



The Committee Manager
Legislative Assembly, Environment and Planning Committee
Parliament House, Spring Street
EAST MELBOURNE VIC 3002

10 September 2019
(extended from 26 August)

RE: Inquiry into Tackling Climate Change in Victorian Communities

Dear Committee,

Port Phillip EcoCentre appreciates the invitation to contribute on behalf of our members and networks to the Victorian Parliamentary inquiry into what urban, rural and regional communities in Victoria are doing to tackle climate change and how the Victorian Government could support these communities.

Our submission follows this organisational structure:

1. We are the Port Phillip EcoCentre.
2. World context sets the scene for decisive climate action.
3. Climate change is a threat to Victoria.
4. Victorian communities are taking action in a range of ways.
5. The Victorian Government can fortify community action in meaningful ways.
6. Concluding comments

1. We are the Port Phillip EcoCentre. ('the EcoCentre')

The Port Phillip EcoCentre is a leading community-managed organisation with a dedicated team of scientists, educators and 3000+ volunteers who design and implement innovative environmental programs. Our expertise includes Port Phillip Bay health and the urban ecology of Greater Melbourne, within the traditional lands and waters of the Kulin Nation. We connect communities to their ecosystems in over 160 Melbourne suburbs, and take an evidence-based approach to preventing pollution in our landscapes and waterways.

We are passionate about supporting people to mitigate and adapt to climate change, to reduce wastefulness and curtail consumption. The EcoCentre believes all citizens should have equitable access to clean air and water, viable soil, and renewable energy. We know that enhancing biodiversity is critical to a functional urban ecosystem.

We use the landscapes of Melbourne as our classroom to connect people with their natural world. Each of our programs are tailor-made through a local lens, and brings together people of all ages and backgrounds to spark solutions and inspire environmental leadership.

The EcoCentre collaborates with over 30 Affiliate organisations, 120 schools and 250 partners from business, government, philanthropy, education and research institutions. Our collective impact since 1999 has transformed the way Melbourne understands wildlife, waterways and wellbeing in the age of climate change.

2. World context sets the scene decisive climate action.

Climate change is an umbrella term for variations in climate and ecosystems that are occurring at unprecedented extent, ranges or pace compared to historic trends; and which are attributable to or influenced by human behaviours. Climate change is the biggest health threat of our time.

Climate change is already being felt by the poorest and most vulnerable communities around the globe. Australia is one of 170 national governments committed to taking strong domestic and international action to cap global warming to 1.5C, as a signatory to the Paris Agreement (2016).

State and local governments worldwide are also recognising the urgency and value of mitigating climate change and adapting to the impacts. When President Trump withdrew the United States from the Paris Agreement (making it the *only* country not signed on), within hours more than 380 mayors committed to honour the Agreement in their own municipalities. 990 jurisdictions in 18 countries have declared Climate Emergency, including Victorian Cities and Shires.

The Paris Agreement commits Australia (as a whole) to emissions reduction targets. Do not be misled by references to *per capita* emissions are going down: this just means due to rapid population growth that we're dividing our carbon footprint amongst more people. However: **Australian per capita emissions are still the highest in the world; Australian emissions have been trending upward since 2014; and Victoria is directly responsible for 20.7% of emissions.**¹

3. Climate Change is a threat to Victoria.

There is great scope for decisive leadership by the Victorian Government to support Victorian communities and business to mitigate risk to economy, health and our environment. In Victoria, the impacts of climate change include:

- Increased droughts
- Increased storm intensity, leading to increased floods
- More extreme heat, more frequently
- Increased air pollution
- Reduced food production capability and increased prices
- Coastal erosion
- Migration of species, and endangerment of species
- Physical health impacts: increased asthma; allergies; thunderstorm asthma; mosquito-borne illnesses; delayed access to healthcare or medication that worsens pre-conditions
- Mental health impacts: for example, the Australian Business Roundtable for Disaster Resilience and Safer Communities calculates the lifetime cost of mental health issues following Black Saturday at more than \$1 billion.

The Greater Melbourne region houses 60% of Victoria's population and depends primarily on older infrastructure designed for a stable climate with predictable ranges of variability. The total cost of disasters in Australia is projected to rise to an average of \$33 billion per year unless steps are taken to increase resilience. Further investment in disaster resilience is essential to lessen the forecast increase in response costs to climate impacts. This includes physical measures, such as resilient infrastructure, and community measures, such as preparedness programs.²

Eight out of ten people in Greater Melbourne are concerned about climate change, according to research by Sustainability Victoria in 2017. Communities in this region 'most worried about the effect on community health and wellbeing, business operations and productivity, building and infrastructure integrity, as well as transport and communication.'³

***"Psychologists are particularly interested in climate change because not only is it caused by human behaviour, and threatens human health and wellbeing, but the solutions to climate change require profound changes in human behaviour."** – Australian Psychological Society*

Victorian communities are overwhelmingly concerned about climate change, and are undertaking a wide variety of actions. However, the pace, resourcing consistency and equitable reach of these actions stand to be heightened by Victorian Government support. Victorians demonstrate an enormous appetite for grants and infrastructure funding as evidenced by the 2017 Climate Innovation Fund (240 applications with funding for just 24), the 2019 Community Climate Action grants program (delayed by 'high number and quality' of applications received⁴) and the Victorian Solar Homes program for which August 2019 allocations were exhausted within 90 minutes.

We have collected below examples of community action, and specific ideas for supporting them.

¹ www.environment.gov.au/system/files/resources/917a98ab-85cd-45e4-ae7a-bcd1b914cfb2/files/state-territory-inventories-2017.pdf

² *Building resilience to natural disasters in our states and territories*, Deloitte 2017

³ *Climate Change Adaptation Snapshot Greater Melbourne*, Victorian Government 2018

⁴ Emails from 3CA Grants Program to applicants, 26/7/2019 and 5/9/2019

4. Victorian communities are taking action in a range of ways.

Concerned Victorians are rolling up their sleeves, with environmental volunteering through the EcoCentre increasing dramatically (around 50%) year on year to currently 19,500 hours per year.

1. Victorians are joining citizen science initiatives to understand localised climate change:
 - Joining Port Phillip Baykeeper (EcoCentre) coastal erosion and species surveys
 - Observing seasonal changes affecting nature on the ClimateWatch app
2. Victorians are reducing wastefulness and the associated footprint associated to extract resources, manufacture, transport, and handle items at end-of-usage-life:
 - Running 25 Repair Cafés, where volunteers teach repair skills to prevent landfill. The EcoCentre and Jewish Ecological Coalition co-host the St Kilda Repair Café⁵ which has diverted nearly one tonne from landfill, from lawnmowers to lamps.
 - Joining coalitions like Zero Waste Victoria and One Million Women.
 - Expressing particular concern about plastics, a durable material mismatched to single-use items, dirty to manufacture and prone to becoming a pollutant. Littered plastics entangle wildlife, cause damage and death to marine life when ingested, transport toxins and contaminants, and off-gas greenhouse emissions⁶ as they break up in the sun.
3. Victorians are increasing climate-centred conversations with our MPs and candidates:
 - Backing science-based emissions reduction targets (*minimum* 67% by 2030)⁷
 - Formed an alliance⁸ to protect the Great Australian Bight from offshore drilling
 - Voting for climate policy and joining groups like Australian Youth Climate Coalition, Jewish Climate Action Group, and Port Phillip Alliance for Sustainability
 - Organising climate forums pre-Australian elections, from Jewish Climate Action Group in St Kilda⁹ to Yes2Renewables in Portland¹⁰
4. Victorians are considering environmental responsibility through a faith-based lens:
 - Australian Religious Response to Climate Change who provide Climate Action Kits¹¹ for Buddhism, Christianity, Hinduism, Judaism and Islam
5. Victorians are mapping technical solutions:
 - Beyond Zero Emissions detailed pathways for a ten-year transition in each major sector of Australia's economy from Rethinking Cement¹² to Land Use¹³
6. Victorians are considering wild species with whom we share our lands, seas and skies:
 - Participating in Zoos Victoria extinction prevention campaigns, from turning off outdoor lights to help pygmy possums¹⁴ to swapping to recycled toilet paper¹⁵
 - Putting out water out for wildlife during heatwaves
7. Victorians are having peer-to-peer climate conversations:
 - Climate for Change
 - Doctors for the Environment Australia
 - Movement for Life (Wilderness Society)
 - Jewish Climate Action Group dinners
 - Carbon Conversations: Multicultural Climate Action Program¹⁶

⁵ <https://www.stkildarepaircafe.org.au/>

⁶ <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0200574>

⁷ [https://ecocentre.com/sites/default/files/images/Documents/Submissions/EcoCentre submission re VIC Interim Emissions Targets July 2019.pdf](https://ecocentre.com/sites/default/files/images/Documents/Submissions/EcoCentre%20submission%20re%20VIC%20Interim%20Emissions%20Targets%20July%202019.pdf)

⁸ <https://www.fightforthebight.org.au/what-we-do>

⁹ <https://plus61j.net.au/australia/ranking-major-parties-climate-change-policy/>

¹⁰ <https://www.melbournefoe.org.au/portlandenergyfuture>

¹¹ <https://www.arrcc.org.au/climate-action-kits>

¹² <https://bze.org.au/research/manufacturing-industrial-processes/rethinking-cement/>

¹³ <https://bze.org.au/research/agriculture-farming-land-use/>

¹⁴ <https://www.zoo.org.au/possums/>

¹⁵ <https://www.zoo.org.au/wipe/>

¹⁶ <https://environmentvictoria.org.au/campaign/carbon-conversations-multicultural-climate-action-program/>

8. Victorians are investing in distributed solutions:
 - Installing rain tanks to flush toilets (not just irrigation) and repairing tanks at schools¹⁷ installed during millennium drought, 50% of which now don't function
 - Installing solar panels
 - Chipping in extra for community solar e.g. via Powershop Your Community Solar¹⁸
9. Victorians are beginning to reckon with our climate grief and climate psychology:
 - Climate SOS Sundays¹⁹
 - Psychology for a Safe Climate²⁰
10. While the Amazon burns²¹, Victorians are recognising the value of our old-growth forests:
 - Creating a business case for the Great Forest National Park²² and Emerald Link²³
 - Dominating recent DELWP 'Future of Forest' consultations with submissions²⁴ valuing the forests as habitat, our clean water source, and carbon sink
11. Victorians are redirecting capital investment to conservation and renewables:
 - Murray-Darling Basin Balanced Water Fund²⁵
 - Divesting and reinvesting supers and savings into ethical or green portfolios
12. Victorians are restoring oyster reefs and testing living breakwaters for coastal protection:
 - Albert Park Angling Club helping Nature Conservancy rebuild Port Phillip reefs²⁶
 - Melbourne University is trialing living breakwaters²⁷. EcoCentre volunteers conduct citizen science to monitor nearby erosion and intertidal habitat impacts.
13. Victorians are instilling skills in youth like creative, technical, collaborative thinking”
 - Last year 488 students graduated from the EcoCentre's flagship *Tomorrow's Leaders for Sustainability* program.
14. Victorians are shifting to the phrase “climate emergency” in light of alarming advice from the most recent Intergovernmental Panel on Climate Change report:
 - Supporting their local government to declare of a climate emergency in Ballarat City Council, Bass Coast Shire Council, Brimbank City Council, Darebin City Council, Indigo Shire Council, Maribyrnong City Council, Melbourne City Council, Moreland City Council, Mornington Peninsula Shire Council, Surf Coast Shire Council and Yarra City Council – total population 1,119,321 Victorians.
15. Victorians are rethinking transport of ourselves and our goods (supply chain and disposal):
 - Joining Victoria's many Bicycle User Groups
 - Enrolling in car share services like Car Next Door, Flexicar or GoGet
 - Running 'Walk or Ride to Worship' weeks
 - Blessing the Bikes at Brunswick Uniting Church
 - Buying local and secondhand
 - Supporting a 'Buy Australian Recycled Content' label for onshore recycling

¹⁷ <https://www.livingwaterworkbees.com/earn-a-rain-tank>

¹⁸ <https://www.powershop.com.au/your-community-energy/victoria/>

¹⁹ <https://www.greensong.info/s-o-s>

²⁰ <https://www.psychologyforasafeclimate.org>

²¹ <https://time.com/longform/amazon-rainforest-fires-photos/>

²² <https://www.greatforestnationalpark.com.au/park-economy.html>

²³ <https://www.emeraldlink.com.au>

²⁴ <https://engage.vic.gov.au/future-of-our-forests/phase-1-feedback-report>

²⁵ <https://www.natureaustralia.org.au/what-we-do/our-priorities/provide-food-and-water-sustainably/food-and-water-stories/creating-a-sustainable-murray-darling/>

²⁶ <https://www.natureaustralia.org.au/what-we-do/our-priorities/provide-food-and-water-sustainably/food-and-water-stories/restoring-shellfish-reefs/>

²⁷ <https://pursuit.unimelb.edu.au/articles/protecting-our-coasts-naturally>

5. The Victorian Government can fortify community action in meaningful ways.

1. Invest in community hubs, including \$2.55m matching funding towards a fit-for-purpose Port Phillip EcoCentre as a space for community-led climate action.
 - Researchers advocate for greater investment in the psycho-social preparedness of individuals, and many potential measures are relatively inexpensive, with benefits and avoided costs accruing over time. VicHealth's social drivers of resilient communities include *community connectedness* and *trust*.
 - A Strategic Business Case from City of Port Phillip and 130 letters of support have been sent to Minister D'Ambrosio from individuals, groups and organisations supporting EcoCentre redevelopment. It provides both a social and environmental investment, with a return of \$3.2m economic value per year (Essential Economics 2019).
2. Support programs for individual and household scale adaptation.
 - Until now, climate change training at an individual scale has focused on explaining science and urging commitment. While governments and health services address large-scale infrastructure and systemic adaptation, community can build social resilience and awareness. Even 'green' Melbournians currently know few specific actions for personal and household preparedness, with 80% of City of Port Phillip residents answering "no" or "unsure" when asked if they had taken actions for extreme weather.
 - In 2017, a consortium (Port Phillip EcoCentre, CERES Environment Park, Environment Education Victoria, Centre for Social Impact Swinburne, City of Port Phillip and ClimateWorks) unsuccessfully applied to the Climate Innovation Grants to pilot train-the-trainer workshops that transform socially-networked residents into 'coaches' for urban Victorians' first adaptive tools aimed at individual & community-scale preparedness, complementing institutional climate adaptations.
3. Ensure extreme weather emergency plans for community service organisations.
 - Support the acquisition of renewable energy, generators, thermal efficiency and climate emergency response plans so community organisations can stay functional during extreme weather, in order to:
 - i. provide community connection for resilience
 - ii. direct services (healthcare, food, cool refuge etc)
 - See the example of ARUP's Community Sector Climate Resilience Program²⁸
6. Support metro local governments to ensure they have are heat and flood refuges.
 - Town halls need a generator (or space to install a hired generator) and emergency response plan including communications and transport.
 - Some cities, like City of Port Phillip, do not have any shopping centres or cinemas in which to gather during heat waves.
7. Fund Citizen Science to identify, monitor, and report on key indicators of ecosystem health.
 - Use citizen science programs to build community stewardship, understanding and appreciation of natural and coastal marine ecosystems through regular monitoring of key indicators of ecosystem conditions.
 - Require deliverables and reporting for funded citizen science to progress targets of Victorian strategies (whether Biodiversity 2037, the upcoming Victorian Coastal and Marine Strategy, or Port Phillip Bay Environment Management Plan).
8. Create a \$100m Victorian Climate Action Fund.
 - We endorse Friends of the Earth's proposal for a Climate Action Fund, so that positive cross-sector solutions are not unrealised due to lack of start-up funding.

²⁸ <https://www.arup.com/projects/community-services-climate-resilience-program-victoria-australia>

- In 2017, Victoria established the \$4.3 million Victorian Climate Change Innovation Partnerships (VCCIP) Grant Scheme to help community groups, local councils, businesses, and non-government organisations rollout innovative climate solutions. While the government received over 240 applications, the \$4.3 million scheme could only support 24 projects. Many others remain actionable!
9. Set decisive interim emissions reduction targets, or community efforts are undercut.
 - The Port Phillip EcoCentre continues to recommend a decisive, science-backed Interim Emissions Reduction Target for 2030 of 75% reduction compared to 2005 levels. We urge Victoria to legislate the 2030 target at 67% minimum, to align to the safe trajectory that caps global warming at 1.5C.
 10. Similarly, increase forest protection as carbon sinks, clean water source-points, and endangered habitat, lest community efforts toward climate change mitigation be undercut.
 11. Advocate national clean emissions standards for car exhaust; and promote electric vehicles.
 - Australia's weaker standards than the EU and US allow carmakers to 'dump' polluting cars here.²⁹
 - Electrified vehicles offer a range of other economic and health benefits.³⁰
 12. Mandate effective thermal and energy efficiency minimum standards for rental housing, including public housing, under residential tenancy laws.
 13. Prioritise equity and reducing disadvantage in climate change responses.
 - The suggestion in *Climate Change Adaptation Snapshot: Greater Melbourne* to 'encourage private and philanthropic organisations to extend their support to vulnerable groups' is strikingly insufficient execution of the Victorian *Public Health and Wellbeing Act 2008*, including:
 - S.4. **Objective** (1) The Parliament recognises that— (a) the State has a significant role in promoting and protecting the public health and wellbeing of persons in Victoria... (d) where appropriate, the State has a role in assisting in responses to public health concerns of national and international significance. (2) In the context of subsection (1), the objective of this Act is to achieve the highest attainable standard of public health and wellbeing by... (c) reducing inequalities in the state of public health and wellbeing.
 - S.5.6 **Precautionary principle** If a public health risk poses a serious threat, lack of full scientific certainty should not be used as a reason for postponing measures
 14. Negotiate novel partnerships with private insurance companies.
 - Fund community action, floodplain/coastal buybacks, or infrastructure that reduces both risk to communities and payout costs to insurance companies.
 15. Implement environmental audits into School Reviews.
 - In Victoria, schools are reviewed to make sure they are meeting the minimum standards and other requirements for registration. Schools are either reviewed periodically as part of a review program, or under a specific review if an incident occurs around student safety, or other exceptional circumstances.
 - Climate resilience of school campus (to extreme heat, bushfires, floods, air pollution alerts, etc) is and will increasingly be essential for the safety of children who are among the most vulnerable populations to extreme weather events.

²⁹ <https://theconversation.com/australias-weaker-emissions-standards-allow-car-makers-to-dump-polluting-cars-48172>

³⁰ <https://theconversation.com/clean-green-machines-the-truth-about-electric-vehicle-emissions-122619>

16. Provide grants for all schools (Victorian, Independent, religious) to retrofit thermal efficiency and ensure their rain tanks are functional and plumbed to flush toilets.

- In 2014, the Victorian Government made \$10k Energy Efficiency grants to schools completing the ResourceSmart Schools Core or Energy Module. As a result, many schools implemented comprehensive energy audits, converted to efficient appliances and bulbs, and improved thermal efficiency. A similar effective emissions-reduction grant should be made available to all schools.
- Through the EcoCentre projects like Living Water Workbees, we discovered between half of schools have rain tanks installed during the millennium drought that are either not plumbed to anything, have broken pumps, or are otherwise dysfunctional. Repairing and activating existing tanks is a reasonably efficient investment to save potable water (by flushing toilets with rainwater) and to divert stormwater in flood zones.
- State hospitals and other public buildings are also essential assets where efficiency retrofits will achieve energy, carbon and financial savings.

17. Lead an active, practical climate change education and communications campaign,

- Messaging should be united across multiple departments including: Department of Jobs, Precincts and Regions, Department of Education and Training, Department of Health and Human Services
- Partner with specific and practical resources like Red Cross 'Get Prepared' App.

6. Concluding comments

Community is a powerful player in our climate future. The roles and responsibilities for Communities and Individuals identified in Victoria's *Climate Change Adaptation Plan 2017-2020* include: reducing exposure to personal risk, developing innovative local response, explaining community needs to decision-makers, and encouraging on-ground adaptation measures.

We would add the critical role of fostering social connectivity, closely correlated to wellbeing and community resilience in emergency conditions. Research proves the net benefits and co-benefits of community-based initiatives to withstand and adapt to disasters (Gibbs et al 2015, Urbis 2015).

Vital investments for the climate change emergency must facilitate cross-sector collaboration, be assessed within regional contexts, and extend time frames beyond 3-year project windows (when impacts often only begin to emerge).

"Resilience is best built well before and far beyond the management of disasters and emergency risks. As well as promoting the wellbeing of people and communities in emergencies, its broader benefits include increasing the social and economic wellbeing of communities across Victoria."

– Victorian Council of Social Services

The Port Phillip EcoCentre urges the Environment and Planning Committee to recommend that Victoria make a variety of investments:

- **retrofits**, particularly mandatory thermal efficiency standards for rental properties; energy and water efficient schools; and ensuring all municipalities have extreme weather refuges
- **community-led connection hubs like a fit-for-purpose Port Phillip EcoCentre**
- **citizen science programs** that increase our understanding while bringing people together
- help **community service organisations** reduce service disruption during emergencies
- **communications** so that households know what 'extreme weather' or 'climate change' adaptation means, as tangibly as we understand and value 'bushfire preparedness'
- a **Climate Action Fund**, and
- **decisive Victorian policy** for protecting our incredible carbon-sink old-growth forests and a science-backed emissions reduction trajectory, lest bad systemic decision-making outweigh and therefore nullify community action.

Please do not hesitate to contact the EcoCentre for further information or clarifications.


April Seymore, Port Phillip EcoCentre Executive Officer