



**CONSERVATION  
COUNCIL** ACT REGION

# Submission to The Conservator of Flora and Fauna: Fish Stocking Plan 2022 – 2027

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November 2022

The Conservation Council ACT Region is the peak non-government environment organisation for the Canberra region. Since 1981, we have spoken up for a healthy environment and a sustainable future for our region. We harness the collective energy, expertise and experience of our more than 40 member groups to promote sound policy and action on the environment.

We campaign for a safe climate, to protect biodiversity in our urban and natural areas, to protect and enhance our waterways, reduce waste, and promote sustainable transport and planning for our city. Working in the ACT and region to influence governments and build widespread support within the community and business, we put forward evidence-based solutions and innovative ideas for how we can live sustainably.

At a time when we need to reimagine a better future, we understand that the changes we need will only happen with the collective support of our community.

## **For further information please contact:**

Peta Bulling, Nature and Waterways Campaigner, [peta.bulling@conservationcouncil.org.au](mailto:peta.bulling@conservationcouncil.org.au)

## Introduction

The Conservation Council ACT Region welcomes the opportunity to provide feedback to the Conservator on the 2022 - 2027 Fish Stocking Plan (the Plan). The emphasis on native and endemic fish species in the Plan is welcomed, however questions are raised regarding:

- The Plan's identification of threats;
- The Plans impact on Biodiversity;
- The species identified for stocking under the Plan;

Furthermore, concerns are raised relating to data monitoring of fish populations, the efficacy of community engagement, consultation with First Peoples, and quality assurance of stocking populations.

## Threats identified in the Plan

The Plan identifies the following threats:<sup>1</sup>

- A rise in the number of anglers;
- Increased efficiency of angling practices;
- Habitat modification;
- Pest fish and diseases;

This list omits the two largest pressures on freshwater ecosystems in the ACT - climate change, and modified river systems.<sup>2</sup>

It has been determined that freshwater ecosystems are particularly vulnerable to climate change. This is due to three primary reasons: 1) habitats are often highly fragmented thus limiting species ability to disperse as the environment changes; 2) water temperature and availability are climate-dependent and dictate ecosystem wellbeing; and 3) freshwater systems already suffer immense anthropogenic stress - so the effect of climate change will have a disproportionate impact as a threat multiplier.<sup>3</sup> Modified river systems have also been identified as having significant consequences for ecosystem health and amenity in the ACT.<sup>4</sup>

Without considering climate change or modified river systems, the likely outcomes of the Plan, and its impacts on the environment cannot be adequately gauged. It is recommended that the Plan be reconsidered within the context of these threats.

## The Plan and Biodiversity

The world's nature is in crisis, indeed, the 2021 Federal State of Environment Report revealed the stark reality of Australia's nature as "poor and deteriorating". Freshwater ecosystems in the ACT conform to this trend. The vast majority of freshwater habitats in the Territory are "poor and

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<sup>1</sup> p1.

<sup>2</sup> ACT Environment Commissioner, *ACT State of Environment Report*, 2019.

<sup>3</sup> Woodward et al, *Climate change and freshwater ecosystems: impacts across multiple levels of organization*, 2010.

<sup>4</sup> ACT Environment Commissioner, *ACT State of Environment Report*, 2019.

degraded” and alien fish species dominate native fish species.<sup>5</sup> The Plan will have a significant impact on the freshwater ecosystem health in the ACT as it proposes to introduce large quantities of apex predators. This will alter the ecosystem function and food chain dramatically.

Despite these unavoidable effects, biodiversity and ecosystem wellbeing is not prioritised under the Plan and there is no discussion of the environmental impacts of fish stocking the Plan. To accommodate this oversight it is recommended that the Plan be reframed in two key areas.

### **The Plan’s aim**

The Plan aims to stock “recreational fish species” to “relieve fishing pressure” on rivers and streams in the ACT. To put it another way, the Plan aims to provide for recreational fishers with desired native fish species, that is, Murray Cod (*Maccullochella peelii*) and Golden Perch (*Macquaria ambigua ambigua*), in the hopes that the impacts of anglers in sensitive areas will lessen. The Council does not support this aim as the rationale is unfounded and because it ignores the relationship between ecosystem wellbeing and fish stocking.

The rationale is unfounded in that while it has a subsidiary goal of ‘rebalancing’ some ecosystems by altering others to meet the needs of anglers, there is no data provided that supports this assumption.

The aim ignores the relationship between ecosystem wellbeing and fish stocking by sacrificing some ecosystems with the intention of preserving others. This logic is inappropriate as all ecosystems can contribute to regeneration, and all ecosystems are connected. While it is accepted that the urban waterways which the Plan refers to are not ‘natural’, they remain connected to the Territory’s vulnerable river system and will have an effect on it. They also have a value as native ecosystems in and of themselves as evidenced by the high level of public support for providing quality natural environment areas in urban Canberra.<sup>6</sup> Considering this, all freshwater ecosystems in the ACT, including urban lakes and waterways should be considered as potential habitat for native species managed accordingly.

It is recommended that the Plan’s aim be reconfigured to frame stocking within a biodiversity lens. This should include reforming the Plan’s intention to prioritise biodiversity and ecological wellbeing.

### **Species chosen for stocking**

The Plan identifies two species for stocking, the Murray Cod and Golden Perch, both apex predators. Whilst it is commended that these species are native, the Council questions whether introducing two predator species in large quantities is appropriate. As noted above, the Plan does not identify the impact of stocking these fish on other vulnerable species such as the Murray River Crayfish and platypus. It is recommended that species identified for stocking should be informed by the revised aim described above, and by an environmental impact assessment. Species for stocking should be expanded beyond fish to include invertebrates, such as the Murray River Crayfish.

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<sup>5</sup> ACT Environment Commissioner, *ACT State of Environment Report*, 2019.

<sup>6</sup> Standing Committee on Environment and Transport and City Services, *ACT Inquiry into Nature in Our City*, 2019.

## Other concerns

### Consideration of Data

Effective management of natural resources requires accurate and timely information on the distribution, abundance and change over time of our biodiversity.<sup>7</sup> As discussed above, the Plan will have an effect on natural resources, namely, freshwater ecosystems, and as such should be informed by research.

For example, recent surveys of the Cotter River show a decline in numbers of the two-spined blackfish which may make it eligible for stocking.<sup>8</sup> Another survey of Murrumbidgee river concluded that species which historically have been present in the river are either no longer found in the ACT or are only encountered irregularly.<sup>9</sup> This data could be further analysed to provide some estimate of the survival rate of fingerlings, and the effect of restocking on other native species.

### Efficacy of community engagement

The Draft Plan states that the ACT Government has produced a series of signs and illustrated pamphlets to help anglers identify and release accidentally caught threatened fish. However, no data on the effectiveness of these measures is considered in the Draft plan.

As overfishing has been shown to be important in the decline of many native species,<sup>10</sup> the efficacy of community engagement measures should be investigated under the Plan.

### Consultation with First Peoples

The Plan does not consider how fish stocking could benefit from First People's knowledge and influence, or how it could impact First People's relationship with Country. As the stocking is proposed to take place on unceded lands, and will invariably affect natural resources that communities have a close connection to and relationship with, it is recommended that targeted and meaningful consultation with First Peoples be prioritised.

### Quality assurance of population, including fish diseases

An important consideration when fish (or any other animal) are introduced into a natural waterway is ensuring that they are disease free. Restocking risks spreading diseases, such as, Epizootic Haematopoietic Necrosis Virus and parasites. There is no discussion in the Plan managing this risk to ensure fingerlings are free of diseases.

## Summary and Recommendations

Fish stocking is not just about providing animals for recreational anglers, but also about contributing to healthy ecosystems and protecting and enhancing all peoples relationships with the landscape. In light of this the following recommendations are made:

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<sup>7</sup> Fish in the Upper Murrumbidgee Catchment: A Review of Current Knowledge, Mark Lintermans 2002

<sup>8</sup> Enlarged Cotter Reservoir Ecological Monitoring Program Technical Report 2021

<sup>9</sup> cite.

<sup>10</sup> CITE

- Reconsider the Plan in reference to the impacts of climate change and modified river flows;
- Reconfigure the Plan's intentions to frame stocking within a biodiversity lens. This should include reforming the Plan's aim to prioritise biodiversity and ecological wellbeing; and broadening the native species to be stocked.
- Review community engagement mechanisms
- Consult meaningfully with First Peoples on the cultural impacts of Fish Stocking.
- Provide for quality assurance of fish stocking populations