

Climate change is increasing the likelihood and impact of extreme weather events.

The 2019/20 bushfires devastated communities across eastern Australia. Tragically, 33 people died and extensive smoke coverage across much of eastern Australia may have caused many more deaths. Over 3,000 homes were destroyed. Estimates of the national financial impacts are over \$10 billion. Nearly three billion animals were killed or displaced and many threatened species and other ecological communities were damaged. Smoke travelled hundreds of kilometers, adversely affecting 80% of the population. The effects were felt across Victoria.<sup>1</sup>

Human-induced climate change has boosted Australia's bushfire risk by at least 30 per cent.<sup>2</sup>

As the level of government that most directly faces the impacts of climate change through control of assets and services that are impacted, and through providing services to vulnerable members of the community, councils play an important role in working with their community to reduce greenhouse gas emissions and prepare for the changing climate.

This training will help you understand how to do this.

Image credit: Allison Marion.

#### References

- 1. Commonwealth of Australia (2020) *Royal Commission into National Natural Disaster Arrangements: Report.*
- 2. van Oldenborgh, G. J., Krikken, F., Lewis, S., Leach, N. J., Lehner, F., Saunders, K. R., van Weele, M., Haustein, K., Li, S., Wallom, D., Sparrow, S., Arrighi, J., Singh, R. P., van Aalst, M. K., Philip, S. Y., Vautard, R., and Otto, F. E. L.: Attribution of the Australian bushfire risk to anthropogenic climate change, *Nat. Hazards Earth Syst. Sci. Discuss.*, https://doi.org/10.5194/nhess-2020-69, in review, 2020.

"Councils are required to promote the economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks."

**Local Government Act 2020** 

A recent Australian study estimated that with no further global action the cost of climate change damages to Victoria through to 2050 would be over \$150 billion, increasing dramatically to about \$1 trillion by 2100.

Melbourne Sustainable Society Institute 2019

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The role of local government in helping the community adapt to climate change and reduce emissions is recognised in Victorian legislation.

Changes to the Local Government Act 2020 have strengthened the need to consider climate change risk in council decision-making processes.<sup>1</sup>

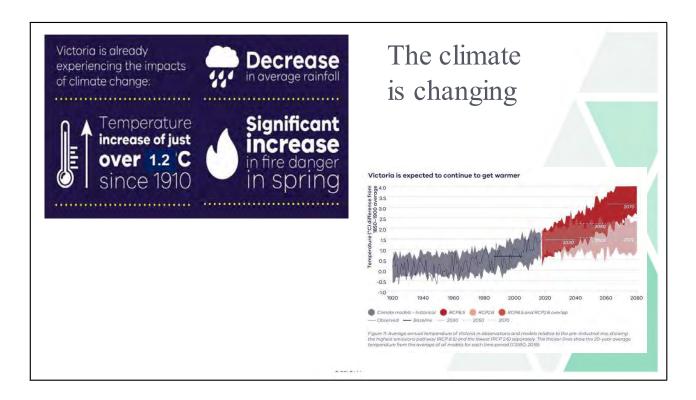
We also know that doing nothing to tackle climate change will have a huge cost to the economy.

The risk of avoiding action are too great to ignore – business as usual no longer applies.<sup>2</sup>

#### References

- 1. Local Government Act 2020 (Vic)
- 2. Kompas, T., Witte, E. and Keegan, M. (2019) *Australia's Clean Energy Future: Costs and Benefits*, MSSI Issues Paper 12, Melbourne Sustainable Society Institute, The University of Melbourne, from

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The climate is already changing.

We need to urgently cut emissions – also known as **mitigating** climate change - and support our communities to do so too.

We also need to plan, prepare for and respond to the impacts of climate change. This is known as **adapting to climate change.**<sup>1</sup>

This training will give you a basic understanding of why the climate is changing and what you can do with your community to **mitigate and adapt** to the changes.

#### **References**

1. IPCC, 2018: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

# Climate change is a risk for Victorian councils

- Planning & building
- Health & community services
- · Assets & Infrastructure
- Operations, maintenance, waste services
- · Parks, conservation & recreation
- Emergency management
- · Finance & insurance
- Legal liability



Climate change affects all areas of council operations – from planning to parks and recreation to maintaining assets to carrying out community services. It will impact on your community and how you support them.

Heat, fire, reduced rainfall, and extreme weather events such as storm surges and intense downpours already have an impact on council and communities.

As a council, you'll want to consider:

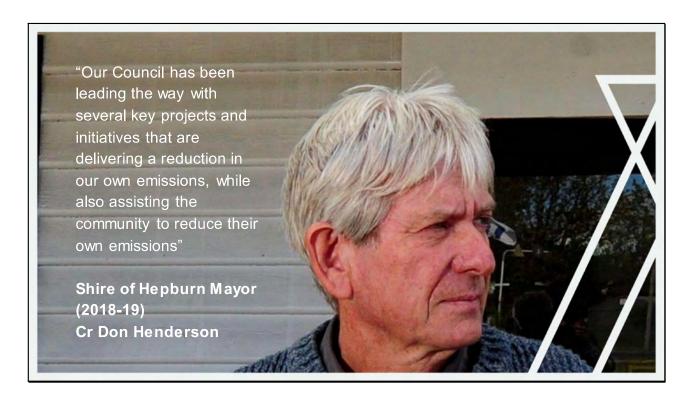
- Will homes and businesses be increasingly exposed to fire and floods?
- Do our planning policies push for zero carbon, climate resilient homes?
- How will we continue to deliver services to our most vulnerable?
- How will changes such as an increase in heat wave events impact on the physical and mental health of our residents?
- How can we support our residents to transition to cleaner forms of energy and ensure their homes are resilient to future changes in the climate?

- Will our drainage assets be able to manage increasingly intense storms and flooding?
- Will road maintenance need to be increased to deal with the impact of higher heat on bitumen?
- How do we ensure staff can safely continue to deliver service standards?
- How do we protect the native vegetation that acts as a carbon sink and cools our urban areas?
- Will we be able to maintain our parks in extreme weather?
- How will we ensure our open spaces provide cool and shaded areas?
- How will we provide energy to our leisure centres in a future that's phasing out fossil fuels?
- How will we cope with higher attendance at our aquatic centres on the more frequent hot days?
- How does our emergency management system cope with the increased risks?
- Are we prepared for longer fire seasons, or for low-risk areas now being at a higher risk of fire?
- Will we be able to get insurance for our assets in the future?
- Will we be found negligent for failing to act on known risks?
- What are the costs to individuals, the community and council if we don't embed

changed conditions into our decision-making?

• What do our community expect of us in protecting them from the impacts of climate change?

<u>Image credit:</u> Hobsons Bay - Flooding - Esplanade and Sargood St



The good news is that local governments are already leading the way on climate change action.

Councils are tackling climate change through their own operations and by supporting their communities.

They are introducing ambitious emissions reduction projects. They are also helping their local communities adapt to the impacts of climate change.<sup>1</sup>

Nearly 100 councils across Australia have declared a climate emergency as their way to take action on climate change.2

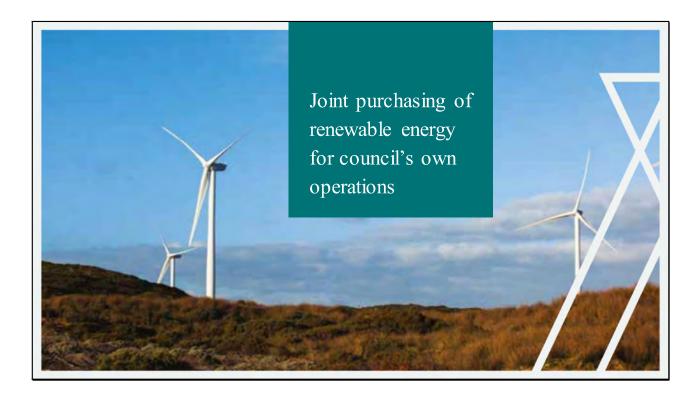
It's important that councils consider climate change across their whole remit, and don't just leave it to the environment team.<sup>3</sup>

But councils also recognise they can't do it alone, so they partner with and advocate to other levels of government, who do have greater powers to tackle climate change.<sup>4</sup>

#### References

Slide: Hepburn Shire Council (2019) 'Climate Emergency Declaration,' [media release], accessed 15.12.20, available at: https://www.hepburn.vic.gov.au/hepburn/wp-content/uploads/2019/09/Media-Release-Climate-Emergency-Declaration-18-09-2019.pdf

- 1. Climate Council (2017), Local Leadership: Tracking Local Government Progress on Climate Change, Climate Council, Australia.
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- 3. DELWP (2016), *Victoria's Climate Change Framework,* Victorian Government, Melbourne, p.20.
- 4. Climate Council (2017), Local Leadership: Tracking Local Government Progress on Climate Change, Climate Council, Australia.



As mentioned, climate change affects all areas of council operations – from planning to parks and recreation to maintaining assets to carrying out community services.

This means as a council you have the power to directly tackle climate change through your operations.

This includes land use planning, the way you manage their assets, and your own energy use.

The City of Melbourne led a power purchase agreement to provide 100% renewable energy for itself, three other councils and public and corporate partners.<sup>1</sup>

This is now being replicated on a large scale across Victoria, with 47 councils involved in a local government renewable energy power purchase agreement led by City of Darebin.

This will reduce emissions and enable councils to be more resilient to changes in the

electricity market. <sup>2</sup>

<u>Image credit</u>: City of Yarra Climate Emergency Plan <a href="https://www.yarracity.vic.gov.au/-/media/files/about-us/strategies/coy\_climate-emergency-plan\_web.pdf?la=en">https://www.yarracity.vic.gov.au/-/media/files/about-us/strategies/coy\_climate-emergency-plan\_web.pdf?la=en</a>
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1. City of Melbourne n.d. 'Melbourne Renewable Energy Project: A new generation of energy,' accessed 14.12.20, available at:

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2. EAGA n.d. 'Local Government PPA,' Accessed 5 Nov 2020, Available at: https://eaga.com.au/projects/local-government-ppa/



Councils are community leaders, making a direct impact on emissions and adaptation, and leading by example.<sup>1</sup>

You can communicate with your communities on what is happening with climate change and support them to take action. This supports residents and businesses to reduce emissions and adapt to climate change for areas where you don't have direct control.

One of the great challenges businesses face in becoming more sustainable is access to capital. Paying upfront is often not feasible, and traditional finance terms may not work. Environmental upgrade finance (also known as building upgrade finance) solves this problem.

By engaging local councils as the third party in the agreement, businesses can access affordable terms, including repayment terms of up to 20 years. The changes link the finance or loan to the building rather than the building owner. This means that loan repayments can be made through a property charge, just as council rates are paid.

This unique finance arrangement can help make environmental upgrade projects

affordable for businesses, and in many cases they can be cash flow positive, where the savings from the upgrade exceed loan repayments.

Upgrades can be for solar, water or energy efficiency, waste minimisation methods, or climate adaptation measures. <sup>2</sup>

The economic benefits from making those changes for businesses have the potential to drive +\$4.5B of investment and +18,000 jobs across Victoria.<sup>3</sup>

Over 30 councils in Victoria offer this support to their businesses.<sup>4</sup>

#### Image credit: City of Melbourne

https://www.melbourne.vic.gov.au/community/greening-the-city/greeninfrastructure/Pages/green-roofs-walls-facades.aspx - permissions may be needed References

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- 3. EAGA & WAGA (2013) EUA Finance for the Regions: The economic benefits of retrofitting Victoria's building stock through Environmental Upgrade Agreements,' Presentation slides. Accessed 17.12.20, available at: https://eaga.com.au/wp-content/uploads/EUA-Finance-for-the-Regions-Summary-Report-2013-12-02.pdf
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https://www.sustainability.vic.gov.au/Business/Energy-efficiency-for-business/Finance-energy-upgrades/Environmental-Upgrade-Finance/Councils-offering-Environmental-Upgrade-Finance



Councils are also partnering with other councils, businesses and levels of government to successfully drive through changes that aren't in their control.

Greening the West is an example of a collaboration between water authorities with western metropolitan municipalities and other stakeholders, to achieve change at scale and shape the urban environment to adapt to climate change.

Urban greening not only makes more beautiful places to live, it also creates cool shaded spaces, an important consideration in increasingly hot, urban environments where heat can be deadly.<sup>1</sup>

One flagship project under Greening the West is Greening the Pipeline. The aim of Greening the Pipeline is to turn a 27km decommissioned sewer reserve in Melbourne's west into a linear parkland. A 100m pilot park has been set up in Williams Landing to showcase the potential of the project in the rapidly expanding inner West to create cool community space. The park also showcases best-practice integrated water management. This project is a partnership between Wyndham City Council, VicRoads, Melbourne Water and City West Water.<sup>3</sup>

<u>Image credit</u>: Greening the West 2020, project partners [screenshot], accessed 11.12.20, available at <a href="https://greeningthewest.org.au/">https://greeningthewest.org.au/</a>/Permissions may be required References

- 1. Greening the West n.d. 'About Greening the West,' accessed 14.12.20, available at: https://greeningthewest.org.au/about/
- 2. Greening the Pipeline n.d. 'Background,' accessed 14.12.20, available at: https://greeningthepipeline.com.au/background/



To act with the urgency needed to tackle climate change will require action from more than just councils. Councils have a strong role in advocating for change.

The report from the 2020 Parliamentary Inquiry into tackling climate change in Victorian communities demonstrates the important role that advocacy from councils can play in highlighting priorities across local and State Government. The Inquiry report found that home energy efficiency upgrade programs have health, comfort and wellbeing benefits in addition to lowering the cost of energy bills and reducing carbon dioxide emissions.

A number of submissions from councils called for more support into home energy efficiency. A recommendation from the Parliamentary Inquiry was that the Victorian Government significantly increase the scale of programs to upgrade the energy efficiency of the homes of low income Victorians.<sup>1</sup>

The Government has now released its response to the enquiry.

<u>Image credit:</u> Sustainability Victoria <a href="https://www.sustainability.vic.gov.au/You-and-your-home/Building-and-renovating/Energy-Smart-Housing-Manual">https://www.sustainability.vic.gov.au/You-and-your-home/Building-and-renovating/Energy-Smart-Housing-Manual</a>

### References

1. Parliament of Victoria Legislative Assembly Environment and Planning Committee (2020), *Inquiry into tackling climate change in Victorian communities*. Final Report. Victorian Government Printer.



The great thing is your council is not alone.

In Victoria, many councils work together through their Greenhouse Alliance.<sup>1</sup>

These Alliances, which cover most councils in Victoria, are networks of councils acting on climate change.

They share best practice, build capacity, develop and deliver projects, conduct research and advocate for local government. The Alliances also work together on issues that cut across Victoria like large scale projects and advocacy.

The 2019 Victorian Greenhouse Alliances conference attracted around 300 participants from across the state.<sup>2</sup>

The Victorian Government works with the Greenhouse Alliances to connect to local government on climate change.<sup>3</sup>

Some councils who aren't part of a Greenhouse Alliance work together through climate change networks or on joint projects, or join in with work led by Alliances.

As you can see, local governments are well and truly acting on climate change. You'll learn about more examples during this training.

<u>Image credit:</u> NAGA (2018) Greenhouse alliances conference [photograph]. <u>References</u>

- 1. Victorian Greenhouse Alliances, N.D., 'Home' accessed 14.12.20, available at: http://www.victoriangreenhousealliances.org/
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- 3. DELWP (2016), *Victoria's Climate Change Adaptation Plan 2017-2020,* Victorian Government, Melbourne.

## What this training will cover

- 1. Climate change science and impacts
- 2. Climate change impacts on councils
- 3. Understanding climate risk
- 4. Local government roles and responsibilities
- 5. Business and community responses to climate change
- 6. Climate change action in local government

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#### There are 5 parts in this training:

- 1. Climate Change and it's impacts
- 2. Climate Change Impacts on Councils
- 3. Understanding Climate Risk
- 4. Local government roles and responsibilities
- 5. Business and community responses to climate change
- 6. Climate change action at Council

This training will help you understand the kind of questions you can ask to embed climate change across your council's strategies and operations and how you can support your community to tackle climate change.