



Climate Change in WA Issues Paper

Submission

December 2019

Contact:

Nicole Matthews

Environment Policy Manager

WALGA

ONE70, LV 1, 170 Railway Parade West Leederville

Phone: (08) 9213 2039

Email: nmatthews@walga.asn.au

Website: www.walga.asn.au

Contents

1.0	About us	4
2.0	WALGA's comments	4
3.0	Climate change and Local Government.....	4
4.0	Comments in response to 'Key Areas' in the Issues Paper.....	6
4.1	Transforming energy generation	6
4.2	Industry innovation.....	12
4.3	Future mobility	14
4.4	Regional prosperity	16
4.5	Waste reduction.....	18
4.6	Safe and healthy communities	20
4.7	Water security.....	24
4.8	Liveable towns and cities	25
4.9	Resilient infrastructure and businesses.....	28
4.10	Protecting biodiversity	32
4.11	Strengthening adaptive capacity	35
5.0	Additional comments	35
6.0	Conclusion	36

1.0 About us

The Western Australian Local Government Association (WALGA) is the peak industry body for Local Government in Western Australia. WALGA is an independent, membership-based organisation representing and supporting the work and interests of 138 Local Governments in Western Australia.

WALGA provides an essential voice for approximately 1,222 Elected Members and approximately 22,000 Local Government employees as well as over 2.5 million constituents of Local Governments in Western Australia. WALGA also provides professional advice and offers services that provide financial benefits to the Local Governments and the communities they serve.

2.0 WALGA's comments

WALGA thanks the Department of Water and Environmental Regulation for the opportunity to provide input in response to the *Climate Change in Western Australia Issues Paper* (the Issues Paper) as part of the Government's development of the State Climate Change Policy.

This submission is made in accordance with the [WALGA Climate Change Policy Statement](#) (2018). It also draws upon and should be read alongside WALGA's previous climate change related submissions, including the [WALGA Climate Health WA Inquiry submission](#) (interim), the Inquiry on the Current and Future Impacts of Climate Change on Housing, Buildings and Infrastructure submission, the [Environmental Protection Authority's proposed greenhouse gas emission guidance submission](#) and the [Climate Change Authority's advice on meeting Australia's Paris Agreement Commitment submission](#).

This submission has been subject to extensive consultation with the Local Government Sector and was endorsed by WALGA State Council on 5 December 2019.

3.0 Climate change and Local Government

Climate change is a key issue for Local Governments that has implications across almost all aspects of their operations and responsibilities. In Western Australia, Local Governments have been the most proactive level of government on climate change, actively pursuing a range of emissions reduction and adaptation actions, including ambitious corporate and community-wide energy efficiency, renewable energy and emissions reductions strategies, along with programs and policies to encourage residents to reduce their carbon footprint.

The importance with which the Local Government Sector regards the threat posed by climate change and need for strong action is recognised in the *WALGA Climate Change Policy Statement* (the Climate Change Statement), endorsed by State Council in July 2018. The Climate Change Statement was the result of extensive consultation across the Local

Government Sector, and represents the consolidated position of Western Australian Local Governments:

Local Government 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.

Local Government is committed to addressing climate change.

Local Government is calling 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.

WALGA Climate Change Policy Statement (2018), p3.

Along with the above headline statements the Climate Change Policy Statement specifies the mitigation, adaptation, emergency management and resilience actions the sector views as priorities. Key areas outlined in the Statement in relation to the State Government and the Environmental Protection Authority are:

- 1. Accelerated action and fast tracked reform to remove regulatory barriers and facilitate the transition to a low carbon, energy efficient economy**
Local Governments are already active in renewable energy and energy efficiency projects, but State level regulations continue to hamper Local Governments from undertaking or supporting a range of high impact cost-effective energy efficiency and renewable energy projects, including LED street lighting retrofits, large scale renewable energy projects and community energy projects.
- 2. A State level emissions reduction target and/or renewable energy target**
WALGA acknowledges that the Western Australian Government has recently joined other States in setting a science-based emissions reduction target of net zero emissions by 2050. This announcement is welcomed ([WALGA media release](#) refers). It is essential that the development of a State-wide climate change policy charts an achievable and credible emissions reduction pathway for the State to meet the target.
- 3. Planning for climate proof communities (including funding for innovative climate change projects)**
WALGA considers it is essential that all levels of Government work in partnership to build healthy, resilient communities by ensuring that climate change considerations (both mitigation and adaptation) are embedded in Government programs, policies and

regulations. A key aspect of this is a State planning regime that adequately incorporates climate change in planning policies, along with related environmental issues such as urban forestry, biodiversity, water security and emergency management.

4. Comprehensive, effective adaptation planning

It is recognised that planning around coastal adaptation is currently occurring, but effective planning needs to take in comprehensive identification of, and response to, the effects of climate change. It also needs to identify and incorporate other effects of climate change such as heat waves and other extreme weather events, bush fire planning and water management.

5. Role of the EPA in emissions reduction

The Climate Change Statement calls for a stronger regulatory role for the EPA in assessing and recommending conditions to mitigate the greenhouse gas emissions associated with major projects within the Environment Impact Assessment process. WALGA recently made a [submission](#) to the EPA in support of its proposed greenhouse gas guidance.

4.0 Comments in response to ‘Key Areas’ in the Issues Paper

4.1 Transforming energy generation

- ▶ What are the main challenges for decarbonising Western Australia's electricity supply while ensuring adequate generation capacity, security and reliability?
- ▶ What are the most effective ways to overcome these challenges by 2030?
- ▶ Should the electricity sector make a pro-rata (or greater) contribution to Australia's national greenhouse gas emission targets?
- ▶ How fast do you think the transition of the electricity sector should occur?

For Local Governments, the challenges to participating in the decarbonising of energy generation are predominantly regulatory in nature. This is acknowledged in the Climate Change Statement, with Local Governments calling on the State Government to accelerate action and remove barriers to facilitate the transition to a low carbon, energy efficient economy.

WALGA supports the objectives of the Government's *Energy Transformation Strategy* of:

- maintaining a secure and reliable electricity supply;
- ensuring affordable electricity for households and businesses, including Local Governments;
- reducing energy sector emissions;
- transitioning affected workers in the Collie region; and
- promoting local jobs and growth.

It is recognised that there are inherent challenges within the energy sector that make the achievement of the above objectives difficult, including:

- network instability and higher maintenance costs caused by a rapid uptake in household PVs and reduced day-time thermal generation demand; and
- new renewable generation projects not being able to connect to the grid due to a lack of spare network capacity, with long-established generators having contractual rights to network capacity even when they do not use it.

In this context, priority actions that would assist Local Governments to help the State Government achieve its energy transformation objectives include:

- removal of regulatory hurdles, policy barriers and unaligned incentives that continue to hinder bulk LED public lighting retrofits;
- electricity market reform to improve grid access for large scale renewable projects as well as community driven projects; and
- amendments to the *Local Government Act (1995)* to enable Local Governments to facilitate energy efficient building retrofits and residential solar and battery installations.

Further detail on each of these areas is set out below, along with WALGA's recommended reforms to help address these changes, and to encourage the transition to renewable energy.

LED street lights

Local Governments pay a Government set tariff which is based on the costs of energising, maintaining and owning street lights connected to the Horizon Power and Western Power owned networks. Local Governments are looking to replace current mercury vapour, metal halide and high pressure sodium street lights with much more energy efficient technology such as LED luminaires, as a way of lessening the impact of rising electricity costs on rates, reducing greenhouse gas emissions and improving night time amenity.

LEDs offer many advantages over the older lighting technology that is still prevalent across Western Australia, including:

- a reduction in maintenance costs of around 50%;
- reduced energy consumption of 52 – 72% (with smart controls), compared with mercury vapour lights;
- lowered levels of certain types of crime¹; and
- improved lighting quality (providing greater road safety and enhanced amenity).

¹ Chalfin, A. Hansen, B. Lerner, J. Parker, L., [Reducing Crime through Environmental Design, Evidence from a Randomised Experiment of Street Lighting in New York City](#), (2019).

However, progressing these changes has been difficult, given that Western Power (and Horizon Power) owns the majority of Western Australia’s street lighting infrastructure. As tariffs are established on a cost – plus basis, and capital is constrained, the electricity distributors have no incentive to introduce more energy efficient technologies. However, WALGA notes that as street lighting contributes a very small proportion of total revenue to Western Power, any fear that low energy consuming, low maintenance street lights will lead to a significant financial disadvantage is unfounded.

Western Australia is well behind many other States and Territories when it comes to the replacement of inefficient and in many cases substandard street lights with LED street lights (Table 1 refers). Other Australian States have spearheaded bulk replacement of street lights, often incorporating smart controllers, which offer a range of possible functions to be utilised.

Street Light Stock						
	Mercury Vapour	CFL	HPS	LED	Other	Total
Horizon Power	8,089	1,401	3,804	3,395	2,025	18,714
	43.2%	7.5%	20.3%	18.1%	10.8%	
Western Power	149,979	31,588	59,688	-	18,142	259,397
	57.8%	12.2%	23.0%	0%	7.0%	
Rest of Australia	752,789	384,612	652,620	146,890	102,906	2,039,546
	36.9%	18.8%	32.0%	7.2%	5.0%	100%

Source: IPWEA, 2016 Street Lighting & Smart Controls Roadmap

Table 1: Street light stock in Western Australia and Rest of Australia

Western Power have introduced a range of LED luminaires that substitute for existing street lights. These are being used as replacements on failure of the luminaire (not failure of the PE cell or the globe). Around 1% of the street lighting stock is being replaced on this basis each year.

Historically some Local Governments have retained ownership and operating responsibility for street lighting in all or part of the jurisdiction. These include parts of the Cities of Perth and Joondalup as well as specific activity centres or subdivisions in other areas. These Local Governments have completed or are undertaking LED retrofit projects as there is a strong business case to do so.

Other metropolitan Local Governments have completed detailed business cases to evaluate the economic case to replace existing street lights with LED luminaires. None of these have yet proceeded at scale as the high cost of conversions quoted does not provided a clearly viable case based on the difference in tariff between LED and existing street lights.

To accelerate the transition to LED, WALGA recommends the State Government fund or co-fund a bulk replacement of the approximately 158,000 (150,000 Western Power, 8,000 Horizon Power) mercury vapour street lights with LED lighting.

At the very least, WALGA recommends the following changes be implemented to help remove current hurdles to Local Government funded LED street lighting projects:

- street lighting tariffs that are established by the Government, using advice from the Economic Regulation Authority regarding Western Power costs should be set on the basis of efficient costs of provision (rather than actual costs) which would provide the appropriate economic signals for the electricity distributors to invest (or co-invest) in energy efficient, lower maintenance cost technologies;
- the policy and regulatory framework should be amended to enable Local Governments to exercise choice in the way street lighting services are delivered. These choices should extend from the owner – operator model (currently used in parts of Cities of Perth, Joondalup and some other areas), through Local Government owned, Western Power operated street lighting, to a lighting service model under which the electricity distributor provides a lighting service to the agreed standards; and
- the electricity supply for street lighting should be contestable, to enable Local Governments to procure from electricity suppliers that meet their price and greenhouse gas emission objectives.

Enabling renewable energy projects

WALGA held a *Renewable Technologies* event for Local Governments in November 2018², where a recurring theme identified was the urgent need for WA electricity market reform to enable an accelerated energy transition. A major hurdle identified was the inability for renewable energy projects to connect to an already over-supplied grid caused in most cases by contractual rather than physical constraints, with a number of large, long-established generators having a contractual right to the network capacity, even if they do not use it all³.

Addressing market mechanisms to facilitate efficient use of and equitable access to the network will support the suite of energy generation options essential to a sustainable Western Australian energy future. Additionally, increased competition will result in cost efficiencies to the end consumer. Aligned with this is the need to develop frameworks to support and facilitate Local Governments to develop renewable energy projects to reduce organisational emissions, mitigate rising energy costs and provide opportunities for new technology such as electric vehicle charging, alternate distribution models and energy storage technology.

² WALGA Renewable Technologies Event, 29 November 2019. Presentations available [here](#).

³ Government of Western Australia, Department of Treasury, [Energy Transformation Strategy: a brighter energy future](#), (2019), p8.

As already noted, Local Governments are active in emissions reductions projects, which take in ambitious greenhouse emissions reduction pledges, keen interest in renewable energy power purchase agreements, and support for community renewable energy projects.

There are numerous examples of community energy projects outside of Western Australia (such as [Hepburn Wind](#) outside of Daylesford in Victoria). In Western Australia these projects have been stymied (for example, [Augusta Margaret River Community Clean Energy](#) has not been able to connect to the grid and is waiting regulation change to allow access). Many Local Governments have ambitious emissions reduction pledges and are keen to partner with and/or enable community projects and large scale renewable projects (including via power purchase agreements).

WALGA notes the WA Government's current development of the [Energy Transformation Strategy](#), which takes in the existing plan to move to constrained access by 2022. WALGA supports the move to constrained access but considers the timeline should be accelerated. Alternatively, any policy measures that could be implemented in the meantime, to make it easier for renewable energy projects to join the grid (including small community energy projects) would be strongly supported by WALGA, and consistent with the Climate Change Policy.

WALGA recommends regulatory changes to the electricity market be fast-tracked to enable community renewable energy projects, and to allow large scale 'in front of the meter' renewable energy projects and power purchase agreements.

Facilitating energy efficient retrofits and residential solar and battery technologies.

Residential solar and battery installation

Local Governments have expressed interest in being able to implement rooftop solar funding programs similar to those in the Eastern States (for example [in the City of Darebin](#)). These schemes allow Local Governments to fund the installation of solar panels on the roofs of residents that opt in, with the resident repaying the cost of the panels (interest free) over 10 years via a small addition to the resident's rates notice. In the City of Darebin, the scheme was first offered to low income residents, and then extended to any interested residents. The WA *Local Government Act 1995* is more prescriptive than other States; a regulation amendment would be required to enable Local Governments to add this charge to the rates notice, and possibly the Act also amended, to clarify that this is a *discretionary* service charge (i.e., residents choose to opt in to such a service).

As a result of Local Government interest, an amendment to the *Local Government Act (1995)* has been proposed by WALGA as part of its State Council endorsed Position Statement in the ongoing Local Government Act review:

Amendment Purpose:

It is proposed that Regulation 54 of the Local Government (Financial Management) Regulations be amended to include 'renewable energy infrastructure' as a

prescribed service charge. This will permit Local Governments to offer a group scheme that will assist property owners (at the owners' discretion) to participate in the installation of environmental initiatives as an improvement to their property, with the Local Government to recoup the cost via a service charge mechanism. The regulatory amendment would simply read:

*54. Works etc. prescribed for service charges on land - Act's. 6.38 (1)
For the purposes of section 6.38(1), the following are prescribed as works, services and facilities:
(a) property surveillance and security;
(b) television and radio rebroadcasting;
(c) underground electricity;
(d) water; and
(e) **renewable energy infrastructure.***

Note that the language proposed seeks to be technology neutral, as Local Governments have also expressed much interest in using such a scheme to assist households to install batteries, as roof top solar becomes more affordable for residents, with a very short payoff period.

Building upgrade finance: energy efficient retrofits

Building Upgrade Finance (BUF), also known as an Environmental Upgrade Agreement, is an agreement between a Local Government, a building owner and a financier to fund projects that deliver environmental performance improvements in buildings. Victoria, New South Wales (NSW) and South Australia (SA) have all enabled BUF through relevant amendments to their states' Local Government legislation.

BUF allows building owners to access competitive fixed interest funds to upgrade buildings, with tenants and owners sharing in the costs and savings. Local Governments do not finance the work, but declare and levy a building upgrade charge against the land on which the building is situated which is repaid to the financier. Loan repayments are typically offset by the energy savings produced from the building upgrade.

The Clean Energy Finance Corporation (CEFC) currently provides finance for BUF schemes, either directly (to council-operated funds) or through its \$80 million environmental upgrade program with aggregation partners.

Based on experience in other jurisdictions, the application of BUF and its benefits would extend beyond Perth and the metropolitan area, or to just commercial buildings. Some of the highest uptake of BUF, in States with the scheme enabled, has been in rural areas. Building upgrade improvements can include small-scale renewable energy technologies like solar photovoltaics, and this has been particularly popular in light-industrial areas in regional Victoria.

The City of Perth initially proposed that WALGA advocate for amendments to the *Local Government Act 1995* to enable building upgrade finance opportunities. This was endorsed at WALGA State Council and also forms part of WALGA's Position Statement for the Local Government Act Review.

WALGA calls for these proposed Local Government Act amendments to be progressed, to enable Local Governments to facilitate energy efficiency retrofits for business, and affordable renewable energy infrastructure for residents.

Emissions reduction trajectory

The Issues Paper asks how fast the electricity sector transition needs to occur, and whether the electricity sector should make a pro-rata or greater contribution to Australia's national greenhouse gas emissions targets.

The Climate Change Statement, as outlined above, acknowledges that we are in a climate emergency. Further, it notes that the current Paris commitment is insufficient, and that Australia is not on track to achieve even this target.

WALGA supports the State Government's recent announcement of a net zero greenhouse gas emissions by 2050 target, noting that this is consistent with the other States' targets. The State's climate change policy on the energy transformation must be consistent with a trajectory to this target. In order to do this, it will be necessary for the State Climate Change Policy to consider different sectors, and map a credible trajectory to net zero by 2050.

It is acknowledged that the transition to a zero carbon electricity sector poses its own challenges (which the State's Energy Transformation Strategy is considering in detail). However, compared with other sectors where low and zero carbon options are still in development (for example in emissions intensive industries, farming and land use), the electricity sector represents 'low hanging fruit' in terms of achieving greenhouse gas emission abatement.

WALGA recommends that the transition to zero carbon in the electricity sector should occur at a greater rate than it's pro rata contribution to greenhouse gas reductions.

4.2 Industry innovation

- ▶ What measures have been implemented by your business to lower energy use or emissions?
- ▶ What are the barriers to decoupling energy use and emissions in the resources sector?
- ▶ Have you assessed the implications of the low-carbon transition for your business or sector? How are these risks disclosed to stakeholders?
- ▶ What exemptions should apply to trade-exposed sectors in reducing our emissions?
- ▶ How can the Government of Western Australia foster clean industries and technologies?

As previously noted (above, at 3.0), the Local Government sector is very proactive on climate change and is actively pursuing a range of emissions reduction and adaptation actions. This includes, but is in no way limited to, ambitious corporate and community-wide energy efficiency, renewable energy and emissions reductions strategies, along with programs and policies to encourage residents to reduce their carbon footprint.

This includes, but is in no way limited to the following WA Local Government voluntary commitments and pledges in relation to climate change:

Pledge	Description	Number of Local Government Participants
Local Government Climate Change Declaration	Developed by WALGA. A voluntary opportunity for Local Governments to demonstrate their political commitment to locally appropriate climate change adaptation and mitigation action. ⁴	40 (representing 65% of the WA population)
Divesting from fossil fuels	Commitment to shift money out of banks that fund fossil fuels. ⁵	12 (representing 30% of the WA population)
Compact of Mayors	A coalition of City leaders around the world committed to addressing climate change. ⁶	4
Cities Power Partnership	Launched July 2017 by the Climate Council, aims to celebrate and accelerate emission reductions and clean energy in Australian towns and cities. ⁷	17
Declaration of Climate Emergency	Around the world, governments at all levels have been declaring a climate emergency as a first step in acknowledging the scale of the issue, and seeking to build impetus to accelerate action on climate change.	7 ⁸

As previously noted, from the perspective of Local Government, one key way that the State Government can foster clean industries and technologies is by removing regulatory hurdles that currently hinder renewable projects.

⁴ For further information see here: <http://walga.asn.au/Policy-Advice-and-Advocacy/Environment/Climate-Change.aspx>.

⁵ For a list of Australian Local Governments that have committed to divest see here: <http://gofossilfree.org.au/fossil-free-councils/>.

⁶ Cities of Joondalup, Perth, Melville and Mandurah. Further information about the Compact of Mayors available here: <https://www.compactofmayors.org/>.

⁷ Local Governments participating in the Cities Power Partnership are shown on the map here: <http://citiespowerpartnership.org.au/power-partners/>.

⁸ At the time of writing, the City of Fremantle, the City of Swan, the City of Vincent, the Town of Victoria Park, the Town of East Fremantle and the Shires of Denmark, Augusta-Margaret River had declared a climate emergency. Up to date map available here: <https://www.cedamia.org/global/>.

This has great potential in regional areas, discussed further below at 4.4, in fostering low carbon industry such as mining materials for batteries through to production of 'green' technology, and the potential for generation of carbon credits through carbon farming activities.

4.3 Future mobility

- ▶ What are the barriers to purchasing a low-emissions vehicle for your household or business?
- ▶ What can be done to facilitate the uptake of electric and other low-emission vehicles in Western Australia?
- ▶ How can we further encourage use of public transport and active transport, such as walking and cycling?
- ▶ How can we ensure that Western Australia isn't left behind in the transition to cleaner transportation?

Electric vehicles

The Climate Change Statement notes the world is already shifting away from fossil fuel technologies, and towards energy efficient and renewable technologies, including in the uptake of electric vehicles (EVs), coupled with increased grid renewables and the required infrastructure. It calls on the Western Australian Government to accelerate action and remove barriers to the transition to a low carbon, energy efficient economy.

In September 2018 WALGA State Council, in considering a submission on Vehicle Emissions resolved that WALGA:

- 1. supports the consideration, where possible, of vehicle emissions during planning, designing and construction of large scale infrastructure projects.**
- 2. supports the consideration of vehicle emissions during the process of purchasing new fleet, in addition to fleet policies.**
- 3. supports the consideration of policies that facilitate the adoption of electric vehicles and electric vehicle charging infrastructure.**
- 4. advocates to the proposed Infrastructure Western Australia body, when it is established by the State Government, to consider vehicle emissions as part of the assessment process and cost-benefit analysis for projects.**
- 5. advocates to Infrastructure Australia to consider vehicle emissions such as particulate matter, other than greenhouse gas emissions, during the assessment of projects.**
- 6. advocates to State Government for the broader implementation of the Department of Water and Environmental Regulation 'CleanRun' roadside emissions monitoring program, as a behaviour change initiative which has the potential to reduce fuel consumption.**

7. advocates to the State Government for the preparation of planning policies or guidelines for the installation of electric vehicle charging stations within WA.

Local Governments, including the Cities of Swan, Canning, Albany and several others have added battery EVs to their fleet in order to gain firsthand experience in the operational advantages and disadvantages of these vehicles. These and other Local Governments have also invested in installing and operating public charging facilities.

Recently the first fully electric waste and recycling collection vehicle entered service in Western Australia⁹, and a number of other Local Governments are also investigating the performance and economics of EVs for their waste collection vehicles.

Local Governments are being supported by WALGA contract arrangements for the purchase of electric vehicles. WALGA is also moving towards establishing contract arrangements for Local Governments to easily access EV charging stations.

In urban areas the lack of available, appropriately priced vehicles is a major impediment to the further expansion of the use of electric vehicles in the light vehicle fleet used by Local Governments. Appropriately targeted financial incentives, possibly through the State Government fleet purchasing arrangements, could if supported by vehicle suppliers, enable a meaningful increase in the numbers of EVs to the State and Local Government fleets. These vehicles are likely to form the basis of a viable second hand market for EVs in three to five years, enabling the community to gain broader exposure and experience with these vehicles.

In rural and remote areas there would need to be investment in fast charging facilities and potentially higher range vehicles before EVs could be widely used for Local Government operations.

It is recommended that the State Government develop an EV purchasing model that is attractive for Local Government fleet operators to add EVs to Local Government vehicle fleets.

Active Transport

Active transport such as walking and cycling offers the lowest carbon emitting mobility option. Local Governments provide over 15,000 kilometres of paths, of which nearly 11,000km is in the Perth metropolitan area, to enable safe, active travel. Co-investment between the State and Local Governments is currently delivering more than \$6 million of investment in cycling infrastructure per year. However, demand for Perth Bicycle Network Grants significantly exceeds the funds available meaning that the development of the network is delayed. This gap is expected to increase as a cycling network plan, which is being developed within the context of Perth and Peel at 3.5 million, is finalised.

⁹ <http://www.belmont.wa.gov.au/Pages/Electric-Vehicle-recycling-truck-coming-to-Belmont.aspx>

It is recommended that funding for the Perth Bicycle Network Grants Program be increased from \$2.5 million to \$5 million per annum.

4.4 Regional prosperity

- ▶ How will climate change affect your regional community?
- ▶ What steps can we take to further enhance the resilience of our regions and our primary industries?
- ▶ How can we support the agricultural sector to participate in the low-carbon transition?
- ▶ What opportunities do carbon offset markets present for Western Australian land managers, including Aboriginal groups?
- ▶ What matters should the State Government take into account in developing a strategy for carbon farming in Western Australia?

There is a strong reliance on fossil fuel / carbon intensive industries in some regional areas, and it is important that as Western Australia transitions to net zero emissions by 2050, opportunities for new low carbon green business and employment opportunities in regional areas are realised and support provided for regional areas disproportionately impacted. This could include policy that supports or fosters low carbon industry such as mining materials for batteries through to production of 'green' technology, large scale regional renewable energy projects, and generation of carbon credits through carbon farming activities.

WALGA's Climate Change Policy Statement expressly recognises some of the regional equity implications of the shift to a low carbon economy:

Local Government recognises that both the impacts of climate change and the policy responses required to contribute to the avoidance of dangerous climate change have significant equity implications¹⁰. These equity considerations have domestic and international dimensions, for both present and future generations and for the survival of other species. Climate change disproportionately affects disadvantaged and marginalised groups¹¹ including the poor and rural and regional communities.

¹⁰ Althor, G. et al. Global mismatch between greenhouse gas emissions and the burden of climate change. *Sci. Rep.* 6, 20281; doi: 10.1038/srep20281 (2016). Available at: <https://www.nature.com/articles/srep20281>.

¹¹ "People who are socially, economically, culturally, politically, institutionally or otherwise marginalised are especially vulnerable to climate change" IPCC (2014). Summary for Policymakers" in *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, at 6. Available at: <http://www.ipcc.ch/report/ar5/wg2/>. See also CSIRO (2015). *Climate Change Adaptation for Health and Social Services*, edited by Rae Walker and Wendy Mason. CSIRO Publishing, and L Rickards et al. (2016). *On the Frontline: Climate Change & Rural Communities*. Climate Commission. Available at <https://www.climatecouncil.org.au/ruralreport>.

Local Government supports an equitable transition to a carbon constrained world:

- **globally**, the right of developing countries to increase their share of global wealth in ways that remain within the ecological capacities of the planet;
- **domestically**, the need to equitably share the cost of climate change adaptation and mitigation and ensure disadvantaged and marginalised groups receive adequate support. This includes provision of support and incentives for communities impacted by the transition (e.g. by fostering innovation, and supporting workforce adjustment packages and new employment opportunities).

WALGA's 2019 [Economic Development Framework Project](#) made a number of recommendations for policy priorities and reform to encourage economic development, especially in regional areas. Research undertaken as part of this project identified that the best way to support and facilitate regional economic development is through a strategic, placed-based and smart diversification approach – similar to the one used in New South Wales by the Centre for Economic and Regional Development. Key features of this approach include:

- the use of economic boundaries that are based on local competitive advantages and economic linkages (functional economic regions), rather than Regional Development Commissions geographic areas;
- regional planning and investment that is based on leveraging off competitive advantages and areas of specialisation of a functional economic region, rather than areas of aspiration and potential advantage; and
- empowering Local Governments to contribute to economic development in their own functional economic regions through formalised governance and investment frameworks.

In the context of the Climate Change Issues Paper, the establishment of an approach to regional economic development that incorporates the above features would help ensure that:

- areas that rely heavily on carbon intensive industries, such as Collie and the broader South West region are supported to diversify their economic base over the coming years, into areas where they have a competitive advantage and investments therefore have the greatest potential to lead to sustainable economic growth; and
- regions that have the greatest opportunity and are most appropriately placed to achieve growth in low carbon, or low-carbon complementary industries, are identified and they receive an appropriate level of investment.

WALGA's recent [submission to the Environmental Protection Authority](#) on its proposed Greenhouse Gas guidelines also noted the potential for generation of carbon credits in regional areas, and recommended that consideration be given to a strategic greenhouse gas offset fund to maximise the effectiveness, efficiency and co-benefits of greenhouse gas offsets that might be required for major projects.

A strategic greenhouse offset fund could encourage a new market for carbon offsets in Western Australia, unlocking low carbon businesses and employment opportunities, particularly in regional areas, with potential for abatement projects including carbon farming, crop and livestock efficiencies and vegetation management.

WALGA recommends that the State's climate change policy includes a commitment to the development of a comprehensive, equitable plan for the transition to low carbon business, industry and employment opportunities in regional areas, including support and incentives for communities impacted by the transition.

4.5 Waste reduction

- ▶ What areas can we target to further reduce greenhouse gas emissions from waste?
- ▶ What can households, businesses and government do to reduce their waste and compost more?

As identified in the Issues Paper, waste management has only a limited direct impact on greenhouse gas emissions. The direct impact of waste management on greenhouse gas emissions is predominantly gases generated by the anaerobic decomposition of waste in landfills. Large landfills are required by their licence conditions to capture the gases generated and in some instances there is sufficient gas captured to make energy recovery an option, in other cases the landfill gas is flared. Flaring of the gas is an eligible methodology to generate Australian Carbon Credit Units (ACCUs) and has been used by Local Governments in Western Australia, including the Cities of Armadale and Rockingham. The waste to energy facility planned for Rockingham also has specific greenhouse gas reduction outcomes, as identified in the Issues Paper. However, there are additional benefits of waste reduction and effective waste management beyond reducing direct greenhouse gas emissions from landfill.

The diversion of waste from landfill to alternative waste treatment facilities currently operating is generating ACCU's – these facilities are operated as a joint venture with a Regional Council (Mindarie Regional Council) and by the Southern Metropolitan Regional Council. These facilities generate a soil conditioner which can store carbon in the soil.

The Food Organic Garden Organic (FOGO) system, which is one of the headline strategies in the Waste Avoidance and Resource Recovery Strategy (WARR Strategy), has the potential to divert organic waste from landfill (avoiding direct landfill emissions) and to generate high quality compost which can store carbon in the soil. The community's source separation behaviour using the FOGO system can therefore have a direct impact on greenhouse gas generation – and this too has a methodology under the Emissions Reduction Fund, which can quantify the benefits.

The substitution of waste derived products for raw materials can also have significant greenhouse gas reduction benefits, for example using recycled construction and demolition waste instead of mining basic raw materials. The embodied energy savings for such substitutions are significant and were extensively documented in a report prepared for the

Waste Authority on [Recycled Products in Local Road Construction and Maintenance Activities](#).

A key focus for the WARR Strategy is also waste reduction, which targets a 10% reduction in waste generation per capita (based on 2014-15 data) by 2025. Waste reduction as a target is important as it focuses on avoiding waste generation in the first instance, which has a far greater impact through the supply chain than simply disposing of the material correctly at end of life. Therefore programs such as Love Food, Hate Waste – which focuses on avoiding food waste – have considerable value as they not only reduce waste to landfill but consumption and ultimately generation of waste. The Fight Food Waste Cooperative Research Centre (CRC) is working on a range of initiatives that could assist Western Australia in reducing food waste and consequently reducing greenhouse gas generation. The State is encouraged to actively engage with the CRC and undertake programs to reduce food loss in the supply chain, transform waste into resources and undertake education behaviour change for the community and industry.

Ultimately, as identified in the WARR Strategy, the State needs to move to a Circular Economy approach which would see a fundamental reengineering of our economy to focus on waste avoidance and alternative approaches to business not based on the traditional linear economic model.

In both the metropolitan area and in the regions, funding from the WARR levy account should also be allocated to local governments to undertake investigations and remediate former landfills which were operated in accordance with the legislative and regulatory requirements of the time.

The State Government should:

- **use all monies collected from the landfill levy to support improvements to waste management practices, including:**
 - **measures to reduce contamination and increase resource recovery from kerbside recycling bins;**
 - **the fast tracking of implementation of the FOGO system, including compost market development; and**
 - **establishment of a resource recovery capital grant program for commercial operators or Local Government entities for the construction, or upgrade, of recycling sorting and processing infrastructure in both metropolitan and non-metropolitan areas.**
 - **allocate funds to local governments to undertake investigations and remediate former landfills which were operated in accordance with the legislative and regulatory requirements of the time.**

4.6 Safe and healthy communities

- ▶ What are the main climate risks for your household or your community? What can be done to manage these risks?
- ▶ What are your biggest concerns about Western Australia's future climate?
- ▶ What could be done to ensure your community is better prepared for possible climate impacts?

Climate Health

WALGA has made a comprehensive [submission to the Climate Health Inquiry](#) (*interim until considered by WALGA State Council at its December 2019 meeting*), which acknowledges that the impacts of climate change such as extreme weather events and natural disasters (heatwaves, storms, flooding, drought, bushfires), alterations in the distribution of vector-, water- and food-borne infectious diseases, and air pollution patterns have the capacity to affect the physical and mental health of all Western Australians.

WALGA considers that the findings and recommendations of the Climate Health Inquiry should inform and be considered in the development of the State Government Climate Change Policy and the pathway to achieve the net zero greenhouse gas emissions by 2050 target.

Emergency Management

Emergency Management is defined in the *Emergency Management Act (2005)* as the management of the adverse effects of an emergency including prevention, preparedness, response and recovery. All four aspects are required to provide a comprehensive approach to managing the hazards and risks that face our communities.

Local emergency management responsibilities

Local Governments are assigned responsibilities across all aspects of emergency management with significant resources committed to responding to these hazards.

The Local Government sector carries significant responsibilities for the identification of hazards that may impact their community, supporting response efforts and recovering their communities post emergency. Climate change considerations in local emergency management is critical, given the increased frequency, severity and impacts emergencies are likely to have on Western Australian communities.

Functions prescribed under the *Emergency Management Act (2005)* require Local Governments to undertake Emergency Risk Management (ERM) assessments to identify hazards that may impact their community, establish and Chair a Local Emergency Management Committee, develop and maintain local emergency management arrangements, appoint Local Recovery Coordinators and manage recovery following an emergency. There are 27 hazards prescribed under the *Emergency Management Act (2005)* with 7 being classified as Natural Hazards, these include; storm, cyclone, earthquake, flood, tsunami, fire, and heatwave.

Local Governments undertake the ERM process following the benchmark risk criteria detailed in the State Emergency Management Procedure with the expectation that plans will be developed in collaboration with relevant public authorities and/or any other relevant agencies or community groups, as deemed appropriate.

Limited grant funding is available to undertake this process and to treat those hazards and risks once identified. Most Local Governments absorb these costs and draw on existing resources to undertake this work, with some guidance from state and district staff from DFES.

Bushfire has had significant investment (in this term of government) in support of the Bushfire Risk Management Program (BRMP). Officers managed centrally by DFES support Local Governments to undertake the development of tenure blind plans, bringing together all landholders across tenures within the Local Government boundary. Local Governments act as the custodians of the plan, which once endorsed by Council and the Office of Bushfire Risk Management are eligible for funding through the State Mitigation Activity Fund. This model has incentivised Local Governments to participate and access funding to treat risks in their communities, along with other agencies and organisations responsible for identified risks.

Funding for the identification, planning and treatment of all natural hazards is critical to minimise and mitigate the impacts on communities. The BRMP model, including human resources, tenure blind planning and availability to mitigation funding is a sound model for consideration in an all hazards context.

Local Governments are prescribed to manage recovery post impact from an emergency as they are the closest level of government to their communities. Recovery is part of emergency management, which includes the broader components of prevention, preparedness, and response. It includes built, environmental and economic elements, as well as social wellbeing. Recovery can provide an opportunity to improve these aspects beyond previous conditions, by enhancing social and natural environments, infrastructure and economies – contributing to a more resilient community. WA has adopted the National Recovery principles which reinforce the need for community led practices and decision making. These include:

Community Context - Successful recovery is responsive to the complex and dynamic nature of both emergencies and the community.

Use community-led approaches - Successful recovery is community- centred, responsive and flexible, engaging with community and supporting them to move forward.

Coordinate all activities - Successful recovery requires a planned, coordinated and adaptive approach, between community and partner agencies, based on continuing assessment of impacts and needs.

Communicate Effectively - Successful recovery is built on effective communication between the affected community and other partners.

Recognise and build capacity - Successful recovery recognises, supports, and builds on individual, community and organisational capacity and resilience.

Managing the impacts of climate change, and specifically recovery, will place increasing demands on the limited resources of Local Governments. Local Governments already report that a major emergency stretches their resourcing in the medium to long term¹². Funding and additional resources are required to meet this demand as well as continue business as usual activities to maintain community services and functioning.

Disaster Recovery Funding Arrangements

The Disaster Recovery Funding Arrangements Western Australia (DRFAWA) provide funding assistance to Local Governments, with essential public assets that have been damaged in an eligible disaster. As it currently stands, betterment is allowed whilst undergoing repairs of a disaster if the Local Government funds this component. DRFAWA will only fund the cost of reinstating the asset to its original form.

WALGA is advocating for disaster recovery funding to allow for betterment of assets, that is, reinstating a damaged or destroyed asset to a more disaster resilient standard. This is to prevent a situation where, for example, valuable infrastructure is washed away and then identically replaced every few years. With increased extreme weather events due to climate change, the return period for a particular event is lessened, therefore the benefits from increasing the resilience of the infrastructure are greater. Disaster relief funding of course remains an essential part of an adequate response to climate change, but of equal importance is ensuring an adequate focus on building resilience, to ameliorate the effects of disasters.

The Local Government sector considers there should be greater emphasis placed on, and resources allocated to, prevention, preparedness and recovery. What we do before will have a significant impact on the long term recovery required post incident.

In particular, Local Governments require:

- **contemporary legislation which supports mitigation and community preparedness. The sector strongly supports the prioritisation of the drafting of the new combined Emergency Services Act;**
- **further investment in local resources and funding to support their emergency management legislative responsibilities including:**
 - **mitigation policy and funding for the sector to implement treatment options emanating from the emergency risk management process required to be undertaken by all Local Governments**
 - **whilst the Mitigation Activity Fund was a commitment of the current State Government, it is currently only available for bushfire mitigation activities; and**

¹² [State Emergency Management Committee Preparedness Report](#) (2018), p126.

- **access to community recovery funding under the Disaster Relief Funding Arrangements Western Australia (DRFAWA) and funding to support the building of resilient infrastructure.**

State Planning Policy 3.4 Natural Hazards and Disasters (2006)

WALGA has been advocating for the Department of Planning, Lands and Heritage (DPLH) to revise State Planning Policy 3.4 to ensure it adequately incorporates climate change factors. While a review was initiated, it is unclear how far into the review process the DPLH is, or when a draft will be released.

WALGA recommends that a review of State Planning Policy 3.4 Natural Hazards and Disasters (2006) be undertaken as a matter of priority to ensure that it adequately incorporates climate change considerations.

Incorporating climate risk into Local Government governance, decision making and preparedness

Local Governments have repeatedly identified a need for assistance with undertaking extensive, comprehensive climate change adaptation and resilience planning. This priority need is also reflected in WALGA's Climate Change Policy Statement.

A key part of planning for the impacts of climate change is to ensure that these considerations are embedded in Local Governments' decision making and governance arrangements. For example, effectively responding to the more frequent and extreme natural disasters that are expected to occur as a result of climate change requires that this is adequately incorporated into emergency management plans, asset management plans etc.

WALGA, utilising Commonwealth Government Natural Disaster Resilience Program Funding and in conjunction with project partners Department of Local Government, Sport and Cultural Industries, Department of Fire and Emergency Services, Department of Water and Environmental Regulation, and the Local Government Insurance Service, is undertaking a project, 'Climate Resilient Councils – preparing for the impacts of climate change' aimed at building sector capacity in this area. Similar projects have been delivered in other States, such as the Climate Resilient Councils Program in Queensland administered by the Local Government Association of Queensland with financial and technical support from the Queensland State Government.

Based on the experience in other States, WALGA anticipates that this project will be more of a 'jumping off point' than an end in itself, serving as a pointer to areas where Local Governments need much more assistance and capability to effectively incorporate climate risk across its governance and decision making processes and documents.

WALGA seeks the State Government's continued support to assist Local Governments to embed climate risk, including increased risks of natural disasters, in their governance and planning documents.

4.7 Water security

- ▶ What can we do to encourage Western Australians to use water more efficiently and adapt to a drying climate?
- ▶ Are there policies adopted in other jurisdictions we should consider for Western Australia?
- ▶ What are the best management options to deal with the water security implications of climate change for our agricultural sector?

The WALGA Climate Change Statement calls for the sustainable management of water resources.

Local Governments are at the forefront of implementing water efficiency practices, and understand the value of ensuring that they maximise existing groundwater water allocations, though adoption of hydrozoning non-critical active open space, undertaking groundwater licence rationalisation and participation in water efficiency programs such as the Water Corporations Waterwise Council program.

Irrigation for public open space – strategic water infrastructure fund

There is a significant opportunity to reduce the reliance on both groundwater and potable scheme supplies by taking the Water Corporation treated Wastewater for Community Use policy to the next level through the provision of a strategic community water infrastructure fund. This would constitute the part funding of large scale public open space irrigation schemes for regionally significant active public open space. This will assist the Water Corporation in reaching its stated policy position of achieving 45% wastewater reuse by 2030, and could also assist in realising urban storm water harvesting opportunities from parts of the arterial drainage system, such as Herdsman Main Drain.

This could potentially be facilitated through Infrastructure WA, as could realising urban storm water harvesting opportunities from parts of the arterial drainage system, such as Herdsman Main Drain.

Improved Swan Canning Infrastructure Resilience

The Rivers and Estuaries Branch of the Department of Biodiversity Conservation and Attractions administers grant funding to local governments that border the Swan and Canning Rivers, under the Riverbank Program. This funding is used in part to co-fund critical riverpark foreshore infrastructure. Oversubscribed in 2019, an increase in the funding allocation is required to ensure that current and future capital works to protect the integrity and resilience of foreshore infrastructure can be achieved.

Review of Water Corporation residential charging regime

Currently there is no pricing signal or incentive for greywater reuse at the residential lot level, as the Water Corporation wastewater disposal charge is based on Gross Rental Value, rather than on a volumetric based tariff, as is the case with potable water supply. Moving to a volumetric tariff arrangement would incentivise community uptake of fit-for purpose greywater

reuse, reducing inflows into the bulk sewerage system and reducing demand on both groundwater and scheme supply for domestic purposes, such as toilet flushing and garden irrigation, etc.

Other jurisdictions, such as Victoria have long had this charging regime in place. For example, South East Water in Melbourne have a sewerage disposal charge of \$1.8271 per kl.

In acknowledging there is a significant challenge in building community literacy on water efficiency, such a change in pricing methodology should not be discounted when considering market based instruments aimed at broad-scale community behaviour change.

WALGA recommends:

- **the development of an Urban Stormwater Management Framework that can maximise the opportunities for improving water literacy, the harvesting and reuse of excess urban stormwater and improving stormwater quality to increase the protection of sensitive receiving environments;**
- **the creation of a strategic community water infrastructure fund, to realise large scale wastewater reuse schemes for regional community active open space, to assist the Water Corporation is reaching its 45% reuse by 2030 target; and**
- **the Government examine the cost-benefit, water efficiency and community literacy dividends that could be realised through a move to a volumetrically based sewerage disposal charge for Water Corporation residential customers.**
- **increasing the allocation of funding from the Burswood Park Board to match the required levels of investment required by Riverpark local governments under the Riverpark Program administered by the Department of Biodiversity Conservation and Attractions.**

4.8 Liveable towns and cities

- ▶ What are the key barriers to improved energy efficiency for our built environment?
- ▶ What information or tools do you require to improve energy efficiency in your household or workplace?
- ▶ What energy efficiency standards or disclosure measures do you support for our homes and offices and the appliances we use in them?
- ▶ How do you think climate change will affect the liveability of your neighbourhood or region?
- ▶ How can we improve the retention of vegetation, particularly tree canopy, in our cities and suburbs?

The Climate Change Statement calls on the Western Australian Government to ensure that statutory planning policies are consistent with climate change mitigation priorities. This

includes, for example, policies to maintain and increase urban forest to reduce heat island effect and best practice building energy efficiency.

Energy efficiency

Since the introduction of the new Building Act in 2011, buildings in Western Australia have been required to incorporate energy efficiency requirements ([energy efficiency of residential buildings](#) & [Industry Bulletin](#)). The design and construction of the house's roof, external walls and floors, will have an effect on the heating and cooling comfort of a house. To achieve the required Star Rating the design and build will need:

- insulation of roofs and ceilings;
- insulation under raised floors;
- selection of appropriate glass windows and doors;
- thought to the number and size of roof lights (skylights) and ceiling penetrations including downlights; and
- closing and filling of openings and gaps to stop draughts and fireplaces that are no longer in use.

Compliance with the BCA energy efficiency provisions are required to be documented and provided to an independent building surveyor, to ensure that there is sufficient documentation to be satisfied the building will meet the relevant provisions (as part of the Certificate of Design Compliance).

Compliance with these requirements only occurs at the start of the process, i.e. documentation is required as part of the application for a Building Permit. At the completion of a dwelling, there is no requirement for the Builder or independent Building Surveyor to confirm that the premises has achieved the energy efficiency requirements that were submitted at the Building Permit stage. This is a massive failing in the current system.

The Independent Building Surveyor providing the information about energy efficiency compliance at the Building Permit stage, should provide confirmation that the star rating has been achieved. Other States around Australia require mandatory inspections and submission of Occupancy Permits for residential dwellings, to confirm that the work has been undertaken; this is not the case in WA.

This would also align with the State Governments recent release of proposed improvements to the single residential building approvals process and the State Governments election commitment to strengthen the laws to protect consumers and ensure quality standards are enforced in housing construction, including ensuring that builders and project managers are responsible for achieving the energy rating stipulated in building plans.

WALGA seeks the State Government's assurance that improvements in compliance with energy efficient requirements, through improvements to the *Building Act 2011*, will be undertaken.

Urban Tree Canopy Cover

Tree canopy cover is an important defence against the heat impacts of climate change. For example, research undertaken by Monash University suggests that for Perth, over two consecutive days with an average temperature of 44°C, heat related mortality may increase by 30%. However, this mortality rate can reduce by 20% through reducing air temperature by 1 to 2°C.

There has been a significant, continuing decline in tree canopy cover across the Perth and Peel regions, primarily due to clearing and densification associated with urban development (particularly poorly planned medium and high density development resulting in the loss of trees on verges and private land) and the impacts of climate change. As noted in the [Better Urban Forest Planning Guide](#)¹³, this decline in canopy cover also reduces carbon sequestration, impacts the quality of our air and water, increases temperatures in our urban environments, creating urban heat islands, with subsequent health and well-being impacts on our communities. Tree canopy inequity exists across suburbs with the least canopy cover often in the most socially disadvantaged areas.

To address the decline in canopy cover, many Local Governments are developing and implementing urban forest strategies and similar initiatives aimed at reducing the loss of trees and where possible increasing tree canopy cover. WALGA has also convened an Urban Forest Working Group for Local Governments to collaborate on addressing barriers to the retention of tree canopy. In addition WALGA has made urban forest data layers available on its Environment Planning Tool to assist Local Governments in their canopy management.

However Local Governments face a number of barriers to increasing canopy cover including:

- inconsistent statutory and strategic planning documents and associated guidelines;
- inadequate protection for existing trees (particularly on private property);
- lack of a requirement for revegetation in new developments; and
- lack of funding in support of urban forest measures.

WALGA is seeking changes to State Government planning policies to support Local Governments' efforts to maintain their urban tree canopy, particularly on private land where most loss is occurring.

WALGA recommends that the State Government develop and fund the implementation of a State Urban Forest Strategy including:

- **ensuring consistent overarching statutory guidance;**
- **State Planning Policy 7 (Design of the Built Environment), and the complimentary policies that make up Design WA, must include effective**

¹³ [Better Urban Forest Planning Guide – A Guide to the enhancement of urban forests in Western Australia](#), Western Australian Planning Commission (2018).

requirements for the retention of native vegetation, mature trees and incorporation of trees across all forms of development, including minimum specified deep soil zones, minimum verge widths and appropriate setbacks

- of particular concern is provision for retention / incorporation trees in medium density housing, the ‘missing middle’, where the greatest canopy loss is occurring;
- the development of Model Scheme Provisions for native vegetation / tree retention and planting;
- the review of the current subdivision approval process in order to retain mature trees on a site;
- the continued collection and provision of Urban Monitor tree canopy data at regular intervals; and
- a grant program that would match local government investments in delivering their urban forest strategies (and similar initiatives)
 - such a program could draw on initiatives in other States such as the ‘Living Melbourne: our metropolitan urban forest’ initiative¹⁴ and the ‘Five Million Trees for Greater Sydney’ grants program. These programs support Local Governments to enhance their urban tree canopy by co-funding tree planting projects in public spaces such as streets, parks and reserves.

4.9 Resilient infrastructure and businesses

- ▶ What are the key climate risks for the primary industry or resources sectors?
- ▶ Do you currently assess the impact of physical climate risks on your business, assets or infrastructure?
- ▶ Is there information which would assist you to do this better?
- ▶ What are the best ways to enhance the resilience of public and private infrastructure?

Legal Liability

The 2012 Productivity Commission inquiry report [Barriers to Effective Climate Change Adaptation](#)¹⁵ included a recommendation that:

Local governments’ uncertainty about their legal liability is a barrier to effective climate change adaptation. State governments should clarify the legal liability of councils with

¹⁴ The Nature Conservancy and Resilient Melbourne, [Living Melbourne: Our Metropolitan Urban Forest](#), (2019).

¹⁵ Productivity Commission, [Barriers to Effective Climate Change Adaptation, Report No. 59, Final Inquiry Report](#), (2012), p26, 169.

respect to climate change adaptation matters and the processes required to manage that liability.

The Australian Government response¹⁶ agreed in principle with this recommendation and acknowledged that Local Governments' current uncertainty about their legal liability is a potential barrier to effective climate change adaptation. As this is primarily a matter for State and Territory Governments it was referred to those governments for consideration.

Furthermore it was highlighted that consistency of approach and measures across jurisdictions would help entities operating across Local Government boundaries to: "cost-effectively maintain a coherent approach and reduce the potential for conflicting or incompatible obligations deriving from federal, state/territory and local government legislation and regulations."

The issue of uncertain legal liability stems in large part from the unavoidable uncertainty in natural hazard projections and the problems this creates for decision makers, such as Local Governments. There is evidence that climate change is increasing the extent of uncertainty inherent in these natural hazard projections. For instance the IPCC recently observed that sea levels are rising faster than anticipated, meaning that projections of hazards such as coastal inundation, shoreline recession and storm surge erosion may need to be reconsidered in light of this new information.

Decision makers, such as Local Governments, need reassurance that a decision made in good faith based on the best information available at the time a decision is made will be protected from potential claims for damages. Without such assurances, decision makers may be inclined to act conservatively, inhibiting sound decision making that is required to address climate change issues and potentially increasing the extent of liability for future decision makers. WALGA is working to clarify the extent of legal liability for Local Governments on these matters. However it is apparent that the Western Australian legislature does not provide Local Governments with an exemption from liability if it acts 'in good faith' in following State policies when making planning and management decisions which must consider the likelihood of future natural hazards. It is recommended that a provision be introduced in the *Local Government Act 1995 (WA)* to provide an exemption from liability for Local Governments, such as that enacted in NSW.

The New South Wales legislature has taken action to protect Local Government with Section 733 of the *Local Government Act 1993 (NSW)* 'Exemption from liability—flood liable land, land subject to risk of bush fire and land in coastal zone' limiting the liability of Local Governments in respect of damage caused by bush fire, flooding, or damage to land. Case law has

¹⁶ Australian Government, [Australian Government response to the Productivity Commission Report: Barriers to Effective Climate Change Adaptation](#), (March 2013), p8-9.

interpreted this provision to limit liability for Council acts performed in the future, as well as in the past.

Advocating that the State Government enact a legally robust ‘good faith’ defence for Local Government is critical to limiting the liabilities of Local Government’s responsible for planning and management in an environment fraught with inherently uncertain hazard information. It is also critical for ensuring sound decision making processes that address risks posed to communities by climate change.

WALGA proposes that Part 9, Division 4 of the *Local Government Act 1995 (Protection from liability)* be amended to limit the liability of Local Governments with regard to flooding, erosion, accretion, bushfire and other natural hazards.

The impact of climate change on Western Australia’s coasts

The effects of climate change are already being felt along Western Australia’s coastline. The [Assessment of Coastal Erosion Hotspots in Western Australia report¹⁷](#) released earlier this year identifies 55 locations — 15 metropolitan and 40 regional — spanning 29 Local Government areas, where coastal erosion is expected to have a significant impact on public and private property or infrastructure in the next 25 years. An additional 31 locations (8 metropolitan, 23 regional) have been placed on a watch-list for future monitoring and investigation. The State Government has estimated that the costs for managing the 55 most at risk locations identified in the report could be up to \$110 million over the next five years, with additional funding required in the longer term.

WALGA considers the Hotspots Report provides a basis for all levels of Government to work together to raise the community’s awareness of coastal impacts and to assess, plan and invest in managing these impacts.

Local Governments are already devoting significant resources to coastal hazard mapping and adaptation planning, such as through the development and implementation of Coastal Hazard Risk Management and Adaptation Plans (CHRMAPs). CHRMAPs seek to put in place long term planning around risk management and adaptation, that includes adopting an ‘adaptation hierarchy’ of avoidance, planned or managed retreat, accommodation and protection of assets. Many coastal Local Governments have completed or are in the process of developing CHRMAP’s that include hazard mapping and adaptation planning. Approximately 34 Local Governments have completed or are undertaking hazard mapping and around 22 have completed or are developing adaptation plans.

Once a CHRMAP is produced, there is an expectation from the community that the document will be implemented. The financial costs and legal implications for implementing CHRMAP recommendations can be beyond the capability or responsibility of individual Local Governments, therefore, it is imperative that the State assists in this process, rather than

¹⁷ Seashore Engineering Pty Ltd, [Assessment of Coastal Erosion Hotspots in Western Australia](#), report prepared for the Department of Transport and Department of Planning, Lands and Heritage, (2019).

devolve the responsibility to the local coastal manager, which is generally the Local Government.

There is currently not sufficient funding available to Local Governments to address coastal hazards (including erosion and inundation), particularly noting the State Government's own estimates of the costs of managing identified hotspots. The Western Australian Government's level of investment in coastal management and protection is significantly less than that of other States and is not commensurate with the risks being faced along our coastline ([WALGA media release](#) refers). Existing Coastal Adaptation and Protection grants (Department of Transport), Coastal Management Plan Assistance Program and CoastWest grants (Western Australian Planning Commission), which had funding totalling \$1.6 million in 2019, has been oversubscribed for a number of years.

To ensure adequate and ongoing resourcing and funding programs are available for Local Governments to develop and implement CHRMAP's, WALGA is advocating that the State Government implement a CoastWA program, similar to the Queensland Government's QCoast 2100 program. This program provides funding, tools and technical support to enable all Queensland coastal Local Governments to progress the preparation of plans and strategies to address climate change related coastal hazard risks over the long-term. A WA program would incorporate the existing grants programs into one, with increased funding to adequately address coastal hazards. This would also address the issues identified in the Hotspots Report that included identifying and addressing areas at risk of inundation (including estuarine areas).

Unlike other states such as New South Wales, South Australia, Victoria and Queensland there is currently no coastal management legislation in Western Australia. A Coastal Management Act would establish a strategic framework and define and establish the principles, objectives and actions, including roles and responsibilities for integrated coastal zone management. The adoption of such legislation would support a consistent and coordinated approach to the development and implementation of CHRMAPs, which has been (and continues to be) an issue in Western Australia.

Furthermore, the State Government should consider establishment of a Western Australian Coastal Council (similar to the NSW Coastal Council) to provide independent and expert advice in regard to coastal policy and practice. This group would include representatives with specialist coastal expertise and would provide independent advice to the Minister on matters related to the functions under the Act and on the development and implementation of CHRMAP's by Local Governments.

WALGA recommends that the State Government:

- **demonstrate leadership and provide support to Local Governments in managing the legal and financial implications of the implementation of CHRMAPs;**
- **establish and fund a CoastWA Program, similar to the Queensland QCoast 2100 program, to provide matching funding, tools and technical support to enable coastal Local Governments to progress the preparation of plans, strategies and works to address climate change related coastal hazard risks; and**

- **consider enacting specific coastal management legislation and the establishment of a Coastal Council for Western Australia.**

4.10 Protecting biodiversity

- ▶ Can existing land use and biodiversity management practices be modified to reduce vulnerability and improve resilience?
- ▶ Are there opportunities for new collaborations with landholders or communities to address climate risks and improve biodiversity outcomes?

Local Governments in Western Australia manage a variety of rich and diverse natural ecosystems, with the south west of the state being one of the world's 36 internationally recognised biodiversity hotspots. Climate change is exacerbating the existing pressures on Western Australia's unique biodiversity. The threats to Australia's biodiversity are clearly spelt out in the 2016 [Australia State of the Environment Report](#)¹⁸, which states that:

The main pressures facing the Australian environment today are *climate change*, land-use change, habitat fragmentation and degradation, and invasive species. In addition, the interactions between these and other pressures are resulting in cumulative impacts.

The biodiversity theme of the Report concludes that:

Australia's biodiversity is under increased threat and has, overall, continued to decline.

And:

Many species and communities suffer from the cumulative impacts of multiple pressures. Most jurisdictions consider the status of threatened species to be poor and the trend to be declining. Invasive species, particularly feral animals, are unequivocally increasing the pressure they exert on Australia's biodiversity, and habitat fragmentation and degradation continue in many areas. *The impacts of climate change are increasing.*

It concludes:

The outlook for Australian biodiversity is generally poor, given the current overall poor status, deteriorating trends and increasing pressures. Our current investments in biodiversity management are not keeping pace with the scale and magnitude of current pressures. Resources for managing biodiversity and for limiting the impact of key pressures mostly appear inadequate to arrest the declining status of many species. Biodiversity and broader conservation management will require major reinvestments across long timeframes to reverse deteriorating trends.

WALGA considers that an ongoing understanding of the State of Western Australia's environment and in particular its globally recognised biodiversity values is essential to

¹⁸ Australian Government, Department of the Environment and Energy, [Australia State of the Environment](#), (2016).

managing the impacts of climate change and other threats. Western Australia's last State of the Environment Report was in 2007, and Western Australia still does not have a State Biodiversity Strategy.

WALGA has been a strong advocate of the Strategic Assessment of the Perth and Peel Regions and for the State to develop a more comprehensive approach to protecting and managing native vegetation and biodiversity values in Western Australia (including through submissions on [Cost recovery for the Department of Water and Environmental Regulation](#), the Green Growth Plan and the Review of the Strategic Assessment of the Perth and Peel regions). In this context WALGA notes the comments of the Western Australian Auditor General, referencing the last Western Australian State of the Environment Report 2007:

In some parts of WA (especially the Wheatbelt and parts of the Swan Coastal Plain) native vegetation has been cleared beyond safe ecological limits. Continued clearing will result in loss of biodiversity and extinctions, with fragmented habitats becoming more susceptible to climate change, disease, and weed and introduced animal invasion.

The DWER Cost Recovery Discussion Paper, coming more than 10 years after the last State of the Environment Report and the Auditor General's report acknowledges that ecological limits of clearing have been exceeded in the Wheatbelt and the Swan Coastal Plain.

The Auditor General's 2017 [Rich and Rare: Conservation of Threatened Species Follow-up Audit](#) found that DBCA has less resources for managing threatened species conservation activities than at the time of his first audit in 2009, at the same time that the scale of the task to manage Western Australia's threatened and priority species and ecological communities is growing.

WALGA welcomes the announcement of the development of a State Native Vegetation Policy by the Environment Minister earlier this year. WALGA considers that this policy should have at its core a vision and strategy to address the pressures on native vegetation in the South-West and the Wheatbelt in particular. This could include providing incentives and stewardships for Local Government and landholders to proactively protect and manage native vegetation.

Local Governments have significant responsibilities for managing their local environments, including Local Government owned land, parks, reserves and roadsides as well as through their planning and regulatory functions. Local reserves and roadsides often contain significant biodiversity values, including ecological communities that may not be represented, or are underrepresented elsewhere. They can also provide critical wildlife habitat and corridors especially when linked with other vegetation remnants in the landscape. Yet, there is very limited State support for management of biodiversity at local levels, with no recognition of the varied capacity of Local Government to adequately manage threats.

Local Governments also play a key role in partnering with community groups to actively care for natural areas, with invaluable contributions made by volunteers towards actions that achieve biodiversity conservation and management. In particular, urban bushland areas are

vital to foster the learning and nature based activities that develop an appreciation and connection with nature.

Given the impacts on biodiversity outlined in the Issues Paper, WALGA considers that, the State Government should:

- **reinstitute State of the Environment reporting for Western Australia, including information about the extent of clearing of native vegetation;**
- **develop and appropriately fund a State Biodiversity Strategy, including a plan for effective ecological linkages in priority bioregions;**
- **continue funding for the Western Australian Biodiversity Science Institute;**
- **increase funding to DWER, the EPA and DBCA to ensure environmental regulation is efficient and effective and manage WA's parks, forests and reserves;**
- **finalise the Strategic Assessment of the Perth and Peel Regions;**
- **consider a program of biodiversity stewardship arrangements and other incentives to protect biodiversity values;**
- **provide support for building the capacity of Local Government to manage biodiversity locally (including training, funding for on-ground management, integrated and adaptive management of weeds, feral animals and diseases);**
- **implement a program to promote and support leading practice in roadside reserve management across rural Western Australia with an initial focus on local roads in the Wheatbelt and south-west regions, which contain significant biodiversity, including threatened flora;**
- **recognise the significant role that native forests have as carbon stores and valuing these assets accordingly; and**
- **centralise data collection and enable the sharing of natural resource management including fire risk management, weed, disease and feral animal distribution with access to information on best practice control of threatening processes.**

Biosecurity

Climate Change will also exacerbate agricultural and environmental biosecurity threats. WALGA has been advocating for a review of the *Biosecurity and Agricultural Management Act (2007)* to ensure that Western Australia's management of post-border biosecurity is effective in addressing on-ground management of pest and disease incursions and established agricultural and environmental biosecurity threats. The terms of reference for this review should incorporate an analysis of the implications of climate change for Western Australia's biosecurity system.

4.11 Strengthening adaptive capacity

- ▶ Are there gaps in the availability of adaptation knowledge, climate information or skills for your community, organisation or sector? How can these be addressed?
- ▶ What are the main barriers to the adoption of effective climate change adaptation?

As a general recommendation in relation to strengthening adaptive capacity, WALGA considers it essential that planning for the impacts of climate change and building adaptive capacity be embedded into policy development and decision making across and between all levels of government.

Specific comments in relation to aspects of climate change adaptation are addressed elsewhere throughout this submission.

5.0 Additional comments

WALGA notes the following commentary at the beginning of the Issues Paper:

“While a nationally consistent policy framework which we can rely on to deliver the commitments of the Paris Agreement is urgently needed, Western Australia won’t wait on the Australian Government” (Foreword)

“A clear State Government policy and roadmap for action will ensure we manage the low-carbon transition in a considered way” (Foreword)

“The government of WA has committed to working with all sectors of the economy to achieve net zero by 2050. The government’s aspiration creates the overarching framework for the State Climate Policy” (p3)

The Issue Paper does not expressly call for comment or input into this part of the Paper, but WALGA wishes to record its strong support for the statements above, in particular that the net zero emissions by 2050 target must be embedded in the State’s Climate Policy so that it creates the overarching framework for the State’s climate change policies.

WALGA strongly supports a State Climate Change Policy with resulting policy measures and changes that are consistent with a credible trajectory to net zero by 2050. The planned State Climate Change Policy must set out in workable detail the trajectory to this target, and how WA will achieve this target.

WALGA recommends the State Climate Change policy include a detailed plan for getting the State to net zero emissions by 2050.

WALGA notes that best practice energy efficiency across a range of sectors (residential, industrial, commercial etc.) offers an excellent opportunity for climate change mitigation. This submission has outlined some areas where this could be facilitated at the Local Government level, including through implementation of the Building Upgrade Finance scheme, and through

planning policies and education to encourage best practice energy efficiency in our communities.

It is recommended the State's Climate Change Policy consider the range of opportunities for energy efficiency policies across sectors.

6.0 Conclusion

Local Government is committed to addressing climate change and recognises that urgent action is required to reduce greenhouse gas emissions, and adapt to the impacts from climate change that are now unavoidable. Local Government considers failing to adequately address this climate change emergency places an unacceptable burden on future generations.

Western Australian Local Governments are calling for strong climate change action, leadership and coordination by all levels of government, including the implementation of effective and adequately funded climate change policies and programs for both mitigation of emissions and adapting to the impacts of climate change.

The sector welcomes the State Government's target to reduce net emissions to zero by 2050 – it is essential that the State Climate Change Policy, informed by this and other submissions charts a robust path to achieving that target.