# Eastern Victorian Bushfires waterways recovery – our new approach

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**Key Points**

- The severity of the 2019-2020 Eastern Victorian Bushfires necessitated a changed approach to governance to secure both immediate and longer-term waterway recovery outcomes.
- Given their local expertise, community connections, and central role in waterway and community recovery, the increased involvement of the East Gippsland and North East Catchment Management Authorities (CMAs) throughout the entire emergency response process was highly beneficial.
- DELWP's Water and Catchments Group established a dedicated Bushfire Recovery function to support CMAs with coordination and securing funding.
- DELWP's improved approach to waterway recovery was successful in securing funding for CMA on ground works.

## Abstract

The 2019-2020 Eastern Victorian Bushfires (the bushfires) were unprecedented in scale and intensity. Large areas of East Gippsland CMA (EGCMA) and North East CMA (NECMA) catchments were severely burnt. Early recovery actions and longer-term, multi-year works programs were imperative to repair damage to waterways and reduce future risks. A new governance approach was needed to facilitate this.

The increased involvement of CMAs throughout the bushfire response and recovery process (such as their inclusion in DELWP's Rapid Risk Assessment Teams) meant that waterway, CMA, and community priorities were all considered in recovery planning. The dedicated Bushfire Recovery function newly set up by DELWP's Water and Catchments group in response to the fires supported CMAs through this process. Through emphasising community and economic recovery benefits, the Bushfire Recovery team were successful in securing significant funding outcomes for waterway restoration. DELWP is working to formally embed this approach for future disasters.

Years of excellent waterway restoration can be lost in a single disaster. Without rapidly implemented and well-targeted recovery programs, these losses and restoration costs can be greatly magnified. DELWP's improved recovery governance demonstrates the importance of including waterway managers and embedding waterway recovery within a coordinated, integrated program.

***Eastern Victorian Bushfires waterways recovery – our new approach***

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## Keywords

Waterway recovery, bushfire recovery, governance, CMAs, Eastern Victorian bushfires

## Introduction

The bushfires were unprecedented in scale and intensity. Over 1.5 million hectares of land was burnt, with significant damage to catchments and waterways, including more than one million hectares or 53% of East Gippsland catchment and 357,000 hectares or 22% of the North East catchment (DELWP 2021).

While bushfires are a natural part of Victoria's environment, they can have disastrous impacts on waterways and associated infrastructure (DELWP 2018). Years of waterway restoration can be lost in a single disaster. In addition to immediate impacts of fire, such as vegetation loss, significant damage can arise from debris flows mobilised by later rainfall events. This exacerbates threats to water quality and biodiversity and increases the cost and difficulty of long-term recovery. Changing land use can also impair waterway resilience, and climate change is likely to amplify the risk of extreme events (DELWP 2018).

Waterways are critical for recreation, tourism, local economies, and social fabric. Communities are deeply connected to their waterways, and strongly desire their restoration in the wake of disaster. To achieve this, and reduce the risk of further destruction, a rapid recovery response and multi-year restoration and resilience-building works are needed. Effective governance is critical to ensure waterway recovery is effectively planned, funded, and implemented.

In Victoria, there is an established framework for waterway and catchment recovery planning at the state and regional level. Specific place-based recovery work is undertaken in an adaptive way and developed in partnership with community needs. Victoria's Catchment Management Authorities (CMAs) are integral to this process. They are tasked with many essential waterway recovery actions, such as erosion control, revegetation, weed removal, and more. They are deeply trusted and connected with their communities. Given their expertise, their insight and participation in disaster recovery is invaluable. During the bushfires, collaboration with CMAs was stronger throughout the emergency response and recovery process than in previous events. This was highly beneficial for community and waterway recovery. However, for this to occur, CMAs required dedicated support.

Victoria's Department of Environment, Land, Water and Planning (DELWP) is responsible for securing the resources needed for CMAs to deliver their state-based programs, including disaster recovery works. In response to the bushfires, DELWP's Water and Catchments Group (WCG) established a dedicated Bushfire Recovery function to provide the water sector with a single, central point of contact and support within the department. Through focusing on community and economic recovery, the WCG Bushfire Recovery team secured significant funding for CMA recovery projects. This successful governance approach demonstrates the effectiveness and importance of providing dedicated, consistent support to waterway managers throughout disaster recovery processes.

## Integrating waterway managers in bushfire recovery

### *What are CMAs and what do they do?*

In Victoria, CMAs are responsible for integrated planning and coordination of land, water, and biodiversity management. There are currently ten CMAs, corresponding to the catchment protection regions shown in Figure 1. CMAs are also involved in delivering recovery programs for waterways impacted by natural disasters, including bushfires.

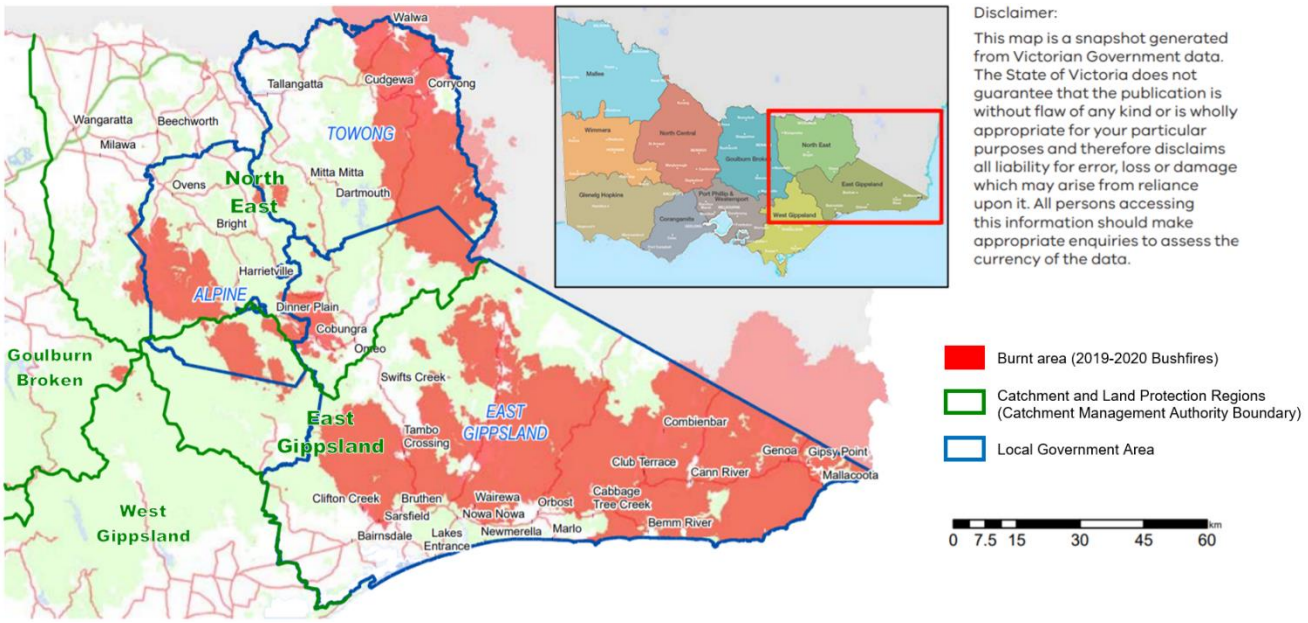


***Figure 1.*** *Map of Victoria depicting CMA boundaries and the area burnt in the 2019-2020 Eastern Victorian Bushfires (adapted from BRV (2020, p. 7) and DELWP (2018))*

CMAs have important, extensive local and regional knowledge that is essential for accurate impact and risk assessment, and effective mitigation and recovery work. They are involved in several critical early bushfire response functions including managing issues such as water quality, sedimentation, debris flows, channel erosion, and riparian fencing. Their business-as-usual works largely captures longer-term waterway recovery activities such as revegetation, weed control, infrastructure repair, and resilience building.

CMAs also play a critical role in community recovery after disasters. They are highly valued and trusted by communities, to whom they provide support and expert advice on post-fire impacts and issues of local concern. They have long-term relationships with landholders and well-established processes for community engagement. This proximity allows them to effectively anticipate and respond to community priorities and concerns, aid with recovery processes, and support community members themselves. Overall, community responses to CMA recovery efforts were highly positive. The community noted that CMAs were quick to act, easy to engage with, and highly visible in recovery efforts. The case study below highlights the CMAs role in engaging with community on issues of local concern and how this is valued by communities.

**Case Study - The value of community and CMA collaboration: Protecting our Native Iconic Fish Species**

Communities were greatly concerned by localised fish deaths associated with post-fire run-off. In response to this, and informed by Bushfire RRATs recommendations, DELWP staff from the Arthur Rylah Institute (ARI) worked closely with communities and CMAs to rescue and relocate affected aquatic species and monitor water quality and fish populations (ARI 2020).

The project involved several aquatic species and sites across both North East and East Gippsland. In Mallacoota in East Gippsland, local concern regarding potential accumulation of toxic run-off in the lakes led to testing being undertaken. Compounds of concern were all found to be under safe limits, assuaging community anxieties during a volatile period. Alongside DELWP and ARI staff, EGCMA hosted a series of community boat tours in Mallacoota to discuss the impacts of and recovery from the fires, shown in Figure 2. This was an important opportunity for local residents to voice their concerns to the government, and to connect with each other following the disaster. This project exemplifies the value of early CMA involvement in emergency response, collaboration in designing and delivering restoration initiatives, and the important role CMAs play in community recovery.


***Figure 2.*** *Mallacoota residents and staff from EGCMA, DELWP, and ARI at the boat tours.*

## *Involving CMAs in early bushfire response: The Rapid Risk Assessment Teams*

The Rapid Risk Assessment Teams (RRATs) are multi-disciplinary Victorian Government teams who rapidly identify, assess, prioritise and evaluate risks on public land after an emergency. Teams are comprised of discipline specialists who assess biodiversity (flora and fauna), built assets, cultural heritage, flooding and erosion, forest management, tourism, and economy. They utilise mapping, observation, and modelling to assess bushfire impacts. Within seven days, they produce reports for public land managers identifying priority risks

and practical treatment solutions. This approach has been used in Victoria across multiple disasters over about the last ten years.

CMAs have previously been involved with the RRATs programs, providing expertise in flooding and erosion risks in relation to waterways. During the bushfires, partnerships between CMAs and RRATs were strengthened and CMAs were involved in the RRATs assessment process from the very start. This ensured specific waterway and catchment risks were highlighted early, allowing for better integration of waterway recovery considerations as well as community needs into the overall assessment process. As RRATs assessment findings and recommendations are the backbone of recovery funding proposals, CMAs input was invaluable to securing the funding necessary for recovery works that would not only benefit the environment but also the communities whose livelihoods depend on healthy waterways.

CMAs provided very positive feedback about their increased involvement in the RRATs process. To build on these outcomes and ensure integration early in the recovery process, DELWP will be working to support more systematised involvement of CMAs in the RRATs program and recovery planning more broadly. Efforts to better integrate waterway managers in response and recovery activities have positive impacts on community recovery, but this requires government support and greater certainty with respect to funding.

## Mobilising government for bushfire recovery

Prior to the bushfires, DELWP's portfolio areas all interacted with emergency response structures in different ways. Due to this reduced coordination of departmental input, some complications ensued in directing on-ground recovery resources across portfolio responsibilities. Within WCG, there was no dedicated recovery function, meaning there was no central coordination point to provide CMAs with contact, support, and advocacy. The scale of the 2019-2020 disaster and challenge of recovery posed by the bushfires necessitated a streamlined governance structure. Improved coordination allowed for the complexities, interdependencies, and relationships across DELWP and WCG areas to be better considered, and for links to regional recovery resourcing and support for community-led recovery to be strengthened.

In January 2020, DELWP rapidly mobilised its workforce and created recovery coordination functions to plan and oversee delivery of a broad suite of emergency recovery responsibilities. Establishing this operating model has ensured efficient, integrated, and coordinated recovery planning and delivery across DELWP's broad portfolio, resulting in significant funding from State and Commonwealth Governments and improved outcomes for communities and the environment.

DELWP's approach included establishing a dedicated Bushfire Recovery function in the WCG to support recovery across Victoria's water sector. The team worked centrally within WCG to coordinate funding bids, initiatives, reporting, and governance arrangements for recovery. They represented the interests of Water and Catchments in stakeholder negotiations, strategic recovery planning, and funding submissions. They also provided the Minister for Water and DELWP Executives with policy advice on water sector and community

recovery. The Bushfire Recovery team also worked directly with impacted water sector agencies, including water corporations and CMAs. They acted as a central contact point for agencies with DELWP, coordinating requests and ensuring delivery and effective implementation. Throughout the bushfires, they supported CMAs with impact assessment, accessing funding, and coordinating reporting requirements for funded recovery initiatives.

The state-level support provided by DELWP to the CMAs enabled them to work closely with the community on priority recovery issues in a timely manner. Having early funding available allowed the CMAs to undertake vital recovery work to restore waterways post-bushfire, without having to wait months for funding to be secured for the work. This approach in supporting CMAs during and after disaster should be built upon as part of a longer-term recovery model in emergency management.

The new governance approach to recovery from the fires demonstrated that DELWP, WCG, and the water sector (including CMAs) benefit from a well-structured and coordinated model. For future events, a strong, long-term resourcing and governance model is needed. This includes standing capacity and readily accessible surge capacity to support dynamic resourcing needs, a structured approach to developing emergency recovery capabilities, retention of institutional knowledge and capability, and clarity with respect to funding. DELWP is considering how this model could be resourced and employed in future to enable adequate preparation for and activation of recovery.

### *Securing funding for waterway recovery*

Due to the nature of recovery funding processes, CMAs can find themselves in an uncertain position regarding funding for disaster recovery, potentially limiting the efficacy of recovery plans. Works carried out by CMAs are funded from multiple sources, with most funding from state and federal governments. However, there are a few pre-agreed sources of funding available for immediate and long-term waterway recovery programs and they are increasingly challenging to secure. There are also complexities in securing payment in arrears for CMAs.

Having dedicated support for funding applications helped navigate these challenges and complexities, resulting in improved funding outcomes for CMAs. The inclusion of the CMAs in the RRATs ensured specific waterway risks were highlighted early in disaster response, so the need to address them could be better articulated. Additionally, it meant that DELWP better understood the impacts and risks to waterways and their surrounding communities and could seek opportunities for funding beyond waterway recovery works by emphasising community and economic recovery benefits. Through this opportunistic approach, DELWP was successful in securing funding for water sector recovery initiatives, including several recovery programs to be delivered by CMAs.

DELWP was successful in securing $6.5 million in funding for EGCMA and NECMA to tackle priority risks related to impacts of erosion and debris on water quality, repair riparian fencing and off-stream watering

systems, and limit the rapid spread of weeds, as part of a community-led recovery program (DELWP 2021). The works undertaken at the Tambo River in East Gippsland (Figure 3) demonstrate what CMAs can achieve with sufficient and certain funding. These waterway restoration works provide benefits for aquatic species, ecosystems, and local communities that depend on healthy waterways.

***Figure 3.*** *The Tambo River in East Gippsland post-bushfire (left) and during recovery works (right). Images courtesy of EGCMA, via DELWP (2021).*

## Conclusions

CMAs have advised DELWP that they would like to see the governance arrangements that were developed during the bushfire response continued in future disasters, in a more systematic manner. The Bushfire Recovery function is working to establish a recovery framework and disaster funding arrangements, and to better support the integration of CMAs into processes such as the RRATs. This will help CMAs gain earlier access to confirmed funding for recovery and support them in implementing on-ground efforts and community engagement. Formally establishing the WCG Bushfire Recovery function would allow this support for the water sector to continue. Additionally, this governance approach could be applied to other forms of disaster, such as floods. The outcomes of DELWP and the CMAs' recovery efforts in the bushfires demonstrates the importance of embedding waterway response and recovery activities within a coordinated, integrated recovery program.

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