

# Submission



*To the Victorian Parliamentary Inquiry into the  
2022 Flood Event*

June 2023

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Thank you for the opportunity of making this submission in relation to the Parliamentary Inquiry into the 2022 Flood Event.

The Murray River Group of Council's comprises six Councils whose Local Government Areas cover a significant proportion of the northern Victorian floodplain of the Murray and its Victorian tributaries.

Our communities were all affected by the floods in 2022 and continue to feel the effects of the floods and their aftermath.

We welcome the inquiry and hope that it will lead to recommendations that will improve the way all levels of Government cooperate to plan, prepare for and respond to flood events in the future.

A handwritten signature in black ink, appearing to read "Rob Amos".

Cr Rob Amos  
CHAIR, MRGC 2023



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Mildura Rural City Council



SWAN HILL  
Rural City Council



GANNAWARRA  
Shire Council



LODDON  
SHIRE



Campaspe  
Shire Council



moira  
SHIRE

## About the Murray River Group of Councils

The Murray River Group of Councils comprises six Local Councils in northern Victoria, covering an area of 47,194 km<sup>2</sup>. The Group has been working together on shared issues on behalf of our communities since 2006.

The region is home to 165,000 Victorians, living in regional cities like Mildura, small rural settlements like Quambatook and thriving towns like Yarrawonga.

Agriculture and food manufacturing are key drivers of our regional economy. Combined these sectors account for one in five jobs and some 37% of the economic output of the region.

Across the MRGC region from Moira to Mildura flooding moves from flash flooding at upstream parts of the region fed by the steeper catchments moving through sustained riverine flooding in the central parts to slow sustained expansive flooding across the downstream region of Gannawarra, Swan Hill and Mildura.

This result in much of our region dealing with all aspects of response, relief and recovery at one time, at some stages a single municipality can be in all phases at one time.

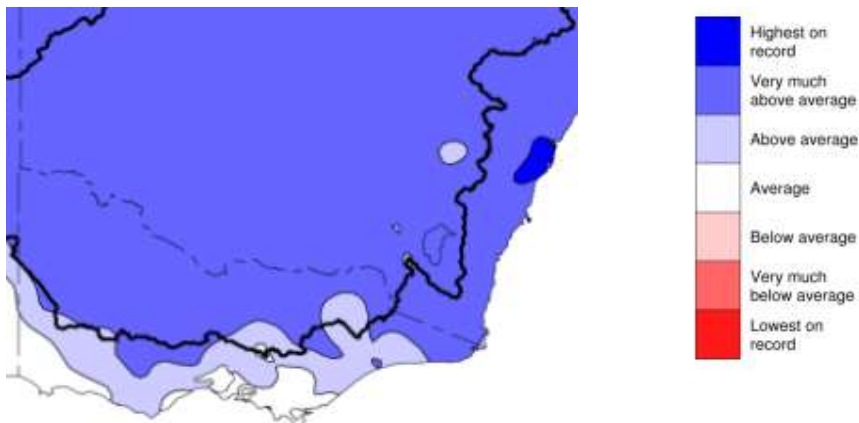
MRGC believes that the duration and nature of flooding in northern Victoria is poorly understood by State and Commonwealth governments. The way this flood event behaved is different to previous floods, even those of similar magnitude and the flood differs in nature across the floodplain.

# Causes of and Contributors to the Flood Event

## Regional Climatic Conditions

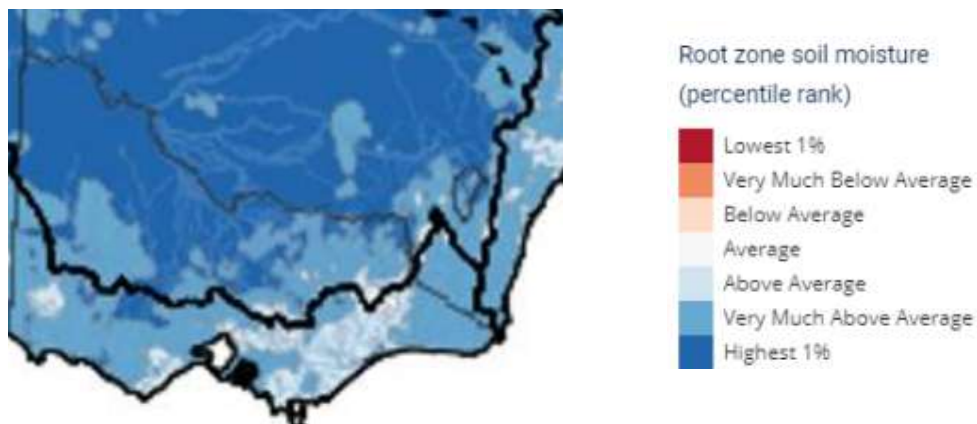
The MRGC region covers a significant portion of Victoria's Murray River floodplain. Many urban and rural areas across our region are vulnerable to flooding. The region is exposed to both swift rising and falling riverine flooding in the Goulburn, Campaspe and Loddon systems and lengthy riverine flooding in the Murray River. These both contribute to prolonged floodplain inundation across much of the region.

Climatic conditions experienced in south eastern Australia in the nearly three years leading up to October 2022 were a significant precursor contributor to the floods in our region. The abnormally intense third La Niña cycle led to Victoria experiencing very much above average rainfall throughout 2022.



Rainfall deciles January 2022 – October 2022 [source: BOM]

This left water storages across the Basin at, near or even above 100% capacity by October. Wet soils further contributed to maximising run off with



Soil (root zone) moisture October 2022 [source: BOM]

many catchments in our region having very much above average or recording the highest root zone moisture on record.

From 6 October 2022 heavy rainfall and severe thunderstorms affected multiple catchments across Victoria and southern NSW causing widespread in riverine flooding. Further heavy rainfall occurred in the period 12 to 14 October 2022 which resulted in flash flooding and consequential riverine flooding.

Total rainfall of 50 – 200 mm across half of the state was recorded causing major flooding, predominantly in the central and north central regions of the state, with minor flooding elsewhere in Victoria.

Storages play a significant role in flood mitigation across our region including Lake Hume and Lake Mulwala on the Murray, Cairn Curran, Tullaroop and Laanecoorie on the Loddon system, Eildon and Goulburn Weir on the Goulburn as well as Lake Eppalock on the Goulburn and Campaspe. The wet conditions described above made management of these storages particularly challenging for Goulburn Murray Water and other river managers during these flood events.

## Moira Shire

Flooding in Moira shire is predominantly associated with the River Murray and the lower Goulburn river with the Broken Creek and Boosey creek also playing significant roles.

In October 2022 heavy and persistent rainfall fell across much of the catchments of these river and creek systems. A significant rainfall event occurred across the Goulburn Broken catchment from Wednesday 12 to Friday 14 October, with 48hr rainfall totals exceeding 200mm in some areas causing widespread fast rising flooding above the Goulburn weir.

Together with further rainfall events in NSW this led to major flooding in the River Murray. Flash flooding in the neighbouring alpine areas of Victoria, caused water to travel downstream through the tributaries into the King and Ovens River systems merging into the Murray River upstream of Yarrawonga Weir.

Large areas of Moira Shire were flood affected from October through to December. The volume of the Goulburn River water flowing into the already full Murray River, at the township of Barmah caused the river to 'flow



backwards', causing major riverine flooding in parts of Moira before flowing downstream to cause damage in Campaspe.

## Campaspe Shire

Campaspe shire experiences flooding from the Goulburn system, the Murray River as well as from the Campaspe River downstream of Lake Eppalock. ML/day was a major contributing factor.

Rainfall events in October 2022 in the upper catchments of the Campaspe River caused widespread major flooding along the Campaspe. An unprecedented spill from Lake Eppalock, where flows over all three spillways peaked at 103,000 ML/Day, flowed down the Campaspe, inundating the town of Rochester on 14 October 2022.

Water flowing downstream in the flooded Murray peaked at Torrumbarry on 22 October, 2023 and Echuca on 26 October, 2022.

## Loddon Shire

Loddon Shire's major flooding is caused by a convergence of a number of waterways into the Loddon River. Excess flows from Tullaroop and Cairn Curran reservoirs flow to Laanecoorie Reservoir reaching inflows far in excess of their capacity.

Loddon Shire experienced two types of flood during these events. One a fast moving river flood overtopping the banks which impacted the townships of Newbridge, Bridgewater and surrounds.

The second type of flood was a slow moving and rising floodplain inundation. When the Loddon River and Serpentine Creeks flooded and met, the water spilled onto the floodplain becoming a large and slow moving water front.

This water was also joined by water from the Korong Creek and travelled north filling the Kinypanial Creek and flooding north toward the Murray River.

Water from the Waranga Western Channel also traverses the municipality from the Campaspe River at Rochester to the Loddon River.

## Gannawarra Shire

In Gannawarra, rainfall received in the upper reaches of the Loddon and Avoca River catchments, impacted the shire as the floodwater moved down



the river systems to enter the Little Murray and Murray River in the north-west corner of the Shire. Much of this water then has to enter the Murray River system downstream of the farming district of Benjeroop.

Moderate flood levels in the Avoca River catchment, combined with major floods in the Murray River and the Loddon River were the main causes of flooding the Gannawarra.

### Swan Hill

The floodwaters travelling down the Murray River from the Campaspe and Goulburn Rivers combined, resulted in the floodwaters in the Murray River peaking at 4.60 metres in Swan Hill.

Whilst the township of Swan Hill was not inundated during the October 2022 event, there was damage to the levees and drainage infrastructure which is still being assessed. Our smaller communities, farming areas and rural roads were more heavily impacted.

### Mildura

Like Swan Hill, the causes of flooding in Mildura were largely the Murray River and the slow movement of the floodwaters from the upstream catchments. The water reached its peak in Mildura in late December 2022 with the Murray River peaking at 38.367m.

Mildura is located close to the confluence of the Murray and Darling rivers and with the Darling also in flood at the time, water spilled onto the floodplain.



Murray River Flooding near Mildura December 2022

## Adequacy and effectiveness of early warning systems



**Unregulated flows from the Calival and Bullock Creek floodwaters crossing the Kerang-Koondrook Road at Sampson's Bridge**

Flood warning experiences varied greatly across the MRGC region; not only from municipality to municipality but within Council areas, depending on the type of flooding experienced.

The region experienced fast rising riverine floods quickly inundating towns such as Rochester and Newbridge with little warning and inaccurate height predictions.

Further downstream, the slow and inexorable rise and long duration of floodplain inundation and the Murray River floods at Swan Hill and Mildura were, on the whole, better predicted.

In the weeks prior to the major flood in shires across the Goulburn Murray Irrigation District, warnings of minor or moderate flood were issued from Goulburn Murray Water to license holders advising them to move stock and infrastructure (e.g. pumps) to higher ground.



In some places, such as the township of Kerang, the early warning system worked well. There was a good understanding of typical impacts and what was going to occur and when.

Some residents in our communities have told us that they felt uninformed of the history of flooding and potential impacts to their properties.

While this was particularly true of new residents who had not experienced the 2011 flood event, even some who had lived through the 2011 events assumed that the 2022 event would be of similar impact and felt that they were adequately prepared.

In Rochester, despite door knocking of 700 homes in lead up to the event by local CFA, SES and local Community House members, the majority of residents declined to leave due to what the prediction was and their previous experience in preparedness, the sentiment 'was that we know floods and how to prepare'.

Due to the unprecedented impact on Rochester, over 100 swift water rescues occurred over period of 4 days post the initial impact, relocating over 400 Rochester residents to both Echuca and Bendigo Emergency Relief Centres.

Residents have reported to Councils that they felt uninformed on the local progress of the floodwaters and what they should do to prepare and protect themselves and their property.

Some residents reported that floodwaters surrounded their properties without any, or with little, warning being received. Lack of reliable information of what the expected impact would be, meant that some residents were underprepared and isolated, in some cases with animals, for prolonged periods.

## Vic Emergency App and website

While the Vic Emergency App is recognised as a useful tool and is widely used across the region, there has been concern expressed that the app was, at times, inaccurate.

Even when information was accurate, if it was not available in a timely manner, rumours were reported (often unverified and inaccurate) that were then amplified by social media.

Digital connectivity and reliability is a major barrier to access to reliable and up to date information in rural communities. For example in Gannawarra, more than 30 per cent of dwellings do not have access to the internet (2021 Census). There are also 'blackspot' areas where internet and mobile phone coverage is not available or lacking.

While they are essential tools, the Vic Emergency App and website also played a significant role in the confusion for the public and Council staff. Data was at times inaccurate and slow to be updated. Rather than the App providing reliable access to factual information, social media became the source of information for residents anxious for up to date accurate data. Unfortunately social media can amplify misinformation as much as it disseminates accurate information quickly.

Reliability of internet and mobile reception in the lead up to an emergency is difficult in rural areas, and relying on an app and website creates challenges for residents.

Improved clarity for watch and act alerts, evacuation areas and other warnings is required.

In some cases, residents were unclear about what the different warning meant. As a result some treated them as advice only rather than (in the case of evacuation orders) an official requirement to leave the area.

In other cases, in some towns where predictions were incorrect and the level of predicted flooding did not eventuate, warnings were left up entirely too long, leading to residents being displaced unnecessarily businesses being unable to operate, and the continued crippling of tourists and visitors.

## Bureau of Meteorology (BOM) Forecasts

The BOM is an invaluable source of information and is trusted widely throughout the region as a key source of weather information.

Unfortunately during the flood events, this information was not as reliable or as timely as needed. Neither Councils nor residents could adequately rely on river height predictions reported by the BOM.

From Council's perspective, it was difficult to obtain official information about the location of the water front to understand speed of movement and time to prepare.

Council staff were contacting local CFAs and farmers on the ground to understand the location of water and track movement. Official daily monitoring and information about the location and predicted movement of the floodwaters from an official source would have added great value to give warning to residents and businesses.

The Bureau of Meteorology needs to be better connected to river operators and the Catchment Management Authorities who have a greater understanding of river height and influences of how the floodplain operates.

Warnings about flood water moving through the channel system would have been of value to these flood areas as additional and unexpected water was coming from the east via the Waranga Western channel flooding areas unexpectedly.

Rain and water level gauges are a critical part of the early warning system and need to be managed and maintained in a consistent manner. These should all be owned and operated by the BOM who should be adequately funded for this activity.

Council's capacity to maintain these markers in a rate capping environment is challenging. Local Government are not responsible for early warning systems, which conflicts with having to provide markers and gauges.

The complex interactions of the community with the warning system were on display during the floods. Some warnings were overly broad or contradicted local knowledge from previous events.

Community members within the Torrumbarry area created levees independently based on historical knowledge with a disconnection from the established Incident Control Centre (ICC).

Many community members around Echuca went to enormous efforts sandbagging based on evacuation and warning advice that was not targeted, it led to angst within the community and resulted in enormous waste and recovery activities.



## Example: Riverine Flooding in Loddon

The flood at Newbridge in Loddon Shire is an example of poor forecasting and inaccurate warnings. The Loddon River downstream of Laanecoorie weir flood warning was upgraded by the Bureau of Meteorology from moderate to major at 7:00am. At the recreation reserve this flood water was knee deep by 8:00am and up to the building eaves by 10:00am.

Because flooding had commenced in the southern part of Loddon Shire, many residents in the central and northern areas had warning of the floodwaters and were able to prepare.

The photograph below is Newbridge Recreation Reserve around 10:00am on 12 October. The water is over the roof of the tennis pavilion, and up to the eaves of the main pavilion. All of the building fit-out and contents were lost.



### Flooding at Newbridge 12 September

The timelines outlined above demonstrate the inadequacy of the flood warning system which did not provide sufficient time for the people of Newbridge and surrounds to prepare for flooding.

Laanecoorie Reservoir has a capacity of 8,000ML and during the peak of the flood on 14 October 145,000 ML of water was passing over the weir. It would be helpful to understand why inflows to Laanecoorie from the larger Tullaroop and Cairn Curran reservoirs did not allow greater warning that Laanecoorie reservoir would reach major flood levels. As Laanecoorie Reservoir is

approximately 17km (by river) from Newbridge, inadequate warning was available to the people of Newbridge and surrounds.

It is also critical to acknowledge that despite years of advocacy for a mobile phone tower to be installed, Newbridge and Bridgewater have very limited mobile phone reception further inhibiting communication and alerts being issued during emergencies.

The flood water peaked at the township of Bridgewater around 8:30pm providing that township with approximately 12hrs notice. This allowed significant preparation to occur because the community responded instantly working together to prepare areas which would flood. With greater warning this community would have been better positioned to save further infrastructure.



**Flooding at Bridgewater 12 September**



## Resourcing of the State Emergency Service

The adequacy of its response to the Flood Event and the adequacy of its resourcing to deal with increasing floods and natural disasters in the future;

### VicSES

The Victoria State Emergency Service (VicSES) has several critical roles in Victoria's emergency management arrangements, including leading flood planning and response. Both the agency and its volunteer units are highly valued.

The efforts of the VicSES as whole should not be understated – they provided enormous levels of support to residents and Councils alike. MRGC member councils are grateful for the role that VicSES played throughout the flood events in the region.

Community meetings run by VicSES were generally well run. There continues to be a high level of trust and respect shown by the community to VicSES staff and volunteers. It is essential that these community meetings be a partnership between Council and agencies.

However, it is apparent that the VicSES is under resourced and unable to adequately respond to a major flood event.

There are significant challenges faced by VicSES, which is a volunteer organisation and ultimately responsible to a board. This structure created a slowdown of decision making, and limits incident controllers' ability to make decisions, particularly decisions which have a significant monetary cost.

The prolonged nature of the 2022 event meant crews and controllers were significantly fatigued and unable to provide the level of support required across the breadth of the event.

The burden on local VicSES crews, which struggle for members outside of events is enormous.

Some high-risk communities across the region did not have access to a community meeting supported by the relevant authorities. In some cases, such as in Loddon, Gannawarra and Campaspe, community volunteers who had experienced the 2011 floods felt an obligation to fill this gap.

In some shires, there is no capacity in the VicSES to coordinate the response and therefore local response leadership was transferred to the CFA under their joint arrangements. As a whole the local CFAs provided exemplary leadership during this event and in some cases to the detriment of their own property damage.

In some cases local CFA Captains were not aware of the arrangements between the CFA and VicSES and were therefore unaware of their authority to act in consultation with the ICC. In some instances this lack of knowledge caused delays in them taking action and conflict with Council who they expected to lead the response. Better induction of new CFA captains to understand this arrangement would add great value to future events.

Council is in strong support of the arrangement between the CFA and VicSES whereby the CFA provides local response where the VicSES has no capacity and the VicSES provides coordination support from the Incident Control Centre.

VicSES facilitates Community Emergency Risk Assessments (CERA), addressing all hazards at multi agency Municipal Emergency Management Planning Committees (MEMPCs), which form the basis of planning priorities documented in Municipal Emergency Management Plans (MEMPs). Currently risks are identified, however limited resources and capacity are dedicated to mitigation planning, education and infrastructure.

In future, MRGC would like to see resources to the VicSES increased to enable it to fulfil its Control agency role in response to major flooding.

## Incident Control Centres

The Incident Control Centres (ICC) were a key part of the co-ordinated Government response to the flood emergency. ICCs were established in Shepparton and in Bendigo during the initial phases of the emergency.

Council's experiences of working with the ICC were mixed. The sheer scale of the events, their complexity and the fast pace of change during the floods meant that the ICC was pushed to its limits.

As a result, the ICC understandably tended to focus on the most high profile events at any one time and were not able to meet the needs of smaller shires adequately.

The Goulburn River flooding of Shepparton was the central focus of the ICC located in Shepparton, with the simultaneous regional flooding in adjacent Moira Shire less of a focus.

Significant inflows into the Broken and Boosey Creeks caused significant flooding of properties in Moira Shire. Neither of these flooding issues in were prioritised by the Shepparton ICC.

In the west of the MRGC region, the ICC was moved from Bendigo to Swan Hill and then onto Mildura. Moving a control centre into the impact zone at Swan Hill was disruptive and caused confusion.

Each time the ICC moved, it created problems with issues not followed up, decisions not made; a change of staff meant a change in attitude, and ICC staff lacked local knowledge.

Throughout the floods, Councils experienced significant disconnect and lack of clarity of the roles and responsibilities and communication pathway between the Divisional Command (DivCom) and the ICCs.

Command and control structures were not followed or potentially understood by the local volunteers (both VicSES and CFA) and other agencies, resulting in significant and timely communication gaps between the localised and ICC decision making and challenges faced by agencies stepping outside of span control making decisions without all considered information required.

Appreciating the need to manage worker fatigue through shift rotation, with the frequent turnover of ICC Incident Management Teams (IMT), there were significant challenges with change and repetitive nature of information and often delayed decision making, creating frustration, and contributing to the disconnect.

## Implementation and effectiveness of the 2016 Victorian Floodplain Management Strategy in relation to the Flood Event;

The aims of the 2016 Victorian Floodplain Management Strategy are:

- Provide access to better quality mapping to support emergency services response and recovery;
- Assist councils to implement water management schemes for flood mitigation infrastructure;
- Clarify the arrangements for flood warning systems, with DELWP as the oversight agency and providing direction for new flood gauges to be included as part of the water monitoring partnership;
- Clarify the arrangements for the management of urban and rural flood mitigation infrastructure;
- Plan for stormwater management and reduce smaller scale flooding over the medium to longer term;
- Increase access to information to encourage flood insurance to be taken up commensurate with an individual's risk;
- Provide guidance for preparing Regional Floodplain Management Strategies based on a risk assessment framework; and
- Increase land-use planning coverage for areas in the 1 per cent Annual Exceedance Probably (AEP).

MRGC members consider that given the circumstances and impact of the 2022 flood events across the region, these aims have not been met to the need or satisfaction of the community.

It is the view of the MRGC that some of these aims require amendment and some of these aims, while generally the right ones, have not been properly implemented or appropriately resourced.

Given that events of this sort and magnitude are predicted to occur more regularly in the future than they have in the past due to climate change, MRGC is of the view that a true regional approach to flood planning and preparedness, response and then recovery needs to be taken and should be

overseen and co-ordinated by the State Government in partnership with local councils.

Significant responsibility for actions under the strategy have been shifted to small rural Councils who have neither the financial resources or the people and expertise to meet the strategy recommendations. The introduction of rate capping has decreased the capacity to raise the necessary funding internally.

An example of the issues with the Strategy is the current situation around the management of urban and particularly rural levees.

There are some 4000kms of rural levee banks in Victoria. They traverse private land, crown land, council land and government controlled land. The inspection, management and maintenance responsibilities for these levees are not clearly defined and are certainly not adequately funded.

This leaves communities exposed during flood emergencies when breaches occur.

Under the strategy, Councils are responsible for new or upgraded levees but are not funded to do so. Nor do Councils hold the expertise for flood mapping that Catchment Management Authorities do. Every levee will have an impact on the floodplain and changes or damage to them will alter that impact.

The Water Act (1989) does not protect councils from liability as it protects state government agencies and these risks have been raised by local government insurers.

The strategy also allocates responsibility for the floodplain to individual landholders who, without any coordination support are expected to come together and manage water across a large area.

Because there are very few landholders volunteering to participate in this, water management occurs on a farm-by-farm basis and results in water flow conflicts. This was evident during the October 2022 flood where councils received significant complaints about water movement between properties.

Because individual landholders are managing their own water this often results in it being pushed to council road reserves and drains. This results in council or State roads becoming water logged or unnecessarily inundated.

The strategy suggests local coordination of the Floodplain Management Strategy however there is no recognition of this in terms of adequate



resources for either councils or catchment management authorities to undertake the appropriate level of works.

During 2022 flood events, the rural communities within Swan Hill Rural City Council at Pental Island, Tyntynder, Beverford and Speewa were nervously watching the impending flood with a real possibility of the existing levees breaching.

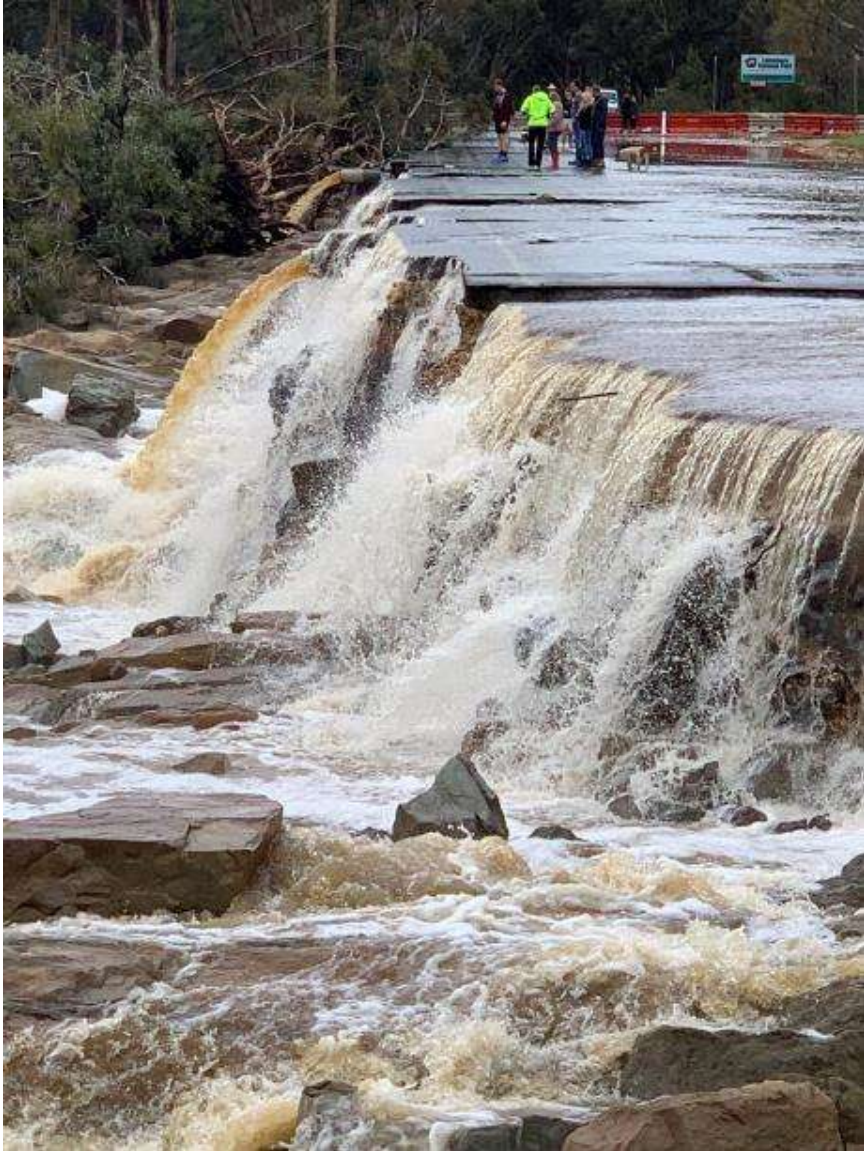
Under policy 17D of the VFMS, levees on crown land that are not being formally managed will not be maintained and are allowed to weather away.

This appears to be an unreasonable approach to landowners in these impact areas. During this flood event, breaches of these levees would have been catastrophic. Emergency services sandbagging of low lying or poorly maintained areas of the levee was instrumental in preventing a more major flood event.

Our communities and specifically the community at Tyntynder Flats, who have made their own independent submission to this inquiry, are pushing for government to urgently review this aspect of the VFMS, 2016.

The inspection and ongoing maintenance of rural levees – or at least those levees that government and communities together deem to be strategic in nature – needs to be properly funded and resourced.

MRGC's joint position shared by our six member councils is that local government is not the appropriate body to be responsible for rural levees under the VFMS.



Road damage in Campaspe Shire



Location, funding, maintenance and effectiveness of engineered structures, such as floodwalls, rural levees and culverts, as a flood mitigation strategy;

Historical flooding in our region has led to a range of flood mitigation strategies being implemented over the years and systems and structures being put in place at a local level to mitigate the risk of flooding to towns, infrastructure and local areas

Minimising disruption and damage to public, business, and personal assets, including agricultural businesses, on an active floodplain can be achieved through the strategic positioning of flood mitigation infrastructure.

To achieve this, work should be undertaken to look at strategic levees, fixed crest weirs, and culverts to enable water to flow across the active floodplain to a point where this water can re-enter natural water courses

Rural levees are a subject complex enough to demand their own inquiry. The current situation is untenable. Levees have been constructed for decades on public and private land.

As referred to above in discussing the VFMS, ownership and maintenance responsibility is opaque or not defined. When breeches occur, it can leave thousands of hectares of productive land exposed even at minor flood level.

The coordination between agencies with interests in or responsibility for rural levees needs improvement. Funding for construction, maintenance, removal of temporary levees and monitoring ahead of flood events is insufficient and fractured.

For the construction of new levees, the approvals process is fraught until a flood event is declared at which time approvals can be waived or expedited. This means levees do not get built except in a rush while a flood event is imminent.

Community engagement on this issue is critical. Property owners living on the floodplain need to be aware of, and acknowledge, the possibility and impacts of flood events on this area.

With the implementation of strategic levees, fixed crest weirs, and culverts there will be areas of the floodplain where the cost to society of repeated

flooding is prohibitive and options for encouraging people to move out of the active floodplain should be considered.

It is acknowledged that as a municipality at the end of a major floodplain, changes upstream on the floodplain aimed at diverting water away from one area, will only cause a greater impact to areas further downstream.

Planning flood mitigation works should therefore ideally occur from the bottom of the floodplain. Flood mitigation works can then be planned further upstream to further mitigate risk to communities.

During this flood event, councils were still pumping to clear water from a vast area in late January 2023 (to enable roads to open and people to return to their homes and properties), from a rain event that occurred in mid-October 2022, it should be expected that the same situation will occur in the future.

Furthermore, given that 2011 was a 1 in 100-year flood event, and we have experienced another 1 in 100-year flood event just 11 years later in 2022, there needs to be action to mitigate the risk of what will be inevitable future flooding.

As discussed above, MRGC believes this should be done on a regional basis.

## Betterment

A further issue requiring consideration is the notion of “betterment”. With climate change predictions meaning it is likely communities will face similar and even more intense flood events more regularly in the future, many governments around the world are preparing with “build back better” being the new standard. Resilience and adaptation are essential in a climate change future.

This being so it is extremely frustrating for council and our communities, to only be enabled to replace like for like when repairing critical transport and community protection infrastructure.

It is far more logical and a far better long term financial investment to implement a better or more robust solution – which in some instances could even be cost neutral. Better strategic planning around the limitations of the existing infrastructure, could enable implementation when existing infrastructure does unfortunately fail during an event.





This road was resheeted after the 2011 floods and similar damage occurred in 2022.



This road was damaged in 2011 (above photo) and again in 2018. It was damaged in the 2022 floods – shown in the right hand photo.

The cumulative cost of resheeting these roads after each subsequent flood event (it is likely these will fail again when future flood events occur) far exceeds the relatively small additional cost of betterment (installing a concrete deck) to bring the roads to a standard that will be resilient to damage in future.



Flood Event as a whole, including but not limited to, the catchments and floodplains of the Campaspe, Loddon and Murray Rivers

#### (d) Campaspe River;

Traditional flooding in the Campaspe has involved singular flooding along the Campaspe catchment, the Murray Valley catchment or the Goulburn catchments. These events in the past have occurred independently allowing water to drain into the Murray River with only localised and short-term effects on community. The 2022 flooding event involved all catchments flooding within a similar timeframe which resulted the in the Murray system at capacity and a backup of flood water in the Goulburn and Campaspe and a landscape event that lasted longer than authorities had predicted.

In Rochester, over 800 homes were damaged or uninhabitable, with more than 70% of residents still not back in their home some 7 months post the event.

Residents have either been placed in caravans on their impacted properties, with 250 households in this category, living in makeshift accommodation in sheds or currently living outside of the municipality.

The Victorian Government established the Elmore Village and housed some 350 residents at its peak. Elmore Village is due to close on August 15, with still some angst around the residents who still reside at Elmore. Emergency Recovery Victoria (ERV) has been assisting residents to relocate into alternative accommodation.

The total impact to farm area was around 58,000 Ha, or 45.8% of Campaspe's total farming area. 32,225 tonnes of cropping were lost, with 27,807 tonnes of hay/silage lost. It also resulted in nearly 2000km of fencing destroyed.

#### (f) Loddon River;

The flood event commenced in October 2022 and will continue requiring resources until the rebuild is complete. Loddon Shire Council estimates \$46 million damage to essential infrastructure which we intend to claim under the Disaster Recovery Funding Arrangements (DRFA) and a further \$7.5 million in non-essential infrastructure damage which Council will need to fund.

Council's annual rates income is \$10.5 million and if Council is unable to successfully fund the reconstruction of essential assets under the DRFA the reconstruction will only be possible over decades rather than years. Given Council's existing asset renewal gap some assets are unlikely to ever be repaired if this occurs.

Claims under the DRFA are subject to a dual audit by the State and Commonwealth Governments. Any claim which lacks supporting documentation is not cost shared by the Commonwealth meaning the State may not recover 50% of the cost. As a result of this the State is risk averse has excessively high evidence requirements beyond the capacity of small rural Councils to provide. The outcome of this is that some works will be unfairly deemed ineligible for funding and will be deemed ineligible.

Compounding this issue that rural Councils have the largest infrastructure burden and the lowest capacity to fund. For example, Loddon Shire has a population of 7,759 people and 4,800km of roads, whereas metropolitan interface Council's have an average of 458km of roads and significantly higher populations.

The DRFA also has a 2 year lifecycle and applications are requested in \$500,000 applications. For Loddon Shire to submit \$46 million in this way 92 claims will be required. If Loddon Shire submits 5 claims per month it will take over 18 months to submit the claims let alone have them assessed and undertake the works. The DRFA requires that all works are completed within 2 years. Given this timeframe and the well known difficulty sourcing contractors, it is clear that these timeframes cannot be met and a review of the process is necessary.

## (h) Murray River;

### Swan Hill

For the Swan Hill community, our impacts were felt weeks later than that of upstream. However, as a lot of the surrounding shires were more heavily and publically impacted, it does not diminish the needs for assessments and repairs for our communities, but there were limited resources available to assist.

The resources in the state to undertake assessments and make the DRFA claims are not readily available and the requirements are extremely onerous.

An example of damage is on the Chinkapook-Nyah West Road shown below, which is still awaiting approval. Due to public safety and complaints, this road was initially signed, but has now been returned to gravel awaiting approval to actually be suitably rehabilitated.



This emphasises that the approvals process, and the resources have not been available to assess the sites, do the paperwork, and then get the necessary approvals in a timely manner. Failures like this should be approved immediately for public safety.

It is also noted that whilst it was appreciated that Councils could actually claim for staff time and resources that were utilised to undertake flood recovery work for this event, this decision was made far too late for a lot of Councils. Consequently, the level of information required to make the claim, particularly in these instances, result in making a claim unrealistic and/or nearly impossible.

### Mildura

The Murray River at Mildura reached its peak of 38.367m in late December. Response to the flood included reinforcing the levees at Karadoc Avenue and Merbein Pumping Station (LMW). Key levees protecting community include the Mildura Wastewater Treatment Facility, Karadoc Avenue/Cemetery Road, Red Cliffs power station (by AusNet), 3MA Corner/Regina Avenues Levee, Nangiloc Recreation Reserve, Kulkyne Way, Yelta Grain Silo (Grancorp) and Hattah-Robinvale Road.

Works were completed by Lower Murray Water to install a temporary regulator at Lock 9 Channel / Lake Cullulleraine.

The flood resulted in the following:

- 46 inundated assets (28 residential / 18 non-residential)
- 118 Isolated assets (15 residential / 103 non-residential)

- Approx. 1316 (ha) farm land affected
- 2458 km of fencing impacted
- 6 Caravan Parks affected
- 19 reserves and sports fields affected
- 14 Historical sites affected
- 866 VIC Aboriginal Heritage Register sites affected



**Murray River Flooding Mildura City Centre December 2022**



Mildura Rural City Council



Any other related matters.

## Regional Tourism Impacts

The Murray River Group of Councils forms the majority of the Victorian part of the Murray Regional Tourism Region which uniquely recognises the cross border nature of our tourism product. The Murray River forms the centre of the region both geographically and as the major destination drawcard.

Our tourism industry has been decimated by two years of covid which caused lockdowns and border closures. The 2022 floods closed our major tourism destinations for the third peak season in a row pushing many businesses up and down the River to breaking point.

The Murray Regional Tourism Board (MRTB) has engaged independent consultants to assess the impact of the floods on the whole region (including Albury – Wodonga and the NSW LGAs). It is important to recognise the interconnected nature of tourism in our region and its cross border character.

Economic impacts from the 2022/23 October to February flood events in the Murray region are:

- Loss of 605,000 visitors between October 2022 - February 2023 in the Murray region
- Loss of \$170 million in visitor expenditure between October 2022 - February 2023 in the Murray region
- Loss of \$321 Million in Output to the Murray region between October 2022 – February 2023
- Loss of 2,175 jobs in the Murray region between October 2022 – February 2023
- 95% of tourism businesses in the Murray region experienced negative impacts from flood events (95%)
- 84% of tourism businesses in the Murray region experienced booking cancellations as a result of flood events
- 61% of tourism businesses had lower turnover than average during flood events, with 13% of businesses losing all of their turnover during October 2022 – February 2023 due to flooding events

**Source: Murray Regional Tourism Board**



## Impact on Local Government Staff

An area of concern to MRGC is the ongoing impact of the floods on local government staff.

Our staff worked tirelessly on the frontlines during the preparation and planning phases and then throughout the flood events themselves. They have continued to work helping members of the public deal with the aftermath of the events event up to the current time.

A significant number of member councils' staff were directly impacted by the floods and have continued to be impacted. They continue to assist despite their personal circumstances. Their houses were inundated, crops lost or had family and friends severely impacted.

Some staff are now, some seven months on from the flood peak in some areas, still living in temporary accommodation; in caravans or with family while they try and rebuild their lives. This is coupled with the stress of a Council job, dealing with public who have also been impacted and are increasingly impatient with councils as recovery funding is held up by State and Federal bureaucracy.

Two examples include a staff member who to seven months after the flood event hit her municipality, is still living in a flood impacted house and is showering on her back veranda using temporary arrangements. Despite this she has continued to work supporting her community.

During the flood events themselves workers continued to help constructing levee banks and sandbagging to protect homes while elsewhere, their own homes were inundated.

Many of the authorities who should have been supporting Councils to respond at a local level had 'moved on' before the impact occurred. This left residents and council staff to bear the brunt of the crisis as it hit local areas. The prolonged nature of the 2022 event, meant that emergency services were burnt out by the time that the floods moved downstream to areas such as Swan Hill and Mildura.

Regrettably local government does not have the same ability to rotate workers as the State agencies did during the events.

Rural councils in the MRGC region do not have large pools of human resources to draw on in situations like these. They cannot immediately ramp

up their resources when an event occurs. At the time of the floods, like many organisations, our councils were carrying significant vacancies across the board as covid and low unemployment has affected the workforce.

Some councils were carrying vacancies of up to 1/5 of their full staffing complement. During the floods, our councils were predominantly only able to draw from their own staff. With all the LGAs in the region significantly impacted their ability to get support from other Councils within “commutable” proximity was limited. .

The results of this situation were that staff fatigue levels were extremely high and many were unable even to take a break over the Christmas holidays. Of those who could, many were and the ability to respond to other agencies in a timely manner.

## Caring for Vulnerable People

There is also significant concern regarding vulnerable residents and the adequacy of planning and preparedness to support these people during large-scale events. The Vulnerable Persons Register (VPR) is one component of supporting residents, however due to the stringent nature of eligibility criteria only a tiny percentage of community members are eligible. Majority of highly vulnerable residents are not supported by this system and those that are registered the flow of information to agencies is not timely nor supported by robust person-centred planning by agencies to support residents within emergency scenarios.

The current VPR system creates a challenging scenario of complacency during disasters as agencies and community alike hold a false sense of comfort thinking that system is established, embedded and well planned for supporting vulnerable people during times of stress.

Making Council's responsible for holding this list but asking funded agencies to enter the information means that the lists are not complete and creates significant gaps where the person is not in “the system” and therefore not on the VPR. More needs to be done to ensure Vulnerable People are considered priority in an emergency, and what is done to support them if they need to be evacuated. Campaspe did not have an adequate facility to house vulnerable people through the ERC and temporary arrangements were not appropriate.

## Conclusion

MRGC would be happy to meet with you to expand on, discuss or clarify any of the issues contained within this submission. To do so, please contact Executive Officer Geoff Turner at [gturner@mrhc.com.au](mailto:gturner@mrhc.com.au) or 0419030314

