Eastern Region to be a great place to live, work, play and do business.



#### OUR VALUES

The values that govern the EMRC are:

**EXCELLENCE** – Striving for excellence through the development of quality and continuous improvement.

**RECOGNITION** – Valuing staff in a supportive environment that focuses on their wellbeing.

**INNOVATION** – Focus on innovative approaches in project and service delivery.

**RESPONSIVENESS** – Dynamic and flexible service delivery.

**INTEGRITY** – Accountability and consistency in all that we do.



#### OUR MISSION

EMRC, by partnering with member councils (and other stakeholders), facilitates strategies and actions for the benefit and sustainability of Perth's Eastern Region.

### 3.3 Regional Environment

Perth's Eastern Region has considerable natural environmental assets with some of the state's most beautiful national parks, walking and cycle trails. The Swan and Helena Rivers, and their tributaries, provide iconic recreational and heritage precincts, as well as supporting the renowned vineyards along the Swan Valley. Other features include Eric Singleton Bird Sanctuary, Lesmurdie Falls, Lake Leschenaultia, Whiteman Park and Bickley Valley.

Land use in the region is diverse, ranging from agriculture in the eastern portion, to rural landholdings, residential, industrial and highly urbanised areas to the south and west. The region encompasses the more forested areas of the valleys and plateau of the Darling Range and Darling Scarp to the open urbanised areas of the Swan Coastal Plain, including riverine areas of the Swan and Helena Rivers.

The region's natural assets face increasing pressure from competing uses; from development of areas for economic benefit, to environmental protection for habitat and clean water, to health and social welfare through public access. A focus on protecting natural resources and addressing climate change, pollution and planning issues is fundamental to the environmental, social and economic well-being of the area,

particularly in the context of a drying climate. In conjunction with an increasing recognition of the effects of development on the environment, there is growing concern about the effects of environmental change on natural assets and the urban landscape.

It is important that the diverse land uses within the region are managed so that there is minimal impact on these important environmental assets, while at the same time providing sustainable economic development, transport and planning options to provide healthy resilient spaces for people to live, work, play and do business.

### 3.4 Vision

This *Regional Environment Strategy 2016-2020* will guide the EMRC in its facilitation of regional environmental and sustainability activities while recognising the individual priorities of its member councils. It complements the local environmental strategies of member councils as well as acknowledging and delivering on state and federal priorities. The strategy is designed to be flexible and adaptable. It considers the needs of all stakeholders and the importance of a collaborative approach to achieving outcomes. It focuses on setting and achieving a regional strategic vision for the environment to 2020.

## VISION

A region supporting the goals of sustainable development with optimal environmental management for an equitable and supported community and a protected and healthy environment



The development of this *Regional Environment Strategy 2016-2020* is complementary to other strategies generated by the EMRC. This includes reference to three key research advisory papers prepared to guide the EMRC's regional strategy development across integrated transport, economic development and youth.

### 3.5 Sustainable Development Goals (SDGs) Framework Approach

The SDGs provide a new and exciting strategic method for the EMRC to work effectively with member councils and stakeholders towards achieving excellence in environmental protection and management. The SDGs are a new universal set of goals, targets and indicators that governments, businesses and organisations can use to frame their agendas and policies over the next 15 years. Governments worldwide have already agreed to these goals, therefore now is the perfect time for the EMRC to show leadership and innovation to demonstrate how adoption of the SDGs framework in future strategies and actions could be embedded sustainably across all functions into the future.

The EMRC and member councils have a significant role in using the SDGs as a fundamental tool in decision making because the goals were developed with the role

of government clearly in mind. Some of the SDG targets are directly or closely related to the daily work of local and regional governments, such as water management, energy use and biodiversity protection.

To implement the SDGs and targets, there is a call for governments, non-government organisations, the private sector and civil society to work more closely together, particularly when harnessing new technology, as we move from the third industrial revolution: digital technologies, into the fourth industrial revolution: smart systems and biotechnologies.

This new approach to the EMRC's Regional Environment Strategy will entail a strategic focus; technical excellence; better integration of government; business and community initiatives; and a greater commitment to environmental responsibility. It acknowledges the importance of environmentally focused activities that harness innovation and maximise potential for positive outcomes across social and economic as well as environmental spheres.



# Strategic Objectives

*The development of the Regional Environment Strategy 2016-2020 acknowledges environmental assets, potential issues and benefits where the efforts of the EMRC, member councils and regional stakeholders could have the greatest positive impact on the environment. The vision and the strategic objectives arose from an initial technical discussion paper that explored key environmental drivers for the region and a consultative process with the EMRC member councils and key stakeholders.*

**Perth's Eastern Region leads and innovates, resulting in a region that...**

## LOCAL CHALLENGES

- Biodiversity conservation
- Bushfire protection
- Sustainable urban growth
- Waste management
- Water scarcity
- Water quality
- Fossil fuel dependence
- Climate change

## STRATEGIC OBJECTIVES

- Has sufficient and sustainably managed water resources and good water quality in rivers and wetlands.
- Adopts sustainable, affordable and modern energy sources and promotes energy efficiency.
- Fosters safe, resilient, resource efficient and environmentally sustainable urban areas.
- Fosters sustainable consumption and production patterns and promotes sustainable lifestyles.
- Addresses climate change and its impacts through mitigation and adaptation.
- Protects, restores and enhances terrestrial ecosystems, addresses land degradation and prevents biodiversity loss.
- Contributes to the global partnership for sustainable development and achievement of relevant SDGs and targets.

**GLOBAL DRIVERS SHAPE LOCAL CHALLENGES**

Initially, the issues and key challenges facing each Local Government Authority were considered and opportunities to improve regional environmental outcomes were sought (see Appendix 1). Once the most relevant global drivers were identified, it became clear that they closely linked to seven of the global SDGs (see Figure 3).

Linking the challenges and opportunities in the light of the new *Regional Environment Strategy 2016-2020* vision, it was possible to identify potential initiatives, classified under each respective SDG. Further analysis and stakeholder input

resulted in a draft *Regional Environment Strategy 2016-2020* that was then further tested with member councils and key stakeholders before finalising into an Action Plan that can be found in the rear of this strategy.

The strategic objectives of the *Regional Environment Strategy 2016-2020* are ordered below by the relevant SDG and have been informed by the global SDG targets relevant to environmental management in local government as well as the EMRC Regional Environment Strategy research and consultation process.

ADDRESSING LOCAL CHALLENGES  
SHAPES GLOBAL OUTCOMES



GLOBAL DRIVERS SHAPE STRATEGIC OBJECTIVES

Figure 3.  
EMRC Identified Challenges,  
Strategic Objectives and the SDGs

## 4.1 Clean Water and Sanitation (SDG 6)

### Strategic Objective 1: Our region has sufficient and sustainably managed water resources and good water quality in rivers, wetlands and groundwater.

Perth's Eastern Region has considerable surface water assets including the Swan and Helena Rivers, tributaries, lakes and significant wetlands. The EMRC has worked with member councils in catchment management including waterway restoration. The support of the EMRC with the Department of Parks and Wildlife and member councils for regional natural resource management initiatives has contributed to a wide range of efforts involving five catchment groups and approximately 1,700 community volunteers.

In a drying climate, availability of sufficient water into the future is a key concern for member councils and the EMRC, especially in groundwater-dependent areas and maintenance of public open space. The EMRC has worked with member councils to implement programs and initiatives to increase water use efficiency and improve water quality, both in the corporate and community sectors. Perth's Eastern Region now has five Waterwise Councils and one of the lowest per capita community scheme water consumption levels in the Greater Perth Metropolitan Area.

The EMRC's partnership with the Cooperative Research Centre for Water Sensitive Cities has enabled the new Water Sensitive City Index Tool to be trialled by the City of Swan, one of only two local governments in Western Australia.

**6** CLEAN WATER AND SANITATION



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL.

#### Relevant SDG targets

- 6.3** By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 6.5** By 2030, implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate.
- 6.6** By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.



**5** catchment groups and **1,700** community volunteers



## 4.2 Affordable and Clean Energy (SDG 7)

### Strategic Objective 2: Our region adopts sustainable, affordable and modern energy sources and promotes energy efficiency.

Renewable energy in Australia and globally is becoming increasingly affordable and the cost of solar and wind energy is predicted to fall further while the technology continues to improve. Although Australia is currently lagging in the adoption of commercial-scale renewable energies, Perth's Eastern Region has the potential to be a leader in adopting renewable energies such as solar and wind, building on previous projects and using new technology to increase efficiency and quantum of power produced as well as introducing storage to enhance cost effectiveness.

The EMRC member councils have contributed toward improving energy efficiency through the Cities for Climate Protection and Achieving Carbon Emissions Reduction programs. Solar photovoltaic systems have been installed in a variety of member council buildings through the Perth Solar City program and the region reduced its energy use by around 829,790 kilowatt hours per annum through the Community Energy Efficiency Program. Ongoing energy efficiency is being achieved through carbon reduction actions, including solar photovoltaic installations on council facilities and EMRC's wood waste to energy project at the Hazelmere Resource Recovery Park.



**7 AFFORDABLE AND CLEAN ENERGY**

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL.

#### Relevant SDG targets

- 7.1** By 2030, ensure universal access to affordable, reliable and modern energy services.
- 7.2** By 2030, increase substantially the share of renewable energy in the global energy mix.
- 7.3** By 2030, double the global rate of improvement in energy efficiency.



### 4.3 Sustainable Cities and Communities (SDG 11)

#### Strategic Objective 3: Our region fosters safe, resilient, resource efficient and environmentally sustainable urban areas.

This objective will be supported by a 'green growth' approach to economic development, which places emphasis on valuing environmental resources and finding innovative ways to improve the management of these resources to achieve economic growth goals such as job creation, productivity and increased local prosperity. Sustainable cities and communities focus on well planned and designed urban areas that can support a growing population without compromising environmental outcomes. The EMRC's member councils already have considerable land use planning experience and allocate resources to environmental management of local environmental assets.

The region aspires to have a natural environment that is protected, enhanced and maintained for future generations. Member councils and the EMRC have worked together on issues related to current and future urban growth pressure and improved land management in developments, as well as on sustainable land management through the extensive and active land care networks. Initiatives such as the Light Industry Working Group and Sediment Task Force are working collaboratively to address urban pollution issues.

The EMRC has established strong links between environmental management and mainstream governance towards climate change adaptation in urban development as well as integrating resource efficiency. Initiatives such as the Urban Forest Masterclass and 2020 Vision partnership have provided opportunities for the region to embrace sustainable development, while the Understanding and Managing Flood Risk project is providing disaster resilience and emergency preparedness. Key advocacy on emerging planning policies and guidelines will ensure that a regional approach to urban planning is supported.



**11 SUSTAINABLE CITIES AND COMMUNITIES**

**MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE.**

#### Relevant SDG targets

- 11.2** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- 11.3** By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- 11.4** Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- 11.5** By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- 11.6** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- 11.7** By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.
- 11.a** Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.
- 11.b** By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

## 4.4 Responsible Consumption and Production (SDG 12)

### Strategic Objective 4: Our region fosters responsible consumption and production patterns and promotes environmentally responsible lifestyles.

Education and knowledge in relation to responsible consumption of natural resources is important in contributing towards this objective. The EMRC already provides substantial information on natural resource management, energy, water and climate change. The EMRC and its member councils promote sustainable lifestyles and business practices through their websites, school programs, flyers, events, workshops and environmental consulting projects.

There are opportunities for the region to embrace whole of life cycle sustainable procurement practices and support local and regional industry clusters and supply chains within economic development to enhance the efficient use of resources.



**ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS.**

#### Relevant SDG targets

- 12.2** By 2030, achieve the sustainable management and efficient use of natural resources.
- 12.7** Promote public procurement practices that are sustainable, in accordance with national policies and priorities.
- 12.8** By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.



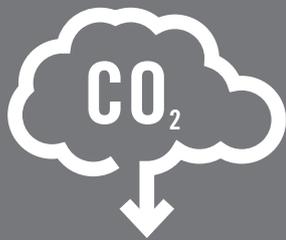
## 4.5 Climate Action (SDG 13)

### Strategic Objective 5: Our region addresses climate change and its impacts through mitigation and adaptation.

For the EMRC and member councils, climate change governance in an urban environment has been identified as important in environmental strategies. The EMRC has worked effectively with member councils and other stakeholders on both climate change mitigation through energy efficiency via the Achieving Carbon Emissions Reduction Program, the adoption of renewable energy and climate change adaptation through the development of regional and local adaptation action plans through the Future Proofing Regional Climate Change Program.

The region has contributed toward reducing greenhouse gas emissions through the Cities for Climate Protection, Perth Solar City and Achieving Carbon Emissions Reduction programs and the region has reduced its greenhouse gas emissions by around 552 tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e) annually through the Community Energy Efficiency Program. Ongoing greenhouse gas mitigation is being achieved through Carbon Reduction Strategies, data monitoring and action implementation.

Initiatives such as the Climate Change Risk Awareness Seminars (through the Future Proofing Regional Climate Change Program) and Urban Forest Masterclass have provided support to member council efforts to address climate change impacts, while the Understanding and Managing Flood Risk project is providing adaptive capacity to climate-related hazards and natural disasters.



The region has reduced its greenhouse gas emissions by around **552** tonnes of carbon dioxide equivalent through the Community Energy Efficiency Program.



\* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

#### Relevant SDG targets

- 13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- 13.2** Integrate climate change measures into national policies, strategies and planning.





### 13.3

Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

#### 4.6 Life on Land (SDG 15)

#### Strategic Objective 6: Our region protects, restores and enhances terrestrial ecosystems, addresses land degradation and prevents biodiversity loss.

Perth's Eastern Region encompasses approximately one third of the Perth Metropolitan Area and therefore has considerable and varied terrestrial ecosystems. The region aspires to have a natural environment that is protected, enhanced and maintained for future generations. Member councils and the EMRC have worked together on sustainable land management through their extensive and active land care networks. Natural resource management has been a key feature of the EMRC's partnerships with member councils, regional stakeholders and researchers, through initiatives such as Bush Skills 4 Youth, Green Army, 20 Million Trees and the Healthy Wildlife Healthy Lives project.

There continues to be opportunities for the EMRC to provide support to the region through implementation of programs around sustainable land management and environmental stewardship, including supporting volunteer networks and increasing community capability, as well as through integrating ecosystem and biodiversity protection into planning processes.



PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS.

#### Relevant SDG targets

### 15.1

By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

### 15.3

By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

### 15.5

Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

### 15.8

By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

### 15.9

By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.



## 4.7 Partnerships (SDG 17)

### Strategic Objective 7: Our region contributes to the global partnership for sustainable development and achievement of relevant SDGs and targets.

The EMRC has worked closely with partners and member councils for over 30 years. This has led to opportunities for knowledge sharing to support strengthened governance across all initiatives. The EMRC’s Environmental Services team has actively supported regional and local achievements through previous environmental strategies and also contributed to positive environmental outcomes for the community and industry.

Working towards the SDGs will require robust data to capture progress and evidence to inform decision making. It will be necessary to develop and use environmental and green growth indicators and achieve environment-economy integration over time.

In a context where online technology is an increasingly important mode of communication and information data is valuable, the region has opportunities to increase the use of digital data capture, systems development and analysis and new communication modes, as well as improve cross-boundary links through information networks to new and existing partners. The EMRC is well-placed to have a stronger digital presence that will support and facilitate the other priorities that it pursues.

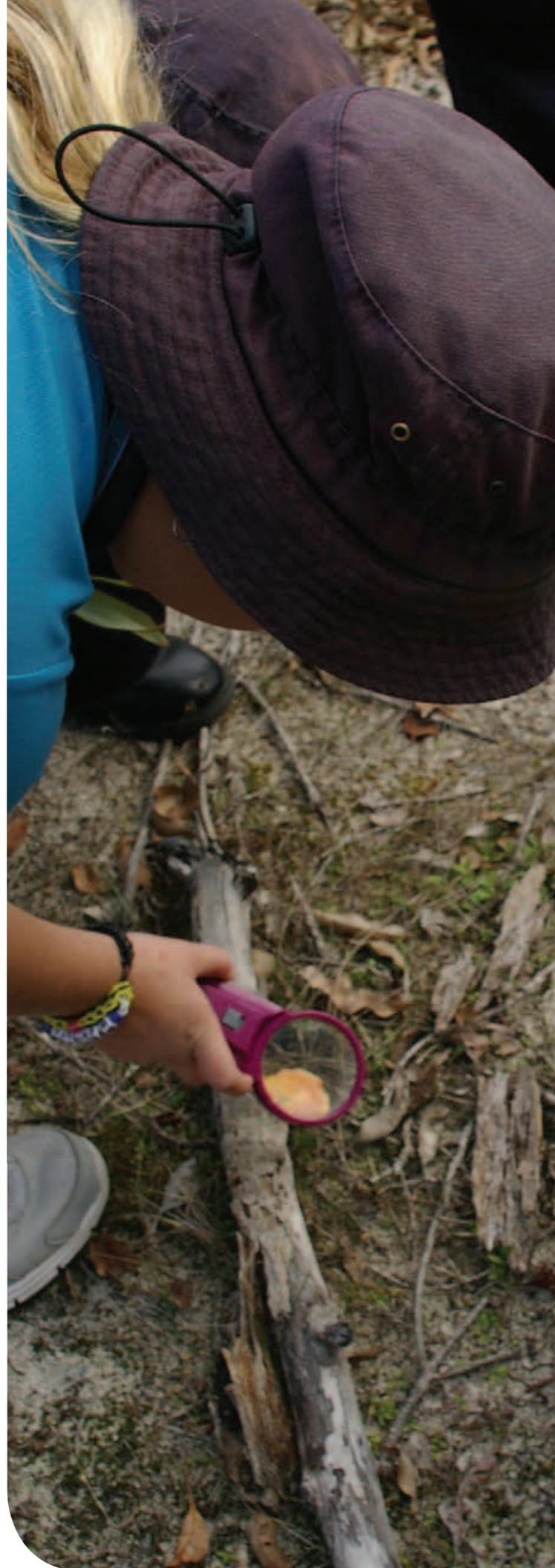
**17** PARTNERSHIPS FOR THE GOALS



**STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALISE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT.**

#### Relevant SDG targets

- 17.14** Enhance policy coherence for sustainable development.
- 17.16** Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.
- 17.17** Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.





# Sustainable Development Enablers

*In order to deliver the key initiatives, the EMRC needs to support member councils where required. The EMRC acknowledges that member councils have built considerable environmental knowledge and skills over the last decade and understands that its role is changing and diversifying from mainly delivering programs and projects to additionally offering more coordination and technical support; providing knowledge and innovation; and adding value to the skills that already exist within member councils, the community and other key stakeholders.*

The support will not duplicate existing activities but act as “enablers” that will add value to member councils’ own initiatives. The actions of the EMRC and the intention of this strategy is to provide guidance relating to the types of support and activities that can create a stronger platform for member councils to achieve environmental outcomes in a way that adds value to the activities that they undertake individually.

Sustainable development enablers have been identified through the strategy development: regional advocacy; education, information and engagement; cross regional programs; funding; strategic consulting; technical support; and research and innovation.

Enablers guide the implementation of the EMRC strategy as a whole as well as the *Regional Economic Development Strategy 2016-2020* and *Regional Integrated Transport Strategy 2016-2020*, both of which are being developed with reference to the *Regional Environment Strategy 2016-2020*. The nature of environmental management requires a proactive approach to underpin other strategies to prevent future environmental issues occurring. This requires flexibility and responsiveness in the types of support that need to be provided in different goals, at different times.

The enablers forge the link between local and regional action and global and national opportunities (see Figure 3). The focus of the *Regional Environment Strategy 2016-2020* will be to use the enablers to optimise benefits for the region in a partnership approach.

## 5.1 Regional Advocacy

Advocacy is one of the key types of support provided by the EMRC Environmental Services team that member councils have valued highly. The EMRC can contribute technical expertise to advocate to state or federal levels or the private and non-government sectors for funding or other types of support and for recognition of the achievements, assets and concerns that are pertinent to the EMRC’s member councils. It may also include advocacy to support members of environmental teams, within member councils, for greater incorporation of particular environmental considerations into broader policy and planning at a high level within member councils. There was a high level of continuing demand among member councils and stakeholders for advocacy relating to environmental services across all of the SDGs.



**The EMRC, by collaborating with member councils and other stakeholders, facilitates strategies and actions for the benefit of Perth’s Eastern Region.**

## 5.2 Education Information and Engagement

Provision of education information and engagement relating to specific environmental concerns was important to member councils and stakeholders moving forward across all of the SDGs. This may include education, engagement or information from the EMRC to its member councils individually or collectively, as well as directly to the community of Perth's Eastern Region. A common challenge for member councils related to communication with their community members and maintaining community interest and engagement in environmental matters.

## 5.3 Cross-regional Programs

Cross-regional programs comprises the design and delivery of regional projects or programs by the EMRC across some or all member councils. The EMRC's member councils valued past projects that were innovative and specialised and had a regional outcome. Past and current programs such as the Eastern Region Catchment Management Program are examples of cross regional programs that have been highly valued by member councils. Member council representatives indicated that design and delivery of strategic cross regional programs and projects remains relevant to them in the future. Cross-regional programs are most applicable in areas that require cross boundary collaboration such as catchment management, transport and in cases where program delivery is more cost efficient at a regional scale compared with implementation by individual member councils.

## 5.4 Funding

Funding may be provided in instances where the EMRC Environmental Services team are able to provide (from attracting external grants) funds to member councils to implement particular initiatives. This was one of the key areas that member councils valued among the support provided by the EMRC Environmental Services team to date. Member councils also valued receiving grant writing assistance where required.

## 5.5 Strategic Consulting

Strategic consulting comprises high level support for policy and program development. For example, high level support for incorporating environmental matters into local government planning and policies. This is a service that is expected to be provided on a fee-for-service basis on demand by member councils. The EMRC's member councils require such strategic services from time to time, and particularly, require that they are cost-effective as compared to procuring private sector consultants, able to be timely and flexible in the procurement and delivery of strategic consulting. It is also important to member councils and stakeholders that the EMRC have the capacity to provide a high level of strategic expertise and not only operational and technical expertise.

## 5.6 Technical Support

Technical support is provided on a similar model to strategic consulting, however, it relates to particular technical areas of operation applicable to the EMRC's member councils. For example, this may include support to select or implement a particular technique for weed control, or support to conduct energy efficiency audits. A specialised consultant may be contracted across the region for identified programs / projects issues, as well as to assist with policy development.

## 5.7 Research and Innovation

This enabler comprises of conducting and supporting regional research projects directed to benefit the EMRC's member councils and stakeholders. This includes designing and conducting research projects. It may also entail partnership with universities to attract researchers and research students to conduct their research in Perth's Eastern Region and to contribute technical expertise in environmental management to research projects. Particular focus areas where there was demand among member council's and stakeholder representatives for research and innovation were water sensitive urban design, climate change adaptation, renewable energy, land management and biodiversity conservation.

## 5.8 Collaboration

This enabler covers the collaborative efforts between the EMRC, member councils and other stakeholders to support achievement across all areas of the strategy. This includes the facilitation of communication, knowledge sharing and networking, that the member councils and stakeholders identified as being important. This was an area where improvements to current practices are required, for example in providing a consistent format and language in communication between different Local Government Areas and the different levels within them. Member councils and stakeholders also have few opportunities for effective communication and knowledge sharing with each other. The EMRC could provide a greater role to facilitate these opportunities in a manner that is cost effective and suitable for member council staff. This enabler also includes capacity building support for member councils to ensure that they have sufficient capacity to collaborate effectively and participate in the *Regional Environment Strategy 2016-2020* implementation.

**Sustainable development enablers include regional advocacy; education, engagement and information; cross-regional programs; funding; strategic consulting; technical support; research and innovation; and collaboration.**

# Implementation

*The EMRC will implement this strategy in accordance with the principles set out below. Projects, programs and initiatives will be required to be consistent with the vision of this strategy, the role of the EMRC and be best suited to achieve environmental sustainability in the region.*

## 6.1 EMRC's 10 Year Strategic Plan 2017 to 2027

All projects and activities undertaken by the EMRC must reflect the objectives within the EMRC's 10 Year Strategic Plan 2017 to 2027.

### Key Result Area 1 - Environmental Sustainability

Our aim is to deliver a range of environmental services that enable the region and member councils to meet their responsibilities and community expectations for sustainable and adaptive environmental initiatives, and to maintain and enhance the natural assets of the region.

- 1.5 To contribute towards improved regional air, water and land quality and regional biodiversity conservation and address climate change

### Key Result Area 2 - Economic Development

Our aim is to facilitate and advocate for the sustainable economic and social development of the region.

- 2.1 To facilitate and advocate for increased investment in regional infrastructure
- 2.2 To facilitate and advocate for regional economic development activities
- 2.3 To facilitate regional cultural and recreational activities.

### Key Result Area 3 - Good Governance

Our aim is ensure that EMRC is a responsive, progressive and responsible organisation.

- 3.1 To provide advice and advocacy on issues affecting Perth's Eastern Region
- 3.2 To manage partnerships and relationships with stakeholders
- 3.3 To provide responsible and accountable governance and management of the EMRC.

## 6.2 EMRC's Service Delivery Model

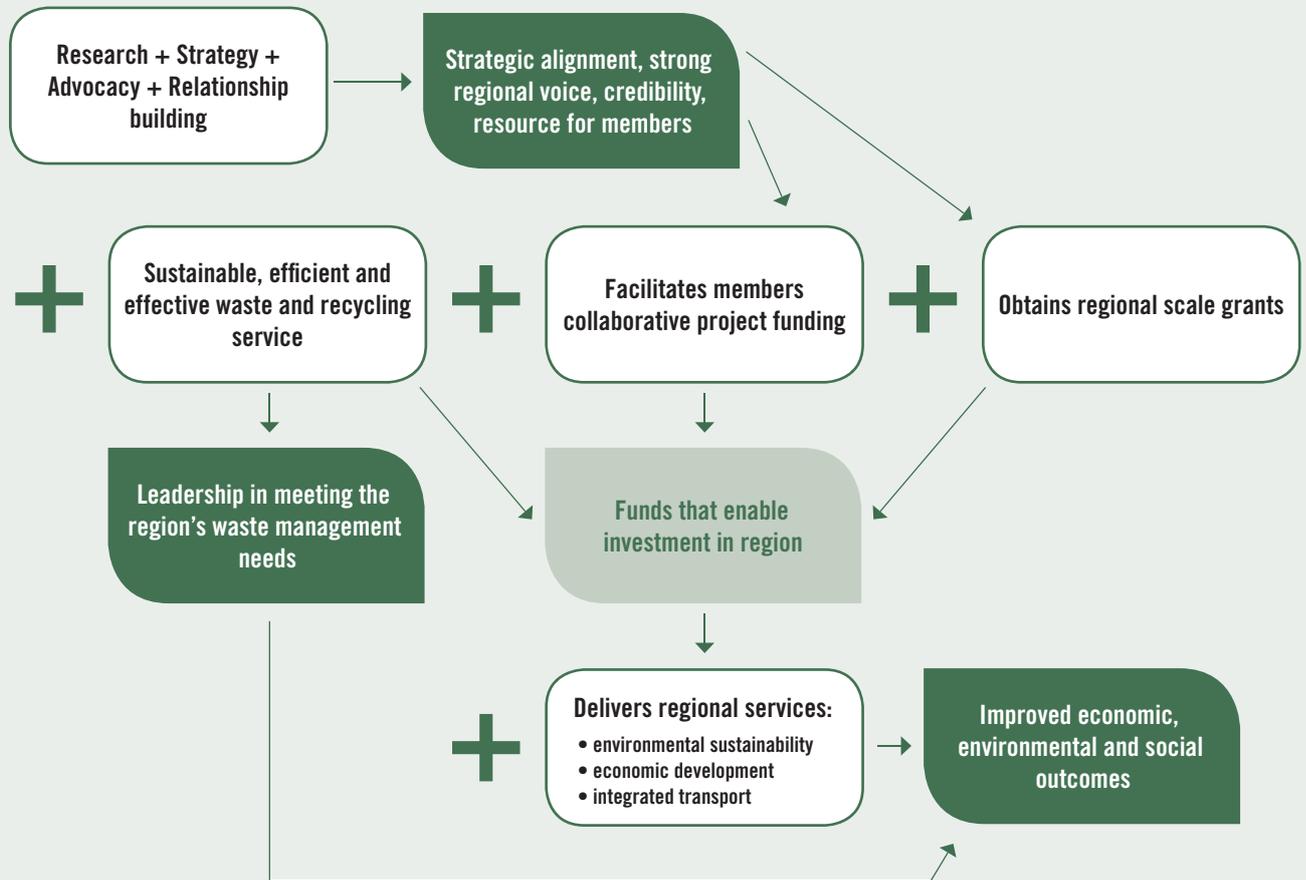
The EMRC's Establishment Agreement enables the EMRC to undertake a range of projects and services and provides a means for member councils to share resources and facilities. The cooperative, political and executive framework of the EMRC enables the member councils individually and collectively to promote and advocate on issues for the benefit of local government and to better serve the community.

The EMRC represents a model of successful collaboration, and for 30 plus years, has initiated and led projects for its member councils that deliver real benefits to the region in the areas of waste management and resource recovery, environmental sustainability and regional economic development. These services enable member councils to enhance outcomes for their communities and for Perth's Eastern Region as a whole.



**The EMRC represents a model of successful collaboration and, for 30 plus years, has initiated and led projects for its member councils that deliver real benefits to the region in the areas of waste management and resource recovery, environmental, sustainability and regional economic development.**

## EMRC SERVICE DELIVERY MODEL



The EMRC recognises that effectively addressing sustainability issues cannot be carried out in isolation. This appreciation of the value of collaboration is also explicitly built into the design of the SDGs, with SDG 17 outlining various targets for cross sector partnerships. Through the SDGs, the EMRC

wishes to bring together member councils, business, industry, community and other key stakeholders around this shared set of goals and priorities. The EMRC will deliver environmental and sustainability outcomes as collaborative approaches as opposed to stand alone actions.

Through the SDGs, the EMRC wishes to bring together member councils, business, industry, community and other key stakeholders around this shared set of goals and priorities.



## 6.3 Priority Determinants

For an initiative to be progressed it is recommended that it should strongly display at least three of the following seven priority determinants and not negatively affect any priority determinants.

### 6.3.1 Regional Significance

Relevance across local government boundaries or to unique cross boundary assets, projects with significant regional influence, or addressing regional, state or federal priorities.

### 6.3.2 Sustainable Development Goals

Contributes to individual and collective progress towards more than one Sustainable Development Goal.

### 6.3.3 Economies of Scale

Likely to be significantly cheaper or more efficient on a regional scale. Likely to have enhanced collective benefits on a regional scale.

### 6.3.4 Emerging Issue / Opportunity

New, innovative or pilot activity that could be expanded to other member councils or take advantage of newly emerged opportunities, such as funding, or address newly emerged threats to mitigate further issues.

### 6.3.5 Investment Ready

Seed projects or those likely to attract significant income or investment through grants or sponsorship.



### 6.3.6 Profile

Raising awareness of the region, the EMRC and / or member councils as leaders and innovators.

### 6.3.7 Collaboration

Requires collaboration or partnership between member councils and / or other key stakeholders, such as researchers or industry.

## 6.4 Monitoring and Review

Effective implementation also requires regular reporting. All member councils and the EMRC Council will be kept up to date with progress towards the *Regional Environment Strategy*

*2016-2020*. This will occur regularly through a newly created Regional Environment Strategy Regional Advisory Group and an annual review by the EMRC. It is important to note that the actions under each objective are not exhaustive and, given the rapid pace of change in the sector, these will need to be reviewed annually and updated to reflect new advances or threats and emerging opportunities and trends. Where appropriate, the community will be informed of significant progress developments through the EMRC website, media releases and newsletter. An annual review of progress will allow the *Regional Environment Strategy 2016-2020* to act as a living document, evolving over time as issues confronting the region change and actions are completed.



# Proposed Initiatives

*The vision for the Regional Environment Strategy 2016-2020 is: A region which supports the goals of sustainable development with optimal environmental management for an equitable and supported community and a protected and healthy environment.*

The initiatives in the following tables have been identified as being priorities for delivery by the EMRC for member councils and key stakeholders from review of strategic documents and extensive consultation in order to achieve the strategic objectives of the *Regional Environment Strategy 2016-2020*. All initiatives meet at least three of the priority determinant categories (Section 6.3) with the majority meeting four or more, making them priority initiatives for progression. Following are guidelines to assist in reading and understanding the Action Table:

- The first column indicates the SDGs that are relevant to the particular initiative. However, for many initiatives, implementation will have an impact on more than one SDG. In those cases all relevant SDGs are listed with the first mentioned SDG considered the priority goal. The expected outcomes are detailed to guide the development and evaluation of each project / activity.
- The Key Result Areas refer to the objectives within the EMRC's *10 Year Strategic Plan 2017 to 2027* that the initiative will assist in achieving.
- The sustainable development enablers are listed to assist the EMRC and partners to identify if they have the enablers in house or need to outsource particular elements to ensure the projects are successful.
- 'Transformational initiatives' are highlighted in light green. These are the initiatives that are new or additional to the current core business of the EMRC Environmental Services team and will require particular focus for implementation.

It is also important to understand that the initiatives listed below are to be used as a guide only and are not exhaustive of the activities that may arise from the identified strategic objectives in this strategy. The EMRC and its partners will treat the Action Plan as a live document and be proactive and reactive as situations arise or are seen to be developing.



During the consultation, using “SDG money”, the following five initiatives were considered to be the most important by member council and key stakeholder representatives who attended the workshops during the development of the *Regional Environment Strategy 2016-2020*. They are, in order of priority:

- Secure funding for implementation of regional urban heat island effect mitigation program including technical support or strategic consulting for urban canopy enhancement. (3.1)
- Provide technical support and advocacy to member councils to develop consistent and reliable data systems in relation to environmental assets. (7.1)
- Provide technical support and advocacy to member councils to develop consistent cost benefit analysis tools in relation to environmental assets. (7.2)
- Continue to build partnerships and provide technical support, research and information relating to weed, pathogen control. (6.1)
- Identify funding opportunities that enable restoration of degraded land and soil as opportunities arise. (6.2)

In addition, although all of the enablers were considered important, the SDG dollars were used by the member council and stakeholder representatives to signal which enablers they perceived as most beneficial to achieving positive environmental outcomes within the region. The four most highly valued (in order) are: Cross-Regional Programs; Education, Engagement and Information; Regional Advocacy; and Funding.

**The four most highly valued enablers (in order) are: cross-regional programs; education, engagement and information; regional advocacy; and funding.**



# Action Plan



**Strategic Objective 1: Our region has sufficient and sustainably managed water resources and good water quality in rivers, wetlands and groundwater.**

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>1.1.</b> Continue to provide a regional water management program including data management and information sharing.	6, 11	<ul style="list-style-type: none"> <li>• Member council and key stakeholder water objectives supported.</li> <li>• Waterwise Council (Department of Water and Water Corporation) program participation supported.</li> <li>• Water data management supported.</li> <li>• New WAterways water capacity building program supported.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>• Cross-regional programs</li> <li>• Technical support</li> <li>• Education, information and engagement.</li> </ul>
<b>1.2.</b> Continue to partner with universities / researchers such as the CRC for Water Sensitive Cities to identify innovative ways for local governments and community members / industry to increase water use efficiency.	6, 11	<ul style="list-style-type: none"> <li>• Increased water literacy among community, industry, EMRC and member councils.</li> <li>• Increased water use efficiency.</li> <li>• Effective partnerships.</li> </ul>	1.5, 2.2	<ul style="list-style-type: none"> <li>• Research and innovation</li> <li>• Technical support</li> <li>• Collaboration</li> <li>• Education, information and engagement.</li> </ul>
<b>1.3.</b> Facilitate the adoption of new research, tools and technologies to assist the transition to a water sensitive city.	6, 11	<ul style="list-style-type: none"> <li>• Adoption of water sensitive tools and technologies.</li> <li>• Increased water literacy and engagement with sustainable water management.</li> </ul>	1.5, 2.2	<ul style="list-style-type: none"> <li>• Research and innovation</li> <li>• Technical support</li> <li>• Funding</li> <li>• Education, information and engagement.</li> </ul>
<b>1.4.</b> Advocate to relevant government departments to incorporate water sensitive urban design principles planning policies.	6, 11, 15	<ul style="list-style-type: none"> <li>• Enhanced water quality and availability through application of water sensitive urban design.</li> </ul>	1.5, 2.1	<ul style="list-style-type: none"> <li>• Regional advocacy</li> <li>• Education, information and engagement.</li> </ul>

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>1.5.</b> Coordinate member council and community education program (water efficiency and sustainable water use practices).	6, 11, 17	<ul style="list-style-type: none"> <li>• Reduced water use and improved knowledge.</li> </ul>	1.5, 2.1	<ul style="list-style-type: none"> <li>• Education, information and engagement</li> <li>• Technical support</li> <li>• Cross-regional programs.</li> </ul>
<b>1.6.</b> Advocate to state level policy bodies on behalf of member councils to mandate Water Sensitive Urban Design inclusion in all planning instruments.	6, 11, 15	<ul style="list-style-type: none"> <li>• Increase awareness of the need for increased Water Sensitive Urban Design.</li> <li>• Increased incorporation of Water Sensitive Urban Design in planning instruments.</li> <li>• Increased adoption of Water Sensitive Urban Design in public open space and new urban developments.</li> <li>• Enhanced social and health outcomes associated with improved environmental health.</li> <li>• Improved water management (including improved water quality, storm water management, public amenity, reduced flood risk).</li> </ul>	1.5, 2.1	<ul style="list-style-type: none"> <li>• Regional advocacy.</li> </ul>
<b>1.7.</b> Monitor developments in Water Sensitive Urban Design and keep member councils, stakeholders, and community members informed of new innovations.	6, 11, 15	<ul style="list-style-type: none"> <li>• Well informed member councils and broader community.</li> <li>• Increased adoption of Water Sensitive Urban Design.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>• Education, information and engagement.</li> </ul>
<b>1.8.</b> Facilitate a regional workshop to identify priority needs for strategic consulting and technical support in relation to Water Sensitive Urban Design. Identify and communicate the EMRC's current capacity to deliver support.	6, 11, 15	<ul style="list-style-type: none"> <li>• Priorities identified.</li> <li>• Technical and strategic support requirements identified.</li> <li>• The EMRC's capacity to deliver support identified and communicated to member councils.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>• Strategic consulting</li> <li>• Technical support.</li> </ul>
<b>1.9.</b> Facilitate water quality monitoring and improvement activities under a cross-regional catchment management program.	6, 11, 15	<ul style="list-style-type: none"> <li>• Enhanced water quality.</li> <li>• Water-based ecosystem restoration facilitated.</li> <li>• Support provided to community groups.</li> <li>• Ongoing community engagement in natural resources management.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>• Cross-regional programs</li> <li>• Funding</li> <li>• Regional advocacy</li> <li>• Technical support</li> <li>• Collaboration.</li> </ul>

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>1.10.</b> Advocate to secure funding for identified priority water related projects and activities.	6, 11	<ul style="list-style-type: none"> <li>Increased availability of funding to implement water related projects and activities.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Funding.</li> </ul>
<b>1.11.</b> Coordinate Local Government Areas, business and community education program on water management.	6, 11, 12	<ul style="list-style-type: none"> <li>Increased water literacy.</li> <li>Increased water use efficiency.</li> <li>Engagement of community in water management.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Cross-regional programs</li> <li>Collaboration.</li> </ul>
<b>1.12.</b> Work with key stakeholders to provide input on behalf of Perth's Eastern Region to the development of the Perth-Peel Water @ 3.5 million Strategy to investigate and pursue alternative water supplies.	6, 11	<ul style="list-style-type: none"> <li>Decreased reliance on groundwater extraction and climate dependent water supplies.</li> <li>Increased use of alternative water supplies e.g. wastewater re-use.</li> <li>Increased water availability for maintenance of public open spaces and agriculture sectors.</li> <li>Enhanced resilience of public open spaces / agriculture to decreasing water availability.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Research and innovation</li> <li>Regional advocacy</li> <li>Collaboration.</li> </ul>





**Strategic Objective 2: Our region adopts sustainable, affordable and modern energy sources and promotes energy efficiency.**

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>2.1.</b> Identify funding and other opportunities to improve adoption of renewable energy in Perth's Eastern Region; advocate for investment.	7, 11, 13	<ul style="list-style-type: none"> <li>Increased funding to support renewable energy adoption.</li> <li>Increased awareness of cost-effective renewable energy technologies.</li> <li>New partnerships.</li> <li>Increased adoption of cost-effective renewable energy technologies.</li> </ul>	1.5, 2.1, 3.1, 3.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Regional advocacy</li> <li>Funding</li> <li>Cross-regional programs.</li> </ul>
<b>2.2.</b> Advocate to government and peak industry bodies for changes to the energy market to support increased adoption of cost-effective renewable energy technologies.	7, 11, 13	<ul style="list-style-type: none"> <li>Reduced energy costs.</li> <li>Increased access to cost-effective renewable energy technologies.</li> </ul>	1.5, 2.1, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Collaboration.</li> </ul>
<b>2.3.</b> Monitor innovations and developments relating to renewable energy and inform member councils, key stakeholders and community.	7, 11, 13	<ul style="list-style-type: none"> <li>Increased awareness of opportunities for cost effective and best practice renewable energy adoption.</li> <li>Increased adoption of cost-effective renewable energy technologies.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Research and innovation.</li> </ul>
<b>2.4.</b> Advocate for / attract investment (private or public) for renewable energy adoption, including investigating private-public partnerships.	7, 11, 13	<ul style="list-style-type: none"> <li>Funding secured to enable broader renewable energy adoption.</li> </ul>	1.5, 2.1, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy.</li> </ul>
<b>2.5.</b> Advocate to Synergy for a demonstration site of solar batteries to be located in Perth's Eastern Region.	7, 11, 13	<ul style="list-style-type: none"> <li>Increased awareness of cost-effective renewable energy technologies.</li> <li>New partnerships.</li> <li>Increased adoption of cost-effective renewable energy technologies.</li> </ul>	1.5, 2.1, 3.1	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Regional advocacy</li> <li>Cross-regional programs.</li> </ul>
<b>2.6.</b> Coordinate Local Government Areas, business and community education programs on energy efficiency and renewable energy.	7, 11, 12, 13	<ul style="list-style-type: none"> <li>Increased awareness of cost-effective renewable energy technologies.</li> <li>Increased adoption of cost-effective renewable energy technologies.</li> <li>Increased engagement of community with energy efficiency and renewable energy.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Cross-regional programs.</li> </ul>



**Strategic Objective 3: Our region fosters safe, resilient, resource efficient and environmentally sustainable urban areas.**

*Initiative 3.1 was considered the most important of all initiatives by the majority of stakeholders.*

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>3.1.</b> Secure funding for implementation of regional urban heat island effect mitigation program including technical support or strategic consulting for urban canopy enhancement.	11, 13, 15	<ul style="list-style-type: none"> <li>Funding secured for program implementation.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>Cross-regional programs</li> <li>Regional advocacy</li> <li>Technical support.</li> </ul>
<b>3.2.</b> Work with member councils to design a regional urban heat island effect mitigation program including technical support or strategic consulting for urban canopy enhancement.	11, 13, 15	<ul style="list-style-type: none"> <li>Urban heat island effect mitigation program designed to meet the needs of the region.</li> <li>Member council and key stakeholder priorities for urban canopy improvement supported.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Cross-regional programs</li> <li>Technical support</li> <li>Strategic consulting</li> <li>Collaboration.</li> </ul>
<b>3.3.</b> Implement regional urban heat island effect mitigation program including technical support or strategic consulting for urban canopy enhancement. To include development of data solutions to support implementation and monitoring.	11, 13, 15	<ul style="list-style-type: none"> <li>Reduced urban heat island effect.</li> <li>Increased amenity.</li> <li>Increased contribution to climate change mitigation / adaptation through increased urban canopy.</li> <li>Enhanced social and public health outcomes associated with improved environmental health.</li> <li>Data solutions to meet member council identified needs.</li> <li>Member council and key stakeholder priorities for urban canopy supported.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Cross-regional programs</li> <li>Technical support</li> <li>Strategic consulting</li> <li>Collaboration.</li> </ul>
<b>3.4.</b> Support member councils to increase the incorporation of environmental considerations in their high level strategies, their planning policies, and operational procedures.	11, 17	<ul style="list-style-type: none"> <li>Improved environmental protection through incorporation in planning.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Strategic consulting</li> <li>Research and innovation</li> <li>Regional advocacy.</li> </ul>

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>3.5.</b> Provide member councils and industry with ongoing information related to 'green growth' to facilitate it becoming an approach to economic development.	11, 12	<ul style="list-style-type: none"> <li>Increased integration of environmental sustainability in broader governance processes, policies and strategies.</li> </ul>	1.5, 2.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Research and innovation.</li> </ul>
<b>3.6.</b> Advocate to state government on behalf of member councils to mandate inclusion of environmental considerations in all planning instruments and processes to support enhanced environmental outcomes from development.	11, 13, 15	<ul style="list-style-type: none"> <li>Increase awareness of the need for environmental considerations within planning.</li> <li>Increased adoption of appropriate and supported public open space in new urban developments.</li> <li>Enhanced social and health outcomes associated with improved environmental health.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Collaboration.</li> </ul>
<b>3.7.</b> Advocate to state planning agencies, such as the WA Planning Commission, to have regard for environmentally sensitive areas in policy development and planning decisions in urban areas.	11	<ul style="list-style-type: none"> <li>Increase awareness of the need for environmental considerations within planning.</li> <li>Enhanced environmental and sustainability outcomes from more appropriate planning.</li> <li>Improved communication between state planning agencies and local government.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Collaboration.</li> </ul>
<b>3.8.</b> Advocate for an electric vehicle project specifically in Perth's Eastern Region. e.g. partner with RAC for a demonstration project such as e-Bike trial, installing charging stations for electric cars / bikes.	11, 13	<ul style="list-style-type: none"> <li>Reduction in carbon emissions.</li> <li>Increased use of green energy.</li> <li>Increased awareness of green energy.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Research and innovation</li> <li>Education, information and engagement</li> <li>Collaboration.</li> </ul>
<b>3.9.</b> Explore alternative options to support member councils to maintain and improve public open space in line with community demand. e.g. where the demand for public open space availability and usage is likely to increase as a result of infill development.	11, 15	<ul style="list-style-type: none"> <li>Appropriate public open space availability.</li> <li>New / amended open space policies, if required.</li> <li>Agreed development contribution schemes based on identified good practices.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Collaboration.</li> </ul>
<b>3.10.</b> Support the implementation of the Regional Economic Development Strategy 2016-2020 and Regional Integrated Transport Strategy 2016-2020.	11, 17	<ul style="list-style-type: none"> <li>Integrated planning and implementation.</li> </ul>	1.5, 2.2, 3.1	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Collaboration.</li> </ul>



**Strategic Objective 4: Our region fosters responsible consumption and production patterns and promotes environmentally responsible lifestyles.**

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>4.1.</b> Provide technical assistance for member councils to embed environmental considerations into their procurement guidelines.	12	<ul style="list-style-type: none"> <li>Improved environmental outcomes through more rigorous procurement practices.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Technical support</li> <li>Education, information and engagement.</li> </ul>
<b>4.2.</b> Continue to provide education, information and engagement targeted at member councils and the community to promote the adoption of environmentally responsible lifestyles.	12	<ul style="list-style-type: none"> <li>Increased awareness among Local Government Areas, community and industry of responsible consumption and production practices.</li> <li>Increased adoption of sustainable lifestyles.</li> </ul>	1.5, 2.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Cross-regional programs.</li> </ul>
<b>4.3.</b> Advocate to potential private sector investors for investment in regional industry clusters and supply chains using a 'green growth' approach.	12, 11	<ul style="list-style-type: none"> <li>Enhance efficient use of resources.</li> <li>Promote sustainable economic growth.</li> <li>Support 'green growth' approach to economic development.</li> </ul>	1.5, 2.2	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Cross-regional programs.</li> </ul>





**Strategic Objective 5: Our region addresses climate change and its impacts through mitigation and adaptation.**

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>4.4.</b> Provide education and information to member councils and community members on how to reduce their greenhouse gas emissions and adapt to specific climate change impacts.	13, 11	<ul style="list-style-type: none"> <li>• Greater understanding of the risks and potential impacts of climate change.</li> <li>• Greater uptake of behavior change to support climate change adaptation.</li> <li>• Reduced greenhouse gas emissions.</li> <li>• Increased urban and peri-urban resilience to climate change.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>• Education, information and engagement</li> <li>• Technical support</li> <li>• Cross-regional programs</li> <li>• Regional advocacy</li> <li>• Collaboration.</li> </ul>
<b>5.1.</b> Support member councils to progress climate change adaptation as per their identified requirements.	13, 11	<ul style="list-style-type: none"> <li>• Increased resilience of urban environment, public open space and bushland to the impacts of global climate change.</li> <li>• Increased preparedness for climatic events and emergencies.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>• Technical support</li> <li>• Strategic consulting</li> <li>• Regional advocacy</li> <li>• Funding.</li> </ul>
<b>5.2.</b> Meet individually with member councils to identify support required to progress local climate change adaptation.	13, 11	<ul style="list-style-type: none"> <li>• Strategic consulting / technical support requirements identified.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>• Technical support</li> <li>• Strategic consulting.</li> </ul>
<b>5.3.</b> Advocate to all relevant state government bodies to increase the integration of climate change adaptation measures into policy and planning, including increased budget allocation.	13, 11	<ul style="list-style-type: none"> <li>• Increased integration of climate change into state and local government policy and planning and increased budget allocation.</li> <li>• Increased funding support for regional climate change mitigation and adaptation actions.</li> <li>• Reduced greenhouse gas emissions.</li> <li>• Resilience to climate change impacts.</li> <li>• Increased awareness of climate change risks.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>• Regional advocacy.</li> </ul>



**Strategic Objective 6: Our region protects, restores and enhances terrestrial ecosystems, addresses land degradation and prevents biodiversity loss.**

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>6.1.</b> Continue to build partnerships and provide technical support, research and information relating to pest, weed and pathogen control.	15, 11	<ul style="list-style-type: none"> <li>• Improved control of weeds and pathogens.</li> <li>• Enhanced protection of biodiversity and ecological communities.</li> <li>• Improved ecological condition of remnant bushland and foreshore areas</li> <li>• Partnerships with researchers and industry.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>• Research and innovation</li> <li>• Technical support</li> <li>• Education, information and engagement</li> <li>• Collaboration.</li> </ul>
<b>6.2.</b> Identify funding opportunities that enable restoration of degraded land and soil, as opportunities arise.	15, 17	<ul style="list-style-type: none"> <li>• Improved terrestrial ecosystems.</li> <li>• Improved biodiversity resilience.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>• Technical support</li> <li>• Funding.</li> </ul>
<b>6.3.</b> Advocate and provide support to member councils to integrate ecosystem and biodiversity values into their planning, processes and budgets, in particular land use planning.	15, 17	<ul style="list-style-type: none"> <li>• Improved funding for biodiversity and ecosystem support.</li> <li>• Improved budget and valuation processes.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>• Regional advocacy</li> <li>• Strategic consulting</li> <li>• Technical support.</li> </ul>



Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>6.4.</b> Coordinate cross-regional catchment management program (Eastern Region Catchment Management Program) to support priorities identified by member councils.	15, 6, 11	<ul style="list-style-type: none"> <li>• Reduced rate of biodiversity decline.</li> <li>• Enhanced water quality.</li> <li>• Supported community groups.</li> <li>• Effective partnerships.</li> <li>• Increased community engagement with natural resources management.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>• Cross-regional programs</li> <li>• Regional advocacy</li> <li>• Research and innovation</li> <li>• Technical support</li> <li>• Collaboration.</li> </ul>
<b>6.5.</b> Facilitate a workshop to identify priority needs for strategic consulting and technical support in relation to land use planning for biodiversity conservation. Identify and communicate the EMRC's current capacity to deliver support.	15, 11	<ul style="list-style-type: none"> <li>• Priorities identified.</li> <li>• Technical and strategic support requirements identified.</li> <li>• The EMRC's capacity to deliver support identified and communicated to member councils.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>• Strategic consulting</li> <li>• Technical support</li> <li>• Collaboration.</li> </ul>
<b>6.6.</b> Continue to facilitate community, particularly youth, involvement in biodiversity conservation and stewardship.	15, 11, 17	<ul style="list-style-type: none"> <li>• Enhanced protection of biodiversity and ecological communities.</li> <li>• Improved ecological condition of remnant bushland and foreshore areas.</li> <li>• Partnerships with community.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>• Education, information and engagement</li> <li>• Collaboration.</li> </ul>

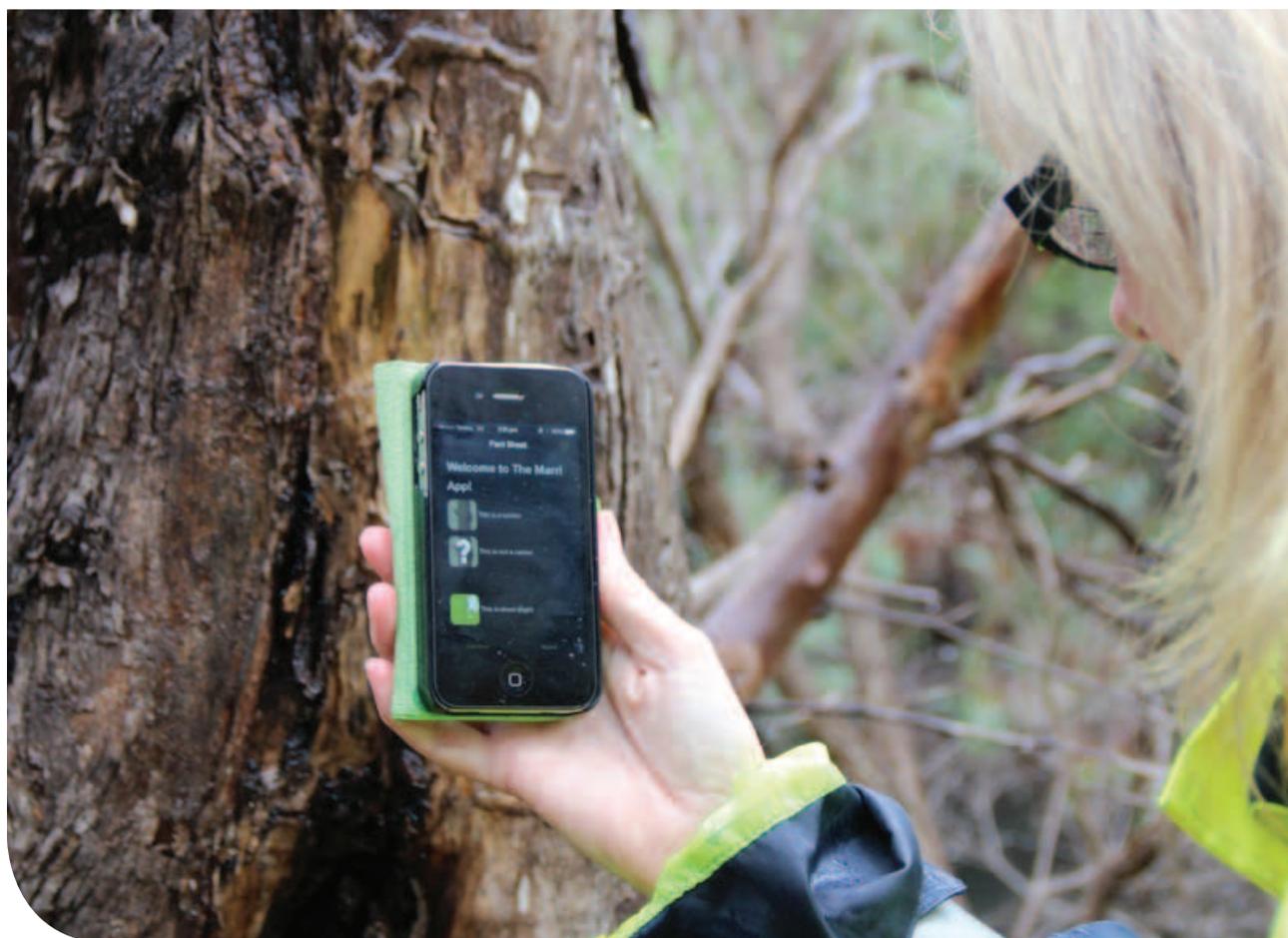




**Strategic Objective 7: Our region contributes to the global partnership for sustainable development and achievement of relevant SDGs and targets.**

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>7.1.</b> Provide technical support and advocacy to member councils to develop consistent and reliable data systems in relation to environmental assets.	17	<ul style="list-style-type: none"> <li>Reliable data to assist with decision making and resource allocation.</li> </ul>	1.5, 3.1	<ul style="list-style-type: none"> <li>Technical support</li> <li>Regional advocacy.</li> </ul>
<b>7.2.</b> Provide technical support and advocacy to member councils to implement consistent cost benefit analysis tools in relation to environmental assets.	17, 11	<ul style="list-style-type: none"> <li>Increased availability of data and information and communications technology to support business cases.</li> <li>Consistent methodology and tools to support decision making and resource allocation.</li> </ul>	1.5	<ul style="list-style-type: none"> <li>Technical support.</li> </ul>
<b>7.3.</b> Provide information and strategic consulting to member councils to incorporate the SDGs into their governance and processes.	17	<ul style="list-style-type: none"> <li>SDGs are incorporated into the EMRC and member council governance processes.</li> </ul>	1.5, 3.1, 3.2	<ul style="list-style-type: none"> <li>Regional advocacy</li> <li>Strategic consulting</li> <li>Education, information and engagement.</li> </ul>
<b>7.4.</b> Develop a methodology to assign value to environmental assets to assist member councils with environmental planning outcomes.	17, 11	<ul style="list-style-type: none"> <li>Availability of tools for Environmental Asset Based Management.</li> <li>Availability of methodology to support integration of environmental considerations in planning and cost benefit analyses (Initiative 7.8).</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Research and innovation</li> <li>Collaboration</li> <li>Education, information and engagement.</li> </ul>
<b>7.5.</b> Increase online presence and digital engagement.	17	<ul style="list-style-type: none"> <li>Improved communication with member councils, community and stakeholders.</li> </ul>	3.1	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Regional advocacy.</li> </ul>
<b>7.6.</b> Provide cross-regional networking opportunities to strengthen partnerships between member councils and with other stakeholders (e.g. state government agencies, community organisations including Aboriginal groups, Non-Government Organisations, etc).	17	<ul style="list-style-type: none"> <li>Stronger partnerships to support better environmental outcomes.</li> <li>Improved information and knowledge sharing opportunities.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Cross-regional programs</li> <li>Education, information and engagement.</li> </ul>

Initiative	SDGs	Expected outcomes	KRAs	Enablers
<b>7.7.</b> Support member councils to engage more effectively with the Aboriginal community in matters relating to environmental management.	17	<ul style="list-style-type: none"> <li>Improved engagement and partnerships with the Aboriginal community.</li> </ul>	3.2, 3.3	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Regional advocacy.</li> </ul>
<b>7.8.</b> Design a theory of change and outcomes framework for the Regional Environment Strategy 2016-2020 with associated data collection and analysis to evaluate the strategy.	17	<ul style="list-style-type: none"> <li>Effective tracking of Regional Environment Strategy 2016-2020 implementation.</li> <li>Improved monitoring and evaluation against environmental outcomes.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Technical Support.</li> </ul>
<b>7.9.</b> Advocate to universities and Cooperative Research Centre's to encourage research to be conducted in Perth's Eastern Region (if possible in partnership with member councils / the EMRC).	17	<ul style="list-style-type: none"> <li>Increased research / information and data available on environment within the EMRC.</li> </ul>	1.5, 3.2	<ul style="list-style-type: none"> <li>Education, information and engagement</li> <li>Technical support</li> <li>Research and innovation</li> <li>Strategic consulting</li> <li>Funding.</li> </ul>



# Appendix 1 – Issues, Potential Benefits and Opportunities for Environmental Management in Perth’s Eastern Region

*This Appendix outlines the important background information, issues, potential benefits and regional opportunities that were identified during the Regional Environment Strategy 2016-2020 development for each of the seven strategic objectives. These informed the development of the Regional Environment Strategy 2016-2020 initiatives.*

**Strategic Objective 1:** Our region has sufficient and sustainably managed water resources and good water quality in rivers, wetlands and groundwater.

**Key Issues:**

- Declining availability of groundwater for water supply including maintenance of public open space.
- Continuing rainfall decline due to global climate change.
- Lack of fit for purpose and cost effective alternative water supplies.
- Lack of knowledge and understanding of alternative water supplies and their relative costs and benefits compared with groundwater extraction.
- Lack of resources and processes for uptake of Water Sensitive Urban Design.
- Nutrient in flows from residential, industrial and agricultural land use to rivers and wetlands.
- Non-nutrient contamination of rivers and wetlands.
- Reduced environmental water flow.
- Low water use efficiencies in some sectors, e.g. watering of public open spaces.
- Inefficient cross-sector water planning.



### Potential Benefits:

- Enhanced water quality.
- Increased water use efficiency.
- Decreased reliance on groundwater extraction.
- Contribution to Western Australia's sustainable supply of fresh water.
- Enhanced resilience of public open space to decreasing water availability.
- Cross-boundary integrated water management.
- Increased community and business participation in water management.
- Protected and restored water related ecosystems.
- Water Sensitive Urban Design adopted as standard practice.

### Regional Opportunities

- Continue to facilitate cross-regional catchment management programs.
- Facilitate restoration of water-based ecosystems, such as foreshore rehabilitation, wetland restoration.
- Continue partnerships for research and innovation in water efficiency and innovation such as the Cooperative Research Centre for Water Sensitive Cities.
- Support and enable the adoption of new research, tools and technologies to assist the transition to a water sensitive city.
- Undertake advocacy and enable collaboration to support greater emphasis on Water Sensitive Urban Design.
- Coordinate Local Government Areas, business and community education program on water management.
- Continue to provide a regional water management program to support the Waterwise Council program and other member council water objectives, including data management.
- Advocate for investment in water quality improvement and catchment management initiatives.
- Advocate for investment in water efficiency technology development and uptake.
- Identify new ways to encourage, promote and value best practice in water and catchment management.
- Where feasible, pursue alternative water supplies to groundwater extraction.

## Strategic Objective 2: Our region adopts sustainable, affordable and modern energy sources and promotes energy efficiency.

### Key Issues:

- Increasing energy costs.
- Limited availability of cost-effective and readily adoptable renewable energies.
- Rapidly changing technology.
- Limited funding available.
- Expected market reform.
- Lack of operational control of inefficient street lighting infrastructure.
- Lack of engagement with energy providers.
- Limited energy market competition.
- Energy poverty for some sectors of the community.

### Potential Benefits:

- Increased adoption of cost-effective renewable energy technologies.
- Improved energy efficiency and reduced energy costs.
- Resilience to market-based energy price fluctuations.
- Decreased energy use through adoption of improved practices.
- Community energy efficiency and renewable energy uptake.
- Support for a more equitable and resilient energy market.
- Improved street lighting efficiency.

### Regional Opportunities

- Capitalise on energy market changes and promote benefits such as declining cost of solar energy and battery storage.
- Develop and implement a regional renewable energy and storage trial project.
- Provide strategic consulting, education and information on renewable energy sources and storage options.
- Advocate to attract investment in the region for renewable energy installation and adoption.
- Advocate to attract investment in affordable energy efficiency technology development and uptake.
- Advocate for and seek funding to improve efficiency of street lighting.
- Coordinate Local Government Areas, business and community education programs on energy efficiency and renewable energy solutions.
- Provide timely advocacy to ensure that changes to the energy market support increased adoption of cost-effective renewable energy technologies.
- Capitalise on / implement new technology, such as flexible photovoltaics, electric vehicles, new battery storage options.

**Strategic Objective 3:** Our region fosters safe, resilient, resource efficient and environmentally sustainable urban areas.

**Key Issues:**

- Urban growth pressure.
- Lack of incorporation of environmental sustainability in planning processes, particularly for infill targets.
- Lack of awareness of social / health outcomes associated with good environmental health.
- Lack of accounting of environmental impacts in cost-benefit analyses for new developments or infrastructure projects.
- Declining water availability due to climate change and population growth.
- Lack of urban canopy.
- Vulnerability to urban heat island effect.
- Pollution generation.
- Non-nutrient contamination of land and waterways.

**Potential Benefits:**

- Increased integration of environmental sustainability in broader governance processes, policies and strategies.
- Enhanced environmental protection through incorporation in planning.
- Enhanced social and health outcomes.
- Reducing the environmental impacts of cities on people and the environment.
- Water Sensitive Urban Design in public open space and new developments.
- Reduced urban heat island effect.
- Safeguarding cultural and natural heritage.
- Enhanced collaborative sustainable development planning and management processes.

**Regional Opportunities:**

- Provide research and technical support for local urban canopy improvement/heat island effect mitigation.
- Coordinate regional urban canopy / heat island effect mitigation program.
- Increase the incorporation of environmental considerations in the EMRC, member councils and state agency's high level planning policies and strategies.
- Provide technical support and regional advocacy for Water Sensitive Urban Design.
- Advocate for 'green growth' as an approach to economic development.
- Facilitate collaborative partnerships for sustainable planning initiatives.
- Advocate for investment in urban heat island effect mitigation to improve health outcomes.
- Provide technical support and regional advocacy for climate change mitigation and adaptation actions in urban development.

**Strategic Objective 4:** Our region fosters responsible consumption and production patterns and promotes environmentally responsible lifestyles.

**Key Issues:**

- Limited awareness among community and industry of responsible practices of consumption and production, such as associations with food consumption, household and personal items / products, building materials and transport choices.
- Procurement practices do not consider the environmental credentials of contractors / suppliers.
- Lack of awareness and skills for responsible lifestyles with minimal environmental impact.

**Potential Benefits:**

- Increased education and awareness among Local Government Areas, community and industry of responsible consumption and production practices and sustainability of lifestyles in order to reduce environmental impacts.
- Improved environmental outcomes through more rigorous procurement practices that consider environmental responsibility of suppliers.
- Improved community engagement with responsible living.

**Regional Opportunities:**

- Work with member councils, local industry and business to embed environmental considerations into their management and procurement practices.
- Continue to work with member councils and regional stakeholders to prevent non-nutrient contamination of waterways.
- Coordinate a regional grant and promotion program to highlight best environmental practice in businesses in the region.
- Advocate for investment in regional industry clusters and supply chains to enhance the efficient use of resources.
- Coordinate and support community engagement and education for sustainable living.

## **Strategic Objective 5:** Our region addresses climate change and its impacts through mitigation and adaptation.

### **Key Issues:**

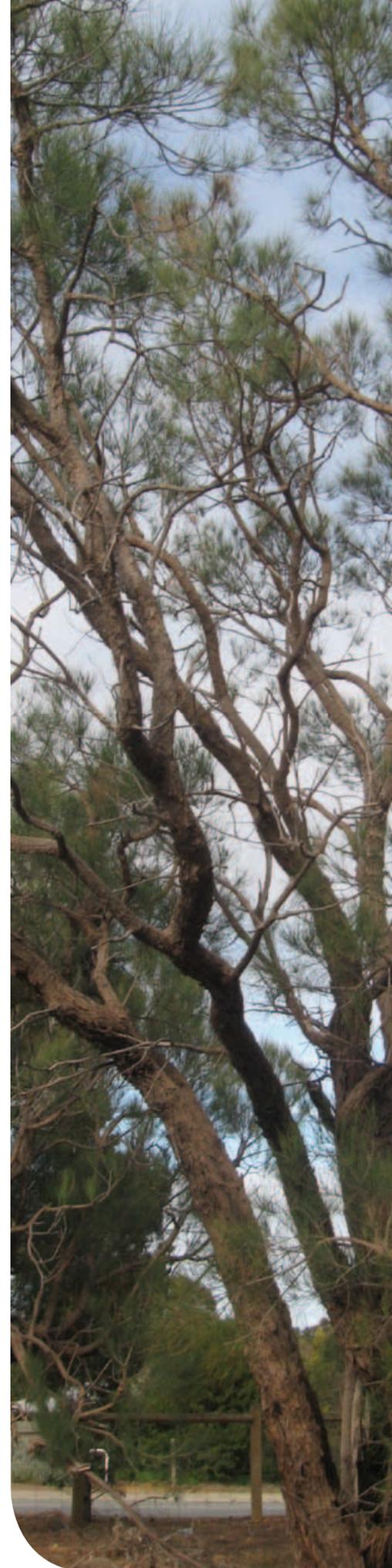
- Declining water availability.
- Increased heat stress on the natural and urban environment.
- Increased frequency and magnitude of extreme weather events.
- Some public open space lacks resilience to the impacts of climate change.
- Some urban environments / infrastructure lack resilience to the impacts of climate change.
- Increasing maintenance and damage rectification costs.
- Limited capacity of remnant bush land to naturally adapt to climate change impacts.
- Contribution to global greenhouse gas emissions and climate change through energy use.
- Movement of species due to climate change impacts to natural habitat.
- Lack of inclusion of climate change risks into planning processes and policy.
- Increased health risks.

### **Potential Benefits:**

- Reduced greenhouse gas emissions from energy use (linked to actions under SDG 8).
- Contribution towards global and national greenhouse gas emissions reduction targets.
- Increased resilience of urban environment, public open space, and bushland to the impacts of global climate change.
- Better managed health risks and awareness of climate change.
- Increased resilience and capacity to climate related hazards and disasters.
- Integration of climate change into policies, strategies, planning documents and processes.
- Increased community understanding of climate change impacts.
- Contributing towards greenhouse gas emissions reduction targets associated with the Global 'Paris Agreement' (2015 United Nations Climate Change Conference - Conference of the Parties - COP21).

### **Regional Opportunities:**

- Provide strategic and technical support, advocacy and information to support climate change adaptation.
- Increase the integration of climate change adaptation measures into policy and planning.
- Provide information to member councils and community of climate change mitigation and adaptation pathways.
- Advocate for the inclusion of climate change measures into national policies, strategies and planning.
- Coordinate Local Government Areas, community and business engagement and education on climate change risks and impacts.
- Advocate for investment in climate change mitigation and adaptation.
- Assist member councils, industry and community to implement fossil fuel divestment.
- Coordinate technical and financial support for member councils to implement climate change initiatives, including data management.





## **Strategic Objective 6:** Our region protects, restores and enhances terrestrial ecosystems, addresses land degradation and prevents biodiversity loss.

### **Key Issues:**

- Threats to the persistence of native species due to invasion of pathogens and weeds.
- Threats to bushland and peri-urban land uses from bushfires.
- Threats to biodiversity and ecological communities due to urban growth pressure.
- Degraded ecosystems, such as remnant bushland, foreshore areas.
- Lack of integration of ecosystem and biodiversity protection.
- Declining availability of bush land and public open space due to land clearing.
- Increased use pressure on remaining remnant bushland.
- Native tree decline.
- Biodiversity loss.

### **Potential Benefits:**

- Improved integrated management of weeds and pathogens.
- Enhanced protection of biodiversity and ecological communities.
- Improved ecological condition of remnant bushland and foreshore areas.
- Enhanced resilience of ecological and urban communities to bushfires.
- Conservation and restoration of ecosystems and biodiversity.
- Integration of sustainable land management into all levels of governance.

### **Regional Opportunities:**

- Advocate for stronger planning for biodiversity conservation within cities and peri-urban areas.
- Continue to build partnerships for research and information relating to pest, weed and pathogen control.
- Continue to build partnerships for research and information relating to conservation and management of native flora and fauna.
- Coordinate and support activities that enable restoration of degraded land and soil.
- Integrate ecosystem and biodiversity values into member council planning, processes and budgets.
- Advocate for greater consideration of ecosystem and biodiversity values in national policies, strategies and planning.
- Continue to coordinate and facilitate community, particularly youth, involvement in biodiversity conservation and stewardship.
- Advocate for a developers contribution towards enhanced public open space availability.

## **Strategic Objective 7: Our region contributes to the global partnership for sustainable development and achievement of relevant SDGs and targets.**

### **Key Issues:**

- Limited awareness of the SDGs and their relevance in the Australian context.
- Limitations in availability of data and information communication technology, such as ability to prepare business cases.
- Lack of consistent cost benefit analysis methodology and tools to assist in cost benefit analysis to allocate scarce resources to environmental management / services.
- Insufficient current use of social media to engage with stakeholders.
- Lack of capacity and tools to monitor and evaluate progress towards desired environmental outcomes.

### **Potential Benefits:**

- SDGs are incorporated into the EMRC's and member council's governance processes.
- Increased promotion of sustainable development.
- Increased availability of data and information communication technology to support business cases.
- Consistent methodology and tools to support decision making and resource allocation.

- Improved monitoring and evaluation against environmental outcomes.
- Development of innovative and stronger partnerships to support better environmental outcomes.
- More effective, accountable and inclusive institutions at all levels through online presence.
- Increased digital presence resulting in new follows and sharing of information to previously not captured audience.

### **Regional Opportunities:**

- Support the inclusion of the SDGs into member councils' governance and processes.
- Continue to implement regular programs and networking opportunities to strengthen partnerships between member councils and with stakeholders.
- Coordinate or facilitate the development of consistent cost benefit analysis tools and data systems for member councils and partners to support environmental management.
- Increase online presence and use of digital media for all initiatives.
- Coordinate or facilitate community interaction with local government to achieve goals and targets.
- Enhance partnerships with universities and cooperative research centres).
- Potential for EMRC to assist with preparing business cases.





## Appendix 2 – Regional Environment Strategy Development Process

*The EMRC contracted SDF Global Pty Ltd (SDF) to assist with the development of the Regional Environment Strategy 2016-2020. The development process was informed by desktop research and analysis and a series of stakeholder consultations guided by interim discussion outputs.*

- **Research and Analysis:** The SDF team undertook a desktop analysis in order to establish the context relating to the natural environment of Perth's Eastern Region, including the assets that are present, environmental management concerns and existing priorities of key stakeholders and any gaps in the existing strategic framework relating to these environmental assets and / or concerns. A desktop analysis report was produced and provided to the EMRC and stakeholders to stimulate discussion. A detailed list of references is also recorded in that document. Research and analysis continued throughout the development of the draft *Regional Environment Strategy 2016-2020* to ensure capture of rapidly arising innovations in the environmental management sector.
- **Individual Stakeholder Consultation:** Key representatives of the EMRC's member councils were contacted individually to discuss what they have valued about the EMRC Environmental Services support to date; their current and future priority environmental services and activity needs; structure of the EMRC; and what other support the EMRC could provide for them into the future. Other stakeholders including Natural Resource Management groups, universities and government departments were also contacted and provided opportunity for interviews or meetings.



- **Environmental Services Staff Workshop:** A round table meeting was held with staff and management from the EMRC's Environmental Services team. An internal discussion paper was sent prior to the meeting outlining global trends in environmental management including, the SDGs, climate change, green growth and renewable energy. The paper also outlined other considerations from initial feedback with stakeholders. This round table provided an opportunity for the EMRC to openly discuss what was working and what needed to be improved or eliminated in the future. It also introduced discussion on how the EMRC could contribute to environmental management in line with global trends and emerging initiatives
- **Stakeholder Workshop:** An interactive workshop was held in May 2016, attended by representatives from the EMRC's member councils, the EMRC Environmental Services team and other key stakeholders such as government agencies and community groups with an interest in management of the environment in Perth's Eastern Region. The workshop focused on confirming the support to date that was valued by stakeholders; discussion on current and emerging global trends; and identifying current challenges and future needs.
- **Workshop Outputs:** Two workshop outputs were produced, a 'Workshop Proceedings' which summarised the discussions and data gathered at the workshop and a 'Discussion Note', which was designed to stimulate further discussion, particularly among key stakeholder representatives who were not able to attend the workshop. This output included a link to an online survey which invited more specific input on the types of support that stakeholders would like to see in particular focus areas.
- **Draft Regional Environment Strategy Development:** Based on the data collected to this point as well as some further consultation and research, the SDF team developed the first draft *Regional Environment Strategy 2016-2020*.
- **Stakeholder Workshop to Review Draft Regional Environment Strategy:** Held on 20 July 2016 the workshop introduced the format of the *Regional Environment Strategy 2016-2020* and how the identified challenges and vision for Perth's Eastern Region led to the development of seven strategic objectives. These strategic objectives aligned with seven of the SDGs and initiatives and expected outcomes were placed under each objective. Stakeholders provided feedback and indicated their level of interest or potential involvement with each initiative.





**Eastern Metropolitan Regional Council**  
**226 Great Eastern Highway, Belmont WA 6104**  
**PO Box 234, Belmont WA 6984**

**Telephone: 08 9424 2222**

**Facsimile: 08 9277 7598**

**[www.emrc.org.au](http://www.emrc.org.au)**

