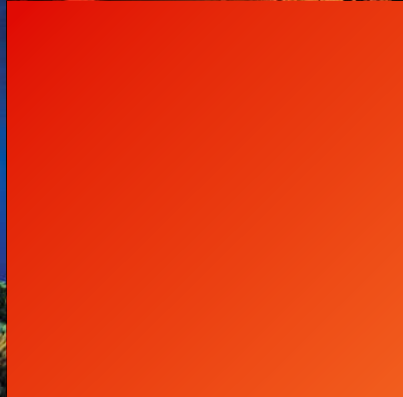




the place
to live

Climate Emergency Action

Darebin Residents
Taking Action in the
Climate Emergency



“Right now, we are facing a man-made disaster of global scale.

Our greatest threat in thousands of years: Climate change. If we don't take action, the collapse of our civilisations and the extinction of much of the natural world is on the horizon.”

David Attenborough



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Introduction

Climate change is a dangerous threat to all life on the planet. The earth is already too hot.

The climate emergency is extensively documented. The science tells us that the earth has warmed, and is continuing to warm, as a result of human activity. This warming is having serious impacts on the atmosphere, on weather systems and on food production. All people and species are affected by a warming planet. In Darebin we are experiencing more droughts, more localised flooding and increased heatwaves.

In response, Darebin City Council declared a climate emergency in December 2016, recognising that there is an urgent need to take action. We need to act now to avoid dangerous climate change and provide maximum protection for people and nature.

Darebin's Climate Emergency Plan outlines the leadership, advocacy and mobilisation directions this Council is taking to respond urgently, and at the scale required, to address the climate emergency. Together with Climate Emergency

Darebin, a council advisory group, Darebin is undertaking both local programs and advocacy across governments and the community which seek to restore a safe climate. A safe climate allows existing and future generations, communities and ecosystems to survive.

Council cannot do this work alone. Collaborative campaigns involving partners such as other councils, educational institutions, industry groups, community organisations and like-minded people are vital to effect real change. These collaborative campaigns will advocate for strong action and significant changes to state and federal government policy, legislation and funding. Changes at the state and national level such as transitioning to 100% renewables; ending native deforestation; better standards for homes; electric transport; and changes to agriculture will have the biggest impact on the climate emergency.

Mobilisation of, and engagement with the Darebin community is also a key direction of Darebin's

Climate Emergency Plan. We all have a role to play in responding to the climate emergency. Your leadership and advocacy will significantly contribute to the development of a collective understanding of the climate emergency, and the range of responses required to restore a safe climate.

The purpose of this document is to support you as advocates and community leaders in participating in Darebin's response to the climate emergency.

This document provides a brief introduction to the complex field that is climate studies. Rather than being comprehensive, we direct you to crucial scientific evidence as well as sources of more detailed information. The document also provides information and resources for a variety of ways that you may

choose to be involved in the climate emergency response. There is information about holding (sometimes difficult) conversations with family, friends and neighbours; information about how to contact MPs; links to climate groups that you may wish to be involved with; and some introductory information about Darebin's Climate Ambassadors Program.

Since Darebin declared a climate emergency over 450 governments (and rising)¹ around the world have done so too. We invite you to be part of this growing global movement demanding change and action. The work we do is vital, for now and for future generations, for humans and the natural world.

Thank you for being part of Darebin's climate emergency response.



The Big Picture: Climate Emergency in a nutshell

Our climate is changing rapidly. The past few decades have seen an unprecedented rate of warming.

Global Impacts of the climate emergency

Since 1910, the world's average surface air and sea temperature has warmed by approximately 1°C. This temperature rise has been caused by the release of greenhouse gases from the burning of fossil fuels and other human activities including agriculture, deforestation, transport and construction. Greenhouse gases trap heat in the atmosphere and this causes temperatures to rise. It is predicted by scientists that if greenhouse gases continue to rise at similar rates, by 2100 global average air temperatures will be 4°C above mid-19thC temperatures².

The impacts of the climate emergency are being felt now. Changes to our global environment resulting from the current warming of 1°C are already evident and include: significantly hotter weather; increased instances of extreme weather events and natural disasters; climate variability

including changes to seasons; and sea level rise. These changes will be increasingly dangerous to humans and the natural world as the planet continues to warm.

Scientists have identified a range of specific environmental impacts including:

- Vast ice sheets of Antarctica and Greenland have started to melt. Arctic sea ice has lost 30% of its volume in the last 30 years and this is causing sea levels to rise^{3,4}.
- Rising sea levels – already 20 cms over the past century⁵ – are predicted to flood parts of major cities (Mumbai, Hong Kong, Calcutta, London, New York) as well as the river deltas (Mekong, Nile, Bangladesh) where much of the world's food is currently grown⁶.

- Coral reefs, mangrove forests and marine kelp forests are being severely impacted by rising sea and atmospheric temperatures⁷, and the science says that at the current rate of warming most of our reefs will be lost within the next three decades⁸.
- Extreme weather events are becoming more frequent and intense⁹.

Social, economic and political effects are closely related to these environmental changes.

The impacts of the climate emergency will be vast and wide reaching, and will be experienced more acutely by some communities.

The social justice implications of the climate emergency are already being felt and are expected to intensify for different people around the world. Climate change has the potential to contribute to conflicts and mass migrations, as natural disasters and scarcity of food and water increase. Specifically:

- Potential displacement of 30 million people as river delta regions are flooded by rising sea levels¹⁰.

- Food shortages will increase - fish stocks will decline as reefs die; and crop yield declines of 10-25% may be widespread across most of the world's major food production regions by 2050¹¹.
- Three out of four people living in poverty rely on agriculture and natural resources to survive. For these people, the effects of climate change — limited water and food sources and increased competition for them — are a real matter of life and death¹².
- Countries across the Pacific are already being devastated by sea level rise. Pacific atolls and islands in Micronesia and the Solomon Islands are already lost¹³. A warming of up to three degrees would cause at least 60cm of sea level rise meaning atoll islands like Tuvalu or Kiribati will become unliveable¹⁴.
- Weather related disasters have increased worldwide and in 2019 cost approximately US \$215 billion¹⁵.



Further Reading



Climate change science

The Climate Council	www.climatecouncil.org.au
IPCC Special Report on 1.5°C	www.ipcc.ch Click on 'reports' and scroll down to select 'Global Warming of 1.5°C'
To unpack the myths and claims of climate science deniers see 'Sceptical Science'	www.skepticalscience.com Click on the 'arguments' tab
International Science Reports	https://climate.nasa.gov/effects

International agreements and the politics of warming targets

Explores the climate emergency as a dangerous risk to life on the planet	www.breakthroughonline.org.au/publications
On the effects of 1.5, 2, 3 and 4 degrees of warming	www.youtube.com/watch?v=KaEfK-MII4U David Spratt, Research Director, Breakthrough National Centre for Climate Restoration
On carbon budgets and degrees of warming	Recount www.breakthroughonline.org.au/publications

Social and political implications

This report looks at climate change and conflict through the lens of risk-management to draw new conclusions about the challenge we now face	www.researchgate.net/publication/324528490_Disaster_Alley_Climate_change_conflict_and_risk Disaster Alley: Climate change, conflict and risk
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In Australia

The climate emergency is causing more severe and frequent floods, storms, bushfires, droughts and heatwaves.

The Bureau of Meteorology has observed a number of significant changes across Australia since the 1970s. Northern Australia has become wetter, southern Australia has become drier. The number of extreme fire weather days has increased. Rainfall patterns have changed, particularly the number of heavy rainfall events.

- Summer 2018/2019 was the hottest on record for the Australian continent. Characteristic of this hot summer were instances of severe bushfires,

wide-reaching heatwaves and unprecedented flooding in northern Queensland¹⁶.

- The social and economic impacts of these extreme weather events are significant. For example in 2018, Australian insurance companies paid out \$1.2 billion following extreme weather events¹⁷.
- Australia's unique biodiversity is highly vulnerable to climate change. Rates of extinctions are likely to increase as temperatures rise¹⁸. Extinctions are occurring now. In 2016, the Bramble Cay Melomys became the first Australian mammal to become extinct due to storm surges and rising sea levels resulting from climate change¹⁹.

Further Reading



Climate change in Australia: recent observations, events predictions

Climate Commission.
The Critical Decade – Climate Change Science, Risks and Responses

www.climatecouncil.org.au/resources/critical-decade-2017

CSIRO and Bureau of Meteorology (2018).
State of the Climate Report

www.csiro.au and search 'State of the Climate 2018 - CSIRO'

Climate Council (2013/2014)
The Angry Summer

www.climatecouncil.org.au/resources/the-angriest-summer

Department of Environment and Energy. '*Climate change impacts in Australia*'

www.environment.gov.au/climate-change/climate-science-data/climate-science/impacts

Locally

We are already feeling local impacts in Darebin, including extreme hot weather.

The average annual number of days above 35°C experienced in Melbourne is likely to increase from the current nine days per annum up to 26 days by 2070 if immediate action is not taken to reduce emissions²⁰.

Locally we can expect a range of possible impacts – some of which we already experience throughout the year:

- Poor health and deaths resulting from severe weather events such as heatwaves and poor air quality.
- Damage to homes, roads, power and water supplies from severe weather events.
- Strained emergency and community support services.
- Reduced water supply and more frequent and stringent water restrictions affecting households, agriculture, parks and wildlife.
- Increased cost of food, utilities, fuel and insurance.
- Local economic and organisational impacts of lost productivity due to extreme weather, making outdoor, factory and other work impractical during the extreme weather conditions²¹.

Sections of Darebin's population are significantly more vulnerable to the impacts of heatwaves, specifically; older people (65+), children under 5, pregnant or nursing mothers, people with pre-existing medical conditions such as diabetes, heart disease or mental illness and people with a disability. The risk is compounded in disadvantaged groups such as low income earners, people living in poorly insulated housing or without air-conditioning, people who are homeless or have limited access to transport²².

The impact of flooding and heatwaves on businesses can be severe and include lost revenue through the disruption of travel and movement of goods, decreased staff reliability and comfort, increased operating costs and reduced efficiency²³.





Climate projections and impacts

Commissioner for Environmental Sustainability, Victoria (2012)
CLIMATE CHANGE Victoria: the science, our people and our state of play. Foundation Paper One

www.aph.gov.au/DocumentStore.ashx?id=f3ffe0ca-6860-444a-aba1-ff4e92159c0d

My Climate 2050

This tool allows you to explore 2050 climate projections for over 4000 Australian locations

<https://myclimate.acf.org.au/index.html>

Northern Alliance for Greenhouse Action - NAGA (2014)
ADAPTATION IN THE NORTH
An Integrated Regional Vulnerability Assessment. Volume 1

www.naga.org.au/adaptation-in-the-north.html

Climate Change in Australia

The climate analogue tool matches the proposed future climate of a region of interest with the current climate experienced in another region

www.climatechangeinaustralia.gov.au/en/climate-projections/climate-analogues/analogues-explorer



Commitments, Goals and Definitions: Darebin response to the climate emergency

Our best hope to avoid catastrophic climate change and to restore a safe climate is to move into emergency mode, with a rapid transition to eliminate greenhouse gas emissions and draw down the excess CO₂. 'Business as usual' and incremental improvements will not be enough.

A **safe climate** allows existing and future generations, communities and ecosystems to survive. As the snapshot of changes arising as a result of the climate emergency described shows, we know that the current climatic conditions are not safe for a huge range of species, and increasingly unsafe for millions of people.

Climate emergency is understood in two ways:

First, climate emergency refers to catastrophic changes to the world's climate caused by human activity and resulting in a loss of a safe climate which threatens all life on earth. Second, climate emergency refers to a specific approach to tackling climate change. In Darebin we seek to mobilise and take action at a scale

and speed that will restore a safe climate. To restore a safe climate we need a rapid transition to zero emissions across all sectors; as well the drawdown of current emissions in the atmosphere.

Darebin's climate emergency commitment, realised through consultation with community, draws on these definitions and approaches and is summarised in a set of overarching goals in the Darebin Climate Emergency Plan.



CLIMATE EMERGENCY PLAN GOALS

To provide maximum protection for the community of Darebin and for people, civilisation and species globally, especially the most vulnerable.

To restore a safe climate at emergency speed by eliminating greenhouse gas emissions and enabling drawdown of excess carbon dioxide in the air.

To encourage research to find safe ways to protect people, species and civilisation from near-term dangerous temperatures, while zero emission and carbon dioxide drawdown strategies are being enacted.

To enable our community to be resilient in the face of any unavoidable dangerous climate impacts.

To engage, empower and mobilise governments, communities and organisations to take action on and achieve these goals with certainty and at emergency speed.



What can we do?

We need to work together and develop a powerful mandate for national and global action to rapidly restore a safe climate. We need to build a broad consensus for this response across society, from our local community in Darebin, to other councils around Australia, and beyond to industry, organisations and communities around the world.

As a local government, Darebin Council recognises that to maximise the impact of a climate emergency program, state and federal governments will need to commit to climate emergency action. Research shows that the Australian public is increasingly supportive of all governments taking strong action on climate, and that Australians are frustrated with the lack of leadership and policy action from the Federal Government in particular²⁴.

A recent poll by the Australian Institute shows between 65-69% of respondents across Australia believe we need strong government action to rapidly reduce greenhouse gas emissions and transform Australia's economy to one that is zero-carbon. Of those surveyed 51-55% believed governments should mobilise all of society to tackle climate

change, like they mobilised everyone during the world wars.²⁵

The current political situation combined with the climate emergency itself can seem an overwhelming, insurmountable problem, so large that it is difficult to imagine how our individual actions can have effect. This is why Darebin's Climate Emergency Plan has, at its heart, the understanding that we can find the solutions locally, nationally and globally by working together.

Taking the first step is crucial. There are actions we can take as individuals and as part of existing groups. We can work within our neighbourhoods, families and community networks and in our workplaces.

Some of the things we can do as individuals:

- Take opportunities to learn about and spread the message of the climate emergency.
- Share information, concerns and solutions with neighbours, friends and colleagues.
- Work with family, householders, neighbours, friends, community members, and work colleagues to switch to a zero emissions lifestyle or work setting and to maximise opportunities to drawdown CO₂.

- Get involved in advocacy to get local, state and federal governments to take action on the climate emergency.
- Join/support local climate action groups.
- Work with council to bring the climate emergency message to the broader community.



Climate conversations and peer to peer mobilisation

Conversation is the most common way that people process all the information that they hear or read.

Have a conversation with a colleague, a neighbour, family or friends about climate change. By talking to someone who you trust (and who trusts you) about climate change, you are giving them the opportunity to process confusing and often challenging information about the climate emergency, while helping them to figure out how they can act.

SUGGESTIONS FOR AN EFFECTIVE CONVERSATION ABOUT THE CLIMATE EMERGENCY:

Tell stories that focus on why you care about climate change

How does climate change make you feel? Build empathy by telling the story of your understandings and feelings. Emphasise common needs and values (for example the need for safety or the future of our children).

Provide your understanding of the significant threat of climate change²⁵

Talk about the impacts we see around us and what the science says. Ask people to reflect on what changes they are experiencing or have read about.

Talk about what action you are taking in response to the climate emergency

Talk about what you've been doing, for example the conversations you are having now about climate change. Give people information about how they could also take these actions. You could also share the five simple ways you can tackle climate change daily.²⁶

Listen to the other person

Reflect back on what you hear, and pay attention to body language. Body language can tell you if a person is uncomfortable and defensive, or open to the conversation²⁶.

Ask challenging questions

Questions can encourage people you are talking to think deeply about the topic.

Talk about the technical solutions we have

Science and research has identified the technical solutions needed to transition to a zero emissions economy and beyond and that it is possible. For example, detailed plans show how we can get to 100% renewable energy, and transform our transport, industrial and agricultural systems.²⁷ Conversations, advocacy and other actions will build the political will for change.

A reminder: Sometimes conversations about climate change can become tense, uncomfortable or emotional for you or the person that you are speaking to²⁸. For some people, talking about climate change may be too difficult or frightening. In such situations, take a breath and focus on listening to and empathising with the person you are talking to.

Further Reading



How to have conversations with friends, neighbours, community

Psychology for a Safe Climate
Resources on climate change conversations

www.psychologyforasafeclimate.org/publications

Don't Mention the Emergency by Jane Morton from *Darebin Climate Action Now* has created a guide for how to discuss the climate emergency, including key research

<https://climateemergencydeclaration.org/wp-content/uploads/2018/09/DontMentionTheEmergency2018.pdf>

Short article with climate conversation tips

<https://1010uk.org>
Scroll down to click on 'Search' and type 'How to talk about climate change'

Resources for kids, and for parents about how to talk to kids about climate change

Cool Australia
Great resources on climate change for school kids

www.coolaustralia.org
Click on 'Curriculum Materials' then under 'Topic' select 'Climate Change'

CERES
Information, links and further reading for parents and kids on climate change

<https://sustainability.ceres.org.au>
Search 'Teaching climate change to children'

Australian Psychological Society
Information sheets about the climate crisis and helping their kids adapt:

- Raising children to thrive in a climate changed world
- A guide for parents about the climate crisis

www.psychology.org.au
Search 'Talking with children about the environment'

Get politically active

You don't need to be an expert on climate change to take any of the actions listed below. You just need to care about the need for government and community action in the climate emergency.

There are a number of ways you can become politically engaged.

Sign the climate emergency petition.

Climate emergency petitions have been gathering momentum, calling on all levels of government to declare a climate emergency and initiate a massive society-wide climate action mobilisation. Over 22,000 people around Australia have signed so far.

You can sign the petition at: www.cedamia.org/darebin-ced/

Join a climate action group.

Join an organisation or group that is taking action on climate change, such as a local climate action group, or a group focused around your profession. These groups will have a coordinated campaign, and often advocate for better state and federal policy on climate change.

Darebin climate emergency focused groups include:

- *Council Action in the Climate Emergency*
www.caceonline.org
- *Darebin Climate Action Now*
<https://transitiondarebin.org>

Contact your State or Federal Member of parliament.

It is the job of our members of parliament (MPs) to represent us. That means you can write to, call or visit your state or federal member of parliament to discuss your concerns about climate change.

Ask them to develop legislation that responds to the climate emergency, involving zero emissions across all areas and drawdown of excess emissions, such as: ruling out any new fossil fuel developments and committing to achieve 100% renewable energy at emergency speed (10 years or less); ending deforestation; electrifying transport; and low emissions agriculture.

Contact your State or Federal Member of parliament. (cont)

For more information, including guides on writing, calling or visiting your MPs, visit:

www.climateforchange.org.au/mpegs_resources²⁹

For the contact details of your **federal MP**, search here:

<https://electorate.aec.gov.au/>

To find the contact details of your **state MP**, search here:

www.parliament.vic.gov.au/about/electorates

Further Reading



Climate emergency local government resources

*Council Action in the Climate
Emergency*

www.caceonline.org/

Start a campaign for your council
to declare a climate emergency

*Climate Emergency Declaration
and Mobilisation in Action*

www.cedamia.org/global/

Tracking of local government
climate emergency movement



Become a Climate Emergency Darebin Ambassador

Will you sign up to be one of our 2019 Climate Emergency Ambassadors?

If you live in Darebin, join the pilot Climate Emergency Ambassadors program. This program is designed to recruit and train climate emergency leaders across the community who will spread awareness and inspire action amongst others.

The program aims to:

- Recruit community leaders to educate and raise awareness about climate change within their networks across the Darebin community.
- Mobilise and activate the Darebin community broadly and deeply around the climate emergency issue, and facilitate community contributions to action, including via volunteerism.
- Connect community leaders across Darebin to lead action in response to the climate emergency.

The program will be co-designed by council and an initial cohort of Ambassadors to provide:

- A platform for ideas to be shared and supported over time.
- Support tailored to meet the needs of various social groups and geographic areas.





- 1 www.cedamia.org/global
- 2 <https://link.springer.com/article/10.1007/s00376-018-7160-4>
- 3 www.sciencemag.org/news/2017/02/great-greenland-meltdown
- 4 Spratt, David (2018) "Beyond urgent: the science of climate warming as existential risk". Presentation to Darebin Climate Emergency Conference www.youtube.com/watch?v=KaEfK-MII4U
- 5 www.bom.gov.au/state-of-the-climate/2016
- 6 Spratt, David (2018) "Beyond urgent: the science of climate warming as existential risk". Presentation to Darebin Climate Emergency Conference www.youtube.com/watch?v=KaEfK-MII4U
- 7 www.publish.csiro.au/mf/Fulltext/MF10303
- 8 Heron et al. 2017. Impacts of Climate Change on World Heritage Coral Reefs: A First Global Scientific Assessment. Paris, UNESCO World Heritage Centre.
- 9 <http://climate.nasa.gov/effects>
- 10 Spratt, David (2018) "Beyond urgent: the science of climate warming as existential risk". Presentation to Darebin Climate Emergency Conference www.youtube.com/watch?v=KaEfK-MII4U
- 11 www.fao.org/news/story/en/item/356770/icode
- 12 www.mercycorps.org/articles/climate-change-affects-poverty
- 13 www.newscientist.com/article/2146594-eight-low-lying-pacific-islands-swallowed-whole-by-rising-seas
- 14 <https://350pacific.org/pacific-climate-warriors>
- 15 Weather, Climate & Catastrophe Insight – 2018 Annual Report
- 16 Will Steffen, Annika Dean, Martin Rice and Greg Mullins (2013/2014) The Angriest Summer. Climate Council of Australia
- 17 www.climatecouncil.org.au and click on 'Reports'
- 18 Steffen W, Burbidge AA, Hughes L, Kitching R, Lindenmayer D, Musgrave W, Stafford Smith M and Werner P (2009) Australia's biodiversity and climate change: a strategic assessment of the vulnerability of Australia's biodiversity to climate change. A report to the Natural Resource Management Ministerial Council commissioned by the Australian government. CSIRO Publishing.
- 19 www.abc.net.au/triplej/programs/hack/bramble-cay-melomys-first-climatechange-mammal-extinction/10830080
- 20 www.environment.gov.au/climate-change/climate-science/impacts/vic

- 21 www.naga.org.au/uploads/9/0/5/3/9053945/adaptation_in_the_north_volume_1.pdf
- 22 www.naga.org.au/uploads/9/0/5/3/9053945/adaptation_in_the_north_volume_1.pdf
- 23 www.naga.org.au/uploads/9/0/5/3/9053945/adaptation_in_the_north_volume_1.pdf
- 24 www.tai.org.au/sites/default/files/180911%20-%20Climate%20of%20the%20Nation%202018%20%5BPRINT%5D.pdf
- 25 www.tai.org.au/sites/default/files/Polling%20-%20April%202019%20-%20North%20South%20%5BWeb%5D_0.pdf
- 26 www.climatecouncil.org.au/5-ways-you-can-tackle-climate-change-on-the-daily
- 27 Jane Morton, 2016. Don't mention the emergency: making the case for emergency climate action. <https://climateemergencydeclaration.org/wp-content/uploads/2018/09/DontMentionTheEmergency2018.pdf>
- 28 www.climatecouncil.org.au/5-ways-you-can-tackle-climate-change-on-the-daily
- 29 www.skillsyouneed.com/ips/active-listening.html
- 30 <https://bze.org.au/research>
- 31 Psychology for a Safe Climate, 2016. Let's speak about climate change. www.psychologyforasafeclimate.org/publications
- 32 Darebin Council is indebted to Climate for Change for allowing us to share these resources. They were written by Sue Dwyer, a volunteer for Climate for Change and we gratefully acknowledge her work.

Together we can achieve this

To express your interest, please contact us at
CED@darebin.vic.gov.au

By acting now and encouraging systemic change
we can create a safe and sustainable future for
our planet.

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National Relay Service
relayservice.gov.au

If you are deaf, or have
a hearing or speech
impairment, contact
us through the
National Relay Service.



Speak your language
T 8470 8470

العربية	Italiano	Soomalii
繁體中文	Македонски	Español
Ελληνικά	नेपाली	اردو
हिंदी	ਪੰਜਾਬੀ	Tiếng Việt