



Senate Standing Committee on Rural and Regional Affairs and  
Transport Legislation Committee

Parliament House

Canberra

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Dear Senators,

**RE: Concerns regarding the potential water quality and ecosystem impacts of the proposed CyHV-3 virus release into Australian rivers**

I am pleased to hear that you are speaking with Faith Coleman, along with other concerned scientists, with regard to the proposed release of Carp Herpes Virus in to Australian freshwater ecosystems.

The Conservation Council of South Australia is South Australia's peak environment NGO, representing over 60 member groups and their 90,000 members.

While we do not, as yet, have a formal position on the CyHV-3 virus release, a number of our member groups have expressed their concern with regard to the proposed use of a virus to control European Carp. While we fully support the need to control this species and the challenges presented by this, we have concerns about the use of the proposed viral bio-control, asking that all possible alternatives be explored, prior to the use of this method.

Faith has been working as an estuarine ecologist in South Australia, for more than two decades. The Conservation Council of SA has often benefited from her advice, relating to issues around estuaries and more specifically the Lakes and Coorong Ramsar site. We value her contribution and feel you will benefit from this interaction.

According to some of Faith's most recent calculations, the current density of carp biomass per hectare of habitat could be 25 to 75 times that of the peak rabbit biomass densities, across their entire habitat. Rotting of this weight of Carp biomass, throughout all water stored within the Murray-Darling, is likely to generate oxygen demands similar to strong, secondary-treated sewage. Depending on the biomass of Carp within the system and the nutrient density of the offal, it is likely that nutrients released by decomposition is likely to be in the order of 28,000 - 126,000 tonnes of Total Nitrogen and 6,000 - 24,000 tonnes of Total Phosphate. These quantities of nutrients will ensure that we are exceed ANZECC ecological health nutrient thresholds by 200-900%.

Without extensive clean-up, this weight of fish offal, decomposing in our already over regulated, nutrient rich and flow limited River Murray, could have substantial and lasting ecological impacts. Back-of-envelope calculations suggest that without 50-90% of the biomass being removed within a day or two of death, we run the risk of rolling, whole-of-basin anaerobic events.

We also have concerns around the recovery period and longevity of the proposed strategy. Vertebrate viral biocontrols have been demonstrated to have a limited life of efficiency, with the standard expected period of population suppression being around ten years. After this period, another form of control is needed.

With the expectation that a portion of these nutrients would be retained within the Lakes and Coorong Ramsar site, due to estuarine bioaccumulation processes, it is expected that the wetland could take thirty or more years, to recover from the initial kill, let alone any potential subsequent kills. The concern is that this stress will either push

the system over a threshold, permanently impacting estuarine function. There is a chance that the short-term benefits of reduced Carp via this method, will be outlasted by the time taken for the wetland to recover from the stress of the initial kill.

Recent research into the paleoecology and ecohydrology of the River Murray, along with parallel research into native fish breeding and the impacts of healthy native fish populations on Carp, appears to suggest that the current dense carp populations have been encouraged by the over-regulation of riverine flows. This research also suggests that current environmental watering practices can be modified, to result in more native fish and less carp, from the same volume of environmental water.

We would like to see more work done on changing habitats to preference native fish over carp breeding and controls that will not generate large fish kills, over the use of a knock-down viral control, to avoid widespread anaerobic events.

The RSPCA have already expressed their concerns around the animal suffering caused by the progression of this particular disease.

CSSA members are also concerned that the current proposed timelines have the research undertaken to justify the plan, being released after the public consultation on the plan. We believe that the results of the publically funded research need to be fully released to the public, prior to public consultation on the EPBC Act referral or the Draft Plan, to ensure transparency.

Ensuring the long term health of the River Murray is of paramount importance to the people of South Australia. We need far more reassurance that the release of the CyHV-3 virus will provide a net benefit, all other alternatives with less risk have been explored, and the proposed process and timeline is realistic.

Yours Sincerely,

Craig Wilkins  
Chief Executive