LEGISLATIVE COUNCIL
ENVIRONMENT AND PLANNING COMMITTEE

Inquiry: Inquiry into ecosystem decline in Victoria

Hearing Date: 20 April 2021

Question[s] taken on notice

Directed to: Dr Nicholas Aberle, Environment Victoria and Mr Jonathan La Nauze, Environment Victoria

1. **Dr RATNAM Page no. 14**

   Question asked.

   Are there examples that you can speak to the committee about or take on notice and provide some information on where a species has been listed, an action plan has been developed and then we have had this set of requirements before the next steps, which the minister may use, which they obviously have not used, based on the fact that none those orders that have been made? Are there any examples you can share with the Committee about what has got stuck at that middle process?

   Response:

   We do not have specific examples of how or when the sequence has stopped, other than to note that many species still do not have Action Statements and that, according to DELWP, only a single critical habitat declaration has ever been made (https://engage.vic.gov.au/download_file/view/773/501, page 28).

2. **Mrs McARTHUR Page no. 15**

   Question asked.

   Could you please list the 40 organisations that are involved, plus your funding. I presume you have charity status?

   Response:

   Our membership list is available on our website (https://environmentvictoria.org.au/get-involved/membership/group-members-directory/). We disclose funding in accordance with the requirements of the ACNC and Consumer Affairs, and this information is contained in our annual reports (available here: https://environmentvictoria.org.au/who-we-are/)

3. **Dr RATNAM Page no. 17**

Question asked.

Your submission discusses supply measures or offset projects, which are projects that essentially try and provide equivalent amounts of environment benefit with less water through engineering solutions. Your submission raised some concerns with this approach, so I wanted to ask if you could explain in relatively simple terms for us to try and get our heads around it what your concern is with these offset measures.

Response:

Water corporations working with the Victorian Government have developed a series of nine projects, Victorian Murray Floodplain Restoration Projects (VMFRP), consisting of regulators, levees, fishways and other works to enable the inundation of floodplain habitat.

To understand these projects, it is important to understand (1) the context in which they emerged, within the framework of the Murray-Darling Basin Plan and (2) the objectives the Victorian Government is using to characterise them, for floodplain watering.

Basin Plan Background

The Murray-Darling Basin Plan set a sustainable diversion limit (SDL) of 10,873 GL per year. This is the amount that – ignoring the best available science on climate change – could be diverted from the river system to maintain the possibility of a semblance of ecological health.

Critically, this SDL is 2,750 GL below the baseline amount of water taken from the river before the Basin Plan. This 2,750 GL is the target for 'water recovery' – the amount of water that needs to be returned to the river to reach the basin-wide sustainable diversion limit.

In 2017, the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) was put forward. This would allow the SDL to be changed (and by extension, the requirement for water recovery) within a 5% (543 GL) band. It could be moved through 'efficiency measures' – water-saving infrastructure that effectively contributes water for the environment. The actual value of these savings is contended by independent science. The SDL could also be adjusted through 'supply measures' – offset projects that purport to deliver 'equivalent' ecological outcomes in absence of water for the environment.

The VMFRP is effectively a different branding of the nine environmental works projects, 'supply measures' nominated to offset Victoria's responsibility for water recovery through the Sustainable Diversion Limit Adjustment Mechanism.

For reference, Victoria's SDLAM projects include 22 total proposals: the nine environmental works mentioned above, six legacy projects through The Living Murray, one proposal for constraints relaxation, and nine operating rule changes.

Overbank Floods

Today only 21 percent of water for the environment can flood overbank. Framed another way, only 2 percent of Basin wetlands receive water each year.

There are two primary barriers. First, because there is not enough water available for the environment. If 2,750 GL is recovered to meet Basin Plan objectives, only 57 percent of flow targets would be met in the river system. If the Basin Plan was delivered in full with 3,200 GL recovered and constraints on water delivery relaxed upstream, 94 percent of flow targets could be met. The total area of the floodplain that could be inundated would rise from 45,000 to 80,000 ha, an area 1.6 times the size of Wilson's Prom.

The second barrier is upstream 'constraints'. These are rules on dam operation as well as physical constraints like low-lying bridges that prevent water being sent downstream in large pulses, passing over private property, to reach wetlands, billabongs and forests higher on the floodplain.

In this context, the VMFRP – or, nine environmental works 'supply measures' projects – is effectively a shortcut. Rather than recovering water or relaxing constraints to enable natural flooding, the proposals would utilise infrastructure, installing regulators, levee banks and pump stations to send water to select floodplain areas.

Environmental Challenges

These projects present specific challenges for the environment. First, there is the notion of 'environmental equivalence' detailed in our submission. In the development of the SDLAM projects, the methodology to determine the 'environmental equivalence' water offset allowed a trade-off of ecological impacts between different reaches of the river and even between different ecological elements. In other words, impacts to fish can be traded off against impacts to plants elsewhere. This is seriously concerning.

Second, the modelling didn't account for climate change in its assumptions of inundation. So while the climate becomes drier and water becomes increasingly unreliable, these sites are meant to depend more on engineering works – precisely because they allow for the offset of water. At the same time, the predictions of 'environmental equivalence' are likely to be too generous for what can be achieved with water likely to be available under drier conditions.

Third, these projects don't satisfy the requirements of the Ramsar Convention to conserve representative areas of ecosystems. While the Nyah project is not a Ramsar site, the project proposal is similar to others in the VMFRP program: it proposes to water 57 percent of the Red Gum habitat and only 6 percent of Black Box forest higher on the floodplain.

Economic Challenges

Evaluating these projects and their alternatives through an economic lens, we can ask: to what extent do they support floodplain ecosystems (the stated purpose of the VMFRP program) and at what cost?

The VMFRP is a $320 million project intended to water 14,000 ha of the floodplain. One feasible alternative would be to relax system constraints, giving water managers upstream more flexibility to send water where it needs to go while modernising river management. The constraints projects propose to benefit 375,000 ha of the floodplain for $864 million. Compared to constraints management, VMFRP projects are nearly ten times more expensive, costing an additional $20,000 per hectare.

At the federal level, this may be an inefficient use of money. At the state level, Victoria may be stuck with complex engineering works that require expensive annual maintenance. The responsibility for management of these projects remains unclear.

Conclusion

At a fundamental level, these projects were developed for Victoria to dodge the responsibility to recover actual water for the river to meet the Murray-Darling Basin Plan's objectives.

Most of the proposals are based on the premise that wetland habitat can be 'improved' without a natural flow of water. This ignores the real benefits of overbank flooding which maintains wetlands, triggers fish breeding events, sustains trees like River Red Gums and reduces the risk of blackwater events. At the same time, floodplain engineering introduces new risks, including the potential for carp and weed infestation, stranding of native fish and problems with salinity.

Rather than river channels connecting with floodplains, the projects propose to pump water into isolated wetlands, much like an irrigation bay. It is a devastating future for the ecology based upon dubious science with a monumental price tag.

4. Dr RATNAM Page no. 17

Question asked.

threats to species and biodiversity loss are climate change, habitat loss and the impact of invasive species. Understanding the climate work that you are doing, I was going to ask: in thinking about the deliberations of the committee and making recommendations about what we do in those three substantive areas, particularly on climate change, what would your top priority actions in terms of climate change be that you would like the committee to consider?

Response:

The following paragraphs are extracted from Environment Victoria's submission in response to the Independent Expert Panel's report on recommended interim emissions reduction targets.

> Decarbonising the electricity grid is one of the most cost-effective solutions available. Additionally, it unlocks further emissions reductions opportunities which if adopted could put us on an emissions trajectory compatible with a 1.5 degree objective.

The shift from coal-burning power stations to renewable energy is directly linked to eliminating 40 percent of Victoria's emissions (produced by coal power stations). It is also indirectly linked to eliminating a further 35-40% of emissions, caused by other fossil fuel usage which could be eliminated by electrifying those processes and using renewable electricity. This applies to emissions from transport and heat (currently direct combustion), and would also eliminate the approximately 3% of Victoria's emissions caused by fugitive emissions from gas and oil usage. This adds up to almost 80% of Victoria's emissions that can be eliminated by converting from a coal-dominated grid to 100% renewable energy.

The Victorian government should be actively planning an accelerated replacement of coal power stations with renewable energy and energy storage, coupled with incentives and standards to dramatically improve energy efficiency across the full range of consumers, from low income households to large-scale industrial users. This should be accompanied by economic diversification policies to support the Latrobe Valley.

Other priority actions are listed in a July 2020 report we co-authored with several other NGOs, entitled *Putting jobs-rich climate solutions at the centre of Victoria's economic recovery from COVID-19*, which is available here: https://environmentvictoria.org.au/2020/07/21/stimulus-reform-opportunities/. At its simplest, effective climate action encompasses:

- Shifting electricity supply from coal and gas to renewable energy backed by storage capacity, and investing in electricity grid upgrades and expansions to enable the connection of wind and solar projects.
- Shifting other forms of energy consumption to electric, away from fossil fuels such as gas, petrol and oil. This covers energy needs like household and commercial heating and hot-water, heat for industrial processes, and transport.
- Improving energy efficiency across the economy, with a particular focus on thermal performance and appliances in buildings (residential and commercial) and industry (manufacturing) – this is important to reduce emissions directly (less energy needed means less fuel burned), minimise the scale of clean energy sources needed to replace fossil fuel energy sources, and reduce energy bills. Mode-shifting of transport away from energy-intensive options like cars to alternatives such as active and public transport can be considered a form of energy efficiency.
- Sequestration of emissions through reforestation, soil carbon and other land management
- Minimising emissions associated with animal agriculture – specifically by trying to eliminate methane produced by livestock.

5. Ms BATH Page no. 18

Question asked.

You referenced the camping submission for the VFA. Could you please provide that to the committee?

Response:

Our submission to the Regulated Watercourse Land Regulations (ie. riverside camping) is attached.

Environment Victoria Submission on Victoria's Land (Regulated Watercourse Land) Regulations

19 April 2021

Land Management Policy Division
Department of Environment, Land, Water and Planning

Submitted by email [redacted]

Environment Victoria welcomes the opportunity to comment on the proposed regulations to manage camping and recreational activities on regulated watercourse land. While we appreciate the aim of these changes to create greater consistency with other areas of Crown land where camping is permitted, we are concerned about the potential impacts of camping on sensitive ecological areas.

The restoration of vegetation along nearly 3,500 kilometres of Victoria's riversides is one of our state's environmental success stories of recent years. Healthy riverbanks are critical for the environment and people. They improve water quality, filter nutrients, provide habitat for native animals and are enjoyed by thousands of Victorians each year.

Riparian land plays a role of additional importance in degraded and fragmented landscapes, where it may provide the only remaining habitat corridor for flora and fauna. In such instances, camping access should be properly planned so that it only occurs in areas that have had a suitable boundary survey as well as an assessment for ecological impact.

Camping access should only occur in areas that have been assessed for ecological impact

We note that the public is already able to lawfully access licenced river frontages for recreational purposes like fishing, picnicking and hiking. Camping, while not permitted, has already been taking place through informal arrangements with farmers holding grazing licences. As the discussion paper makes clear, removing the prohibition on camping will allow for better management.

Nevertheless, there is a significant risk that the reforms may undermine riparian land restoration initiatives, impacting sensitive ecological areas.

Prohibiting camping and public access in locations with important cultural values and sensitive natural values – such as areas with riparian licences or containing riparian management works – is an essential first step. While this is provided in Clause 16 of the regulations, additional definition and guidance should be provided to assist land managers in making this determination.

Additionally, informed planning may be warranted to avoid unintended impacts from both intensified use as well as the risks associated with camping on grazing land (such as uncontrolled fire, litter, damage to habitat from firewood collection, biosecurity risks and potential injury caused by simultaneous use by campers and livestock).

These impacts may be avoided with a targeted survey of locations expected to attract campers, evaluating how camping at these locations might align with existing ecological values and adjoining land uses.

First, this would make regulations more feasible to enforce while clarifying avenues of recourse for adjacent landholders. A survey could evaluate site boundaries to select suitable camping sites. Considering the dynamic nature of waterways, which change course during floods or gradual erosion, the relationship between waterways and Crown land water frontages may have changed. With a targeted survey, it would be possible to provide clear signage based on the relevant strip – considering the restrictions that apply at various distances, like the use of soap.

Second, this would provide an avenue to assess ecological values, defining 'sensitive natural areas' and identifying opportunities for riparian restoration and strategic habitat corridors. The quality of existing vegetation may warrant a biolink approach to site protection or simply highlight sites where conversion to riparian licenses could be encouraged.

Riparian licenses and stewardship incentives should be expanded and supported with dedicated funding

Victoria is unique among Australian states in having Crown land adjoining nearly 30,000 kilometres of rivers. Around 17,000 kilometres are managed under licence by the adjoining landholder. Traditionally these licences have been for grazing purposes, but in recent years some grazing licences have been converted to riparian management licences with additional conditions relating to stock management, native vegetation and fencing requirements.

Where grazing licences have been converted to riparian management licences, there have been substantial improvements to riverbank condition – as well as significant public benefits, quantified in a 2015 report to DELWP, *Managing Crown frontages under licence: Investigation of costs and benefits to landholders, the Victorian Government and the community.*

The findings make a clear case for accelerating the licence transition from grazing to riparian management. While approximately 13,000 – 14,000 kilometres of river frontage remains to be converted, the impact of livestock on rivers is well known. Loss of biodiversity, increased erosion, polluted water and impacts on human health are all well documented. With the impact of climate change, Victorian river corridors are increasingly important refuges and mitigation routes for native plants and animals.

The Regional Riparian Action Plan brought necessary funding to support Catchment Management Authority priorities. Unfortunately, the Plan is no longer funded, having been

cut from the most recent state budget. While CMAs may continue to carry out riparian works with funding from the Environmental Contribution Levy, significantly less will be available – and not explicitly tied to riparian land restoration.

Consideration should be given toward continuation of the Regional Riparian Action Plan, or another program that would encourage the uptake of riparian licences. It might be reasonably expected that the possibility of camping on Crown land would encourage adjacent landholders to seek conversion to riparian licenses to better protect natural values or support restoration activities. There should be dedicated funding to support such restoration efforts.

Riparian land is subject to a number of threats: proliferation of weeds, erosion, damage from firewood collection, recreational pressure and urbanisation. In fragmented and degraded landscapes, the high conservation value of these natural corridors becomes increasingly clear.

While a principal cause of this degradation is stock access to waterways, it is critical that we do not undermine riparian land restoration initiatives. Before camping access is permitted, sites should be assessed for potential ecological impact – simultaneously identifying opportunities for riparian restoration. For those landholders that may seek conversion to riparian licenses to better protect the natural values on site, there should be dedicated funding to support restoration efforts.

For further information

Tyler Rotche
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