# *Warming up* Victoria

Building the capacity of community broadcasting
to communicate climate change

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# Executive summary

The *Warming Up* project aims to build community resilience through partnering with community radio— a vital sector of Australian media— to build confidence and capacity to have meaningful community conversations about climate change[*] to support adaptation, foster mitigation, and build preparedness and planning for climate disasters and events.

This project explores case studies of seven stations in Victoria that represent some of the diversity of the community broadcasting sector. Our sample included ethnic, Indigenous, regional and remote, and Christian broadcasters across the state, with fieldwork conducted in mid-2022. In consultation with CBAA, stations were selected for their interest in the project, and interest or experience with climate changes and impacts in their community. This study built on a pilot study conducted in 2020 in New South Wales.

Several key themes emerged from the study in terms of common barriers and opportunities to support climate change action in the sector.

**Key barriers to discussing climate impacts and action:**

- Station culture, which affects both programming on climate change discussions and internal sustainability efforts;

- Community context where local industry and cultures require sensitivity and support;

- Limits to the capacity of stations to 'do more' on activities related to a changing climate: from scoping and developing content and community collaboration, to preparing and responding to disasters affecting their community;

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[*] Climate change refers to changes in the world's climate that are due directly or indirectly to human activity and are in addition to natural climate cycles or variability.

- Limits to capacity due to existing services and load carried by stations mostly staffed by volunteers;

- Lack of clarity and significant concerns about the role, bureaucracy, responsibility, and trauma of being an emergency broadcaster and broadcasting during an emergency – relevant where climate change results in increasingly frequent and severe weather events;

- Other social, environmental and economic pressures in communities and impacts on volunteers, community, and fatigue; and

- Limited resources to build the skills and capacity of volunteers – across diversity of community radio sector.

**Key opportunities for stations in discussions of climate impacts and action are:**

- Positive station culture can overcome challenges: all stations were open to having more discussions on climate change and were enthusiastic (at both management and staff level) to be seen as leaders in community sustainability efforts;

- Diverse but receptive community context: most stations acknowledge their audiences have diverse opinions about climate change issues but do not consider this a barrier to including climate change-related content. Specific communities need different types of content depending on their interests, values, and recent experiences with climate change impacts;

- Willingness of stations, given relevant and sufficient support, to engage more with local climate change issues and impacts, and to build access and support local talent and champions;

- Develop stations' existing capacities to communicate with communities, focussing on climate change with thinking and practice that go beyond science communication models

and build on their richer understandings of locally relevant expert and experiential knowledge;

● Connect stations to the 'glocal' nature of climate change – a global problem experienced locally—and the unique position of community radio in unpacking diverse local impacts in ways that amplify hidden or marginalised voices;

● Reinvent/reframe stories of climate change through strengths-based and/ or trauma-informed approaches that highlight community strengths and point to hope, empowerment and possibility, while not diminishing the seriousness of climate change;

● Establish a feedback channel for governments, policy-and decision-makers and others interested in how climate changes are being understood, experienced and actioned locally: particularly for regional, rural and remote Australia, where the majority of stations reside; and

● Develop a national project, through a partnership between Griffith University, the CBAA, key sector organisations and other interested partners to establish key resources and sector wide practice and support.

This project, our previous NSW pilot report, and sector wide events have identified an appetite within the Australian community radio sector to lead its communities in climate action initiatives. In the production and broadcast of local stories, including and beyond news reporting, community radio can create meaningful and engaging content geared to meet the challenges and opportunities forecast by climate changes.

Future work could leverage the unique position of community radio in the Australian media and cultural landscape. A national *Warming Up* project would extend and deepen these results to further showcase the strength, innovation, and commitment of Australian community radio, locally and globally. Importantly, a larger project could bring critical

resources to support the sector, its peak organisations, stations and communities in developing local climate change communication strategies and techniques.

**Framework for the Community Broadcasting and Climate Action E-Learning course/s**

This project identified three key modules for an e-learning course that aims to build the capacity of community broadcasters to have meaningful conversations on climate change – from everyday climate-friendly behaviour, to preparing and responding to extreme events, to build community resilience by facilitating community connections and conversations.

**Module 1: Local climate change, stations and audiences**

The purpose of this module is to develop station knowledge of climate change and local impacts, to reflect on the existing context for climate change communication and to begin to identify local experts.

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| **About climate change** | <ul><li>Define climate change</li><li>Describe and discuss climate change communication and similarities and differences between climate science communication and community communication</li><li>Define mitigation and adaptation – what is the difference, how to address each and both.</li><li>Discuss community radio's existing strengths in supporting community resilience</li></ul> |
| **My community and climate change** | <ul><li>Describe climate change risks and impacts in your local area</li><li>Specify local direct impacts and the cascading and compounding impacts of climate changes upon community way of life</li><li>Connect global and local climate changes – discuss power of local</li><li>Discuss climate justice and how climate change amplifies existing disadvantage and how this is relevant in your community</li></ul> |
| **My station community and climate change communication** | <ul><li>Describe your station community and audience? Who are potential climate champions?</li><li>Discuss audience expectations of the station What are points of likely conflict? What are points of likely agreement?</li></ul> |

| | • What may be misunderstood? |
| --- | --- |
| | • How can those that participate in the station have conversations about climate changes? |
| | • How can the station reduce its carbon footprint? |

**Module 2: Engagement: Amplifying local climate change stories, building community connections and avoiding conflict**

The purpose of this model is to deepen stations understanding of the role local stories can play in fostering climate action, preparing their communities for the changes underway and those that are forecast.

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| **Local stories and climate change** | • Explore approaches to strength-based and solutions-based storytelling using sector case studies that showcase existing specialist programming and other general discussion within existing programs. |
| **My local experts** | • Guided exercise to help stations to identify local champions impacted by changes in weather including health professionals, local industry, emergency services, local government, local ENGOs, young people, and other community groups that use the station.<br>• Finding and using sources of official, reliable, relevant, and trusted climate change information and at times, beyond the local community context. |
| **My local stories of climate change** | • Scope local stories of climate change that empower without diminishing seriousness of threat or magnitude of challenge<br>• Consider existing cultural events and interests that may provide an entry point to discuss climate changes and impacts<br>• Scope potential stories of local people and organisations in climate action – from disaster preparedness and resilience; adaptations, local environmental behaviours, mitigating fossil fuels, and creative approaches to portraying climate action. |
| **Climate change and local** | • Avoiding (unhelpful) conversations about climate science<br>• Building confidence in the positive actions of individuals to make a difference |

| conflict and trauma | • Avoiding scaring or shaming people<br>• Fostering sensitivity to previous trauma and current changes in livelihoods and way of life<br>• Understanding how to keep conversations constructive and grounded in the local context |
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## Module 3: Stations and climate change Attributed disasters and emergencies

The purpose of this module is to enable stations to have clear guidelines and protocols surrounding disaster and emergency in their communities. This module can be a precursor to an application for an official appointment as an emergency broadcaster and/or prepare stations for their role in their communities.

| Preparedness for disaster and emergency | • A guided process to map what happens within your station in an emergency event. What are your expectations?<br>• Prepare for and schedule these conversations with the station community<br>• Decide what your strategy will be and map contingencies.<br>• Learn from other stations with experience of disaster and emergency broadcasting<br>• Consider 'creeping' disasters like drought alongside more acute events like cyclone or floods<br>• Canvass official emergency broadcaster criteria and procedure<br>• How will you manage official information and local advice during a crisis? |
|---|---|
| Disaster and Emergency Broadcasting | • Informed by the above exercise, identify topics for discussion with local emergency services and how you can support each other to manage an emergency event – officially, during and post event.<br>• Where do you need help and resources? |
| Post-disaster | • Identify your local community health 'entry point' to discuss existing and potential mental health needs and responses for station and community. How can you support each other locally?<br>• What events and initiatives might you establish or participate in post disaster? |

# Introduction: *Warming Up* Victoria

The national *Warming Up* project aims to build community resilience through partnering with community radio — a vital sector of Australian media — to build their confidence and capacity to have meaningful community conversations about climate change to support adaptation and foster mitigation. This project acknowledges and supports the innovative role played by community radio in broadcasting pioneering content to support often marginalised and diverse Australian communities. Climate change presents an opportunity for Australia's vibrant community radio sector to again lead through creating and tailoring content for its audiences to ready them for climate change impacts in pursuit of more positive environmental futures.

With the support of the CBAA and the Melbourne Lord Mayor's Charitable Fund, this second collective case study of the *Warming Up* project focussed on community radio stations in Victoria. The project involved in-person and online interviews with key station staff and analysis of other relevant case material including program guides, station websites, local government reports, and other grey literature.

Griffith University has a long history of productive engagement and mutually beneficial collaborations with the community radio sector. To this experience, we add expertise in climate change science, alongside knowledge of the impacts related to policy and governance, ecology and environments, business and industry, health, and critical understanding of the social and cultural impacts on Australian communities.

## Project aims

Throughout this project, Griffith University and the community radio sector worked in partnership to bring together research expertise in communication and media, climate change science and community radio to access embedded community knowledge and connections.

This project built on an earlier pilot study of community radio stations in New South Wales (Foxwell-Norton et al. 2021), which found several key barriers and opportunities, alongside a clear need for further targeted training opportunities. In expanding the *Warming Up* project, in partnership with the CBAA and the Lord Mayor's Charitable fund, the Victorian phase included a specific focus on the possibilities of sector-wide training and its potential impacts upon community radio stations

The pilot study aimed to do the following:

- Work with CBAA to identify seven community radio stations that express interest in being involved in a pilot project. Importantly, these included community radio organisations based in regional centres and those that are classed as generalist, Indigenous and ethnic.

- Work individually with these stations to identify their challenges and opportunities to communicate climate changes, risks and impacts.

- Conduct an evaluation with CBAA and the radio stations to capture lessons from the project, the NSW pilot project and scope future work that would inform the development of an online training course.

# Climate change and Australian communities

Concern about climate change is increasing amongst the Australian public. The Griffith Climate Action Survey found that 72% of Australians reported feeling 'fairly' or 'very concerned' about the effects of climate changes.  This percentage has increased from 35% when a similar survey was conducted ten years earlier.  Ending the decade long Australian 'Climate Wars' and its peddling of climate science distrust, this survey also found 77% of Australians accept climate change is real, with a further 16% unconvinced/complacent and a mere 7% outright climate science sceptics and deniers (Bradley et al., 2022).

There are many other markers for the changed context for climate action in Australia including the 2021 Federal election results and growing concerns over climate change attributed disasters, notably the 2019-2020 Bushfires and the 2022 Floods. To these we add the findings of the 2022 Intergovernmental Panel on Climate Change reports, especially Working Group II report, 'Chapter 11 Australasia' that again confirmed the societal *and* ecological cascading and compounding impacts and threats of climate change (IPCC, 2022). Alongside global reporting, national 'State of the Climate' (BOM & CSIRO, 2022) reports f confirm the same as do a host of other scientific and/or government reports focussed on particular ecosystems (e.g. Great Barrier Reef) and disaster events. These traverse humans and communities, other species and ecologies demanding multisectoral, multipronged responses – accommodating local to national, regional and global forums. The more heartening news is that it is not too late to act and any efforts to reduce global warming will have enormous positive consequences. This is the critical decade for climate action

It is well established that climate change will – and has already - dramatically altered the Australian landscape and way of life as extreme events and changes in weather patterns influence where and how we live. For example, the number of extreme fire weather days in Australia have doubled over the past four decades (Jones, et al. 2022). Recent extreme events in Victoria include the high-profile events of the bushfires and heat-related deaths of 2019-20 'Black Summer' and associated health impacts including respiratory illness, mental health and trauma, the swathe of economic impacts across all levels of governments and diverse industries and immediate human, flora and fauna casualties. Other weather events in Victoria were also sufficiently damaging to require disaster support: there were eight storm and/or flood events in the state in 2021 and four already by April 2022 (Australian Government, 2022). These events, and their increasing frequency and severity, provide a glimpse of a climate-altered future in Victoria and far beyond its borders.

Climate change is a wicked problem: a problem that is "difficult or impossible to solve because of incomplete, contradictory and changing requirements that are often difficult to recognise

or define" (Hulme 2019, p. xxvii). Climate change impacts and solutions traverse the economic, social, political, economic and cultural fabric of our communities and societies. Preparedness for, and resilience in the wake of, climate changes can help reduce human and ecological suffering in the short and longer term. Critically, climate change is an issue of social justice, with causes and impacts spread unevenly across society. Already vulnerable groups are the most affected by the 'slow violence' of changes in climate, with poor and marginalised communities experiencing the 'long dyings' of climate change and other environmental challenges, increasingly punctuated by extreme weather events (Nixon 2011).

For example, more susceptible to heat-related deaths are the very young, elderly (75+ years) and chronically ill (Arriagada et al., 2020) and migrants that are isolated and older or new migrants with low income and little English (Hansen et al. 2014). Remote Indigenous communities are particularly vulnerable to a range of risks, including extreme weather events as well as affected life basics (drinking water, air quality, food safety, food security, housing) plus adverse health effects (Hall & Crosby, 2020). And during an extreme event and emergency evacuations, marginalised groups such as LQBTI+ individuals may experience additional anxiety and discrimination (McKinnon et al. 2016). Women and children also experience climate change impacts disproportionately where, for example, rates of domestic and family violence increase in post climate disaster events (Desai & Mandal, 2021). People living with a disability are also impacted by climate changes in ways that compound existing challenges (King & Gregg, 2021). This list says nothing of other species, not human centred, that are the most vulnerable and least responsible for climate changes. Climate changes, existing and forecast, will continue to augment existing disadvantage in Australia and globally.

## Why community radio and climate action?

Community radio in Australia, since its inception, has been premised on empowering marginalised communities. While it has limitations, community radio remains well positioned media to nurture locally relevant responses to climate change and associated challenges and

catastrophes (Foxwell-Norton, 2016; 2015, Foxwell-Norton, Backhaus & Leitch 2022). This role, already being undertaken by some in the sector, is a peerless opportunity to bring local voices and experiences to the patchwork of climate change impacts so characteristic of a country as geographically and culturally diverse as Australia. Community radio has always expressed Australia's diversity and with climate change, can again leverage its priority of local action and production in the service of both local and global communities and environments. It is, in many ways, a useful synergy between the ambition and achievements of community radio stations and those of climate change action, where local stewardship and action is essential to meaningful efforts and success.

Community radio offers a unique pathway to community-engaged climate action, through access to the culturally, linguistically and geographically diverse communities that characterise the sector throughout Australia.  These 'everyday' people and communities are often acknowledged as critical to climate actions though have limited power and/or representation in traditional corridors of power that necessarily characterise international climate change conferences, national summits and the like. *Warming Up* is climate action grounded in the communities that are experiencing changes, impacts and disasters. This climate change communication involves a bottom-up engagement through the local cultural resource of a community radio station.

The nation's current capacity to respond— as communities and as a society— is hampered by the well-established practices of Australian mainstream news media—primarily through its commitment to immediate, spectacular events and its consistent reporting of elite sources and perspectives that marginalise communities that exist outside traditional sites of power and authority. Community radio, due to its commitment to community, can tackle the 'slow news' of changes in climate and community opportunities and challenges: stations have performed a critical role in communication around a range of disaster events and the sector can also support longer term community adaption, readiness and responses. In the production and broadcast of local stories, including and beyond news reporting, community radio can

create meaningful and engaging content geared to meet the challenges and opportunities forecast by climate changes.

Meaningful and engaging content embraces the diversity of communities that characterise Australia and importantly, the land and country upon which they live that necessarily shapes and distinguishes their everyday. This diversity is also reflected in the range of existing and forecast climate impacts. Climate change communication thus requires engagement with the complexity of communication in context, where local meanings and experiences are critical to producing stories capable of helping local people and communities to understand their capacity to act – alongside amplifying existing efforts and achievements. Our best practice climate change communication leverages the more than verbal tie between the words 'common, community and communication' (Dewey, 1916).

Community radio has many characteristics that make it a powerful ally for local, contextualised climate change discussions. It is worth briefly delineating between two dominant approaches to target communication on community radio: an information-dissemination, top-down model and a dialogic, participatory approach and. For the top-down model there are many examples, particularly within the field of international development, where community radio is viewed merely as a one-way communication tool - one that transmits information and seeks to transfer knowledge through a "diffusion of innovations" approach (Rogers, 2010). Much climate science communication would also fall into this 'deficit' model that persists despite attempts at more participatory models (Simis et al, 2016). Some organisations see radio as a 'quick fix': a way of disseminating messages rather than investing in the kinds of sustained, participatory programming typical of community radio (Center for International Media Assistance, 2007). Far more useful is the wealth of literature describing the dialogic, participatory approach that sees community radio as an essential component of a rich local communication network. In this approach stations and practitioners are deeply interwoven within the fabric of communities and their geographies – as a 'geo-community media' (Foxwell-Norton, 2018) and therefore are well-placed to help communities

interpret and contextualise environmental information and issues in ways that are locally appropriate.

Also important is the widely recognised role played by community radio in training. This is particularly crucial for student journalists and aspiring broadcasters that may ultimately move on to other media sectors, who not only learn technical skills and hyperlocal reporting, but also how to report sensitively on marginalised groups (Forde et al., 2002). Training received through participation in community radio has been found to benefit workers in the creative and cultural industries more broadly (Anderson et al. 2021). The community radio sector is uniquely positioned in terms of training: with well-established training channels through peak bodies (such as those offered by the Community Broadcasting Association of Australia First Nations Media Association, National Ethnic and Multicultural Broadcasters' Council, and Christian Media and Arts Australia), a dedicated national training organisation in the Community Media Training Organisation, and many stations tapping into training as a revenue stream, there is an openness to and significant experience in both conducting and receiving training. Thus, training represents an important intervention to supporting broadcasters to be better equipped to discuss aspects of community resilience such as adaptation to climate change and mitigation measures. This could include news reporting but is better understood as a 'whole of station' strategy that is premised on climate impacts across the social, cultural, political and economic tapestry of community life.  This project has focussed on identifying the training needs and wants of stations in relation to communicating about climate change.

# The potential of community radio in climate change communication

Climate change impacts are experienced locally and therefore meaningful responses, that make sense in terms of how people live their daily lives, should also be local. Australia's community radio network represents the immense cultural and geographical diversity of the

'local' that is typical of Australia. Different sectors and places have, and will continue to, experience changing weather and climate in ways that are both similar to, and distinct from, other communities (Adger et al., 2005) and possible responses will be many across sectors, institutions and places. Community radio's potential is specifically related to its core strength in telling local stories about place and people. It is here that the sector can contribute to climate action by doing what it has always done, which is to engage diverse communities in local media participation, production and broadcast. This level of community engagement is often sought by those pursuing action on climate in powerful international and national forums though is notoriously difficult and complex work. Community radio is built upon this complexity and this established network of local engagement and participation can be leveraged for climate action.

Climate change impacts vary by place and so impacts in Hobart will present differently to those in Broome or Bendigo and be understood differently by local people and communities. Being able to understand local risks and various impacts means that communities can be better prepared for discussions, to make informed choices and consequently better minimise or avoid some of the suffering, trauma and loss associated with climate changes – existing and forecast. Being better prepared—through community-engaged planning processes — enhances community resilience as it tends to support community building and learning activities, and locally appropriate responses to challenges and opportunities. This requires a meaningful engagement with people and their communities that is capable of leveraging local meanings and understandings, always underpinned by the rigour of climate and other sciences. Indeed, local responses should not be stymied by command and confidence in the mastery of climate sciences. Rather, climate change understood as a 'wicked problem' that pervades the social, cultural, economic and ecological fabric of communities (see Hulme, 2009) is a more realistic presentation to explore challenges and barriers to climate action. Communities can provide other local 'experts' within diverse community settings—from

health to education, emergency management to insurance, building to farming and so on—to communicate climate changes and the need for action.

Community radio is ideally placed to guide local responses to climate change for their role in supporting communities that they serve. These radio stations are deeply embedded within communities, with an intimate knowledge of the prevailing values, attitudes and beliefs, as well as the local political, economic, and socio-cultural context (Anderson et al., 2020). They are uniquely positioned, already engaged in local storytelling that will help guide responses to changes that lie ahead. They also play a valued role in pioneering initiatives to support Australia's marginalised and/or vulnerable communities, which are typically groups most at risk from the adverse effects of climate change. These stations also provide a feedback loop for governments and others interested in how climate change and its current and future impacts are being understood, experienced and actioned locally. This is especially the case in regional, rural and remote Australia, where the majority of stations reside.

## Community radio and emergency broadcasting

Recent fires and floods have provided a glimpse of a climate-altered future, but also illuminated the existing and potential role of community radio in supporting communities to be resilient to disasters. With projected increases in climate-related emergencies, community radio has expanded its current role of providing crisis communications assistance (CBAA 2020), supporting a range of agencies to provide listeners with accurate information from official sources, alongside ongoing discussions about climate related local issues.

The role of community radio in disaster management has been widely acknowledged, particularly during the disaster event itself, and the subsequent phases of clean up and recovery. Community radio is recognised as a vital part of Australia's multi-modal emergency response as a source of emergency warnings and information (Binskin et al., 2020, CBAA, 2020); and are trusted information providers of this information (Ewart, 2020). Local radio can provide highly detailed local and 'very granular' information and sometimes, may be the only

source of information for communities in which disasters were unfolding (RadioInfo, 2020). For example, community radio and ABC radio were able to provide critical information to some remote and isolated communities that had lost other channels of disaster information during the 2019-2020 fires (Binskin et al., 2020) and the 2022 floods (CBAA 2022a). In both these fire and flood events, critical communications infrastructure was lost and with it, landline and mobile phone, television and internet connections. Furthermore, Indigenous radio stations are the only source of news and information for 89 regions across Australia (CBAA, 2020; Binskin et al., 2020). During the 2019-2020 Black Summer bushfires, emergency warnings and advice were broadcast by more than 80 community radio stations to fire affected remote Indigenous communities (Royal Commission, 2020: 308).

Following the disaster event, community radio stations also play a key role in the clean-up phase, which involves identifying and supplying the immediate concerns of the community in terms basic needs such as shelter, food and water and medical help, including psychological support. It also involves cleaning up and making safe the physical environment such as clearing and cleaning dwellings and businesses This clean up phase tends to last for days to weeks, before evolving into the rebuilding and recovery phase that extends for years.

Community radio stations have demonstrated that they well placed to coordinate recovery efforts the community—which is increasingly involved in disaster clean ups—as evidenced in 2019-2020 bushfires (CBAA, 2020) and 2022 floods (CBAA 2022a). They can marshal volunteers for ash or 'mud' army clean-ups, foster community dialogue to talk through ideas, connect people to address social isolation and link people with the services and supplies they need (CBAA, 2020; Binskin et al., 2020). They also are important fundraisers: for example, as part of the bushfire recovery in the NSW Southern Highlands in NSW, Highlands FM helped with the community fundraiser "FireAid 2020" that raised $300k.

# Emergency broadcasting arrangements in Victoria

Australia's National Strategy for Disaster Resilience (NEMA, 2022) encourages community level responses to disasters through reducing disaster risk and building community resilience to hazards. State governments are primarily responsible for emergency management arrangements within their jurisdiction. In Victoria, this is managed through the State Emergency Plan, which outlines the State's integrated warning system that provides information and warnings for communities, and the role of emergency broadcasters therein (EMV, 2022).This also outlines the requirements for a media outlet to be an emergency disaster broadcaster, including the requirement for an MOU that outlines key obligations that include how and when emergency warnings are broadcast. Currently, around ten community radio stations are official emergency broadcasters (CBAA, 2020)

# Case study of community radio in Victoria

Seven community radio stations[*] located in Victoria participated in this project. In selecting these radio stations, the research team worked with CBAA to identify stations that represented the diversity inherent in community broadcasting, stations with a focus on multiculturalism, faith, youth, Indigenous and/or located in rural and regional locations. Given the role of community broadcasting in disaster response, we were also interested in stations that had experienced extreme weather events in their location. The same selecting criteria were used in a pilot study of community radio stations in 2020 in NSW (Foxwell-Norton et al. 2021).

Three of the stations were located in regional cities

- **94.7 The Pulse FM**, in the City of Geelong was chosen for its regional city audience, environmental and multicultural programming and experience with extreme weather events (such as bushfire).

- **94.9 MainFM**, in Castlemaine was chosen because it is located in a regional city known for its progressive, environmentally active community. The station also has an allied podcast 'Saltgrass' that focusses on local climate change issues and stories.

- **105.1 Life FM**, in the City of Greater Bendigo was chosen because of its regional city location and its faith (Christian) community.

Two of the stations are located in metropolitan Melbourne

- **3KND**, in Preston, was chosen for its urban location and as an Indigenous broadcaster.

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[*]Appendix (p54) provides additional station descriptions and outlines climate change impacts and risks.

- **3ZZZ**, in Brunswick, was chosen for its urban location and its focus on multicultural communities.

One station is located in sub metropolitan Melbourne

- **3MDR**, in Dandenong Ranges was chosen because of its sub metropolitan location, reputation as a progressive and active station, and experience with extreme events (frequent bushfires including Ash Wednesday in 1983, and more recently, a storm in June 2021).

One station is located in remote Victoria

- **3MGB**, in Mallacoota was chosen because of its remote location (around 500 km from capital city Melbourne and surrounded by national park and adjacent to an undeveloped coastline); and its experience with extreme events (2019-2020 bushfire) and recovery.

We visited most of the stations between 4-10 May 2022 for in-person interviews that lasted between 60 to 90 minutes. For two stations (94.9 MainFM and 3KND) we conducted online interviews as the interviewees were unexpectedly unavailable. The interviews were recorded and transcribed, then imported into NVivo for analysis.

# Key findings

The station managers from seven radio stations that participated in this study were based in different locations (metropolitan, sub-metro, regional and remote) with different communities (geographically, and culturally including multicultural, Christian, First Nations communities). Themes emerged that highlighted common issues, barriers and opportunities alongside distinctive needs of specific communities.   This is a limited case study of seven stations in Victoria and a larger project can *(inter alia)* further investigate the stations, audiences and their responses to climate changes and impacts.

## Meaningful discussions about climate change

### *Climate change as an issue for discussion*

The issue of climate change has become politicised in Australia in recent decades, and this was reflected in the interviews. When station managers were asked if there would be concern or push-back from presenters in response to efforts to prompt discussions of climate change, some responded that some presenters or programs 'don't do politics' (Life FM, 3ZZZ) or 'don't do news' (3MDR). Despite this, all the stations managers interviewed were not concerned about raising climate change related topics in their community. They were also keen to learn more about the topic and how to foster constructive discussions.

Station managers did report that their communities are diverse in their opinions on many issues, including climate change, though did not see this as a reason for avoiding discussions of such 'hot' topics. For example. the Mallacoota community has a history of resource extraction – the town was built for timber logging and abalone and still retains this fishing industry. It has since become a place where 'wilderness' is highly valued with many 'greenies' now visible and active. Consequently, there are likely to be some very different positions on climate change.

*You've got your mix of abalone divers and fishermen. And then you've got your loggers. And then you've got your greenies. And this whole area, It was built on that industry of timber logging. So you have real diverse kind of community. Yeah, when it comes to it, we all stick together … But yeah, there's definitely different views - from people who are not particularly concerned about the environment to those who are incredibly passionate.*

The 3MGB manager is keen to have climate change discussions, recognising that diverse views are held in the community:

*I would welcome that - it wouldn't bother me— because it raises the discussion when people talk. So, if we're talking about climate change and there's those who maybe don't agree with it… that wouldn't bother me at all. Obviously, everything's run by a committee…but all the people on the committee, they would be incredibly supportive of those messages getting out… There are a few people that would be very interested and passionate about talking about it and making it work. 3MGB*

PulseFM broadcasters are now more willing to have climate change conversations as they think that climate change discussion is more normalised than polarised in the wider community as a result of recent extreme events:

*I think a lot of (presenters) were scared-off by sceptics. You know, [sceptics] saying "[you're] trying to present these other facts that weren't quite true and blah, blah, blah" because they didn't want to get in any trouble where they might have said something that wasn't right. But I think now most people [are] over that, as well…There's big changes since the bushfires where people really want it to be front and centre of everything that they do. PulseFM*

For MainFM, the station manager identified climate change as a key priority for the station's community, which was subsequently reflected throughout a range of programs.

*We have quite a few shows that focus on climate change, but also the issues of climate change spill over in conversation into many other different shows as well. We have a really popular gardening show where that crossover occurs. 'Hearsay' (which is a political talk, news, current affairs show), it will spill over into that. so, I feel like, yeah, that's definitely a priority for the community, ...Castlemaine ... has a really strong active community around climate change and permaculture and off-grid living. MainFM*

Resources – human and financial – were predictably at the fore of all conversations.  To attract additional volunteers, the 3MDR station manager suggested an appeal to both those within the existing station community and the wider community:

> *being able to engage with the internal community at the radio station and our wider community as well, as who's interested in talking about this. And, who's interested in producing it and presenting it to a wider audience.3MDR*

### Stations need support for meaningful local discussions

Stations considered it essential to have ready access to useful information to foster discussions and activities relevant to their community:

> *I'm not going to sit through and trawl through papers for hours to try and find the right things to talk about…Having the content produced already, we could go "cool" like I was saying before, "yeah, dig that up and plug that into a show" and then we can relate it back, possibly to our space here that would be useful.3MGB*

Having resources readily available — including support for the time required to prepare resources — would foster station participation in local climate change conversations.

> *It's just (having) information that is given to them [i.e.broadcasters] PulseFM*

> *It's a time thing and it's not just me, it's everyone. like I'd love to sit there and be informed and briefed on something that I can go and talk about. That would be great, and I'd do that, and I know others that would as well.3MGB*

Station managers considered bringing expertise to the station and broadcasters from the local community as way to lessen concerns about additional time demands:

> *I think one of the things you find if you tried said to people "you know this is the training we're gonna provide", they'd still feel a bit like: "Oh, I don't really know that much about it. You know, I'm kind of, I'm just new at this so I won't really ask those questions or I won't do this." But if you can provide an expert ...with a blurb about what they do and what they say then presenters will take it up PulseFM*

Accurate and information from trusted sources was also expressed as essential:

*We would need would be access to accurate information if you're communicating that, I think it is a huge thing for it to be properly reviewed and researched information. Trusted information and all that so it feels that they can't fob it off. Or if they do, that's up to them. 3MGB*

As well as having information relevant to their audience:

*Having the content to start with. If you've got an hour programme that's about climate change, that's all well and good, but you'd need the local stuff too. So, whether or not that's specifically, someone talking about bushfire or specifically, you know, something that relates to here, is really important for our audience. Making it relevant to here somehow. 3MGB*

Specific training around fact-checking and strengths-based storytelling were identified as specific areas for potential intervention:

*[Presenter] has that has that unique skill and gift of being able to engage with the content of climate change. But [to] do it in a way that isn't overwhelming or too heavy, or that leaves a person with feelings of helplessness and anxiety. So, I think training around that – around how to engage with the content in a way that is positive [would be useful].*

*I'd also suggest some really strong training around fact-checking and accurate information to share. And connection to resources both state-wide and locally that can give people good information, like facilitating conversations with the CFA's and Sustainability Victoria and the other sort of government departments that work on any of those regions. MainFM*

Throughout our fieldwork, station managers exhibited a deep understanding of their communities. This local knowledge is a significant ally in efforts to bring communities to climate action including disaster and emergency broadcasting and the multitude of impacts that accompany climate changes.

Ethnic broadcasting and its range of culturally and linguistically diverse communities epitomises this existing and potential role. Ethnic station 3ZZZ noted the need for '…champions, those people who can talk in language about [climate changes] is where the cut through would be for us'. Migrant groups can offer an opportunity to be climate champions for their own community: important is the trust that comes from of hearing discussions in their own language

## *Indigenous broadcasters and talking 'Country'*

Indigenous station 3KND noted the distinctive way in which their station and other First Nation's broadcasters were always talking about climate changes insofar as climate changes is about noting changes to 'Country'. The Australian Institute for Aboriginal and Torres Strait Islander Studies (2022) explains that

> [C]ountry is the term often used by Aboriginal peoples to describe the lands, waterways and seas to which they are connected. The term contains complex ideas about law, place, custom, language, spiritual belief, cultural practice, material sustenance, family and identity.

Exploration of the complexity of First Nations Australians relations to Country is distinctive and complex, requiring more space and respect than we have afforded in this report. It is critically important to note however, that for Indigenous broadcasters, relationship to Country is sacred, permeating culture and its relations to nature and each other. The power to assume land and sea as 'possession' is symptomatic of, and fundamental to, 'patriarchal white sovereignty' (Moreton-Robinson, 2015). This assumption, so prevalent in mainstream Australian society, is in stark contrast to First Nation's people's sense of belonging or being a part of nature. as 3KND station manager explains:

> First Nations People have a responsibility to this country before anybody else. That is in the weather; it's acknowledged or talked about, or it's evident. It is. So, to have a program, to get all this evidence that the news is seeking, is always to include culture in all of this. This always includes that connection. What it means – it doesn't always have tangible evidence connecting at all, but it's in that story.  Allow the story to be told. Allow the song to be sung and it to be danced in all the ways with the vibrations of the land, and you will find that the land will respond to this, cared for and in such a way that it's loved. And so many people—black and white—are worried about country, are worried about our planet and where it's all going.

The 3KND station manager emphasised the power of storytelling, particularly important given the powerful oral history traditions of First Nations people (Smith, 1999), and the potential to foster caring for country:

> A message about 3KND that will help us and help Indigenous media is how important our storytelling, how important the message is that we give out about country, about the importance

*of why First Nations people are relevant to the future of this country. How, if they aren't looked after and cared for, then the country that they protect and the country that they sing, the country they dance for, all become barren of soul*

For Indigenous communities, discussions of climate change are entwined and expressed in cultural heritage and practice of caring for Country   In this sense, discussion of climate changes and broadly environmental changes are implicit for 3KND and other First Nations media:

*We have a lot of those conversations through interviews. As a specific program, no we don't. We are not a stationed that is resourced to do everything like that and it is very important. It's not an obvious show [or] obvious conversation, but it's a conversation that's held every week. 3KND*

Recent work by the *Warming Up* research team in partnership with Wilcannia River Radio, an Indigenous broadcaster in remote NSW, echoed these 3KND observations regarding relationship to Country and its omnipresence in radio programming.

### The role of the arts in conversations about climate change

*I think the art world as a major, and always has, played a major role in the health and wellbeing of communities and raising awareness in that sort of thing and that needs to be protected, nurtured, developed, enhanced at all costs.3MDR*

The Australian community radio sector makes an extraordinary though under acknowledged contribution to the creative and cultural industries, especially in terms of growing and supporting local talent and initiatives. This is done through supporting local musicians, telling the stories of local artists and creatives, promoting local events and generally, fostering the creative life of communities. First Nation's broadcasting, as a first level service for Indigenous Australia, is necessarily connected to the art and cultural practice of its communities (CBAAb, 2022). These strong links with creative and cultural communities presents opportunities for stations to engage local creatives in conversations about climate changes. In illustration, 3MGB is co-located with the local art gallery, and so broadcasters and artists readily interact. The colocation came about because a local philanthropist funded construction of a purpose-

built radio station for the Mallacoota region and later decided to extend the donation to building a community art gallery. 3MDR is also part of a creative community.

> *We've got a great amount of creative community up here in the hills. Musicians, arts, visual: all sorts of mediums and things like that. We're only an hour out of Melbourne, but it seems to be a different world up here. 3MDR*

MainFM sees itself as a connecting force between the different arts and music communities of Castlemaine:

> *A priority for the community is definitely around the arts and music scene. We have (for [a] small town) we have at least five music venues that host live music. You know, three nights a week – which is (again) for a small population, punching well above its weight. So yeah, there's definitely, I guess that priority of Maine FM being a connecting force between the artist/ local musicians in town and the community.*

Often local creatives were already producing art with an environmental theme. Art was considered to be a useful means to communicate about climate change as its message could be evocative rather than direct, which was helpful in communicating a polarised topic:

> *That that's the beauty of the arts too, I guess. Is that it can also be ultra-confronting. You know, the graphic detail visually, aurally, and that sort of thing, or it can be that subtle…*

> *It's a trigger, isn't it? For some people, if you're a climate change denier and as soon as somebody mentions that, that's it, they've shut down and they're opposed to it… But art is such a powerful medium, whether it be a visual or sensory touch, tactile or aural experience...It can just worm its way in without you even realising. 3MDR*

While creatives in communities that had experienced extreme events were producing art that reflected the physical and emotional elements of that experience. There are meaningful opportunities in using creativity in disaster and trauma recovery:

> *Some arts projects came out of the recent storm event, last year.  Selby Community House for example had an exhibition by two artists from that - that was as a result of the storm damage. 3MDR.*

Mallacoota has a vibrant music and arts community and there had been some community creative projects that were supporting local people to tell their story of loss and recovery.

> *Our community is definitely finding creative ways. Yo (Yolanda Oakley) is an amazing artist. She's done a lot of the work out there (in the gallery) and a lot of that was post fires and just telling stories about the experience here… Don Ashby has written poetry about his experience of the fires post disaster—he lost his house— and his experience of it… Don and Yo are producing a book called "The Artworks" with all the poems and art –Don's words and Yo's pictures. That's an artistic example of the post-climate change effects, where people are creating and expressing themselves through their art. 3MGB*

These connections between stations and local creatives are a likely resource and partnership given existing relations with stations and the potential role of the creative and cultural industries in communicating climate changes (Hollo, 2018).

## Climate change as everyday behaviour

### *Existing programming on environment, climate change or community resilience*

The station managers interviewed for this project reported a range of existing specialist programming alongside the inclusion of climate change discussions within existing programs. PulseFM acknowledges their diverse audience with broad political learnings, which has encouraged them to include climate change information in general programming so everyone is exposed to information on climate and its timely and 'they can have those discussions constantly':

> *We like to leave it (climate change topics) in the general stuff –it's good to have the one specialised program, but when it becomes a specialised programme, people switch off because they [think:] "oh, it's just sustainability, right? So, it… moves it out of the limelight, which is what most people probably don't want. They want it to be part of a regular programme that has other information on it, because it's all those linkages to politics and whatever else. PulseFM*

Formerly, Pulse FM had also hosted 'The Sustainability Hour' that discussed topics of climate change, sustainability and solutions relevant to the Geelong region. Similarly, while 3MGB has

no specific environmental programming, given it is a community in recovery from a major bushfire event, many issues discussed are concerned with disaster recovery, including community building events and arts activities that may include a disaster or climate change theme. 3ZZZ, as an urban, ethnic broadcaster offers multicultural programs that focus mostly on current affairs and issues in Australia across approximately 60 languages and cultural groups. The station has no specific environmental programming though the station manager indicated that given the number of languages, there may be climate discussions within existing programming.  As mentioned in the previous section on Indigenous broadcasting, caring for Country is necessarily a key thread that runs through many of Indigenous station 3KND's interviews and talk segments:

> There's not so much [like]: 'OK. We are gonna talk about connection to country now.' No, it's like: 'when I went out onto our land, this is what I found: the land was drying up, the waterway…the government now has changed the pathway of our water, which now has taken away from cultural land, and all that has now changed the whole diversity of our country.' Sometimes it's not an obvious conversation, but it's very clear what it is that they're talking about.

Specialist programming was a feature of MainFM and notably its flagship climate change show 'Saltgrass' focuses on the "climate crisis at a local level" (Saltgrass Podcast, 2022) The program features interviews from local people (from activists to children) undertaking climate-related activities to different types of technical experts, including climate scientists, psychologists, health workers, farmers and ecologists. *Saltgrass* is listened to across Victoria and beyond: in April 2021, it was mentioned in *The New York Times* as one of five noteworthy climate podcasts. It has also been recognised through being a finalist in the Jackson Wild Media Awards in 2021.  Ali Henley, the producer of Saltgrass and a key volunteer at MainFM, explained the rationale behind her approach to the podcast:

> 'Salt Grass' is one of the shows that is focused entirely on climate, and that's all we've got in our grid. … Many of the other shows touch on it and cover it regularly. But it's not their core focus. And the other show - it's got a presenter who looks at global issues and looks at big news stories and shares what's happening on that scale. And I deliberately chose to tell stories from the community and about the people who are taking action. So I was very interested in the humanity and the

*human-scale action, and not about "what do we recycle?" (and what do we…) That's the thing, but my real purpose was to share stories, so that people would feel like someone who's relatable to them is doing something, therefore they could maybe do something within their community, at a community scale*

MainFM also broadcast a weekly show 'Down to Earth' where the focus is environmental and social justice aspects of the 'human condition', including 'systems, laws and habits, cultures, biases and politics'. 3MDR has programmes that include environmental issues, and broadcasts *Saltgrass* produced by MainFM and 'Bring Down the Birds', which includes music and information and chat about birds and bird-related issues including migratory bird habitats, habitat loss caused by climate change or development and deforestation. Other lifestyle focussed shows, such as 'The Good Life', or 'Tool Time' touch on environmental issues too. The 3MDR station manager explained that they wanted to reboot a previous program, the Sustainability Show to have more localised content:

> *We do have topical shows, so we broadcast Saltgrass and we're hoping that we'll be able to get our Sustainability Show crew back because while Saltgrass is amazing and you know, it's localised to Castlemaine, but obviously a lot of the principles are global. 3MDR*

Life FM doesn't have any environmental programs but are open to having some. But would want them to be locally relevant:

> *I think we probably wouldn't take syndicated. We'd be more likely to get information and use that information to do a local application of it.*

> *So if we can get the local person, we will go for the local - that's the right thing to do*

The Life FM station manager did mention broadcasting public service announcements during extreme heat events:

> *We run government commercials on heat, heatwaves and on heat treatment and people being careful etcetera…but they're recorded, they're not (something we developed…If the guys are on then of course they'll talk about it. Life FM*

The role of community radio in broadcasting these public service announcements, forewarning of extreme heat and weather events, tailored to specific communities is well known within the sector and has been acknowledged by governments, lately fire and floods (see CBAA, 2022c)

### *Suggested programs*

During our interviews, stations had ideas for program that, given adequate resources and support, they'd be keen to pursue. Engagement with young people in the community is seen as a key are of opportunity among the community radio stations involved in the project (3MDR; 3ZZZ). Networked programming, in shorter and longer formats, was also suggested:

> *I would love to see network programmes available for us - half hour programmes; four-minute programmes; one minute-ers. One-minute bites would be fantastic. You can say a lot in 150 or 75 words and its 150 in a minute. But you know, really pithy comments. Life FM*

> *Something like the five minute "what's on this weekend" sort of idea. It's snappy, you can find out what's happening in your local area and all those sorts of things. So having that across your programming week. 3MDR*

> *Maybe five-minute short segments. It's a lot of work even just to produce five minutes, particularly if it's constantly being updated and those sorts of things. Just pointing people to where they can get more information. Or if there are community forums going on, how they can catch up with like-minded people, how you can delve into it for the first time. It's like you know, "it's been on my mind. I just don't know how to get involved". Or you know "what's the commitment. What's my responsibility?" 3MDR*

### *Leading by example: stations' climate-friendly behaviour*

Each station has its own mode of operating that reflects its community, its capacity and its culture and this influences how it approaches its own environmental behaviour. Some stations are proactive in promoting environmental behaviours for their station, particularly for green-sources of power through installation of roof solar panels. This was motivated by an organisational desire to reduce costs and be more environmentally friendly, but also to lead by example in the broader community. The move to more environmentally progressive

practices was either initiated by the station manager or the board and relied on the capacity of a staff member or the motivation of a volunteer to seek grant funding for environmental projects.

Ethnic broadcaster 3ZZZ approached environmental initiatives initially as a cost-cutting measure. The push for the renewable sources of energy came from the station council having:

*monitored the electricity costs in recent months and that's where they put an action item on me to reduce the electricity costs wherever they can. Which meant sourcing the LED lights - so it is good to have them in. 3ZZZ*

3ZZZ also had a well-developed knowledge of funding sources for environmental initiatives. Other activities, like having an electric car, was also part of promoting the station to look 'like a modern, progressive climate friendly organisation'.

*Yeah, being visual about it and then it's a case of once we do this, we can then put together the case study to show this is what we've done as a station where we can promote to other radio stations and then to our own broadcast team.3ZZZ*

Leading by example in their community was the motivator for Christian station Life FM to adopt more environmental practices. The station manager acknowledged that he has strong support from both the board and volunteers in adopting environmental initiatives.

*When I when I said to my board I want - we must go green, and I think it's an example for the Christian radio to be a green station. There was immediate take up and no "oh no climate change, blah blah blah"…people said "yes, we should exactly do that". Life FM*

3MGB had one volunteer that was very motivated to make the station self-sufficient through successfully sourcing grant funding for solar power for their building. Similarly, PulseFM, after five years of fundraising, was able to install a solar system in 2020 to meet both environmental goals but also to demonstrate sustainability thinking by their station.

Stations had plans to expand their environmental activities that would also benefit the community. 3ZZZ are planning to build better bike racks to encourage greener commuting to the station. 3MGB are planning to install an electric vehicle (EV) charger behind their building

as a way of encouraging environmental tourism. EV chargers are already located along the main highway in towns either side Mallacoota so the station thought that having a local EV charger would encourage EV-tourists to turn off the highway and come into the town.

> *It feeds the (town's tourism) economy to do that sustainably – and working with nature as opposed to pushing against it. 3MGB*

3MDR also had acquired a grant to develop a community garden: "the idea was to incorporate the school and grow some veggies", but that had been stalled by the COVID pandemic.

3MDR had also considered ways to green their practices beyond energy. For example, 3MDR was reducing waste through a kitchen compost but, more usual was that they were making their own reusable disinfectant wipes for wiping down shared equipment and surfaces around the station.

Some stations, however, are limited in their ability to take on a highly visible leadership role, at least spatially. The precarity of some station premises make it difficult to implement bigger changes such as solar power. For the station manager of MainFM, it is both the aging facilities that house the station and the leasing agreement preventing any major green upgrades.

> *I'm definitely struggling with trying to figure out how the station can improve our own green credentials and that's complicated. Where we're situated at the moment is the old hospital [which] is owned by Castlemaine Health. And they will do something with it at one point, when they get enough money, they will either demolish it or refurbish it and turn it into another type of health facility... But I'm in the process of, you know, drafting what our requirements are and the switch to renewables would be ideally part of that move. But at the same time, I don't have no way of gauging how much electricity we use. I assume it's a lot. But I actually have no way of knowing. So that's frustrating. MainFM*

# Climate change as disaster management[*]

Both 3MDR and 3MGB were established following the Ash Wednesday fires in 1983. During these disaster events, existing communications had failed leaving the community without any information: this highlighted the need for a local community-focused radio station that was able to deliver emergency information framed by local knowledge of the geography, the community and the risks

In recent years in Victoria, official arrangements around disaster broadcasting have changed, making it more difficult for community radio stations to have official disaster broadcaster status. About ten stations in Victoria currently hold formal broadcaster status. However, none of the stations interviewed are currently a formal disaster broadcaster and at the time of interview, were in various stages of deliberating if they should re-apply.

Currently, 3MGB has declined to be a designated Emergency Broadcaster. After the devastating fires in 2019-2020, the station committee— "they just went: 'no, we are not doing it'"—because of the trauma experienced by the volunteers that had broadcast throughout the fire event. The station was open to reapplying in the distant future.

> *But it's not something I've brought up with the committee. I just think it's really important and that's where, partly where, 3MGB started. It was in response to (bushfires) …So I would like that to happen again, because I can see the value.*

3MDR lost this status after new regulations were introduced following the devastating Black Saturday bushfires in 2009, but planned, eventually, to regain that status.

> *Things have changed after Black Saturday… and regulations governing emergency broadcasting all changed. And of course, we've got the national broadcaster, so 3MDR is no longer an official*

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*emergency broadcaster at this point. Not for want of trying - we've made several inquiries. It does come at a cost as far as infrastructure, huge responsibility and that sort of thing.3MDR*

3MDR observed that the local councils underestimated the potential of the station for disaster broadcasting and support had not been forthcoming:

*You know, I deliver reports and things and got nothing back [from councils]. We asked about funding support and they said, "once you get back on the emergency broadcast status, come and talk to us". But we need help getting there!*

3MDR had surveyed their community who, especially those that had experienced a bushfire, recognised the station's role in disasters and emergency broadcasting:

*We've surveyed the communities over the last couple of years. The more local they are, as far as being on the Range as residents, particularly those that have experienced the bushfires events— the more they want their local radio station to be able to have that [emergency broadcast role]…But we find, just getting the assistance, is limited. It takes hours to work through it all. There's training involved and to expect to have volunteers, who are already time poor, to be able to commit to that and then just the burden of responsibility. It's hard. 3MDR*

For a station, being an official disaster broadcaster is fraught – stations are geared towards community service, mostly staffed by volunteers, undertaking usual work that may not align with or suit the extraordinary demands and responsibility of broadcasting in life threatening emergencies and the burden of liability:

*..people still need to hear what's going on  - do they need to go to the wharves, do they need to leave their house? So it's a huge responsibility [for volunteers]. 3MGB*

*Yeah, who's liable? Is our Committee of Management liable? Is the station manager liable? They're all questions that we're sort of, you know you shy away from in the end.3MDR*

The resources available to respond to disasters and emergencies increase existing demands upon stations, particularly the availability and capacity of their volunteer workforce. Additional training requirements and bureaucratic processes to navigate were seen to be significant burdens on station's already stretched resources:

*I would love to get back into working with the agencies to see how it can work for Community Radio 3MDR and the Dandenong Ranges in partnership with a couple of other stations that serviced the hills. That capacity is beyond me and us at the moment, and the volunteer committee and the management unfortunately. 3MDR*

*It adds a great deal of pressure on already fatigued volunteers. And whether it's me delegating or me doing it, either way it is more work. So you sort of have to draw a line. 3MGB*

*I would very much like to be very involved in emergency work, but we can't because we just don't have the volunteers, which is really sad… but it is a resources issue. Life FM*

Another barrier to becoming an official emergency broadcaster was that—while there was some limited training available — there was perceived to be a lack of training in the difficult responsibility of emergency broadcasting during a disaster event:

*they didn't have any (training), because that was one of the first things I asked - were we taught how to respond to these things or just thrown in? And I don't know if that's EMV's [Emergency Management Victoria's] fault or 3MGB's fault. 3MGB*

MainFM had not specifically looked into the requirements of becoming an official emergency broadcaster but sensed it was a prohibitive process.

*It's never actually come up. It's never actually been something that's come up in my time, but I've always been working under the assumption that we don't have the resources or capability to attempt to be an emergency broadcaster. MainFM*

Disaster and emergency broadcasting presents a quandary for stations. Stations are positioned to serve their communities in times of need and have done so, regardless of official status. Training to support their efforts is either unavailable and/or an additional demand on existing resources. This training includes preparedness and post disaster training alongside training for emergency broadcasting – and services to support station volunteers post trauma events.

### *Complementing and collaborating with the ABC*

Community broadcasting often complements and collaborates with ABC during times of emergency. The ABC is the official national emergency broadcaster, and it is noted for the vital

role it plays particularly in regional areas (Royal Commission 2020). Around eight community radio stations in Victoria are currently designated as an official emergency broadcaster (EMV, 2022).

Regional ABC stations face some challenges in providing a complete disaster broadcast service. The ABC does not have complete coverage across the nation and so community broadcasting can supplement and/or support ABC services: for example, there are 89 regions across Australia where Indigenous Australian community radio stations are the only radio service (Binskin et al., 2020). Furthermore, compared to the regional ABC stations, community radio stations broadcast across a smaller footprint and staffed by local people, which enables an extensive knowledge of their local area.

Broadcasting emergency information with local knowledge- granular local knowledge that can be lost over larger regional broadcasters has been critical during emergencies:

> *But they (ABC regional radio) can't always provide locals with localised information. They're covering the whole region, you know: if it's a whole fire event happening all the way up the East Coast of Australia or right across the state, you know they can't dedicate that time. 3MDR*

> *I kind of imagine that (local) people are tuning into us as opposed to the ABC. They still need information; they still need to hear what's going on. Do they need to go to the wharves? Do they need to leave their house? 3MGB*

In any emergency, the communications infrastructure required for broadcast is also at risk of being affected by the fire, wind or flood. ABC radio and local community stations can support each other if infrastructure becomes inoperable.

> *ABC were like: 'We're the official emergency broadcaster.' Well, are you? Because half your services were down. 3KND*

Stations managers agreed that it would be helpful if formal structures were in place to work with the ABC during a disaster:

*I think well, do you build a relationship with the ABC so if there is an emergency you can use their feed? Because if someone is tuning into 101.7 then they are hearing what they need to hear. So, I don't know how that looks, but maybe it saves us having our people do it. 3MGB*

PulseFM has an arrangement with its regional ABC station to cooperate with support for translation for emergency announcements.

*[ABC] found out over COVID, a lot of language announcements they couldn't do, and so we had the guy here from the South Sudanese programme who got called-up to do announcements. It's the same when we get those announcements for the fires. PulseFM*

For MainFM, the presence of the ABC relieved some responsibility of emergency broadcasting. But, like PulseFM, the pandemic highlighted both the community need for hyperlocal information, and the station's ability to deliver it.

*And why would we when the ABC does such a good job of it? Um, saying that, around the pandemic…during times of a shortage of up-to-date local information, we definitely lifted our game in terms of broadcasting around the pandemic. MainFM*

### *Broadcasting during disasters*

While none of the stations interviewed were still official emergency broadcasters, when a disaster occurred, station staff—generally volunteers— were often driven by a commitment to community to take on the complex and stressful work of broadcasting through an event.

*And [they are dealing with] the comms from CFA, the police, SES— all this and potentially not having, the ability to sift through, to prioritise. And then looking at Facebook and finding out your house just burnt down. For people with training, it's challenging, challenging work, but people (volunteers) without any kind of training, well…3MGB*

These volunteers are dealing with a complex and dangerous situation affecting their community, and yet may also be impacted by the same disaster with their family and property under threat.

*Then you got those broadcasters making these decisions… I've got two kids and the dog in the house and—well would I choose to sit here and broadcast over protecting my house and my*

*family? If I've got the family out then maybe yeah, possibly, but those are decisions you're asking volunteers. 3MGB*

*Two guys, one that was broadcasting during the whole fires. And both of those guys lost their houses to the fires. That one…an older fellow… he's not going "oh my house is burning". So it's kind of those priorities around broadcasting and that commitment to journalism and all that 3MGB*

There are many logistical challenges in running the station itself during a disaster to keep broadcasting— in addition to people needing to travel to and from the station "in howling winds, pouring rain with trees down". There is also the work involved in keeping the station broadcasting when mainstream power goes off. 3MDR described the trouble shooting around the station and equipment until they fundraised to secure their broadcasts.

*[We needed to] purchase generators that will keep the station on 24/7 regardless of power outages... The generator we're getting installed at the homestead is connected to the mains gas. Never need to review, so that helps our volunteers.3 MDR*

Beyond keeping the station operational, these stations noted the stress of sourcing accurate information. Important in delivering the information was ensuring the messages were communicated clearly, which meant delivering the messages exactly

*A fax verification that would come out of the wall. And the presenters were notified, like - "If anything comes out of that bloody fax machine, you stop broadcasting and you read it verbatim". There's no ad libbing or anything; read just what's written. 3MDR*

For multicultural and multilingual broadcasters such as PulseFM, this means being able to broadcast in different languages

*The (local) CFA and the Metropolitan Fire Brigade, they always send stuff in language, which is really good, that we broadcast in the language programmes, but they do know [that] when they need an emergency announcement, they can also come to us to get some of this stuff to put on air. PulseFM*

The source of the information is also vital – whether it was from an official source or a community contribution

*Yeah, and that sort of thing. So, we sort of set up a screen and we make sure our announcers say "this is coming from emergency.gov.au". And to read—again verbatim. And the other instruction was like, if you get a call, it's an "unconfirmed report" and recommending people tune into the ABC, which is the national broadcaster. 3MDR*

For ethnic communities, trust in emergency messaging relies on hearing it in their own language. For a smaller community, that trust is even further enhanced by the closeness of community connections:

*If you have someone (broadcasting) from the local communities, people listened to it because they knew who it was. It sounds like a voice that was telling them that they knew what was going on and what wasn't going on. And, because in the regional areas, the community is quite small…They all kind of know each other, so when they do hear a voice that they know, they're more than likely to (pass one the information). PulseFM.*

For Indigenous broadcaster 3KND, disaster broadcasting provides them with an opportunity to reaffirm their community's trust in them.

*What we found and what we got back from the community: Well, first of all, they trusted us then. You know, we had ticks on the board there; we proved ourselves. We also became the emergency broadcaster through that whole time, through the fire and also through the pandemic. 3KND*

This was enhanced by delivering the official emergency information— messages about roads closed, trees down, backburning happening—but delivered in a way that was more authentic for their people. But this directly contrasted with other stations that broadcast official emergency messages verbatim.

*They would listen to us and we would do it in a community way, not like the dot points that you would hear… We were talking to the mob –they're talking in English Aboriginal way. Aboriginal English. You become that conduit for that information to pass on and let the collective know that. 3KND*

### *Post-disaster and recovery broadcasting*

For a small community that has been disaster affected, the post-event trauma lingers for months, even years, and can even carry through to the next disaster. For people experiencing

this trauma, it can be difficult to undertake everyday tasks, to make even simple decision or to work out next steps in recovery, even six months after the event (Matthews et al., 2021).

There is also the need to recognise that individuals have different experiences of a disaster event and have different experiences of trauma. Even, or especially, people who evacuated to a safer place still experienced a lot of trauma as the 3MGB station manager explained:

> It can be worse for people who've left. Because, if you imagine something it can be far more intense and painful than if you actually watch something. So some people who left their homes, they're sitting up in the Merimbula or somewhere imagining the house burning. Their livestock, their fences, their life's work. If you stand and watch the house burn, then you have some closure. That sucks, but at least you go "alright, well, I've seen it happen and I understand it as a reality". But imagination can be way more powerful. 3MGB

Following the disaster, any recovery response needs to be community driven: there is a need to provide services that are needed and wanted by the community.

> They say: "we don't need Canberra telling us what our community needs. We know what we need and there are challenges, huge challenges and all of that because you're managing people and again, the diversity amongst the opinions and all that stuff. 3MGB

> There is definitely a pushback on anyone from the city. 3MGB

Overlapping disasters can make recover more difficult. For example, the COVID-19 pandemic, just months after the Black Summer bushfires, made community recovery more difficult for fire-affected communities such as Mallacoota. Community recovery involves people coming together to share stories and the local radio station performs a critical role in providing a public forum to do so:

> People need to have the opportunity to tell their story. COVID has broken a lot of that because it's broken the healing process where normally you'd have groups of people together and all that has not happened like it should. So I think part of that trauma care is making sure that people have the opportunity to talk, to voice. 3MGB

Local stations also support a community led recovery through promoting events that bring the community together, at an appropriate time, for positive experiences that celebrate the

community. For example, in October 2022, two years after the Black Summer bushfires, 3MGB broadcast a community day involving a range of local and regional emergency services that came together for a series of 'fun challenges that were designed to showcase skills from each agency,' as well as offering the community a chance to celebrate the emergency services. Of course, different people recover from disasters in different ways and station sensitivity is paramount.

Communities that had experienced a disaster - and broadcast through it – identified the need for preparedness for the trauma associated with extreme events of climate change. 3MDR emphasised that recovery support means using a trauma-informed approach, that would help them assist the community recovery as well as caring for station volunteers. A trauma-informed approach is described by 3MGB's station manager as:

> *…, making sure that people have the opportunity to talk, to voice. And they have mental health supports as well. That's a big part of it...And as a radio station, I think it's just more about awareness than anything. Because people can tend to not.  If someone does call up and is abusive, for example, then having a trauma informed lens you are able to -we know everyone anyway - but you're able to go "well, that's possibly due to the fact that they lost their house or they still recovering from whatever it might be". Yes, it's more of an awareness than anything. 3MGB*

# Conclusion: Between challenge and opportunity

The cumulative findings from this research, alongside the work already completed in NSW, highlight a number of opportunities for community radio stations to making a meaningful impact upon the resilience of their communities. Equally, however, there are a number of challenges preventing community radio stations from reaching their full potential in this space. The community broadcasting sector has and continues to make an extraordinary contribution to Australian communities. The question this research sought to answer was how the CBAA can support stations to better communicate about climate change in their local area. In terms of broader support, stations are eager to act as examples and leaders in their communities through the implementation of sustainability initiatives such as solar panels, water tanks, composting, and so forth. However, these projects require significant investments, particularly for stations in older or unconventional spaces. There is an opportunity for the CBAA to leverage the findings of this research into support for capital works around sustainability and climate mitigation. In terms of broadcast-centred findings, the key findings and support needs can be summarised in two broad areas: content and emergency broadcasting.

## Content – training, funding, resources

The findings of the research demonstrate a clear appetite to do more. Stations want to engage in community conversations about climate change and broadcast both content that specifically engages with climate change as well as incorporating climate change into other programming. The key barriers to this, for all stations, were limited resources. Stations are bound by the availability and interests of volunteers. There is a potential intervention to engage volunteers in climate change programming through targeted training programs or, possibly, a 'mentorship' model where interested volunteers are partnered with experienced producers of climate change content.

Building capacity among volunteers in how best to approach climate change content   for multicultural and multilingual, faith-based, and First Nations communities, brings additional dimensions to    climate change discussions. For stations with volunteer interested in climate change programming, but limited resources to support this, a content fund specific to climate change content, delivered in partnership with the CBF and/or other partners, would be a valuable intervention in supporting the development of climate change programming.

While some stations were eager to access resources to produce their own local climate change content, others expressed a desire for accessible networked content on climate change. Small stations simply do not have the capacity to produce standalone climate change content. Several station managers did express interest in networked content that might be incorporated into existing programming. It was suggested that this content be in the form of short, engaging packages or interview excerpts that are broadly relevant to many community radio stations. Other suggestions included interviews broken into segments that could be interspersed with music, and short community service announcements with practical suggestions and tips. This library of content could be produced in collaboration with the CRN and represents a potential practical training outcome for participants in a course. For example, over the course of the training, students learn to produce and then actually produce a short package or interview that can be uploaded and shared via the CRN.

A further shared resource that may support the production and distribution of climate change content was suggested by one of the station managers. The station manager spoke of the difficulties in securing interviews and talent around specific programming, particularly in regional areas. There was also a discussion about the importance of finding talent that 'got' community radio, and were willing to speak to the sector. A way of surmounting this challenge was through the suggestion of a database or list of researchers and other experts who are accessible, engaging and willing to talk to community radio stations about climate change. For stations that had other primary interests but were interested in having some climate content, this database would offer experts who could provide an overview of the issue, which could

then be supplemented by a local perspective. It was envisaged that this resource would not be limited to scientists or science communicators, but instead represent a broad spectrum of those involved in discussions around climate change, including but not limited to journalists, artists, musicians, community organisations, governments, health services, industry bodies and so forth.

## Disaster broadcasting – important but fraught

Disaster broadcasting was perceived as important by all stations involved in this research. Yet very few of the stations were actively involved in disaster broadcasting and none were official EMV disaster broadcasters. This was for a range of reasons, though primarily around capacity and the onus of responsibility. Having said that, many of the station managers reported engaging in disaster and crisis broadcasting to their communities during times of need: 3MGB during the 2019/2020 Bushfires, 3MDR during the wild storms of 2021, PulseFM through their collaborations with the CFA and the Metropolitan Fire Brigades, and KND throughout the pandemic. Stations are positioned to serve their communities in times of need and have done so, regardless of official status. Even for stations seemingly disengaged with emergency and disaster broadcasting, the pandemic highlighted their ability to provide accurate, hyperlocal information to their communities during crisis. While training is available, it is seen as an additional demand on existing resources. There is sector-based training available as well as the training offered by emergency services management, however, volunteers have limited capacity to undertake this training. For stations like Life FM, their small number of volunteers significantly diminishes their capacity for emergency broadcasting. In contrast, for 3MGB, the lingering trauma of the Black Summer bushfires and the post disaster lack of pastoral and mental health support services meant the station stepped away from the role it so famously played.

Community radio has a critical role to play in broadcasting hyperlocal information during times of crisis and disaster, which are predicted to occur with increasing frequency and

ferocity due to the impacts of climate change. There is a need for additional capacity within the sector in the form of greater collaboration with emergency service management, the ABC, and post-disaster support services. This represents an important area of future research and intervention in order to develop a sector-wide strategy to support community radio stations in their confidence to act as emergency broadcasters.

# Recommendations for future work

This project, in conjunction with the NSW pilot work, has identified a key opportunity for Australian community radio stations to lead their communities in climate action initiatives. Further, the findings of this project also highlight the potential of sector peak bodies to facilitate community-based leadership within stations through the delivery of innovative and engaged training and resources. However, these two projects represent just a small segment of the Australian community broadcasting sector. A national project would further showcase the diversity, innovation and commitment of the Australian community radio sector, and contribute to building a strengths-based narrative about the role of community radio in supporting community resilience to climate change. Working with the CBAA, in conjunction with other industry partners, we suggest a Warming Up national project that is committed to the principles of climate justice and will seek to:

- Develop a toolkit to support training workshops, modules and/or programs, and subsequent evaluations and refinements, that aim to:
  - o accommodate the diversity of the sector including diverse landscapes, languages and community cultures;
  - o build confidence and capacity to discuss climate change impacts, risks, challenges and opportunities – incorporating the slow news of climate changes and breakout spectacular moments; and,
  - o develop skills to tell stories based on local expertise including though not limited to climate science expertise.

- Develop a broadcast series, targeting 10-15 willing stations to tell their stories of climate changes to their community and/or to other Australian and global communities. This series could include interviews with existing broadcasters and volunteers dedicated to the local communication of climate changes alongside amplifying the knowledge and experience of First Nations communities, regional and rural communities and diverse and often niche urban communities. A pilot episode is currently in development in partnership with Wilcannia River Radio.
- Build relationships and capacity in other Asia Pacific communities to communicate climate change, seeking networks and partnerships with community radio services in the region.

We invite further discussions regarding funding and partners with an Australian Research Council Linkage, a likely site for funding to realise the national ambition of this project. Other funding sources are also possible, and will be explored in ongoing conversations.

# References

94.7 The Pulse. (2021). About Us. Retrieved from https://947thepulse.com/about-us/

ABC News. (2021, 24 February). Rising house prices, tight rental market sign of 'new renaissance' for regions, NSW Deputy Premier says. Retrieved from: https://www.abc.net.au/news/2021-02-24/regional-nsw-housing-crisis-champagne-problem-john-barilaro-says/13186852 .

Adger, W. N., Arnell, N. W. & Tompkins, E. L. (2005). Successful adaptation to climate change across scales. Global Environmental Change, 15(2), 77-86.

AIATSIS. (2022). What is Country? Canberra: Australian Institute of Aboriginal and Torres Strait Islander Studies. https://aiatsis.gov.au/explore/welcome-country#toc-what-is-country-

Anderson, H., Fox, J. & Bedford, C. (2019). Digital disruption in the Australian community radio sector: Introduction. 3CMedia: Journal of Community, Citizen's and Third Sector Media and Communication, 9, 1-5.

Anderson, H. & Rodríguez, C. (2019). Is community radio in crisis in the Global North? Lessons from Australia and the United States. Journal of Alternative and Community Media, 4(4), 51-65.

Anderson, H., Backhaus, B., Bedford, C., & de Souza, P. (2021). Community media destinations: spotlight on creative industries. Brisbane, Griffith University.

Anderson, H., Backhaus, B., Fox, J., & Bedford, C. (2020). Fifty years of resistance and representation: A historical account of Australian community radio. Journal of Radio & Audio Media, 27(2), 234–254.

Arriagada, N. B., Bowman, D. M., Palmer, A. J. & Johnston, F. H. (2020). Climate change, wildfires, heatwaves and health impacts in Australia. In Extreme Weather Events and Human Health (pp. 99-116): Springer.

Australian Government. (2022). Disaster Assist. Canberra: Department of Home Affairs. https://www.disasterassist.gov.au/find-a-disaster/australian-disasters?state=vic#

Binskin, M., Bennet, A. & Macintosh, A. (2020). Royal Commission into national natural disaster arrangements report. Retrieved from: https://naturaldisaster. royalcommission.gov.au/system/files/2020-11/Royal%20Commission %20into%20National%20Natural%20Disaster%20Arrangements%20- %20Report%20%20%5Baccessible%5D.pdf

BOM & CSIRO. (2022) State of the climate. Retrieved from: http://www.bom.gov.au/state-of-the-climate/documents/State-of-the-Climate-2020.pdf

Bradley, G., Deshpande, S., Foxwell-Norton, K., Hennessey, N., & Jackson, M. (2022). Climate Action Survey Summary for Policy and Decision Making. Griffith University. https://www.griffith.edu.au/__data/assets/pdf_file/0024/1538304/Climate-Action-Survey-Summary-for-Policy-and-Decision-Making.pdf

Center for International Media Assistance. (2007). Community radio: Its impact and challenges to its development. Retrieved from: https://milunesco.unaoc.org/mil-resources/report-community-radio-its-impact-and-challenges-to-its-development/ Washington, DC: CIMA.

Community Broadcasting Association of Australia (CBAA). (2020) Submission to the Royal Commission into National Natural Disaster Arrangements regarding the role played by community radio broadcasters. Retrieved from: https://www.cbaa.org.au/ sites/default/files/media/CBAA%20-20Community%20radio%20resilience%20during% 20emergencies%20and%20natural%20disasters%20-%20final.pdf

CBAA. (2022a). Submission to the 2022 Flood Inquiry. Sydney: CBAA. https://www.cbaa.org.au/sites/default/files/media/CBAA%20-%202022%20NSW%20Flood%20Inquiry.pdf

CBAA. (2022b) Community broadcasting is a critical enabler of art, entertainment and cultural industries in Australia: Submission on a new National Cultural Policy. Sydney: CBAA. https://www.cbaa.org.au/sites/default/files/media/CBAA%20submission_New%20National%20Cultural%20Policy_0.pdf

CBAA (2022c). Beyond Broadcasting: Community media response to emergencies. Sydney: CBAA. https://www.cbaa.org.au/sites/default/files/media/CBAA_BeyondBroadcasting.pdf

Cultura. (2022). Diversitat and MACS. Retrieved from https://www.cultura.org.au/about-us/diversitat-and-macs/

Desai, B. H., & Mandal, M. (2021). Role of climate change in exacerbating sexual and gender-based violence against women: A new challenge for international law. Environmental Policy and Law, 51(3), 137-157.

Dewey, J. (1966). Democracy and education (1916). Jo Ann Boydston (ed.). The Middle Works of John Dewey, 9, 1899-1924.

EMV. (2022). Emergency broadcasters. Melbourne: Emergency Management Victoria. https://www.emv.vic.gov.au/responsibilities/victorias-warning-system/emergency-broadcasters

Ewart, J. (2020). Drought is a disaster in the city: Local news media's role in communicating disasters in Australia. In Media, Journalism and Disaster Communities (pp. 67-82): Springer.

Forde, S., Foxwell, K. & Meadows, M. (2002). Creating a community public sphere: community radio as a cultural resource. Media International Australia incorporating culture and policy, 103(1), 56-67.

Foxwell-Norton, K. (2013). Communication, culture, community & country: The lost seas of environmental policy. Continuum: Journal of Media & Cultural Studies, 27, 267-282.

Foxwell-Norton, K. (2016). The global alternative and community media sector: Prospects in an era of climate crisis. Journal of Alternative and Community Media, 1, 12-13.

Foxwell-Norton, K. (2018). Environmental Communication and Critical Coastal Policy: Communities, culture and nature, Routledge: London.

Foxwell-Norton, K., Walters, K. & Leitch, A. (2019). Social and cultural barriers to the implementation of climate change adaptations plans and action. Retrieved from: https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0043/489688/Policy-Brief-3-Social-And-Cultural-Barriers-To-The-Implementation-Of-Climate-Change-Adaptation-Plans-and-Action.pdf

Foxwell-Norton, K., Leitch, A., Backhaus, B., & Mackey, B. (2021). Warming Up: Building the capacity of community broadcasting to communicate climate change. https://www.cbaa.org.au/sites/default/files/media/Final%20report_Final%2031%20May%202021_0.pdf

Foxwell-Norton, K., Backhaus, B., & Leitch, A. (2022). Warming up: The potential of community radio for climate change communication in Australia. Journal of Alternative & Community Media, 7(1), 67-89.

Glover, A., Lewis, T. and Waters-Lynch, J, 2022, E-Change and Remote Work in Australia, Australian Communications Consumer Action Network, Sydney.

Hall, N. & Crosby, L. (2020). Climate change impacts on health in remote Indigenous communities in Australia. Int Journal of Environmental Health Research, 1-16.

Hansen, A., Nitschke, M., Saniotis, A., Benson, J., Tan, Y., Smyth, V., ... & Bi, P. (2014). Extreme heat and cultural and linguistic minorities in Australia: perceptions of stakeholders. BMC Public Health, 14(1), 1-12.

Harris, U. S. (2014). Communicating climate change in the Pacific using a bottom-up approach. Pacific Journalism Review, 20(2), 77-95.

Hollo, T. (2018). Key change: The role of the creative industries in climate change action: The Paris Agreement and climate justice. 10.1007/978-981-13-2155-9_13.

Hughes, N., Galeano, D. & Hatfield Dodds, S. (2019). The effects of drought and climate variability on Australian farms. ABARES: Canberra, ACT, Australia.

Hulme, M. 2009. Why we disagree about climate change: Understanding controversy, inaction and opportunity. Cambridge, UK: Cambridge University Press.

International Panel on Climate Change (2014). 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.

International Panel on Climate Change (2018). Summary for Policy Makers. 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.

IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A.

Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056

Jones, M. W., Abatzoglou, J. T., Veraverbeke, S., Andela, N., Lasslop, G., Forkel, M., ... & Le Quéré, C. (2022). Global and regional trends and drivers of fire under climate change. Reviews of Geophysics, e2020RG000726.-

King, M. M., & Gregg, M. A. (2021). Disability and climate change: A critical realist model of climate justice. Sociology Compass, e12954. https://doi.org/10.1111/soc4.12954

Leitch, A. (2017). Local governments adapting to the wicked problem of sea-level rise. The Routledge Handbook of Australian Urban and Regional Planning, 209.

McKinnon S, Gorman-Murray A & Dominey-Howes D 2016, The greatest loss was a loss of our history: disasters, marginalised identities and sites of memory. Social and Cultural Geography, 17, pp.120–39.

Matthews, V., Longman, J., Berry, H.L., Passey, M., Bennett-Levy, J., Morgan, G.G., Pit, S., Rolfe, M. & Bailie, R.S., 2019. Differential mental health impact six months after extensive river flooding in rural Australia. Frontiers in Public Health, 7, p.367.

Moreton-Robinson, A. (2015). The white possessive: Property, power, and indigenous sovereignty. U of Minnesota Press.

Mount Alexander Shire Council. (2022a). Roadmap to carbon neutrality 2020-2025 progress report. https://www.mountalexander.vic.gov.au/files/Environment /Progress_Report_June_2022__Roadmap_to_Carbon_Neutrality_2020-2025.pdf

Mount Alexander Shire Council (2022b). Economy, Jobs, and Business Insights: Castlemaine. https://app.remplan.com.au/mountalexander/economy/summary?state=rdrxIDNmdfr45E OfDmy4dDiLhyUyIDgx

National Emergency Management Agency. (2022) Australia's National Strategy for Disaster Resilience. Canberra: Australian Government.https://knowledge.aidr.org.au/resources /national-strategy-for-disaster-resilience/

Nixon, R. (2011). Slow violence and the environmentalism of the poor: Harvard University Press.

Preiss, B. (June 8, 2022). One year after storms, some residents still cannot live on the mountain. The Age. https://www.theage.com.au/national/victoria/one-year-after-storms-some-survivors-still-cannot-live-on-the-mountain-20220606-p5arh4.html

RadioInfo (2020). Community radio gave 'granular level' local information during bushfires: Senate Inquiry. (2020, August 13). RadioInfo Australia. https://radioinfo.com.au/news /community-radio-gave-granular-level-local-information-during-bushfires-senate-inquiry/

Saltgrass podcast. (2022). About. https://saltgrasspodcast.com/

Simis M.J., Madden H., Cacciatore M.A., & Yeo S.K. The lure of rationality: Why does the deficit model persist in science communication? Public Underst Sci. 2016 May;25(4):400-14.

Smith, L. T. (1999). Decolonizing methodologies research and indigenous peoples. London; New York: Dunedin, N.Z.: New York: Zed Books; University of Otago Press.

# Appendix: Community radio stations, the regions and climate change impacts, and programming

## 94.7 The Pulse

### The region and climate impacts

The Pulse is located in downtown Geelong, a coastal provincial city, 75 kilometres southwest of Melbourne. The City of Greater Geelong is located on the lands of the Wadawurrung People of the Kulin Nation.

Victoria's largest provincial city, the City of Greater Geelong is home to more than 252,217 people as of June 2018. The 2016 census revealed that largest demographic group in Geelong is parents and homebuilders, aged 35 to 49, followed by older workers and pre-retirees between 50 and 59 years of age. Approximately 33 percent of the community were born overseas with the most common non-English languages spoken at home including Italian, Croatian, Mandarin, Persian/Dari, and Macedonian (City of Greater Geelong, 2022).

Geelong's workforce and economy relied heavily on manufacturing until relatively recently, when the closure of key employers (namely Alcoa's Point Henry Aluminium Smelter and Ford's manufacturing plant) forced the region to diversify. While trade is still strong – Geelong Port is Victoria's second largest and supports 1800 regional jobs across the state – growing industry sectors include health care and social assistance, education and training, defence, and ICTs alongside the more traditional industries of construction, manufacturing, and agriculture (City of Greater Geelong, 2022; Geelong Port, 2022).

The City of Greater Geelong's Climate Response Plan (City of Greater Geelong, 2021) outlays both mitigation and adaptation targets with the goals of becoming a "zero-emissions, climate-ready city and region". By the 2050s, predictions suggest that Geelong's climate will be more like that of Shepperton, in Victoria's north. Maximum daily temperatures will increase, rainfall

overall will decrease but extreme rain events will become more intense and variable, sea levels will continue to rise, and the number of high fire danger days is also predicted to increase (Clarke et al., 2019). The community risks associated identified with these changes are set to include damage and disruption to urban and coastal infrastructure, community support services, emergency management, local industries such as agriculture.:

## The station and their listeners

Established in 1988, The Pulse FM broadcasts to Geelong and the surrounding areas of the Surf Coast and the Bellarine Peninsula. Though its official Community Interest according to ACMA licensing is General Geographic Area, The Pulse is a multicultural broadcaster, with programming in English and several other languages, and prioritizes coverage of local issues and events. The Pulse offers a range of training programs including an introductory radio broadcasting course and a program targeted at schools. There are four paid staff members and approximately 150 volunteers involved in The Pulse. The station is governed by a board of directors that consists of representatives from station volunteers, multicultural communities, and members of the parent body. In 2004, the station was facing major debts and was taken over by Diversitat, a not-for-profit organisation that supported multicultural communities in the region. Diversitat merged with Multicultural Aged Care Services (MACS) in 2022 to form Cultura, an organisation offering settlement services, youth and community programs, arts programs and cultural events, community services and aged care (Cultura, 2022). The organisation continues to support The Pulse.

## Programming

The Pulse broadcasts a range of programming from multicultural shows in language, to current affairs programming, as well as special interest programs, and local events coverage (94.7 The Pulse, 2021). Multicultural broadcasting is a key priority of the station with Serbian, Filipino, South African, Macedonia, Indonesian, Croatian, Chinese, and South Sudanese language programs featuring most evenings between 6pm and 10pm. Programming is roughly

evenly distributed between music and talks, with 75 percent of programs presented live, rather than prerecorded. Gaps in the schedule and overnights are filled by taking content from the CRN. Though The Pulse does not have any environmental or climate change programming on their current schedule, the station has broadcast has several environmental/sustainability shows in the past including The Bicycle Show, Dig It, and The Sustainable Hour.

# 94.9 MainFM

## The region and climate impacts

MainFM is located in Castlemaine in Victoria's goldfields region. Castlemaine and the broader Mount Alexander Shire are located on the lands of the Dja Dja Wurrung people, who are the Traditional Custodians. Approximately 120 kilometres from Melbourne, Castlemaine is known for its eclectic arts scene. A historic gold-mining region, Castlemaine is the largest town and regional hub of the Mount Alexander Shire. According to the 2016 census (ABS, 2016), the population of Castlemaine is approximately 7,000, with a median age of 50. However, the Covid-19 lockdowns have seen a recent influx of "e-changers" relocating to Castlemaine while maintaining employment in Melbourne. A recent report names Castlemaine as an 'e-change hotspot' given its NBN connectivity, facilities, and locating within commuting distance to Melbourne (Glover et al. 2022). Roughly 11 per cent of residents in the broader Mount Alexander Shire were born overseas and less than 3 per cent speak a language other than English at home (Mt Alexander Shire Council, 2022a). Manufacturing is both the biggest industry and employer in Castlemaine, representing 49 per cent of total economic output and almost 27 per cent of the region's jobs (Mt Alexander Shire Council, 2022b)

The Mount Alexander Shire Council has been engaged in a suite of climate action and adaptation initiatives covering water, waste, and emergency management, active transport, health impacts, and other environmental stewardship and sustainability projects. The Council launched an ambitious plan in 2020 to meet the target of net zero emissions by 2025. The

2022 Roadmap to Carbon Neutrality Progress Report highlighted that the Council now sources operational electricity from wind power and has upgraded most street lighting in the Shire to energy-efficient LEDs. There is also work underway to address building and transport emissions, revise Council procurement policies, and support community-wide waste reduction (Mt Alexander Shire Council, 2022a).

## The station and their listeners

Formerly WMA FM, MainFM is an award-winning station with a diverse programming schedule. MainFM's Community Interest is General Geographic Area and it offers a diverse range of programming aimed at the various community interests in Castlemaine. The station employs two paid staff and is supported by more than 100 volunteers and 800 subscribers. MainFM is governed by an elected Committee of Management consisting of volunteers from some of the 60 community groups represented at the station. According to station management, the station's listeners are primarily in their late 20s to late 40s, and include a large community of artists, musicians, and a high number of PhD holders. MainFM is highly regarded in the sector, with a range of CBAA Awards including Best New Radio Program (ArtSwank, 2019 and Meet Me at the Library, 2021), Best Station Fundraising Campaign (Radiothon, 2018 and 2020), Excellence in Journalism (2021), and won the Outstanding Small Station Award three times (2010, 2016, and 2020).

## Programming

MainFM's programming is highly varied with more than 70 shows across the program grid catering to different community interests. The broad range of programs is a key point of difference that separates MainFM from other radio stations in the area, according to the station manage:

> We're really proud of our levels of diversity that we have, that are represented across our grid. We have shows: a mixture of talk shows and music shows – shows that feature discussion on food, art, death, climate, disability. We have shows representing LGBTQI+ community. Able Radio is our show presented by and for people with the disability. And young people – we have

*14 young people aged between 14 and 25, and eight of those are aged between 14 and 16, and we have a youth breakfast programme where they come in and present between 7:30 and 8:30 in the morning and then go to school… We have [a] literary show. And just shows of every sort of music genre that you can really think of… Our gender balance of presenters is pretty much 50/50.*

One of the station's most celebrated programs is Saltgrass, which is available both as a podcast and as syndicated content available to other community radio stations through the CRN. Saltgrass is produced fortnightly and aims to highlight and celebrate what people are doing locally to address the climate crisis. It is broadcast by many other stations around the country and has received an honourable mention in the *New York Times*.

# 105.1 Life FM, Bendigo

## The region and climate impacts

105.1 Life FM services the region of Bendigo. The LGA of the City of Greater Bendigo is located on the traditional lands of the Dja Dja Wurrung and the Taungurung Peoples of the Kulin Nation. Greater Bendigo, located in north-central Victoria was estimated to have a population of approximately 121,000 in 2021: the largest age group is 20-24 years. Greater Bendigo is a rapidly growing regional centre: the population has been consistently growing for several years with an annual increase of about 2000 people (Stronger Bendigo 2030). Its growth strategy aims for the LGA to develop as a leading low carbon and circular economy.

The local economy is based on visitor and event tourism, with about three million visitors annually. The region includes two of Victoria's four goldmines with talk of a new 'gold rush'. Key industries include manufacturing, construction, financial and insurance; and housing-related services and acclaimed art and creative industries. Bendigo is a major service centre for the broader region. It is also an education hub, hosting four tertiary institutions.

Climate change impacts for the region are projected to be warmer temperatures, including higher daily temperatures (3 degrees hotter), daily temperature increase by 2030 from 0.8 to

1.7 degrees. It will be hotter for longer with summer extreme heat experienced from October to April, and also a longer bushfire season with more severe fire risk days. Rainfall will be variable but is likely to decrease by 27 percent. Extreme rainfall events will become more intense on average.  (Clarke JM, Grose M, Thatcher M, Round V & Heady C. 2019. Loddon Campaspe Climate Projections 2019. CSIRO, Melbourne Australia.)

## The station and their listeners

Life FM originated in 1984, under the name Central Victorian Gospel Radio Inc. which is still the official name of the mission today. It is licensed as a gospel music station, and they describe themselves as "unapologetically a Christian station". The station has one paid staff member, the operations manager and around 22-27 volunteers. CMAA audience research suggests listenership of 10,000, roughly 10 percent of Bendigo's population. The station has research to show their audience is Christian and mostly women in the age group of 35 and above. Key interests of the audience are Christian family living, gospel music, stories of Jesus and related issues. They know they listeners value Christian radio because they know the kids can listen to the radio stations without all the junk that goes on." Their listeners want local news: short and sharp, and to the point. They have relationships with 40 local church organisations of different denominations and ethnicities.

> *(We have) all the majors. Anglican, 19 Presbyterian, Church of Christ, all of those. Then you've got the big charismatic churches, the big Pentecostal churches, and then a lot of smaller charismatic churches, and they may only be congregations of 14 or 15 people.*

The dedication of the station manager Peter Stanton was acknowledged in 2021 when he was awarded the Legacy Award from the Christian Media and Arts Association.  This honour is presented each year to an Individual who, during their lifetime, has made an outstanding contribution as a Christian Leader in the fields of Media and/or the Arts.

Life FM presents live programs in the mornings:  in the afternoon, programmes are syndicated from Queensland. The station aims for the programming to be as local as possible, with a particular focus on the local area and its values.  They take syndicated Christian programming from the CMAA, interstate and from the US through the Billy Graham Organisation. However, they express reluctance to take programs from elsewhere as they have a strict code about language and content and so are concerned that other programmes may include in appropriate language such as swearing.

Local pastors have the opportunity to produce programs with technical support from the station. The station is also involved with three local Christian schools but have no youth programming. News bulletins include forecasts of weather - local conditions and those in nearby Melbourne – but nothing more in-depth. Currently, they do not discuss climate change as a specific issue, but not because of an active decision to exclude it. Although the station manager thinks there would be no concerns within the station (Board or volunteers) if they did talk about climate change. Climate-related messages that would resonate would be along the lines of recent multifaith statements of the need to protect the earth.

> *We are strong in what I would call biblical evangelical. So yes, it's the Bible teaching on us to protect them being protectors of the Earth is very very strong, so we've certainly played/ play that string. Life FM*

# 3KND, Kool n Deadly, Melbourne

## The region and climate impacts

3KND is Melbourne's only Indigenous owned and managed community radio station and is located in the north-east suburb of Bundoora, approximately 15km from the CBD. Bundoora is located in the City of Darebin, a council that has a strong track record of leadership in climate action. The Darebin Council was the first government in the world to declare a climate

emergency and has a suite of adaptation and mitigation initiatives as part of its Climate Emergency Plan 2017–22 (City of Darebin, 2022).

Urban climate impacts in Melbourne are already showing as more hotter days (above 35 degrees), drought, declining air-quality from bushfire smoke, sea level rise and more intense storms and flooding. These weather events can have dramatic effects on human health, the natural environment and urban infrastructure. For example, while in 2009, 173 people lost their lives in the state's Black Saturday bushfires, yet 374 lost their lives in the associated heat wave in an around the city (Vic Dept of Human Services (2009) January 2009 Heatwave in Victoria: an Assessment of Health Impacts.). The same heat event also impacted the city's infrastructure when it led to train lines buckling causing major disruption of transport across the city (McEvoy et al. 2012). Known for its green space, the City of Melbourne estimates warmer temperatures could kill more than a third of its trees in the next two decades (ref) and yet it is green space and trees that produce a cooler micro-climate around a city (ref).

While the audience for this station is based in urban Melbourne, because of the likely dislocation of many, they will have strong familial links to Country elsewhere that is being adversely affected by climate change and the effects of this should be considered.

### The station and their listeners

Established in 2003, 3KND (Kool n Deadly, also a play on Kulin Nation, where the station is located) is Melbourne's only Aboriginal and Torres Strait Islander radio station. Broadcasting 24 hours a day across Greater Melbourne on 1503AM and digital radio, 3KND also has a strong social media presence (Stuchberry et al. 2022). 3KND also produces podcasts and regularly does live OBs from community events.

The station was particularly active in supporting their listeners throughout the Melbourne Covid-19 lockdowns. 3KND partnered with Bunnings to ensure that listeners had access to firewood for warmth and smoking ceremonies. The station also fielded calls from listeners

struggling with the isolation who needed someone to talk to. The station manager estimates that 3KND's listenership grew by 30,000 during the lockdowns:

> *Community rang us because we're in their homes every day and, through the lockdown, [they] couldn't talk to their other families. They spoke to us, ring up just for a yarn. Even was for an hour. They start being on the phones listening; they're talking and giving stuff back, playing whatever they wanted to play. Having them on, having a yarn up and that sort of stuff. So they knew they were connected still.*

3KND's service to their community during such trying times was recognised by the sector, with the station winning two CBAA awards in 2020: Excellence in Indigenous Engagement and Excellence in Technical Innovation. More recently, in 2022, former 3KND station manager and media legend Uncle Jim Remedio won the Michael Law Award for his sustained and outstanding contribution to community broadcasting.

## Programming

3KND broadcasts a mix of music and talks programming with an informal and educational approach. There are several talks shows which feature interviews with prominent First Nations people, including the 3KND breakfast show and Balit Dhumba, a show that discusses Treaty and self-determination. There is no specific climate change or environmental programming on the 3KND grid, however, caring for Country is deeply embedded within the values of the station and is a recurring topic throughout interviews and talks segments. As the station manager puts it:

> *There's not so much [like]: 'OK. We are gonna talk about connection to country now.' No, it's like: 'when I went out onto our land, this is what I found: the land was drying up, the waterway…the government now has changed the pathway of our water, which now has taken away from cultural land, and all that has now changed the whole diversity of our country.' Sometimes it's not an obvious conversation, but it's very clear what it is that they're talking about. … connection to country is about understanding the responsibility of the First Nations person in caring for that which was handed to them and for the future generations.*

# 3ZZZ, Melbourne

## The region and climate impacts

3ZZZ is a multicultural station that broadcasts across metropolitan Melbourne. Located in Brunswick in Melbourne's inner north, 3ZZZ has been operating since 1989 and is Australia's largest multilingual community radio station. Australia is becoming more multicultural – census data shows that in 2021, 27.6 percent of the population were born overseas (ABS, 2021). It is increasingly important to consider the direct impacts of a changing climate on a diverse range of cultural or language subgroups.

The projections for climate change are listed for 3KND above and include more hotter days (above 35 degrees), drought, declining air-quality from bushfire smoke, sea level rise and more intense storms and flooding. Migrant households can also be more vulnerable to climate change impacts, particularly newly arrived families or less established migrant groups, especially ones are isolated and older or new families with low income and little English.  In particular, prior to or during disaster events, these migrant families may not know how to respond to such unfamiliar threats or may miss or misunderstand risk messages and emergency warnings (Hensen et al. 2014). Heatwaves are considered to be one of the main risks, particularly for subgroups of migrants that are vulnerable due to their lack of social, economic, and community resources (Hansen et al. 2013, Weeramanthri et al. 2020).

Increasingly recognised is the importance of connectedness in supporting community resilience to adverse events, including extreme weather but also other shocks such as a pandemic. 3ZZZ, among other multicultural broadcasters, were crucial in broadcasting relevant and trusted information in language to vulnerable groups during Melbourne's lockdowns (ECCV, 2020).

## The station and their listeners

3ZZZ services the multilingual and multicultural communities of Melbourne and diaspora communities more broadly through both terrestrial and online broadcasting. The station has significant community involvement with over 400 volunteers, most (370) identifying as broadcasters. 3ZZZ also has strong financial support from their audiences with an estimated 3000 and a listenership of approximately 456,000 (3ZZZ, 2022). There was a decline in membership with pre-pandemic members reaching 5000, however, their current membership drive aims to rebuild and reengage new and lapsed members.

With such significant numbers of volunteers and members, the station is needs to be well organised and has democratic processes to ensure the station runs efficiently and fairly. For example, the number of members is significant as each member's nominated alliance to a language group then translates into hours of programming for that language: 40 members translates to one hour of programming. Then, to establish a new programme requires 25 members before they can then work towards the 40 members. The station has observed ebbs and flows of membership and engagement from specific language groups as the needs of these migrant groups change over time. One example of this has been the connections that the station has built between Melbourne's established Syrian community and more recently arrived migrants.

The station's current goal is to increase the number of younger members (under 40). However, they are aware that younger people (second generation migrants) less likely to join in as their language skills aren't as good as the older migrant generation. Yet some of these young people are motivated to volunteer as they can help to retain or promote their country-of-origin language and culture, often for their elders more than themselves. 3ZZZ has partnered with Youth Works Radio to provide training opportunities for young people and is also exploring a digital channel focused specifically targeting young audiences and presenters.

The station has recently undertaken a number of environmental initiatives such as reducing reliance on grid power by installing solar panels, reducing energy consumption by with a changeover of the significant number fluorescent lights for LEDs and the more energy-intensive analogue broadcasting equipment for digital.  They have also recently purchased an electric car for use in travelling to, and transporting equipment for, outside broadcasts (OB), acknowledging that most of these operate in community buildings rather than being 'outside', and so do not require a more specialised OB vehicle.

## Programming

3ZZZ offerings original programming in around 60 languages. This number of programmes has dropped from the pre-COVID level of 70 languages however, they aim to rebuild that number post-pandemic.  3ZZZ broadcasts content from the BBC, mostly overnights, but the vast majority of their grid is occupied by long-standing language programs in one-hour blocks.

The content of each individual program is difficult for management to monitor due to the multilingual nature of the station. Most programs tend to focus on current affairs issues in their home country and issues in Australia relevant to their audiences, however some, such as the Spanish program, have a specific journalistic approach. Some programs regularly engage with issues around climate change but others "wouldn't touch it":

> *I'd say a lot of our broadcasters, probably because of the nature of science communications broadly, but climate in particular, there'd be a lot of misinformation circulating in the communities, and they, and even if they were to try to research it, they might not have access to the information or it might not be in a format that is accessible to them, with English as a second language.*

3ZZZ has recently moved into the podcast space, establishing Stories of Community Resilience – a podcast showcasing stories of how multicultural communities in Melbourne support each other. The series was initially a response to the pandemic but has covered diverse topics including mental health, single parenting, coming out, living in interfaith households, and the relevance of the body positivity movement to multicultural communities. Stories of

Community Resilience also aims to create career pathways for culturally and linguistically diverse journalists and producers. 3ZZZ sees this podcast as a key space for discussions about climate change tailored to their audience.

# 3MDR, Dandenong Ranges

## The region and climate impacts

3MDR is located in the Dandenong Ranges, a peri-urban area, 50 km east of Melbourne. This region is projected to experience a rise in daily temperatures in summer and a reduction in rainfall overall.  Average rainfall will decrease across the year, especially in spring. Extreme winds are likely to increase in winter and decrease over autumn, spring and summer. The forested hills that make area a desirable place to live are also the key source of risk to the community and the landscape.

Previous bushfires in 1997, highlights the strengths of this community. The fire resulted in the loss of 3 lives, 41 houses destroyed, dozens with some damage, and fire damage to 400 hectares of National and State Park. This event led to a widespread self-organised community-led recovery that included several art projects such as music, writing and video projects that resulted in a book, calendar and CD and an art show, and a commemorative pathway. (Wozitsky 1997 - https://search.informit.org/doi/abs/10.3316/informit.394179914180386) The community-led recovery can also be seen more recently. In June 2021, the Yarra Ranges were struck by particularly vicious storms, bringing down more than 25,000 trees and damaging 173 properties (Preiss, 2022)

> *The Yarra Ranges landscape is prone to fire; we have homes and townships dotted throughout our mountains and valleys and they have a high bushfire risk. While people live in these areas and are attracted to these landscapes, this threat will continue. This is a permanent tension that we as a community need to manage. (Yarra Council 2015)*

## The station and their listeners

3MDR was initially conceived in the wake of the Ash Wednesday bushfires, one of Australia's worst bushfire disasters. The Dandenong Ranges were particularly affected with the towns of Upper Beaconsfield and Cockatoo devastated by the inferno. 3MDR was established in 1985 as an emergency broadcaster and has acted in that role on and off over the years, most recently during the severe storms of 2021. The station has its inception in emergency broadcasting, as the station manager describes:

> 3MDR was established in 1984 when it was first started off by the community, and that was in response to the Ash Wednesday bushfires that tore through the Dandenong Ranges and took out quite a few townships and a few people lost their lives. Locals got together and said we didn't know what was going on at all. Let's set up a radio station. And so they had a few test licences and in 1985 they got their permanent licence to book out the Dandenong Ranges

In the years since the station's establishment, the Dandenong Ranges have seen significant growth and changes in their population in recent years. Particularly since the Melbourne lockdowns, the region has become a popular "tree change" for people looking to live closer to nature. The station manager of 3MDR has seen the changes in the area over his 23 years of living in "the hills":

> The area has changed significantly over the last 37 years or so. We broadcast down to areas like Pakenham. Which is now a huge growth corridor. It used to be orchards back in the day.

The natural beauty of the Dandenong Ranges attracts residents and visitors with strong environmental values. Further, the Dandenong Ranges has a vibrant arts and music scene, all of which are reflected in the programming and priorities of 3MDR.

> We've got a great amount of creative community up here in the hills. Musicians, arts, visual: all sorts of mediums and things like that. We're only an hour out of Melbourne, but it seems to be a different world up here.

The radio station has had many homes but is now located in the historic Forest Park Homestead adjacent to Upwey South Primary School. Owned by the Department of Education, the homestead presents some challenges in terms of being an old building that is

not purpose built for broadcasting. However, its ten rooms, extensive grounds and location presents great opportunities in terms of community interaction. Prior to the pandemic lockdowns, school groups were regular visitors to the station, along with a regular roster of musicians and local artists.

3MDR is predominantly run by volunteers with just two paid positions. The station has an estimated 600 subscribers, which is significant for a relatively small peri-urban station. The station has limited access to up-to-date listenership data, but a 2010 survey showed an audience of 15,000 weekly listeners.

## Programming

3MDR offers a range of arts-based, music, and talks programming representing the diverse interests of their community. Sustainability and the environment are key foci of talks-based programming, with 3MDR even offering a specialized program focused on bird watching. The station's overnight's playlist is nicknamed Larry Lyrebird, as a tribute to both the station's logo and a common resident of the hills. 3MDR also broadcasts MainFM's Saltgrass program as part of their suite of environmental programs. While Saltgrass covers a wide range of climate change issues that are relevant to other areas, the station manager expressed a desire for something focused more on local issues specific to the Dandenong Ranges.

A key point of difference in 3MDR's programming is the conscious choice not to provide a news service. While many stations without the resources to produce original news use syndicated services such as AIR or NRN, 3MDR does not broadcast regular bulletins. As the station manager explains:

> *We don't provide a news service here. We don't run any syndicated news programmes. We don't have a local news programme. And we sell that as a point of difference. And during the first few months of the COVID pandemic, we were like a COVID-free space. It's a lot you know. You're just getting bombarded. It's relentless. You know the press conferences, day in, day out, day in, day out. You know you need some sanctuary somewhere - that just does your head in. And I think*

*that's a service 3MDR provides. So yeah, quite a number of our shows will not, just don't, talk about that sort of thing. You know it's about the music.*

3MDR also broadcasts language programming with Tamil, Hindi, Greek, Samoan, Sri Lankan, Romanian, and Croatian shows each week.

# 3MGB, Mallacoota

## The region and climate impacts

Mallacoota is remotely located at the most easterly point of East Gippsland in Victoria.  It is about four hours' drive from Bairnsdale where most government services are located. It is a small community of around one thousand permanent residents, but like many nearby coastal towns, its population swells dramatically in holiday seasons to as many as ten thousand people.  It is popular for its wilderness location in a forested areas but with extensive sandy beaches and lakes. However it has a long, forested single road entry and exit to the town.

Future changes to the climate of the Gippsland region are expected to include increased temperatures all year with more hot days and extended hot spells; less rainfall in winter and spring but more rain failing as intense rain downpours. Fire weather is expected to be harsher and fire seasons longer. Sea levels are expected to rise with more frequent high sea water events (Victorian Government 2015 - https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0021/60744/Gippsland.pdf).

Mallacoota became the face of the 2019-2020 summer bushfire season with dramatic images emerging from the devastating fires that affected the small town, then full of holiday makers. With no safe exit from the area, thousands of people took refuge on and in the lakes. Over the next few days around 2000 of these people would be evacuated by the Australian Defence Forces and emergency services. During the fires 120 houses were lost – even two years later, very few of these have been rebuilt.

## The station and their listeners

The initial push for what would later become 3MGB (Mallacoota and Genoa Broadcasting) started in the 1980s when Mallacoota was under serious threat from a bushfire. The town was spared but the disaster highlighted the inadequacies of local communication systems: thus began the push to establish a local community radio station in Mallacoota (3MGB, 2022). It took almost a decade for the station to receive a license with 3MGB celebrating their 30th birthday in 2022.

A generalist station focused on the geographic area of Mallacoota and Genoa, 3MGB's listenership is broadly reflective of the towns' demographics. Roughly 30 per cent of Mallacoota's residents are over 60. Older people represent a high proportion of broadcasters and board members at the station; however, the station manager suggests this is slowly changing:

> *It's been run by people primarily over in their 70s up to the 80s, and that committee has been that sort of demographic. So it's taking a while, but now I've got a new committee on board from last year's AGM. We're all well, not young, but we're only 40s as opposed to 70s or 80s, not all of us but most. So it's good to sort of refresh 3MGB in that way.*

3MGB attracted national attention during the Black Summer bushfires of 2019-2020 when the station undertook emergency broadcasting as fire engulfed the town. The images of Mallacoota residents sheltering on the beach and evacuating on Navy ships were among the most striking of the disaster. 3MGB's role in the disaster was explored in the CBAA documentary podcast series From the Embers.

## Programming

The Mallacoota region has a strong community of artists and musicians that coexist alongside the long-standing industries of forestry and fishing. The town has a significant seasonal population, with tourists flocking to the town during holiday periods. 3MGB's programming reflects the diverse interests of the community, spanning a range of talks programs and

musical genres. There is more of an emphasis on music though, as the station manager describes:

> If you are going by the presenters, it's more about music and there's quite a few musos in town, so you kind of have, you've got your crazy jazz people, and then you've got your you know, hard punk people. And then you've got you know there's kind of a real good, diverse mix of musicians. Margo, for example. That's in there. She's got a band called Country practise but she's an old punk, but they play cool good country music, which there is some of. Not a lot, but some, so she plays some sort of heavy stuff for example. But then you've got others that play classical or Baroque, it's a real mix.

3MGB are no longer emergency broadcasters and do not broadcast any specific environmental programming. Yet, environmental issues and climate change are at the heart of many community conversations. The station's nickname – Wilderness Radio – reflects the community's close affinity with the town's natural surroundings – 87,500 hectares of nature and 100 km of undeveloped coastline (Visit Mallacoota, 2021), including Croajingolong National Park. The station manager observed that while the wilderness is what attracts people – residents and tourists – to the region, individual relationships differ which make environmental programming potential contentious.