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To Whom It May Concern,

Submission to Inquiry into the Management, Governance and Use of Environmental Water

The Victorian Recreational Fishing Peak Body, VRFish welcomes the above inquiry and reaffirms the recreational fishing industry are a key stakeholder in environmental water (e water).

Victoria has an extremely modified catchment, waterways and reduced flow regimes. Our native fish species, many of which are valuable recreational fishing species, have a life history intrinsically linked to water flows. Flooding events enable our fish to move vast distances, connects tributaries and wetlands, increasing productivity for fish growth and food webs and is a critical cue for spawning.

The frequency of flooding events is becoming less allowing more organic matter (carbon) to build up in our landscape. When we do experience large flooding events such as in 2010 and 2016, our waterways cannot cope with the amount of organic matter entering into them. Biological microbes which breakdown this matter, use up dissolved oxygen which can lead to hypoxic events.

During hypoxic events, low dissolved oxygen conditions only last for a short period of time however can cause fish kills across a large area, including large Murray cod individuals. Fishers highly value our fish species and the environment in which they fish. Any deaths of fish are extremely concerning to our fishers and local communities.

E water cannot reverse a blackwater event. Simply, the amount of e water available is a small drop in comparison to the volume of water associated with a flooding event. What e water can be used for is to create refuge areas for our fish allowing them to cope with a brief but potentially fatal levels of dissolved oxygen. This could be via providing oxygen rich in flows to the main river channel as well as allowing fish passage and migration to tributaries and wetlands away from hypoxic conditions. E water could also be used to more regularly flood areas and flush organic matter rather than allowing it to build up.

Our native fish have evolved to migrate with flooding events and as such the connectivity of our waterways and removal of fish passage barriers are paramount to mitigating adverse effects to our fish stocks from hypoxic blackwater events. We also know through research

that greater connectivity across our waterways results stronger fish recruitment for our fish species, including our iconic Murray cod. Enhanced natural fish recruitment can offset the loss of fish through fish kills and continue to rebuild fish stocks more efficiently and effectively. Conversely, at times of drought and low flow conditions, e watering can be an important tool to maintain summer refuge pools for fish.

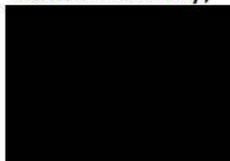
VRFish aims to work closely with Catchment Management Authorities and the Victorian Environmental Water Holder to ensure e watering delivers positive outcomes for our fish. Over time, we have seen water and catchment managers learn through good science and adaptive management how to deliver e water more effectively and result in positive outcomes for our fish and quality of fishing.

That said, managing flows and e watering is very complex. Ongoing research is required to understand the effects of e water and natural processes, including at different spatial scales and across a fish's life history. For instance, a coordinated approach to e watering across the Murray Darling Basin may result in greater benefits to a fish population rather than localised approach. Also, a range of complementary measures to e water must be undertaken not limited to in stream habitat restoration, improving riparian zones, removing barriers to fish passage, installing fish screens to pumps and channels and a control program for carp.

Much more needs to be done and resources allocated to engage the wider recreational fishing community with the knowledge of ecological processes, an understanding of our modified system and what e water is. Similarly, recreational fishers want to provide feedback and contribute local knowledge to water managers to ensure that their values and advice is taken into account in decision making processes. Recreational fishers can also be participating through citizen science programs and complementary on ground works.

We can report that Catchment Management Authorities and water managers are recognising recreational fishers as a key stakeholder. Increasingly, fishers are becoming more involved through regular 'Fishers and Flows' forums where the impact and benefits of e watering to fish is reported back to community. Fishers are also informing water managers how flows detrimentally affect their fishing quality and overall experience. Overall, positive dialogue and information sharing between managers and fishers is occurring.

Yours sincerely,



Mr. Robert Loats
Chair
Victorian Recreational Fishing Peak Body
25 August 2017