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Climate Change Consultation
Department of Water and Environmental Regulation
via email to climate@dwer.wa.gov.au

Dear Sir/Madam

CLIMATE CHANGE IN WESTERN AUSTRALIA – ISSUES PAPER SUBMISSION

Council has endorsed the Western Australian Local Government Association (WALGA) Policy Statement on Climate Change, which acknowledges:

- i. The science is clear: climate change is occurring and greenhouse gas emissions from human activities are the dominant cause.*
- ii. Climate change threatens human societies and the Earth's ecosystems.*
- iii. Urgent action is required to reduce emissions, and to adapt to the impacts from climate change that are now unavoidable.*
- iv. A failure to adequately address this climate change emergency places an unacceptable burden on future generations.*

The WALGA Policy Statement also calls for:

- i. Strong climate change action, leadership and coordination at all levels of government.*
- ii. Effective and adequately funded Commonwealth and State Government climate change policies and programs.*

The Policy Statement also states that Local Government seeks from State and Commonwealth Government 'partnering with and resourcing Local Government to deliver community emissions reduction programs that are most effectively implemented at the Local Government level.'

In 2018 Council adopted the Shire of Mundaring's Energy and Emissions Reduction Strategy 2018, which states:

It is important to note that local governments alone cannot and should not be expected to manage emissions reduction to the extent necessary to avoid dangerous levels of climate change. Current international commitments are too low to avoid a global rise in temperature of over 2°C. 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).

The lack of direction and adequate investment from the Commonwealth Government remains concerning. In this context, with the risk of potentially catastrophic climate change, it is appropriate for the State Government to take strong action to reduce emissions as well as guide adaptation. Many local governments are already committed to both emissions reduction and adaptation and seeking a collaborative, partnership approach.

The Shire of Mundaring provides the following officer-level comments on the key areas raised in the Climate Change in Western Australia issues paper.

1. Transforming energy generation

State-led action is needed to remove barriers and provide incentives to rapidly increase the proportion of renewable energy in the grid, while improving reliability of supply. Batteries can help address the 'duck curve' and grid stability, but household batteries are cost-prohibitive and their installation and maintenance may also cause safety concerns in bushfire-prone areas. Fewer but larger batteries may be preferred, as community scale batteries managed by utilities, or at larger community facilities with professional building maintenance arrangements. Consideration should be given to financial support or partnership arrangements to install batteries at 'solar schools' and local government facilities, which could support emissions reduction programs and promote community acceptance of energy storage as well as improve grid stability.

Local government attempts to improve energy efficiency and reduce costs and emissions from street lighting have been frustrated by ownership and billing arrangements. State support towards LED street lighting retrofits would reduce overnight power demand and directly assist local government attempts to reduce emissions and ongoing energy costs. The State Government is requested to fund or co-fund a bulk replacement program, as the current practice of LED replacement on failure of the luminaire is estimated at only 1% per year. Approaches used in other states (and current trial within City of Melville) to include smart controllers as part of LED bulk replacement programs should also be considered. Electricity supply for street lighting should be contestable, to enable local governments to consider electricity suppliers that can meet objectives to lower emissions as well as energy costs.

2. Industry innovation

Despite the efforts of local governments and their residents to decrease their energy use and emissions, if substantial new greenhouse gas-generating developments are permitted then Western Australian emissions will continue to increase. An effective State Government climate change policy would require an increased focus on

avoidance of additional greenhouse gas emissions where possible, and a strong assessment framework for the mitigation and offsetting of unavoidable emissions. Partial exemptions to maintain viability of trade-exposed sectors may be short term, and subject to frequent review to adapt to changes from trading partners and increasing emission reduction efforts worldwide.

If effective carbon emissions offsets are required to be undertaken within Western Australia, this could also support innovation and development of clean industries and technologies. The Government of Western Australia can also support clean industries and technologies through raising sustainability standards in its own purchasing, leasing and contracting decisions, including buildings, vehicles, lights and infrastructure.

3. Future mobility

Well-used public transport can significantly reduce transport emissions and improve air quality, particularly once diesel buses are replaced with cleaner electric or hydrogen alternatives. Cost increases for public transport fares should be avoided in recognition of its broader health and environmental benefits. Incentives and well-designed behaviour change programs that raise awareness of the various benefits should be considered to encourage greater use of public transport options.

State investments in housing should directly contribute to planning objectives to facilitate transit oriented design, and increase density in locations well-served by public transport. Options for more streamlined bus routes should be explored for existing low density residential areas (including the Perth Hills) where slow, meandering routes appear to be a strong disincentive for commuter use. Financial support for local governments to make improvements to associated infrastructure (bus shelters, minor car parking areas, and connecting footpaths and cycle routes) could also support increased use of public transport.

State Government leadership is requested to adopt, promote and accelerate the update of electric vehicles in WA, and support 'clean' charging from increasing availability of local, renewable energy. There is a need for the State Government to support coordination, specifications, investment and incentives to install electric vehicle charging infrastructure, and ensure that the grid can accommodate the growth in home charging. A visible, reliable and well planned charging network would allow local governments, communities and businesses to take advantage of the increasing range of electric vehicles and move more quickly to low emissions transport.

Financial incentives for electric vehicles that are common in other nations are lacking in Australia and Western Australia. Direct incentives and opportunities could be provided for local governments to purchase or trial lower emissions vehicles and

equipment. Discounted vehicle registrations for electric or low-emission vehicles could provide a minor incentive to increase adoption in the few years before these vehicles are directly cost competitive with internal combustion vehicles.

4. Regional prosperity

If effective carbon emissions offsets are required to be undertaken within Western Australia, this can maximise community certainty that the offsets are implemented, monitored and maintained, as well as encouraging co-benefits such as regional employment opportunities. However, without robust, effective and enforced offsetting arrangements, the social licence for economically important regional industries will continue to erode.

Regions reliant on agriculture may need additional information, engagement and assistance from the Department of Primary Industries and Regional Development to adapt agricultural practices and products for changed conditions and take advantage of carbon farming opportunities.

Climate pressures and shrinking recovery times between extreme weather events may stress regional communities and exhaust local government resources. Strong State government support will be required for adaptation, including preparation, disaster responses and recovery efforts.

5. Waste reduction

Implementation of the Waste Avoidance and Resource Recovery Strategy would support emissions reduction from waste. Behaviour change initiatives (particularly for avoidance and recycling) should be informed by behaviour change research to ensure that effort and resources are used effectively.

The State Government can assist in the movement towards a circular economy by including recycled material requirements in purchasing and contracting decisions, and supporting building and construction industry waste avoidance initiatives which use recycled materials such as paper, glass and plastics, and the construction of FOGO plants and waste to energy plants.

6. Safe and healthy communities

The Australian Medical Association (AMA) recognised climate change as a health emergency in August 2019. The AMA noted that climate change affects health and wellbeing in multiple ways, including higher mortality from heat stress; food insecurity resulting from declines in agricultural outputs; injury and mortality from increasingly severe weather events; increases in mosquito and vector-borne diseases; and a higher incidence of mental ill-health. Community awareness of the health risks of

heatwaves is relatively low, and seasonal heatwave awareness campaigns may assist.

Our community is facing increasing impacts from more frequent and severe bushfires and heatwaves. Investment in adaptation will reduce the impacts on communities of the extent of climate change that is unavoidable. Local governments require access to up-to-date information on expected changes to their local area, and assistance to prepare and implement climate adaptation plans.

Former Australian fire and emergency leaders issued a joint statement as Emergency Leaders for Climate Action in April 2019, warning that increasingly catastrophic extreme weather events are putting lives and properties at greater risk and overwhelming emergency services. Their joint statement notes that bushfire seasons are lasting longer, the number of days of catastrophic bushfire danger each year are increasing, opportunities to carry out hazard reduction burns are decreasing, and higher temperatures mean that forests and grasslands ignite more easily and fires are harder to control.

Current arrangements for bushfire mitigation and firefighting have a heavy reliance on volunteers, which may be more difficult to maintain with a lengthening fire season and increased severity of fires. Increases in extreme fire weather are expected to result in increased incidence of loss of property and potentially lives, which could have significant mental health impacts on firefighters as well as the families and communities involved. The social costs of natural disasters can be as high in economic impacts and last longer than the physical damage.

Increased resources should be directed to bushfire risk mitigation works, fire-fighting, and post-fire recovery. Targeted research is also required to ensure that efforts for bushfire risk mitigation are directed to the actions that are most effective, and based on Western Australian conditions and vegetation.

7. Water security

Reduced streamflow and increased reliance on desalinated water is acknowledged. The Shire is a participant in the Waterwise Council program and has implemented a number of water efficiency measures. A major use of water is irrigation of parks and recreational spaces. It is increasingly difficult to reduce scheme water use in these spaces due to climate change, with lower rainfall requiring irrigation for more of the year and bores running dry due to reduced groundwater recharge.

The Shire has very limited involvement with private groundwater bores, but residents reliant on groundwater (and rainwater) may need to adapt through installing more tanks and supplementing their on-site water supply with water deliveries more frequently. Minimising water use in landscaping of private and public spaces needs

to be balanced against the benefits of healthy turf and greener garden areas in reducing urban heat island effects and bushfire risk. The recent change in focus of the Waterwise Council program from saving water to a broader 'water sensitive' approach is supported.

Owners of rural properties may need additional information and assistance from the Department of Primary Industries and Regional Development to adapt agricultural practices and products for drought-resilience.

8. Liveable towns and cities

The Shire's Local Planning Strategy notes climate change as an important challenge and recommends measures including 'minimising travel demand, increasing residential densities, restricting subdivisions isolated from public transport, employment and other facilities, actively advocating improved public transport, and preparing and adopting a detailed local climate change adaptation plan for the Shire'.

The relatively poor thermal comfort and energy efficiency of housing is an important issue, particularly in areas where interruptions to power supply are more likely to occur during heatwaves. There are concerns that homes are being built that do not genuinely comply with the current energy efficiency standards, with no post-construction inspection or confirmation the minimum energy rating has been achieved. Processes should be put in place to ensure that builders and project managers are accountable for achieving the energy rating stipulated in building plans.

State planning and policy settings can encourage more efficient transit oriented urban form, following the significant investments made in Metronet, but also need to provide adequate and attractive green infrastructure and public open spaces. Where there is State Government involvement in urban redevelopment and public housing, there are opportunities that should be taken to directly improve the comfort and energy efficiency of housing stock (building above the minimum standard to reduce household running costs) and increase density close to public transport. This can also help address energy poverty created through inefficient buildings and sprawling, car-dependent urban development.

9. Resilient infrastructure and business

As the issues paper notes, local governments are on the frontline of climate change adaptation and will typically be the first to respond to local impacts. State Government leadership and support is needed for local governments to understand and plan for the range of impacts that will affect their area, including buildings, facilities and infrastructure.

Increasing intensity and duration of heatwaves will increase pressure on infrastructure including roads, rail and electrical grids. Power failures during heatwaves may take longer to resolve due to more stringent safety requirements to avoid sparking bushfires, having significant impacts on local businesses. It is important that businesses, agencies and local governments involved in providing and maintaining infrastructure are well-informed of the expected climate changes during the lifespan of that infrastructure.

The Department of Fire and Emergency Services (DFES) 2018/19 Annual Report notes that as the risk of natural hazards increase with climate change, policy, planning and investment decisions need to change appropriately. 'Climate change continues to manifest itself through increased likelihood and impact of natural hazards such as cyclones, storms, flooding and bushfires.' Investments in risk mitigation, community and business resilience can have co-benefits (reduced insurance premiums, more connected communities and more reliable services) even in the absence of natural disasters. Opportunities to rebuild more resilient infrastructure following bushfires and other disasters should be taken.

10. Protecting biodiversity

Climate change is recognised as a compounding factor for a range of threats to biodiversity, including habitat fragmentation and introduced species. CSIRO research concluded that 'ecological change in response to climate change is unavoidable, it will be widespread and it will be substantial' by 2070. Proposals that would result in substantial increases in greenhouse gas emissions would contribute to already dangerous levels of climate disruption, and may therefore be considered a threat to native species and ecosystems across Western Australia.

Approaches to biodiversity conservation should be aimed at maintaining ecosystem functions and minimising the loss of species given the unavoidable impacts of changed temperature and rainfall patterns. Current efforts and resources for management of introduced species should be increased. The cumulative impacts of multiple pressures and the speed of climate change will exceed the capacity of many species to adapt in situ or migrate to more climatically suitable areas. Increasingly active approaches to conservation will be required, including climate-adjusted seed collection for climate-resilient ecological restoration. Effective collaborations for research and sharing of information (such as the WA Biodiversity Science Institute) will enable resources to be directed to best effect.

Local governments often manage or can influence management of the linkages (stepping stones or corridors) that enable fauna movement between larger national parks and conservation areas. State Government leadership and guidance would assist local governments to understand novel ecosystems, tackle threatening processes, direct rehabilitation efforts and manage natural areas for ecological

resilience. State natural resource management and landcare programs should continue to provide support for community groups and landowners to invest their time and effort in stewardship of natural areas.

11. Strengthening adaptive capacity

Adaptation requires accurate information, and climate change is a complex issue that has been subject to misinformation campaigns which makes this particularly difficult. Many businesses and individuals are unaware of the range of risks involved and direct and indirect climate impacts they may face in the next 20 years. If local governments are provided with up-to-date information on the changes expected for their area then they may be able to engage with local communities on better understanding and adapting to the most important local impacts. This would be most effective as part of a coordinated communication initiative in partnership with specialist agencies including Department of Fire and Emergency Services, and Department of Primary Industries and Regional Development.

Please contact the Shire's Planning & Environment Service on [REDACTED] if you have any queries.

Yours sincerely

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Mark Luzzi
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