PARLIAMENTARY INQUIRY INTO THE 2022 VICTORIAN FLOOD EVENT

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Flood event as a whole in the Goulburn River Catchment, Yea River tributary and its Floodplains.
Background and Impact
We operate a 440ha beef fattening enterprise at 2 separate locations at Cheviot Hills and at Ghin Ghin, plus multiple car dealership businesses at Seymour that are located approximately 200 metres from the banks of the Goulburn River. We experienced significant flooding at all 3 locations.
Many businesses along Emily St., Seymour are similarly within 100-200 metres of the Goulburn River**.**

1.Our property " Cheviot Hills" which includes extensive Yea River floodplains has triple frontage to the Yea River of approximately 9 kms. Subsequently we had 250 acres or 100 ha initially inundated, then 50ha remaining inundated for a period of 5 weeks and a further 50ha cut off from access. This had an enormous economic impact due to loss of silage paddocks and future fodder for 2023 , plus inability to 'finish' cattle in the 2022 Spring period.

Cheviot Hills floodplains October 13th 2022 at 10.19am

The Yea River is the second largest tributary to the Goulburn in the upper catchment. The Yea River floodplains virtually remained inundated for the same length of time as the Goulburn floodplains because when the Goulburn flows are channel capacity or greater, the Yea River cannot drain or recede quickly as would normally occur. Maximum inundation height was above fence height.

The flooding that affected our farming properties peaked on the 13th October, taking out of production our prime Spring cattle finishing pastures and silage paddocks with inundation continuing for 5 weeks. This meant that we did not have the capacity to 'finish off' cattle for sale, so we have had to retain 150 head extra heavy steers that would normally have been sold in late Spring. We also lost potentially 500 rolls of silage from inundated paddocks that were ready to cut.

The result of prime pasture being inundated for such a long period of time was that all pasture died, the soil became de-oxygenated, phosphorus, nitrogen and potassium was leached from the soil. When the water eventually subsided we were left with every conceivable weed- docks, smartarse, couch grass, bathurst burr, thistles- nothing palatable to cattle. Pasture renovation will take 4-5 years to complete the entire area impacted on the farm. The affected land has had to be ploughed, heavily fertilised, sown down to annual pasture, then repeated the following year with perennial pasture. Due to area impacted it cannot be all done in the first 12 months because of cost, time factor and inability to exclude stock from large acreage whilst new pasture grows sufficiently to allow grazing.

2."Konongwootong" at Ghin Ghin our property on the floodplain of the Island Creek, tributary to the Yea River at confluence of the Yea and Goulburn Rivers.

The Used Car Showroom, Seymour was inundated to a depth of 2 feet. Full renovation of this building is still not complete.

The photo above shows depth of flooding as indicated on watermark on chairs and impact on new car showrooms. Photo taken after peak flow has subsided

Causes of and contributors to the Flood Event

The causes of the flood were numerous.
1.The catchment was saturated having experienced 3 years of La Nina, Eildon Weir was near capacity at 98% full, all the upper Goulburn River catchment tributaries were near channel capacity, then it began to rain and rain and rain, with 200mm falling in the catchment on the 13th and 14th October.
The Yea River Devlins Bridge streamflow gauge rose from-
824ML/day at 3am on 12.10.22 to
2918ML/day at 1am on the 13th October to
15,559ML/day at 10am on the 13th to the peak flow of
25, 257ML/day at 4pm on the 13th

This was the highest recorded flow ever on the Yea River at Devlins Bridge.
The Murrindindi River whose source is in the Great Dividing Range near Mt Monda has an annual average rainfall of 2000mm/yr. The Murrindindi flows into the Yea River near Limestone , south of Yea and is below the Devlins Bridge gauge at Glenburn, therefore flows below the Yea/ Murrindindi confluence would have been much greater than the 24,593ML/day measured.
There is no realtime telemetry streamflow gauge on the Murrindindi River and there should have been many years ago in light of the flood history of the Yea/ Murrindindi Rivers and the fact that the upstream tributaries to the Goulburn provide 50% of its flow.

GMW, in an attempt to allow the flooding tributary flows get away, maintained releases from Eildon to –
10,000-12,000ML/day on the 12th and 13th October till 7pm
Releases then increased rapidly to-
22,000ML at midnight on the 13 th-14th to
30,000ML at 3am on the 14thand
36,000ML at 6am as inflows to Eildon ramped up to 145,000ML/DAY on 14th October, the highest ever recorded
Peak flow at Seymour estimated at 140,000ML/day the highest ever recorded
Peak flow at Shepparton estimated at 192,000ML/day

The flows came down so fast and furious that many landowners were caught unawares with many stock found on the early morning of the 13th October on the Yea River and early morning of the 14th October on the Goulburn either swimming around in extremely fast flowing floodwaters or stranded on small pockets of land. Some of these cattle over a period of a week were swum out with great difficulty over the tops of fences. Others were stranded in lower water or on small pockets of land and remained there for 5 weeks, being fed under very difficult conditions.

2. EILDON OPERATIONAL RULES

The operational rules have not changed despite the many changes to storage and usage brought about by the Murray Darling Basin Plan. Nor have the rules that apply to the infill curve, as operated by GMW, been adapted in accordance with climate change where large rainfall events can occur with very little prior forecast. Delivering a 100% full storage is still the priority to the detriment of downstream landowners and communities. To protect downstream communities the infill curve must be flexible and adapted in wet years so that full supply level is more conservative.
A perfect example of inflexible operational rules is the fact that the management of Loch Garry is governed by decades-old rules which say bars in the loch structure are pulled 24 hours after the Goulburn River reaches a major flood of 10.36m in Shepparton. Abiding by these rules the October 2022 flood rose too quickly to manage the manual release of the loch bars, resulting in widespread flooding and destruction of the loch.

Lake Eildon was operated so that releases were increasing as water levels at Seymour peaked and flows from the downstream tributaries were decreasing. This resulted in the peak flows experienced at Seymour passing before the additional releases from Lake Eildon arrived.

3. MURRAY DARLING BASIN PLAN POLICIES AND STRATEGIES

Since the inception of the MDB Plan water usage and storage in Eildon Weir has been completely turned on its head, however the operational rules of Eildon have not changed one iota.
1)Carryover policy only came into being in 2007 with 30% carryover allowed. This has since increased to currently allow 100% carryover, which resulted in carryover volume in Eildon at close of the 2021-2022 irrigation season(May 15th) being a total of 840,000ML or 25% of the storage capacity.

2) In 2022 Environmental water holders owned and stored 1,150,000ML in Eildon Weir or approximately one- third of its capacity, but have been unable to deliver this total volume in

any one year. During the 3 La Nina years environmental sites were already full of environmental water, eg Gunbower Forest, so that there was no escape valve for flood waters.
It is impossible to achieve environmental proposals downstream such as 80,000ML/day at the SA border, keeping the Murray Mouth open 95% of time without dredging, enhancing environmental outcomes, due to the fact that relaxed constraints have no effect on increased flows downstream of Torrumbarry on the Murray.

3) Corporate Investors hold water in storage during wet seasons, using the Basin Plan water market as a share market waiting for dry seasons to sell and profit from high water prices.

4)Banking of water – water is now able to be held and parked in Eildon Weir. A licenced 'holder' can receive money to park unused water on another grower's water, with the placer receiving the water back later in the season.

5) Due to the loss of water from the consumptive pool in the Goulburn Murray Irrigation District (GMID), food producers have changed their irrigation management. They no longer use large volumes to irrigate in late Spring- Summer, but have changed to kick-starting crops in late Summer-Autumn with 1-2 waterings. Prior to the Basin Plan, irrigation usage for food and fodder production would draw down approximately one-third of Eildon's capacity or 30% each year.

In conjunction with the 3 wet years and a very wet catchment, Eildon in 2022 started its filling phase with a lake volume of about 80% instead of approximately 60%.

This year we are starting the filling or harvesting phase with the Weir at 93.1%, a recipe for disaster considering that historically the weir fills on average 30% each year

Adequacy and effectiveness of early warning system

. The early warning system did not exist for the October 2022 flood. There was NO WARNING AT ALL. An article in the local paper, The Chronicle 12th October, states the SES Northeast region held an information session in the Yea Shire Hall regarding flood risks. The article states:
"Telephone alerts will tell people in the affected zone about flood warnings and these can go to home phones as a voice message. These will only be sent if something really dangerous or important is happening."
SES did not utilise the SEWS (Standard Emergency Warning Signal) which can be employed on radio, TV, mobile phones for any emergency. People immediately below Eildon Weir, downstream along the Goulburn, the Whanregarwen floodplains, Yea and Seymour communities had no emergency warning of the rapidly rising floodwaters, consequently finding their cattle, sheep, horses swimming round in floodwater before daylight arrived on the 13th-14th October and floodwaters lapping at the doors of low-lying residences.

[redacted], GMW , said it all when he stated –" GMW don't leave the space they think will need to mitigate potential floods, but rather the space they leave covers the risk of GMW being unable to fill the lake as the primary role is to store and harvest water."

There never has been any warning system AT ALL for people who live along the floodplains of the tributaries of the Goulburn, and very poor warning in the past for those on Goulburn floodplains .On the tributaries it is long experience and knowledge of floods, that informs fellow farmers and people up and down the river to give a flood warning to each other.

The paucity of real-time telemetry streamflow gauges- 45% of the Yea/Murrindindi catchment is not gauged and 57% of the Goulburn catchment from Eildon to Trawool is ungauged, has denied farmers, businesses and communities of any early warning system. There has been no increase in the number of gauges in the Upper Goulburn Catchment for at least 30 years, despite repeated requests.
The answer to the requests for essential real-time gauges has always been the cost is too great. Well, the cost of 5-6 telemetry gauges is nothing compared to the losses of the 2022 October flood. The Comrie Report 2011 acknowledged that in Australia floods are the most expensive natural disaster.

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

On reading the Victorian Floodplain Management Strategy (VFMS) 2016, and VFMS Implementation Snapshot 2022, it is my opinion that in relation to the October 2022 flood event it is a complete failure in its proposed effectiveness and implementation as regards Flood Warnings .
The DEECA VFMS website states :
Six years after its release, all 56 actions outlined in the VFMS have been completed or embedded as part of business-as-usual practice.

The fact that an Ernst Young audit on the VFMS states all processes have been successfully implemented is meaningless when in reality the prediction and interpretation of the October 2022 flood and consequent early warning communication through the Total Flood Warning System completely failed in the upper Goulburn catchment.

From 2016-2021 $47.7 million was allocated by Victoria, to among other things-

a) *Develop early warning systems for local communities*

b) *to identify flood warning gauges with limited or no telemetry service and add either radio or satellite-based telemetry. This will build redundancy into the network, ensuring real time river level and rainfall data continues to be available to BoM and residents even when the network is being impacted by fire or flood*

c) *communities with high potential for flood damage will receive more sophisticated flood warning services. These can include local predictions about the rise and fall of floodwaters, details on the roads and properties likely to be inundated, and local advice about how to prepare for and respond to predicted floods.*

VFMS Page 9 Part 3 16 Flood Warnings states-

A flood is only manageable if real-time assessments can be made about its behaviour and its consequences. Armed with such assessments, it is possible to coordinate appropriate responses, and advise and educate communities.

Flood warnings provide communities, and emergency management agencies, with information about when flooding may occur, its likely severity and what to do to reduce damages.

As stated previously the lack of realtime telemetry streamflow and rainfall gauges in the Goulburn Catchment has been a major factor in the inability to predict and make appropriate emergency warnings to communities.

The upper/mid Goulburn River catchment is immediately below the second largest water storage in Victoria holding 3,334,158ML at full capacity or more than 6 times the volume of Sydney Harbour.

The topography of the Goulburn catchment between Eildon and Seymour consists of high mountain ranges with annual rainfall exceeding 1600mm, a number of fast flowing tributaries, the Acheron, Rubicon, Yea Rivers, Home Creek and King Parrot Creek which rise extremely quickly and provide 50% of flow to the Goulburn.

Common sense should have indicated to GMW, BoM and those working in emergency warning services that September/ October 2022 Goulburn catchment conditions, that is, an extremely wet catchment, Eildon Weir at 98% , all tributaries at near to full channel capacity and a forecast very high rainfall event , that a major flood could have been predicted and should have been very closely monitored. This prediction was never made or interpreted as needing a rapid response in communicating an emergency warning. There was a complete failure of any early warning system to communities with "high potential for flood damage".

The unforgiveable fact however, is that despite flooding in the Yea River peaking on the 13th October at 4pm at Devlins Bridge gauge at the highest flow ever recorded, still no emergency warning was given to communities downstream such as Seymour people and businesses.

Even as far downstream as the lower Goulburn floodplain at Loch Garry, there was insufficient warning as GMW appeared not to understand the speed, velocity and volume of floodwater, as on 16th October GMW failed to allow sufficient time to manually open the Loch Garry gates in order to mitigate the flood. The result was destruction of Loch Garry and extensive flooding of cropping land.

Personally I informed a number of people downstream that there was a massive amount of water coming down and it was very fast flowing, telling them they needed to shift cattle or sand bag their businesses. That was their only early warning.

RECOMMENDATIONS TO THE PARLIAMENTARY INQUIRY

1.Operational rules for Eildon Weir be flexible and adaptive according to wet or dry seasons. For this 2023 year restrict full supply level to no more than 95%, due to fact that weir is already 93.1% full at start of filling season and historical inflows are 30% on average each year. This would avoid a repeat flood disaster this year, keeping in mind that people have suffered extremely large financial losses and overwhelming emotional stress.

2. Adopt a more long-term conservative 'infill curve' so that Eildon is not at full supply level in September/October when annual rainfall totals are at their peak, meaning it is a dangerous period for severe flooding

2.That the carryover policy be abandoned. It benefits water holders of all types, whilst creating massive risks for those of us on the floodplains immediately below Eildon

3.Urgently review the early warning system which was totally non existent.

4.Urgently install more realtime telemetry rainfall and streamflow gauges throughout the catchment including the fast flowing upstream tributaries so that all important data is available for forecasters, river operators, landowners, emergency warning systems

5.Immediately review MDB Plan environmental policies and strategies and the proposed need for the so-called need for more environmental water due to the retention of environmental volumes in Eildon because of inability to use their entire allocation in any one year, thereby exacerbating flooding impacts.

6. Recommend that in this 2023 year the Minister for Water be ready to quickly be able to use her discretionary powers under the Water Act to order emergency release of water from Eildon to mitigate another disastrous flood.

END OF SUBMISSION