10 November 2021

NOTICE OF MEETING

Dear Committee Member,

The next Environmental Advisory Committee meeting will be held at 6.30pm on Wednesday, 17 November 2021 in the Council Chamber, 7000 Great Eastern Highway, Mundaring.

The attached agenda is presented for your consideration.

Yours sincerely

Jonathan Throssell
CHIEF EXECUTIVE OFFICER

<u>Please Note</u>

If an Elected Member has a query regarding a report item or requires additional information in relation to a report item, please contact the senior employee (noted in the report) prior to the meeting.

AGENDA
ENVIRONMENTAL ADVISORY COMMITTEE MEETING
17 NOVEMBER 2021

ATTENTION/DISCLAIMER

The purpose of this Committee Meeting is to discuss and make recommendations to Council about items appearing on the agenda and other matters for which the Committee is responsible. The Committee has no power to make any decisions which are binding on the Council or the Shire of Mundaring unless specific delegation of authority has been granted by Council. No person should rely on or act on the basis of any advice or information provided by a Member or Employee, or on the content of any discussion occurring, during the course of the Committee Meeting.

The Shire of Mundaring expressly disclaims liability for any loss or damage suffered by any person as a result of relying on or acting on the basis of any advice or information provided by a Member or Employee, or the content of any discussion occurring during the course of the Committee Meeting.

CONTENTS

1.0 OPENING PROCEDURES

Acknowledgement of Country

Shire of Mundaring respectfully acknowledges the Whadjuk people of the Noongar Nation, who are the traditional custodians of this land. We wish to acknowledge Elders past, present and emerging and respect their continuing culture and the contribution they make to the region.

1.1 Announcement of Visitors

1.2 Attendance/Apologies

Staff

Apologies

Guests

1.3 Election of Presiding Person

2.0 ANNOUNCEMENTS BY PRESIDING MEMBER WITHOUT DISCUSSION

3.0 DECLARATION OF INTEREST

3.1 Declaration of Financial Interest and Proximity Interests

Elected Members must disclose the nature of their interest in matters to be discussed at the meeting *(Part 5 Division 6 of the Local Government Act 1995).*

Employees must disclose the nature of their interest in reports or advice when giving the report or advice to the meeting *(Sections 5.70 and 5.71 of the Local Government Act 1995).*

3.2 Declaration of Interest Affecting Impartiality

An Elected Member or an employee who has an interest in a matter to be discussed at the meeting must disclose that interest *(Shire of Mundaring Code of Conduct, Local Government (Admin) Reg. 34C).*

4.0 CONFIRMATION OF MINUTES OF PREVIOUS MEETINGS

RECOMMENDATION

That the Minutes of the Environmental Advisory Committee Meeting held 7 September 2021 be confirmed.

5.0 PRESENTATIONS

6.0 REPORTS OF EMPLOYEES

6.1 Energy and Emissions Reduction Initiatives

File Code	GV.MTG 6/7
Author	Briony Moran, Coordinator Environment and Sustainability
Senior Employee	Adrian Dyson, Acting Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	1. Emissions Snapshot 2020/2021 ⇩ 2. EMRC Emissions Data Analysis Report 2020/2021 ⇩

SUMMARY

This report summarises progress on reducing the Shire's energy use and greenhouse gas emissions over the 2020/2021 financial year.

BACKGROUND

An Energy and Emissions Reduction Strategy (EERS) was adopted by Council at its meeting of 11 September 2018 (C9.09.18). The focus of the EERS was on reducing the Shire's energy use and 'corporate emissions', for which the Shire has the most direct control and responsibility, and where future energy cost savings could be shared by all ratepayers.

Emissions from Shire facilities and vehicles are currently measured through the Azility service which records energy use (electricity, gas and fuel) and calculates resulting greenhouse gas emissions.

The EERS contains an emissions reduction target which is "to reduce corporate emissions by 30% by 2030, from 2016/2017 levels." The EERS includes principles to guide efforts to reduce the Shire's overall emissions:

1. Reduce energy requirements by implementing efficiency measures and purchasing more efficient items and vehicles;
2. Directly increase use of renewable energy by installing Photovoltaic (PV) systems at suitable Shire facilities;
3. Reduce or offset some emissions by purchasing decisions, such as GreenPower or accredited carbon offsets.

The EERS states that "the Energy and Emissions Reduction Strategy (EERS) and target will require review every four years to adapt to changing national policies and programs." The next review is of the EERS and target is due mid-2022.

STATUTORY / LEGAL IMPLICATIONS

Progress to date is summarised in the 'Comment' section below.

POLICY IMPLICATIONS

The Shire's Environmental Sustainability Policy includes policy statements relating to energy, emissions and climate change:

1.4. Human induced climate change is recognised as a key threat to biodiversity, requiring mitigation action to reduce carbon emissions at all levels of government, and adaptation to local impacts.

2.1 The Shire will pursue and promote improved water and energy efficiency, reduced carbon emissions and sustainable use of natural resources.

2.2 Energy and water efficiency is a key consideration in design, construction, maintenance or renovation of Shire facilities, and in the purchase of vehicles, machinery, fittings and appliances.

FINANCIAL IMPLICATIONS

Nil

STRATEGIC IMPLICATIONS

Mundaring Strategic Community Plan 2020 - 2030

Priority 2 - Natural Environment

Objective 2.4 – Energy management that is efficient and sustainable

Strategy 2.4.1 – Increase renewable energy use

SUSTAINABILITY IMPLICATIONS

Reducing the Shire's energy use and emissions will have social and environmental benefits by contributing to the avoidance of catastrophic levels of global climate change.

Where energy requirements can be reduced substantially or replaced with on-site renewable energy, it may also have economic benefits by reducing the Shire's exposure to rising energy costs and future regulation.

RISK IMPLICATIONS

Risk: The Shire's reputation within the community may be at risk if it does not reduce energy use and greenhouse gas emissions in line with adopted target		
Likelihood	**Consequence**	**Rating**
Possible	Moderate	Moderate
Action / Strategy		
Continue to work towards and monitor progress in reducing energy use and emissions		

EXTERNAL CONSULTATION

No external consultation was required.

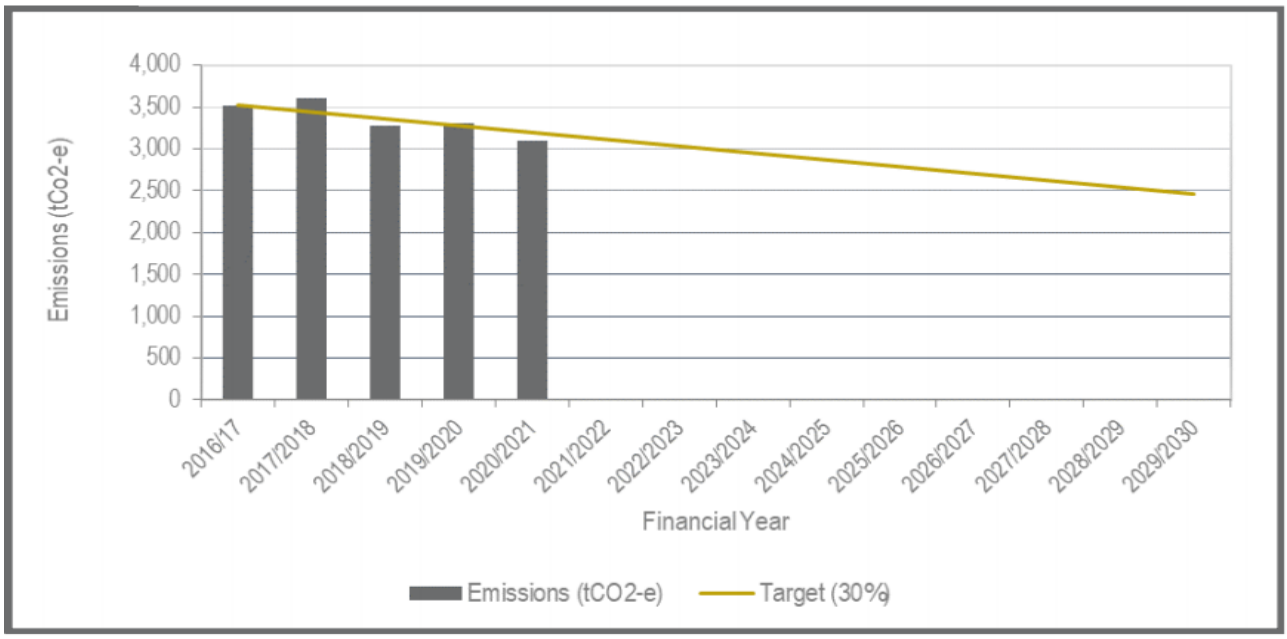
COMMENT

The Eastern Metropolitan Regional Council (EMRC) provides assistance to the Shire for its sustainability and greenhouse gas emission reduction initiatives. The emissions snapshot (Attachment 1) was prepared by the EMRC in early November 2021, using information from the Azility energy and water monitoring service.

The energy use is based on billing and purchasing information, and the emissions are calculated by Azility based on the source. While the amount of energy used by the Shire is quite accurate, some adjustments in the emissions totals may occur as more accurate

emissions intensity is received for the South West Interconnected System (SWIS) for that year. It is also possible that adjustments will be made if there have been errors or estimated use included in billing information from utilities.

The chart below shows the Shire's Corporate emissions since 2016/2017 (the base year for our emissions reduction target). To date the Shire's corporate emissions have fallen approximately 12% from the 2016/17 baseline set in 2018.

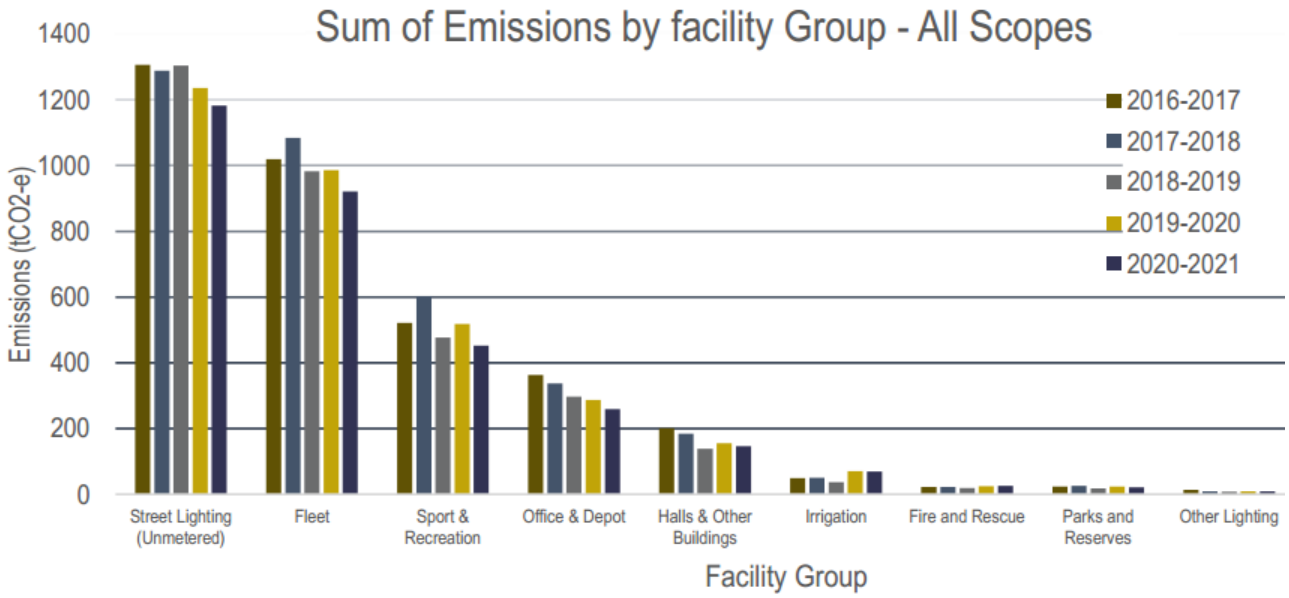


The drop in Corporate emissions in 2020/2021 is partly due to Shire energy initiatives, and partly due to continuing Covid-19 disruption.

Covid-19 disruption included:

- periods of closed facilities and staff working from home reducing electricity use;
- periods of reduced activity for the parts of the Shire fleet and machinery; and
- increased use of online meetings and training, reducing fuel use for travel.

The chart below was provided by EMRC and shows the sources of the Shire's greenhouse gas emissions or 'carbon footprint' for the 2020/2021 year, categorised by use.



Emissions related to use of electricity are based on the billing data. In many cases there are multiple uses and facilities on one site, however there is only one electricity meter so the site (and all related energy use and emissions) is classified by its main use. For example, an oval will be classified as 'sport and recreation' but may include electricity used on site for lighting, irrigation and buildings.

Street lighting is the single most significant source (38%) of greenhouse gas emissions from Shire facilities and activities. Fuel use by the Shire's vehicle fleet and machinery currently causes 30% of corporate emissions. Emissions from community facilities and Shire administration sites together make up approximately one third of emissions.

There is more detail on changes to energy use and emissions in the Emissions Data Analysis Report (Attachment 2). The Shire's actions over the last year are summarised below, along with plans for some additional actions and notes on potential issues in reducing emissions.

Buildings and Facilities

Many of the Shire's buildings and facilities are several decades old and would not meet modern energy efficiency standards. If they are have intermittent or mainly evening use, they are not suitable for rooftop solar panels. Efforts to date have focussed on installing rooftop solar panels on high energy use sites with an appropriate daily use pattern, and identifying options for other energy efficiency improvements.

Energy efficiency improvements and renewable energy additions for Shire facilities in the last year included an additional 70kW of solar panels installed on the Shire's Administration Building and Civic Centre in 2021, and a solar system at the new Containers for Change collection facility at Coppin Road Community Recycling Centre. The solar panels that were installed on the Boya Community Centre (35kW) and Mundaring Arena (35kW) towards the end of the 2019/2020 financial year have been producing power for the whole of the 2020/2021 financial year. Planning for installation of solar panels at additional sites including the Bilgoman Aquatic Centre is underway.

The Shire has continued its practice of LED lighting replacements across Shire managed buildings and facilities, as well as new oval lighting. More energy efficient gas has been trialled in air conditioning systems, but is not suitable for all buildings. The air conditioning system at the Shire's Administrative Building and Civic Centre has now been modified to use the more energy efficient gas. Mundaring Hall had significant insulation installed as part of a roof replacement in 2020/2021, as well as upgrades to windows to improve thermal comfort. Improvements to insulation for Administration Building and Civic Centre is being investigated for 2021/2022.

The Shire also participated in an EMRC Building Benchmarking Project (BBE) in 2020. The BBE project involved 83 building energy audits and benchmarking across five participating councils; Town of Bassendean, City of Bayswater, City of Belmont, Shire of Mundaring, and City of Swan. Facilities included for the Shire of Mundaring included the Administration Building and Civic Centre, Depot, Bilgoman Aquatic Centre, Lake Leschenaultia, Mundaring Arena, Hub of the Hills, Boya Community Centre, and Midvale Early Childhood and Parenting Centre.

The results of the energy audits were used by the Shire and EMRC to identify energy and emissions reductions actions for a number of buildings and facilities. These were prioritised for inclusion into a multi-year regional (EMRC on behalf of Shire of Mundaring, Town of Bassendean, and City of Bayswater) application for a WA Clean Energy Future Fund grant submitted in April 2021. The announcement for funding of successful projects is expected in December 2021.

Some sites have limited scope to either reduce energy use or install onsite renewable energy. For the majority of Shire sites and accounts, electricity use can only be supplied through Synergy as it is below the threshold (50 MWh) to be 'contestable'. Once streetlights are excluded, six high energy use sites make up close to two thirds of the Shire's electricity use. For these contestable sites there has been investigation and support for a collaborative approach for a local government group purchase of renewable energy through a power purchase agreement (PPA). This is an established practice in the eastern states, where aggregated demand and longer contracts can reduce electricity purchase costs (compared to current prices) as well as support investment in new renewable energy generation.

Shire of Mundaring and five other Perth based local governments participated in a non-binding investigation stage with an eastern-states based provider in 2020. Initial findings were positive, however there are significant governance and procurement issues for joint purchasing. In 2021 the Western Australian Local Government Association (WALGA) undertook to obtain regulatory approvals and coordinate a group energy purchase. This is expected to come into effect in April 2022 for participating local governments and would make a significant contribution to achieving the Shire's emissions reduction objectives.

Key challenges to further reducing emissions from buildings and facilities by 2030 will be the high cost of batteries; restrictions around non-contestable sites; and the addition of new facilities and oval lighting if this is not balanced with the retirement of older facilities.

Fleet

Fleet Emissions from the Shire's petrol and diesel vehicles contributed 30% of the Shire's carbon footprint in 2020/2021. The Shire's revised Purchasing Policy AS-04 was adopted by Council 10 December 2019 (C9.12.19). The Purchasing Policy includes a sustainable procurement section and a sustainability purchasing principle; "Energy and water efficiency are key considerations in purchasing decisions, and reusable, recycled content or recyclable products are preferred where available and practical."

Vehicle purchasing decisions also have to be based on safety, effectiveness, and affordability. Fuel efficiency has been a purchasing criteria for Shire vehicles for many years. One hybrid vehicle has previously been trialled within the light vehicle fleet, but the current fleet contains only internal combustion engine (ICE) vehicles. For the light vehicle fleet, current hybrid and full EV vehicles have a higher purchase cost than their ICE equivalents, which also results in higher ongoing costs from fringe benefits tax.

There are few non-ICE options as yet for heavy vehicles and machinery. Electric trucks are in development and beginning to become available in Australia. Trials by other local governments will be monitored. Hydrogen powered heavy vehicles are also in development but appear unlikely to compete on cost with electric vehicles (EV) in most applications.

Assistance and incentives for uptake of EV have been extremely limited in Australia and the uptake has been relatively slow. While EV and battery technology have been developing rapidly, public perceptions are likely to be based on out of date information about range limitations and the need for frequent charging. Average vehicle operating costs may be lower for EV and hybrid vehicles but purchase costs are still higher for EV and hybrid than equivalent ICE vehicles. EV are following a rapid technological development path and exponential adoption curve similar to smart phones, with expectations for increasing capability and decreasing cost each year for the next decade.

Many countries have legislated dates for banning new ICE vehicle sales, and some major manufacturers have responded by ending development of ICE engines. Some countries that initially set dates of 2040 are now bringing forward their dates to 2030. The Australian

vehicle market is relatively small, and even if no Australian phase-out date is set for ICE, the range of vehicles available to the Shire will be affected by the rapid pace of change over the next decade.

A 2020 survey of fleet managers across various industries by the Australasian Fleet Management Association for the Electric Vehicles in Business Fleets report found that the greatest concern about adoption of EV by local governments was the purchase cost, followed by the cost of installing charging infrastructure, and then uncertainty on resale values. Each of these is also valid for the Shire's vehicle purchasing decisions. The crossover point where EV become cheaper than equivalent ICE passenger vehicles is anticipated around 2024-2025, and cost will then become an incentive rather than a barrier to broad adoption of EV.

There is a 'chicken and egg' issue with public EV charging infrastructure, in that current low numbers of EV do not support significant private investment in charging stations, and the lack of stations discourages faster uptake of EV. While data from other jurisdictions show that the vast majority of charging occurs at home or work, there is a need for a visible, coherent and reliable public fast charging network in WA. For the Shire to adopt plug-in 'full' EV rather than hybrid vehicles will require an investment in charging infrastructure, with some reliance on the broader public charging network. The WA Electric Vehicle Strategy was released in November 2020 and does include new charging infrastructure in certain locations but none have been identified within the Shire.

Shire staff will continue to choose new fuel-efficient vehicles and monitor available options, costs and opportunities to transition from ICE vehicles over the next two years, but anticipate that the most significant changes will occur from 2024 onward. Full EV vehicles have the greatest potential to reduce the Shire's fleet emissions, especially if they are charged primarily from renewable energy (on site via solar panels or purchasing renewable power). There is more significant uncertainty on the timing of development of affordable and effective EV or hydrogen replacements for machinery and heavy vehicles compared to the passenger fleet.

The reduction in emissions from the Shire's vehicle fleet in 2020/2021 are due mainly to reduced use (including Covid-19 disruption), with some contribution from purchasing decisions based on fuel efficiency. It is not clear that total fleet emissions can be reduced by 30% by 2030 and it is possible some purchasing of carbon offsets may be required for the Shire to achieve its target.

Streetlights

Based on the EMRC summary and Azility monitoring system, emissions from streetlights formed 38% of the Shire's carbon footprint in 2020/2021. Almost all streetlights within the Shire are owned and maintained by Western Power, but with electricity use billed to the Shire. The cost of electricity for streetlights along highways is only partly covered by Main Roads WA, and the remainder is passed on to the local government. The Shire requested that Main Roads WA new lighting within recent Great Eastern Highway upgrades be energy efficient LED however this did not occur.

Since the adoption of the Environmental Sustainability Policy OR-23 in June 2018 (C5.06.18), developers have been advised that new streetlights required to be installed as conditions of subdivision approval are required to be LED. Once installed by the developer, ownership of the streetlights is transferred to Western Power.

As Western Power owns the majority of street lighting infrastructure across the SWIS it controls changes to the majority of lamps (there are exceptions in parts of the Cities of Perth, Joondalup and Subiaco). The phasing out of older lamps and changeover to LED streetlights varies across Australia and has been relatively slow within the SWIS. The

transition to LED streetlights around Perth has been restricted by delays in adding LED streetlights to Western Power's list of permitted lamps and setting tariffs for LED streetlights, and lack of clarity regarding costs to local governments to change lamps.

Since 2018 Western Power have been including LED lamps in their replacement program as existing luminaires reach the end of their useful life. This has likely contributed to the reduction in emissions from streetlights in 2020/2021 compared to the previous two years.

It is possible but expensive to accelerate LED streetlight replacement in order to reduce emissions from annual electricity use. It is more difficult to account for the embedded energy costs related to replacing luminaires and infrastructure before the end of their useful life.

Where a local government chooses to pays for the full upfront cost of an LED retrofit for a streetlight within the SWIS, there is provision for discounted daily charges for that streetlight. The Economic Regulation Authority provided for differential charges from 1 July 2019, with Reference Tariff RT30 consisting of "a user-specific charge that is to be an amount which reflects the costs to Western Power of replacing the existing streetlight with the LED streetlight replacement requested by the user which may consist of capital and non-capital costs."

Metropolitan local governments have received indicative cost estimates from Western Power of around $700 per streetlight, meaning the upfront cost will be substantial, and there is uncertainty around the length of the discount term based on the life of the assets. Local government driven streetlight replacement program will require individual local governments (or regional councils) to engage consultants to assess the overall financial costs and benefits, as well as emissions reduction potential, to prepare business cases for funding bulk LED changeover projects.

While LED streetlights will use significantly less electricity, the costs and payback time to change out streetlights across the Shire is unknown and staff will continue to investigate options. A range of factors will affect the costs of change for the Shire of Mundaring, including:

- Initial charges for replacing streetlights to LED;
- Appropriate bulbs for different settings;
- Maintenance cost of LED vs previous maintenance cost;
- Maintenance schedule;
- Changes in cost of power and tariff settings;
- Opportunities to participate in regional initiatives or grant funded projects; and
- Possibility of including street lighting as a 'contestable' power purchase in future, which allows for a tender for alternative electricity suppliers.

This issue affects local governments across the SWIS and the Western Australian Local Government Association (WALGA) has been advocating for more energy efficient street lighting for a number of years. WALGA has described a key reason for the lack of progress: "The misalignment of objectives is one of the key reasons that the introduction of more energy efficient technologies has been slow. Western Power aims to maximise its returns from the street lighting network, and to reduce associated risks. By contrast, Local Governments have a wide range of objectives on behalf of the community, including improving public amenity and safety, reducing greenhouse gas emissions and energy consumption, and minimising costs."

Offsets

It would be possible to pay to offset all of the Shire's carbon emissions, or for emissions from a specific source such as the vehicle fleet. The EERS uses the principle that Shire funds and staff time should first be directed to efficiency measures and increasing use of renewable energy, which can have ongoing emissions reduction and cost saving benefits. If other Shire actions do not achieve the full 30% target by 2030, then the Shire may choose to purchase carbon offsets.

The cost to purchase offsets is expected to increase significantly as demand grows from voluntary action as well as changes to regulations and trade. The current price for Western Australian based offsets is around $20 per tonne of CO2-equivalent. There are cheaper international carbon offsets available that are currently less than $10 per tonne. Some large companies that are exposed to greenhouse emissions reduction measures have been factoring in future carbon offset prices of around $100 per tonne by 2030. As noted above, it may be difficult to reduce emissions from Shire vehicles to the same extent as emissions from streetlights and facilities by 2030. While the Shire could currently offset greenhouse gas emissions from its fleet and machinery for between $5,000 (international) and $15,000 (all Australian biodiversity projects), this cost could feasibly be ten times higher by 2030. Some conventional forms of carbon offsetting, such as forestry planting, may become less viable due to increased droughts, fires and other early impacts of climate change. This may further increase the cost of carbon offsets by 2030.

Encouraging Community Emissions Reduction

Many factors affecting local greenhouse gas emissions are not within the Shire's control. The EERS states: "To date there has been a concerning lack of direction from the State and Commonwealth Governments, and Australia's emissions are well above the levels required to meet the national target of 26-28% reduction by 2030 (from 2005 levels). Advocacy for effective leadership and action from the State and federal governments will therefore be a necessary component of the Energy and Emissions Reduction Strategy and associated action plan."

Shire of Mundaring does not have accurate information on community emissions (generated by residents, businesses, schools etc.) and has not set a community emissions reduction target. However the Shire can encourage voluntary community emissions reduction and provide locally relevant information.

The Shire has been subscribing to the Switch Your Thinking program as a member council since July 2019. The Switch Your Thinking program provides the Shire access to shared resources, environmental education initiatives, and community programs developed by sustainability officers. It also provides residents and local businesses with access to discounts from participating suppliers (including discounted solar panels).

In February 2020 the Shire also joined the ClimateClever program as a member Council. This provided schools and households with discounted access to programs to monitor and reduce their energy, water and waste. The initiative was expanded in 2021 to include opportunities for ClimateClever businesses, and information was recently provided to the Mundaring Chamber of Commerce. Options for improving community awareness of energy and emissions reduction options are being explored for 2021/2022.

VOTING REQUIREMENT

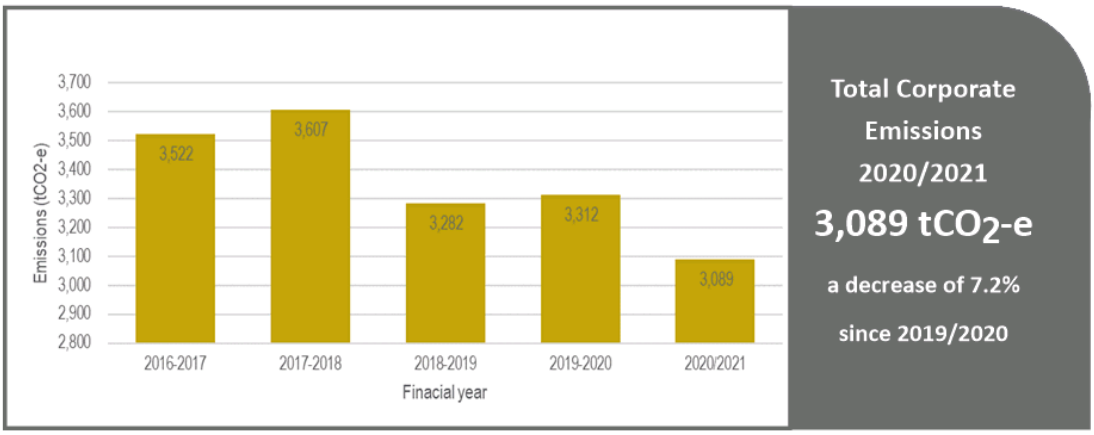
Simple Majority

RECOMMENDATION

That Council:

1. Notes the content of this report
2. Acknowledges that achievement of the ‘30% by 2030’ emissions reduction target adopted by Council in 2018 will require ongoing effort across the Shire.

Shire of Mundaring Emissions Snapshot



Total Corporate Emissions 2020/2021

3,089 tCO_2-e

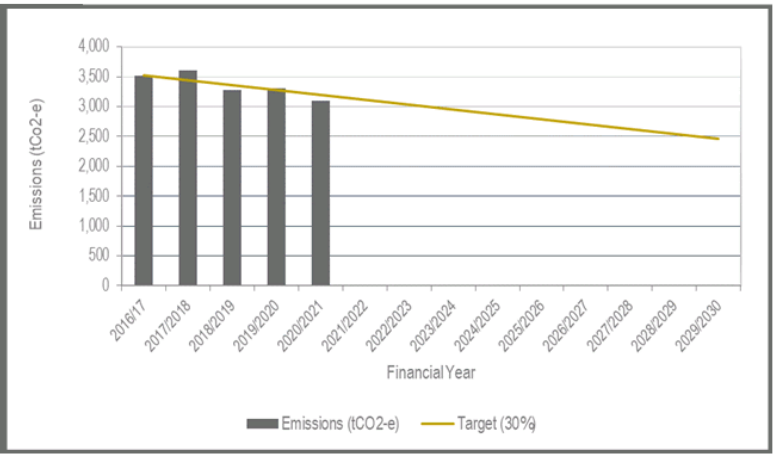
a decrease of 7.2% since 2019/2020

Progress towards 2029/2030 reduction target

A decrease of

12.29%

Since 2016/2017



Emissions Source	Total Greenhouse Gas Emissions (tCO_2-e)		Volume Change	Percentage Change
	2019/2020	2020/2021	tCO_2-e	%
Scope 1 - Emissions from Fuel Combusted for Transport and Fuel Combusted for Stationary Energy	944.55	883.31	-61.24	-6.5%
Scope 2 - Electricity and Gas	1,022.63	949.70	-72.92	-7.1%
Scope 3 - Electricity for Street Lighting	1,344.63	1,256.33	-88.30	-6.6%
Total	**3,311.80**	**3,089.34**	**-222.46**	**-7.2%**

Eastern Metropolitan Regional Council

Sustainability

Emissions Data Analysis Report 2020/2021

Bassendean | Bayswater | Kalamunda | Mundaring | Swan

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1 Introduction

The Shire of Mundaring previously made a commitment to "Reduce the greenhouse gas emissions resulting from Shire's operations and activities" in the *Environmental Management Plan 2012-2022*. This includes the development of a Carbon Emissions Strategy for the Shire. The Shire endorsed its first Energy and Emissions Reduction Strategy in 2018 which encourages the Shire to reduce corporate carbon emissions and implement renewable energy when possible. The Strategy also set the Shire's first Emissions Reduction Target.

The Shire's new Emissions Reduction Target is:

- *To reduce corporate emissions by 30% by 2030, from 2016/2017 levels*

The following report analyses the Shire's corporate emissions for 2020/2021 compared to the Shire's target with a baseline year of 2016/2017. The Shire's corporate emissions have been analysed using data managed in the Shire's Azility Platform.

The Shire is not obliged to report emissions under the National Greenhouse and Energy Reporting System (NGERS) or any other legislative framework. The Shire has chosen to report emissions annually as part of adopting a best practice approach to carbon management and in doing so will enable carbon emissions and reduction claims to be objectively assessed by the public.

Data disclaimer

The data within this report is correct at the time extracted from the Shire's Azility platform (3/11/21). Azility has advised the EMRC that some utilities are having issues with internal systems and some data may include estimates for the later months of 2020/2021.

It is recommended that the Shire considers supplying Azility with its e-bills (electronically provided invoices) to reduce estimated data in the future and improve data quality within the platform.

The data within this report has been updated with the most recent complete set of historic figures, meaning that totals may vary from previous years due to estimates being revised with accurate data. For more information, contact the EMRC Urban Environment Officer.

2 Emissions Reduction Target

Figure 1 displays the historical carbon emission for the Shire of Mundaring since 2016/2017. The Shire had a substantial decrease from the previous reporting period as it continues to upgrade facilities and experience the impacts of COVID-19 resulting in a reduction in use of many facilities. Although there has been a significant decrease from last reporting year, **Figure 1** indicates that the 2019/2020 reporting may have been an anomaly as the current year's emissions are more aligned to the 2018/2019 levels. The Shire continues to strive for the reduction of emissions from their corporate assets and has committed to Carbon Emission Reduction Strategy and Carbon Emission Reduction Plan in 2018. **Figure 2** shows the potential trajectory for emissions reduction for the Shire and its progress towards reaching this goal.

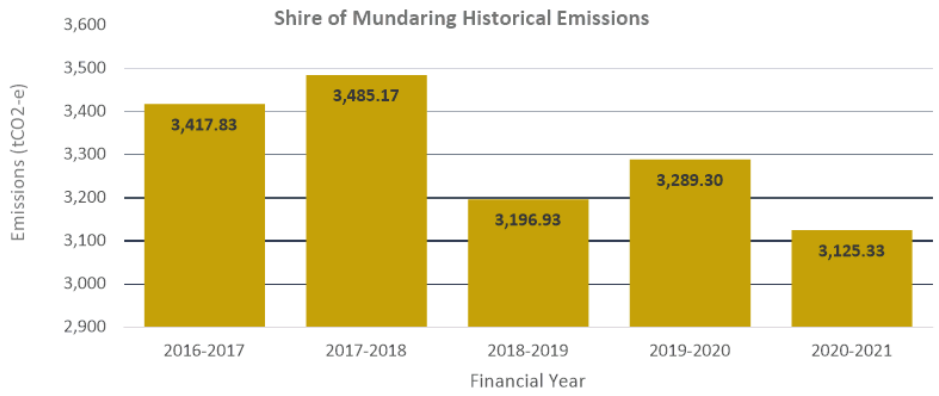


Figure 1: Shire of Mundaring's historic emissions (tCO_2-e) since 2016/2017

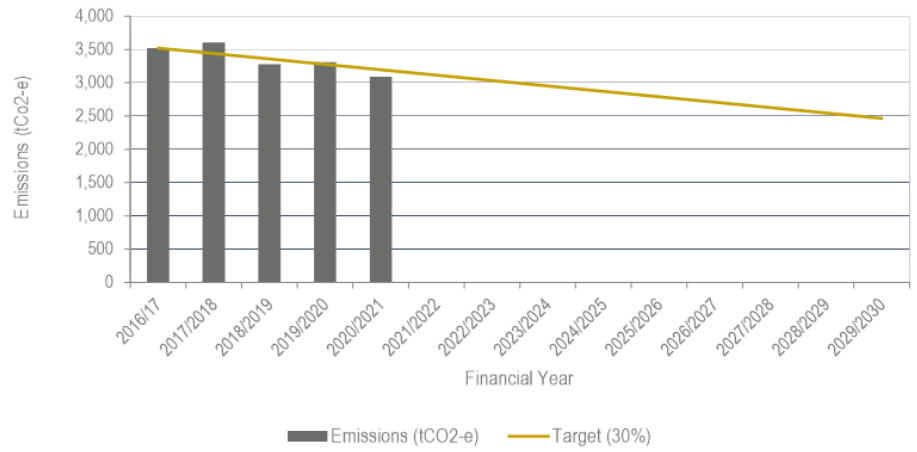


Figure 2: An approximate reduction path for Shire of Mundaring's target for the year 2029/2030.

Table 1 highlights the Shire's progress towards the target of a 30% reduction on 2016/17 levels. Whilst 2019/2020 saw a slight increase, levels are in general tracking downwards. Should the Shire continue on this trajectory it would likely reach its target before the 2030 goal date.

Table 1: Total emissions data (tCO_2-e) with differences for last five years and progress towards target (target baseline year highlighted)

Financial Year	Emissions Total	Difference since previous year	Difference since baseline year 2016-2017
2016-2017	3,522	-167	
2017-2018	3,607	85	2.41%
2018-2019	3,282	-325	-6.81%
2019-2020	3,312	30	-5.96%
2020-2021	3,089	-223	-12.29%

3 Total Carbon Footprint

The Shire has recorded an overall decrease in emissions. **Table 2** demonstrates the volume and percentage change of emissions for each scope, and total change in comparison to the previous reporting year of 2019/2020. Scope one emissions have reduced 6.5%, this is attributed to a variety of reasons including upgrading to more efficient diesel engines, a decrease in vehicle use as a result of increased work from home arrangements and online meetings during COVID-19, and an increase in staff carpooling to events has been noted. Scope two emissions have seen a reduction of 7.1%, this is attributed to removing gas from facilities, the installation of solar panels and a reduction in facility use due to COVID-19 restrictions. Additionally, scope three has reduced by 6.6%, this is due to the replacement of some globes with LED through Western Power's ordinary maintenance.

Table 2: The Shire's 2019/2020 and 2020/2020 carbon emissions source and scope

Emissions Source	Total Greenhouse Gas Emissions (tCO_2-e)		Volume Change	Percentage Change
	2019/2020	2020/2021	tCO_2-e	%
Scope 1				
Emissions from Fuel Combusted for Transport and Fuel Combusted for Stationary Energy	944.55	883.31	-61.24	-6.5%
Scope 2				
Electricity and Gas	1022.63	949.70	-72.92	-7.1%
Scope 3				
Electricity for Street Lighting*	1344.63	1256.33	-88.30	-6.6%
Total	3311.80	3089.34	-222.46	-6.7%

**Streetlighting data is based on inventory numbers*

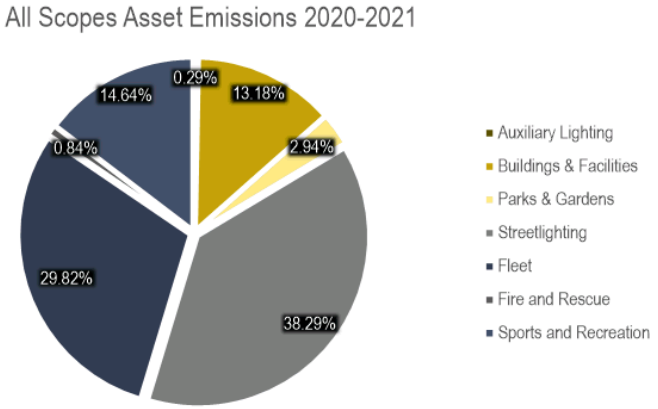


Figure 3: Shire of Mundaring's emissions (tCO_2-e) by organisational unit for 2020/2021

Figure 3 demonstrates the percentage of emissions by each asset group in the 2020/2021 reporting period. Unmetered Streetlighting is the largest contributor (38.29%), followed by Fleet (29.82%), Sport and Recreation (14.64%) and Buildings and Facilities (13.18%).

Figure 4 displays historical emissions for each facility group, providing insight into the reductions that the Shire has achieved over time. Unmetered street lighting continues to be the biggest contributor to emissions in 2020/2021, 38.29% of the Shire's total. Streetlighting emissions have reduced since the preceding reporting period as previously discussed this is due to the traditional globes being replaced with LED by Western Power as required.

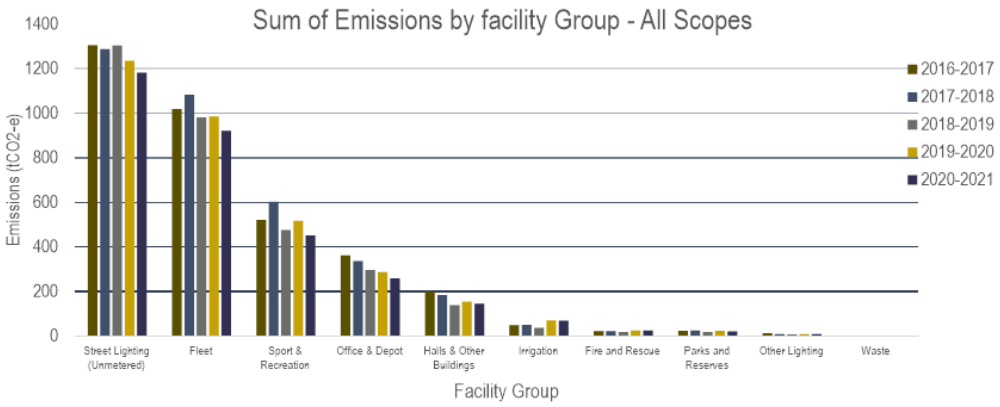


Figure 4 Historical facility group emissions

Fleet emissions are the second highest contributor for the Shire at 29.82%. Historically, fleet emission has been quite consistent however this year it has seen a reduction due to a reduction use due to increased work from home arrangements and online meetings. The Shire has investigated the feasibility of switching to electrical vehicles in order to reduce emissions from fleet vehicles and continues to work towards reducing emissions from this group.

4 Highest Emission Assets

reveals the performance of the Shire's top emitting Assets. The table shows that all but one has recorded a decrease for the reporting period. The Shire of Mundaring Administration and Civic Complex is the top emitting asset however it has still seen a decline in emissions, this decrease is attributed to a decline in use with continued work from home arrangements, adjustments to the HVAC system and upgrades in lighting. It is anticipated that this facility will continue to decline in emissions with the recent commissioning of an additional 70kW of solar panels now totaling 90kW, air conditioning upgrades and insulation improvements. The Boya Community Centre has seen the largest percentage decrease highlighting the significant improvements in emissions created by the installation of solar panels. The Brown Park Community Centre is the only asset to increase in emissions, this is due to its use as an evacuation centre during the bush fires in early 2021. Additionally, the Mundaring Arena, Bilgoman Pool and Lake Leschenaultia Kiosk have all had PV systems installed or expanded resulting in a decline in emissions at these locations.

As previously discussed, a 37.57% reduction in petrol consumption can be attributed to a reduction in fleet vehicle kilometers and upgrading to more fuel-efficient vehicles. Routine streetlight maintenance by Western Power has resulted in a 4.35% reduction with faulty globes replaced with LED.

Table 3: Highest emitters for 2020/2021 with comparison to previous reporting period 2019/2020

Asset Name	Emissions (tCO_2-e) 2019/2020	Emissions (tCO_2-e) 2020/2021	Volume Change (tCO_2-e)	% Change
Shire of Mundaring Administration & Civic Complex	239.24	219.89	-19.35	-8.09%
Mundaring Arena	146.16	124.88	-21.28	-14.56%
Bilgoman Pool	118.72	108.50	-10.22	-8.61%
Boya Community Centre	105.69	71.62	-34.07	-32.23%
Salisbury Road Bore	48.93	48.41	-0.52	-1.07%
Lake Leschenaultia	46.35	45.75	-0.60	-1.30%
Shire Depot	48.28	39.04	-9.25	-19.15%
Elsie Austin Reserve	31.12	26.43	-4.70	-15.09%
Brown Park Community Centre	19.47	22.16	2.69	13.84%
Midvale Early Childhood & Parenting Centre	24.55	21.52	-3.03	-12.34%
Fleet				
Diesel	823.38	820.01	-3.37	-0.4%
ULP	162.11	101.21	-60.9	-37.57%
Street Lighting				
Unmetered Street Lighting	1,236.59	1,182.83	-53.76	-4.35%

5 Emission Reduction Measures

Since 2017/2018, the Shire has been investigating and installing more Solar PV Systems successfully reducing emissions across multiple assets including Boya Community Centre, the Mundaring Arena, Bilgoman Pool, and the Administration and Civic Centre. There are future plans for additional PV systems to be added to the Darlington Volunteer Fire Brigade Hall, the Kiosk at Lake Leschenaultia and the Bilgoman Pool.

The Shire is in the process of finalising its arrangements to participate in WALGA's Energy Sustainability and Renewables Project, Power Purchase Agreement which would see the Shire's top six contestable sites source their electricity from 100% renewable energy resulting in zero emissions (from electricity) for these six facilities. Additionally, the Shire via the EMRC has applied for funding through the WA Governments Clean Energy Future Fund (CEFF) to complete efficiency upgrades at multiple facilities as summarised in **Table 4** below, however the location of some upgrades may change as required.

Table 4: Assets listed for potential upgrades via CEFF.

Building Lighting Controls Upgrade
Bilgoman Pool
HVAC Energy Efficiency Tuning
Depot
Midvale Hall
Insulation installation
Administration Centre
LED floodlighting upgrade
Brown Park
Tennis and sports facilities
LED Lighting Upgrade (internal)
Bilgoman Pool
Bruce Douglas Pavilion
Depot
Midvale Early Childhood & Parenting Centre
Sawyers Valley Oval
Brown Park Community Centre Sports Hall
Renewable Energy Battery Storage
Administration Centre
Mundaring Arena
Smart lighting control system
Sports facilities (x5)
Solar PV
Bilgoman Pool
Bruce Douglas Pavilion or Brown Park Youth Centre
Depot
Lake Leschenaultia
Solar PV investigation and rewiring
Brown Park

6.2 Biodiversity Working Group

File Code	GV.MTG 6/7
Author	Briony Moran, Coordinator Environment and Sustainability
Senior Employee	Adrian Dyson, Acting Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	Nil

SUMMARY

The Environmental Advisory Committee (EAC) may form working groups that meet between formal EAC meetings to have more in depth discussions on specific topics or projects. This report recommends that the EAC consider forming a Biodiversity Working Group to continue input into the Shire's Local Biodiversity Strategy and resulting initiatives.

BACKGROUND

A review of the Shire's Local Biodiversity Strategy (2009) is underway and due for completion in the first half of 2022.

The Priority Reserves Ecological Assessment Report completed in 2018 recommended that 'an integrated Dieback and Weed Management Plan and Rehabilitation Strategy, or more holistic Biodiversity Strategy, should be developed and implemented'. Development of a more holistic Local Biodiversity Strategy was recommended incorporating review and integration of the:

- Weed Control Strategy;
- Wildlife Corridor Strategy;
- Friends Group Strategy;
- Roadside Conservation Strategy; and
- Private Land Conservation Incentives Strategy.

A single Local Biodiversity Strategy will be more manageable for the Shire to maintain and update regularly, and simpler for Shire staff and environmental volunteers to follow. It will guide biodiversity conservation efforts across private land and Shire-managed reserves and inform environmental education initiatives.

An EAC working group was formed previously, however progress on updating this strategy was slower than planned due to Covid-19 disruptions, the Wooroloo Bushfire, and delays obtaining remotely collected data. As membership of the EAC has recently changed, staff recommend that a new working group be formed.

The draft Local Biodiversity Strategy would be referred to the full EAC for a review and recommendation to Council.

STATUTORY / LEGAL IMPLICATIONS

Nil

POLICY IMPLICATIONS

The Environmental Sustainability Policy adopted by Council in June 2018 has a number of relevant provisions:

1.1. Biodiversity and watercourse integrity should be maintained and mitigation measures will be considered where the works cannot be designed or constructed to avoid impacts.

1.2. The Shire will strive to lead by example in balancing bushfire risk management with maintaining biodiversity and conservation of natural landscapes.

1.3. Allocation of Shire resources for natural area management will take into account social and ecological values and the nature of threatening processes

1.4. Human induced climate change is recognised as a key threat to biodiversity, requiring mitigation action to reduce carbon emissions at all levels of government, and adaptation to local impacts.

3.1. The Shire recognises that healthy ecosystems and well-managed natural areas support the health and well-being of the community, and the Shire will strive to lead by example as a responsible custodian of public environmental assets.

4.2. The Shire will remain agile; learning and collaborating with community groups, research institutions and relevant government agencies to adapt best practice environmental management to fit the Shire's context.

FINANCIAL IMPLICATIONS

Nil

STRATEGIC IMPLICATIONS

Mundaring Strategic Community Plan 2020 - 2030

Priority 2 - Natural Environment

Objective 2.1 – Protecting natural areas and biodiversity

Strategy 2.1.1 – Pursue revegetation and address weeds and other threats to native flora and fauna in partnership with Friends Groups, the wider community, government and non-government organisations

SUSTAINABILITY IMPLICATIONS

As stated in the Shire's Environmental Sustainability Policy, "Environmental sustainability includes… protecting ecosystems and biodiversity."

Shire actions have direct environmental impacts on local natural areas and the Shire is also well placed to encourage biodiversity awareness and sustainable land management within in the community, therefore it is essential that the strategic framework supports effective action by Shire staff.

RISK IMPLICATIONS

Risk: The Shire's reputation within the community is at risk if Shire efforts and activities for biodiversity conservation are not directed efficiently		
Likelihood	**Consequence**	**Rating**
Possible	Moderate	Moderate

Action / Strategy
Integrate biodiversity related strategies into a single Local Biodiversity Strategy

EXTERNAL CONSULTATION

External consultation is not required in order to form a working group.

COMMENT

Members of the EAC have specialist knowledge that can assist the Shire in updating its Local Biodiversity Strategy. Formation of a smaller working group, such as 4-6 members, is therefore recommended. This group may meet in December, January, March and April, between formal EAC meetings in February and May.

The Biodiversity Working Group may also continue meeting after Council has adopted the Strategy to provide further input to resulting biodiversity conservation initiatives.

VOTING REQUIREMENT

Simple Majority

RECOMMENDATION

That the Committee nominates the following members to form a Biodiversity Working Group:

a.

b.

c.

d.

e.

6.3 Appoint Representative to Wooroloo Bushfire Community and Environment Recovery Sub-committee

File Code	GV.MTG 6.7
Author	Briony Moran, Coordinator Environment and Sustainability
Senior Employee	Adrian Dyson, Acting Director Statutory Services
Disclosure of Any Interest	Nil
Attachments	1. Shire of Mundaring Wooroloo Bushfire Recovery Plan ⇩ 2. Terms of Reference - Wooroloo Bushfire Community and Environment Recovery Sub-committee ⇩

SUMMARY

This report recommends that the Environmental Advisory Committee (EAC) appoints a representative to the Shire of Mundaring Wooroloo Bushfire Community and Environment Recovery Sub-committee.

BACKGROUND

The primary purpose of the Community and Environment Sub-committee is to provide advice and guidance on community and environmental recovery initiatives and mechanisms during the Shire of Mundaring response to the Wooroloo Bushfire. A key function of this committee is to provide advice to assist the affected community towards re-establishing social, environmental, emotional and physical well-being.

This Sub-committee was formed soon after the bushfire and comprises a range of key stakeholders and community members, listed below:

- Elected Member (Chair), Shire of Mundaring
- Australian Red Cross
- Department of Communities Bushfire Recovery
- DFES District Emergency Management Advisor
- Environmental Biologist (local resident)
- Mundaring Christian College Principal
- Mundaring Community Bendigo Bank
- Parky Care
- Rotary Club of Mundaring
- Wooroloo community members (two representatives)
- Shire of Mundaring Environmental Advisory Committee representative
- Shire of Mundaring Manager Community Safety and Emergency Management / Local Recovery Coordinator
- Shire of Mundaring Manager Libraries & Community Engagement

- Shire of Mundaring Coordinator Community Engagement
- Shire of Mundaring Coordinator Environment and Sustainability
- Shire of Mundaring Project Officer – Community Recovery.

The Shire of Mundaring Wooroloo Bushfire Recovery Plan (attached) was endorsed by Council at its meeting of 10 August 2021 (C5.08.21).

The frequency of meetings has recently been reduced to monthly, and these are primarily online meetings scheduled for Wednesday afternoons. The attached Terms of Reference note that meetings will be conducted virtually, and members will require a computer (with camera and microphone) and internet access to be able to participate.

STATUTORY / LEGAL IMPLICATIONS

Nil

POLICY IMPLICATIONS

The Shire's Environmental Sustainability Policy includes relevant principles including:

> *1.2.The Shire will strive to lead by example in balancing bushfire risk management with maintaining biodiversity and conservation of natural landscapes.*

FINANCIAL IMPLICATIONS

Nil

STRATEGIC IMPLICATIONS

Mundaring Strategic Community Plan 2020 - 2030

Priority 2 - Natural Environment

Objective 2.1 – Protecting natural areas and biodiversity

Strategy 2.1.1 – Pursue revegetation and address weeds and other threats to native flora and fauna in partnership with Friends Groups, the wider community, government and non-government organisations

SUSTAINABILITY IMPLICATIONS

Nil

RISK IMPLICATIONS

Risk: The Shire's reputation within the community is at risk if efforts to support community and environmental recovery following the Wooroloo Bushfire are not suitable or effective		
Likelihood	**Consequence**	**Rating**
Unlikely	Moderate	Low
Action / Strategy		
Continue coordinated approach to social and environmental recovery		

EXTERNAL CONSULTATION

Nil

COMMENT

Social and environmental recovery after a significant bushfire are both complex and entwined, and many agencies and organisations are working together as part of the recovery effort. The representative from the EAC adds to the community representation on this Sub-committee.

There is not a set end date for the Sub-committee to stop meeting, however the Terms of Reference provide for it to function until it has achieved its purpose.

VOTING REQUIREMENT

Simple Majority

RECOMMENDATION

That the Committee appoint the following representative to the Shire of Mundaring Wooroloo Bushfire Community and Environment Recovery Sub-committee:

-

Image: Bailup Road, Wooroloo (22 April, 2021)

Wooroloo Bushfire
RECOVERY PLAN

Endorsed 10 August 2021

Funded under the Commonwealth-State Disaster Recovery Funding Arrangements

Disclaimer: Although funding for the program referenced in this Plan has been provided by both the Australian and Western Australian Governments, the material contained herein does not necessarily represent the views of either Government.

Shire of MUNDARING

Document Control	
File Code:	EM.RPT 1.3 WOOROLOO BUSH FIRE
Author:	Karen Dore, Project Officer – Community Recovery
Related Documents:	• Wooroloo Bushfire State Level Recovery Plan (draft) • Corporate Project Plan – AGRN 950 Cat C Project (Wooroloo Bushfire Community Recovery) • Wooroloo Bushfire Community and Environment Recovery Action Plan, 2021 • Parkerville – Stoneville – Mt Helena Community Recovery Plan, 2013
Document Date / Revisions:	25/06/2021 – V1 (discussion draft) 08/07/2021 – V2 (discussion draft) 14/07/2021 – V3 (draft for review) 21/07/2021 – V4 (final draft) 10/08/2021 – V5 Endorsed **THIS DOCUMENT**

Contents

1.0 Introduction

The Wooroloo Bushfire Recovery Plan (the Plan) has been prepared by the Shire of Mundaring (the Shire) on behalf of the Wooroloo Bushfire Local Recovery Coordinating Committee (the Committee) and the fire affected community of Wooroloo. This Plan sits alongside, and supports, the Wooroloo Bushfire State Level Recovery Plan.

The Plan identifies community initiatives that aim to build capacity, sustainability and resilience within the community. Strengthening capacity, sustainability and resilience (community preparedness) is essential to community recovery and to ensure that the community has the ability to face future challenges.

The principles of 'community-led recovery' have guided the approach taken to develop the Plan. Community members and stakeholders have been involved in the development of the Plan through the Shire of Mundaring Wooroloo Bushfire Recovery Community and Environment Sub-committee and the initiatives contained within the Wooroloo Bushfire Community and Environment Recovery Action Plan, (the Action Plan).

Preparation has taken a whole-of-community approach to recovery (rather than a focus on directly fire-impacted residents) to ensure that lessons learned have a positive impact on community preparedness and resilience across the Shire.

The Plan is a living document to support ongoing community conversations and to enable the ability to be flexible as needs require.

Strengthening community preparedness and resilience is not only essential to community recovery, but also to the ability of the community to face future challenges. It requires long term commitment from all stakeholders including Shire of Mundaring.

It is noted that at the time of drafting the Plan a number of short term initiatives had been commenced and/or completed.

2.0 Background

The Wooroloo Bushfire began at 12:02pm on Monday 1 February 2021 and burned across an area of approximately 10,000 hectares, over a period of seven days.

Driven by easterly winds the fast-moving, erratic grass and scrub fire spread rapidly to the west and north-west. In addition to the immediate impact on the community of Wooroloo, a number of localities within the City of Swan were significantly impacted – Gidgegannup, Swan Valley, Bullsbrook, Ellenbrook, Aveley and The Vines.

Wooroloo Bushfire Overview

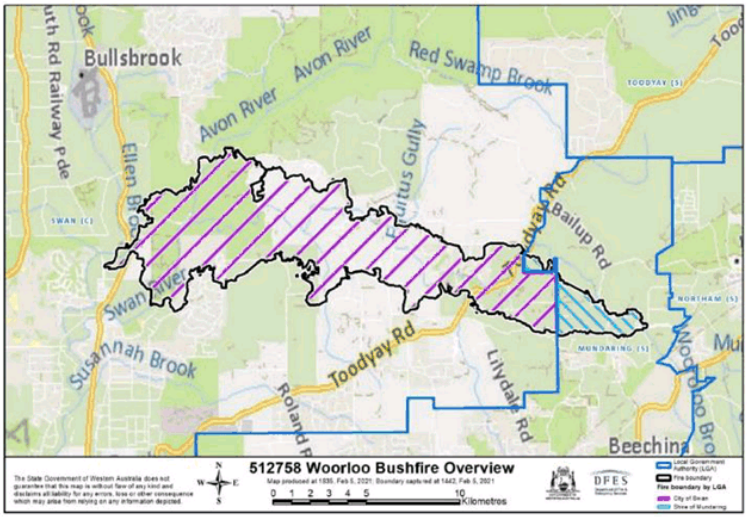


Figure 1: Wooroloo Bushfire Overview – 10,900 hectares

Power, water, radio and telecommunication services were interrupted for various periods of time, multiple extended road and rail closures were in place.

Across the two Local Government Areas the Level 3 bushfire destroyed 86 residential structures, caused the loss of ≈66 animal lives and injured many more. Additionally, ≈240 properties were directly impacted by the fire with hundreds more properties included within the evacuation area.

1,128 people registered as evacuees with Australian Red Cross (Red Cross) and Department of Communities (Communities), with approximately 900 people attending the three evacuation centres.

3.0 Impacts

Impacts have been summarised in relation to the goals outlined in the Shire of Mundaring Strategic Community Plan 2020-2023.

Goals
Our goals are as follows:

Community	Healthy, safe, sustainable and resilient community, where businesses flourish and everyone belongs
Natural environment	A natural environment that is protected, sustainable and enjoyed
Built environment	Transport, infrastructure and planning for liveable, connected communities
Governance	Trusted, leading and listening local government

Figure 2: Our Goals, Shire of Mundaring, Strategic Community Plan 2020-2030

Community – Social and Economic

The directly affected area within the Shire of Mundaring has a population of approximately 773 people (ABS 2016), and all 329 private occupied dwellings (plus the two prison facilities) were placed under an Emergency Warning or Watch and Act Advice. Some residents within the area evacuated whilst others elected to stay and defend their properties.

No community injuries were reported.

The Shire of Mundaring activated its Local Emergency Management Arrangements (LEMA), including the following sub-plans:

- Evacuation
- Welfare (Midland District)
- Recovery
- Animal Emergency Welfare Plan

Other activities included;

- The initial Incident Control point being set up at the Wooroloo Hall on 1 February 2021.
- The Department of Emergency Services establishing the Incident Control Centre at the Mundaring Arena on 2 February 2021.
- DPIRD activating the State Support Plan Animal Welfare in Emergencies on 2 February 2021, supported by the Shire of Mundaring through the provision of human and logistical resources.
- The Shire of Mundaring supporting the Department of Communities in the management of evacuees, including the establishment of an evacuation centre at Brown Park, in conjunction with the two evacuation centres established within the City of Swan.

On Monday 8 February Percy Cullen Pavilion was activated by the City of Swan to be used as a Community Bushfire Recovery Centre. This centre became a hub for more than twenty five support agencies including not-for-profit agencies, insurance and banking companies alongside other local, State and Federal government agencies.

Natural Environment

Whilst the Department of Biodiversity, Conservation and Attractions (DBCA) reported no significant impacts on native wildlife considering the scale and size of the fire, there is growing local concern in relation to the impact on the local environment.

The fire impacted native animals directly, with a number being euthanised, and also through the loss of habitat. Vegetation along creek lines was completely incinerated in places, leaving the banks vulnerable to erosion. Many mature trees were lost, including some with hollows that are important for the breeding of threatened black cockatoo species.

A section of the Shire managed Werribee Road Reserve was burned, along with many kilometres of vegetated road reserves.

Built Environment

There was damage and destruction to the built environment throughout the incident area. Damage included residential buildings, sheds and stables along with innumerable kilometres of fencing.

It is estimated that 6 principal residences, 6 secondary residences, 28 sheds (varying sizes) and 1 stable were destroyed within Wooroloo.

Due to the age of residences within the impacted area it was ascertained that a small percentage would contain asbestos and copper chrome arsenic (CCA) treated timber.

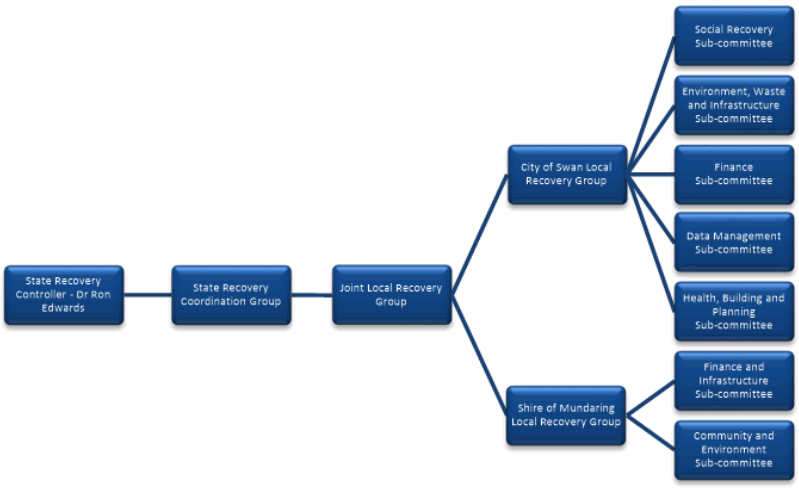
Significant damage was caused to power infrastructure. The resultant loss of power impacted on radio and telephone communications, National Broadband Network (NBN) and water supply infrastructure.

Shared radio communications sites impacted through the loss of power caused substantial communications challenges. The requirement to establish mobile repeaters for communications was undertaken in partnership by the Department of Fire and Emergency Services (DFES) and DBCA. This provided some alternative communications channels.

Governance

While the bushfire was being brought under control, the Shire appointed a Local Recovery Coordinator and formed a Local Recovery Coordinating Committee. As recovery efforts progressed a joint recovery group was established with the City of Swan, along with Shire of Mundaring two sub-committees focused on key local recovery issues. Refer to Point 4, Recovery Structure, for details of the full recovery structure including the connection to the State Recovery Coordination Group.

4.0 Recovery Structure



Shire of Mundaring Local Recovery Coordinating Committee

The Committee was formed to ensure that community needs, as a result of this disaster, were understood and addressed. The group has steered, and will continue to guide, the restoration and strengthening of the community.

The Committee comprises a range of key stakeholders.

- Elected Member, (Chair), Shire of Mundaring
- Australian Red Cross (two representatives)
- Department of Communities (two representatives)
- Department of Fire and Emergency Services (five representatives)
- WA Police, Mundaring District Officer in Charge / Local Emergency Coordinator
- Shire of Mundaring
    - Councillors (two representatives)
    - Chief Executive Officer
    - Director Corporate Services
    - Director Infrastructure Services
    - Director Statutory Services
    - Director Strategic & Community Services
    - Manager Building Assets
    - Manager Community Safety & Emergency Management / Local Recovery Coordinator
    - Senior Environmental Health Officer

The Committee held its first meeting on 10 February 2021, continuing weekly until mid-March when the frequency was altered to fortnightly. The Committee currently (July 2021) meets monthly. The Committee operates in accordance with the relevant sections of the LEMA Recovery Plan.

The following two sub-committees were formed.

1) Infrastructure and Finance Sub-committee

This Sub-committee comprises a range of key stakeholders.

- Elected Member, Chair, Shire of Mundaring
- Shire of Mundaring
    - Director Infrastructure Services
    - Director Corporate Services
    - Manager Finance and Governance

The primary purpose of the Finance and Infrastructure Sub-committee is to provide advice and guidance on the criteria for and distribution of emergency relief payments from various agencies, the claiming of funds from the Disaster Recovery Funding Arrangements Western Australia (DRFAWA) and the reinstatement of damaged shire owned infrastructure.

The Sub-committee met on a weekly basis for a period of three weeks (8, 15 and 23 February 2021). Essentially the Sub-committee discussed and focused on:

- The plan and progress of repairs to Shire infrastructure damaged or destroyed by the fire.

- The application and review process for individuals to access the Lord Mayor's Distress Relief Fund; and
- The progress of applications for residents applying for, and receiving emergency relief payments from the State Government.

2) Community and Environment Sub-committee

This Sub-committee comprises a range of key stakeholders and community members.

- Elected Member (Chair), Shire of Mundaring
- Australian Red Cross
- Department of Communities Bushfire Recovery
- DFES District Emergency Management Advisor
- Environmental Biologist (local resident)
- Mundaring Christian College Principal
- Mundaring Community Bendigo Bank
- Parky Care
- Rotary Club of Mundaring
- Wooroloo community members (two representatives)
- Shire of Mundaring Environmental Advisory Committee representative
- Shire of Mundaring
    - Manager Community Safety and Emergency Management / Local Recovery Coordinator
    - Manager Libraries & Community Engagement
    - Coordinator Community Engagement
    - Coordinator Environment and Sustainability
    - Project Officer – Community Recovery (19 April 2021)

The primary purpose of the Community and Environment Sub-committee is to provide advice and guidance on community and environmental recovery initiatives and mechanisms during the Shire of Mundaring response to the Wooroloo Bushfire. A key function of this committee is to provide advice to assist the affected community towards re-establishing social, environmental, emotional and physical well-being.

Disaster Relief Funding Arrangements (DRFA)

A joint Commonwealth and State Government-funded 'Category C Community Recovery Fund' worth $18.1 million was approved on 25 February 2021 to support impacted individuals and communities in the recovery from the Wooroloo Bushfire.

The Community Recovery Fund aims to deliver three programs (refer to Section 8 "Recovery Programs and Initiatives" of the State Level Recovery Plan):

1. the Coordinated Residential Clean-up Program
2. the Community Recovery and Outreach Program
3. the Community Recreational Asset Restoration Program

The provision of Category C funding to Shire of Mundaring, City of Swan, Department of Communities and Australian Red Cross through the Commonwealth-State Natural Disaster Recovery Arrangement was facilitated by DFES.

The Shire of Mundaring's request for funding to support community recovery through a Recovery and Outreach Program was informed by the Wooroloo Fire Community and Environment Recovery Sub-committee and the Shire's previous experience in bushfire recovery, most recently the 2014 Stoneville, Parkerville, Mount Helena fire.

The funding has enabled the Shire of Mundaring to employ a project officer for a two year period to lead community engagement and recovery initiatives.

Key priorities of the project officer will be to:

- Actively engage with and assist the local community to identify needs and plan and prioritise initiatives, considering social, economic, environmental and physical needs.
- Provide a central point of coordination for local community recovery efforts and resources.
- Facilitate effective communication between all local community groups, businesses and residents involved in community recovery activities.
- Access local networks to share information with the wider community.
- Evaluate the success of community recovery initiatives.
- Facilitate a series of community driven recovery projects and events.
- Create communication materials (print and digital) to support psychosocial recovery and community resilience.
- Facilitate the delivery of community based workshops.

The Shire approach will be community driven, and community led, with support provided by the dedicated project officer. A strengths based community development model will be utilised whilst incorporating the National Disaster Recovery Principles.

The aim is to build a community that is resilient, has the capacity to support itself, with a sustainable vibrant region fostered. Whilst our focus in undertaking this work will be on the directly impacted community of Wooroloo our approach will be broader than this town site. There are wider community impacts with this most recent disaster having been a triggering event for communities across the Shire, who have lived experience of bushfire. With this in mind psychosocial messaging and supports will be available across the district.

5.0 Community-led Recovery Approach

What is recovery?

The Australian Institute for Disaster Resilience's (AIDR) Australian Disaster Resilience Handbook #2 "Community Recovery" (the Handbook) (2018, p4) refers to the United Nations Office for Disaster Risk Reduction (UNDRR).

> The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems, activities, of a disaster-affected community or society, aligning with the principles of sustainable development and 'build back better', to avoid or reduce future disaster risk.
>
> ***UNDRR 2017***

Further definitions provided are;

- **Recovery**: the process of coming to terms with the impacts of a disaster, managing the disruptions and changes caused – which can, for some people, lead to a new way of living.
- **Recovered**: being able to lead a life that individual and communities value living, even if it is different to the life they were leading before the disaster event.

What is resilience?

> The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.
>
> **UNDRR 2017**

A Community-led Approach

> Successful recovery is community-centred, responsive and flexible, engages with the community and supports them to move forward.
>
> **Australian Disaster Resilience Handbook #2**
> **"Community Recovery" (2018, p30)**

The Handbook recommends that community-led recovery should:

- Assist and enable individuals, families and the community to actively participate in their own recovery;
- Recognise that individuals and the community may need different levels of support at various times;
- Be guided by the communities' priorities;
- Channel effort through pre-identified and existing community assets, including local knowledge, existing community strengths and resilience build collaborative partnerships between the community and those involved in the recovery process;
- Recognise that new community leaders often emerge during and after a disaster, who may not hold formal positions of authority; and
- Recognise that different communities may choose different paths to recovery.

The development of the Plan has been guided by these principles.

6.0 Objectives and Outcomes

The main objective, and subsequent outcome, is in line with the philosophy of the Australian Government's "A Monitoring and Evaluation Framework for Disaster Recovery Programs, 2018" (the Framework).

The overarching **objective** is to assist the community to become sustainable and resilient. A sustainable community can manage its own recovery, a resilient community is better able to withstand a future disaster.

The desired **outcome** is that there are positive changes in the knowledge, behaviour, skills, status and level of functioning of the community.

Community and Environment

Area One: Community		
Ref:	Objective	Outcome
1.1	Access to all required services post-disaster, including the option to return to the community (adequate housing available as required).	The community is not experiencing excessive stress and hardship arising from the disaster.
1.2	Access to appropriate health services (including mental health).	Community members have the knowledge, skills and resources for dealing with health issues related to the disaster experience.
1.3	Access to psychosocial support, for the fire-affected and wider community.	Community members have social networks to support each other (to respond to their own needs and to support other members of the community).
1.4	Community capacity building and resilience.	The community has opportunities for creative expression that help the community recover from disaster.
1.5	Community-led approach, with flexibility for changing recovery needs.	A community-centred, responsive, flexible, engaging and supportive recovery process is more likely to be successful.
1.6	Continuous improvement for agencies.	An opportunity to review and refine systems and processes to improve future preparedness.
Area Two: Communications		
Ref:	Objective	Outcome
2.1	Community capacity building and sustainability.	The community is aware of disaster recovery processes and the progress in relation to this disaster.
2.2	Community capacity building and resilience.	Community members are aware of the risk of future disasters, along with ways to prepare themselves and their properties.
2.3	Continuous improvement for agencies.	An opportunity to review and refine systems and processes to improve future preparedness.

Area Three: Volunteers and Donations		
Ref:	Objective	Outcome
3.1	Opportunity for members of the wider community to provide support to affected community.	A channelled outlet for acts of kindness, which make the wider community feel that they are part of something larger for which they gain emotional reward.
3.2	Appreciate those who assisted with response, relief and recovery.	Volunteering connects the community, recognition of volunteer efforts builds their confidence and promotes opportunities to other community members.
Area Four: Environmental		
Ref:	Objective	Outcome
4.1	Environmental sustainability through a return to pre-disaster state (or a state that is acceptable to the community).	Exposure to environmental / public health risks are minimised, a return to a healthy ecosystem is encouraged and important community assets are restored.
Area Five: Future		
Ref:	Objective	Outcome
5.1	Community capacity, resilience and sustainability building, and continuous improvement for agencies.	All stakeholders are better equipped to respond to, and recover from, any future incidents.

7.0 Phases and Timeframes

Response

February to March 2021

Assistance and intervention during or immediately after an emergency, with a focus on saving lives and protecting community assets (buildings, roads, animals, stock, crops and infrastructure). Usually measured in hours, days or weeks.

At the time of drafting the Plan the response phase is complete.

Recovery

April 2021 to April 2023

The coordinated process of supporting emergency-affected communities in the reconstruction of physical infrastructure and restoration of emotional, social, economic and physical wellbeing. Usually measured in months or years.

The preparation of the Plan is a key aspect of the recovery phase, which will encompass the resilience and review phases.

Resilience

September 2021, ongoing

Community resilience will be strengthened through support in relation to prevention (mitigation actions) and preparedness, making arrangements, creating and testing plans, training, educating and sharing information to prepare communities should an

emergency eventuate. The community will be encouraged to put measures in place to follow in the event of an emergency, such as volunteer distribution and access to resources.

Initiatives that support the building of community capacity and increased resilience are detailed within the Action Plan.

Review

February 2023

The Shire will review all activities and actions taken during the Wooroloo Bushfire in order that there be better preparation for future emergencies.

A review will identify opportunities for various stakeholders to be better prepared and to identify measures to mitigate the impacts of future emergencies on all stakeholders.

Return

April 2023

The Shire will continue to deliver on the goals and objectives of our 10 year Strategic Community Plan with a strong focus on a community-based approach, which embraces leadership, collaboration, and inclusivity. Individuals and community will be empowered to take ownership of the ongoing recovery process to enable them to lead a life that they value living, even if it is different to the life they were leading before the Bushfire.

The Shire will continue to take a community-wide approach to guide preparedness and recovery from future challenging events.

8.0 Community and Environmental Recovery Initiatives

The recovery initiatives identified by the Community and Environment Sub-committee, community members, stakeholders or the Shire have been, and continue to be, captured in the Action Plan.

Outcomes of these initiatives are being recorded within the Action Plan. A Review document will be prepared utilising the summary template below.

Initiative Summary Template

Title:	
Description:	
Origin:	
Support Level:	
Objective:	
Lead Agency:	
Partners:	
Stakeholders:	
Timeframe:	
Funder:	
Budget:	
Outcomes:	
Key Learnings:	

WOOROLOO BUSHFIRE COMMUNITY AND ENVIRONMENT RECOVERY SUB-COMMITTEE
TERMS OF REFERENCE

1. NAME

The name of the Sub-committee is the Shire of Mundaring Wooroloo Bushfire Community and Environment Recovery Sub-committee.

2. DEFINITIONS

"Sub-committee" means the Shire of Mundaring Wooroloo Bushfire Community and Environment Recovery Sub-committee

"Council" means the Council of the Shire of Mundaring.

"Shire" means the Shire of Mundaring.

"Community Wellbeing" refers to a combination of social, cultural, environmental and economic aspects identified by the community as essential for them in achieving their full potential.

"Environment" refers to the local natural environment* and wildlife.
(* Built environment is covered under the Finance and Infrastructure Sub-committee)

3. HEAD OF POWER

The Sub-committee is established in accordance with the *Shire of Mundaring Local Emergency Management Arrangements* (LEMA), *Recovery Plan* as prepared and maintained under the *Emergency Management Act 2005*.

4. PURPOSE

The Wooroloo Bushfire Community and Environment Recovery Sub-committee is a Sub-committee of the Shire of Mundaring's Local Recovery Co-ordinating Committee (LRCC) that has been convened in accordance with the statutory requirements of the *Emergency Management Act 2005.*

The primary purpose of the Sub-committee is to provide advice and guidance on community and environmental recovery initiatives and mechanisms during the Shire of Mundaring's response to the Wooroloo bushfire. A key function of this committee is to provide advice to assist the effected community towards re-establishing social, environmental, emotional and physical well-being.

The Wooroloo Bushfire Community and Environment Recovery Sub-committee will seek advice from specialist Groups currently convened by the Shire, or from other groups and government and non-government agencies as required.

5. ROLE AND FUNCTIONS

- To support the Shire of Mundaring's LRCC to facilitate understanding on impacts on the local community in relation to community and environmental impacts of the Wooroloo bushfire.
- To identify, develop and prioritise ideas for action that support the community in response to the impact of the Wooroloo bushfire.
- To assist the community in managing their recovery following the impact of the Wooroloo bushfire.
- To provide advice and guidance to assist in the restoration and strengthening of community well-being and the natural environment post the bushfire.
- To facilitate understanding, and seek feedback, on the needs of the impacted community in relation to community well-being and environmental restoration.
- To assess and recommend priority areas, projects and initiatives to assist with the bushfire recovery process regarding the restoration and strengthening of community well-being.
- To ensure community and environmental initiatives are community driven and led.
- To assess and recommend priority areas, projects and initiatives to assist with the bushfire recovery process regarding the restoration of the environment, including weed management and impacts on wildlife
- Development, implementation, monitoring and adjustment of recovery plans and actions as required.

6. MEMBERSHIP

The membership shall consist of relevant agency representatives, community groups and community members. These members are in addition to Shire of Mundaring elected members and staff.

7. MANAGEMENT OF BUSINESS

- A Shire of Mundaring Councillor will be appointed to Chair the Sub-committee. In the event of the Councillor being absent, the committee will elect a Chair from amongst their membership for that meeting.

- Due to the guidelines and recommendations for response to COVID-19 and to allow for greater participation, meetings will be conducted virtually via Webex. Shire of Mundaring will co-ordinate the meetings. Participants will require a computer (with camera and microphone) and internet access to be able to participate in the meetings.

- Meetings will initially be conducted on a weekly basis due to the impact upon the local community. It is envisaged that as the situation becomes more stable the frequency of meetings can be increased/or reduced by agreeance of the Sub-committee.

- The Sub-committee may invite other persons to attend any meeting in an advisory capacity as required.

- Shire Councillors may elect to attend the meetings as guests, following advising the Sub-committee Chair.

- The Shire will provide administrative and executive support to facilitate the effective functioning of the Sub-committee.

- A record of proceedings shall be prepared for each meeting and distributed to all group members within 5 working days after each meeting. The document shall be filed in the Shire's record management system.

- The Chairperson of the Sub-committee will act as a conduit of information to and from the LRCC and the Sub-committee, assisted by Sub-committee member/s, and/or Shire staff if/as required.

8. AMENDMENTS

The Sub-committee may recommend amendments to these Terms of Reference from time to time, which will be considered by the Local Recovery Co-ordinating Committee.

9. CESSATION OF SUB-COMMITTEE

The Sub-committee shall function until such a time when it can reasonably be determined that it has achieved the stated purpose and completed the roles and functions described in this Term of Reference document.

7.0 URGENT BUSINESS (LATE REPORTS)

Nil

8.0 CLOSING PROCEDURES

8.1 Date, Time and Place of the Next Meeting

8.2 Closure of the Meeting