



**CONSERVATION  
COUNCIL** ACT REGION

# Submission to Parks, Planning, and Policy ACT, EPSDD: Review of the Murrumbidgee River Corridor Management Plan

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January 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.

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# Introduction

The Conservation Council ACT Region welcomes the opportunity to provide feedback on the Review of the Murrumbidgee River Corridor Management Plan 1998. We strongly support the review as the current iteration of the plan is outdated and does not adequately consider the ecological, climate, or policy challenges currently facing the MRC. We also note that there are two other ACT reserve Plans of Management that have been in place for more than 10 years; being Namadgi and Jerrabomberra, while Tidbinbilla reaches its 10 year anniversary in 2022. It is anticipated that work is also underway to update these.

The following submission will discuss the efficacy of the plan against objectives 1,3,4,5, and 8, future threats to be considered in reference to those objectives, and the Plan's suitability as a primary planning document.

Several issues are of critical importance with regard to MRC's ongoing management, those being:

- The need for cooperation between landholders, the ACT Government, and other governments;
- The lack of comprehensive publicly available data on vegetation health, mapping, water quality, and invasive species (both aquatic and terrestrial);
- The absence of a clear relationship between the plan's objectives, goals, and strategies;
- The risks to water quality and environmental health posed by urban development especially of the Western Edge; and,
- The lack of community and volunteer resourcing.

We support holistic reform of the Murrumbidgee River Corridor Management Plan to enable it to provide for today's challenges, and support the ACT's unique nature.

## Part A: Review of the plan against its objectives

### Objective 1: To Conserve the Endemic Aquatic, Riparian and Riverine Ecosystems

#### Assessment of Objective

Currently, the world is experiencing a mass extinction event as unprecedented numbers of species are being lost across the globe. Current extinction rates are 1,000 times higher than natural background rates of extinction and future rates are likely to be 10,000 times higher.<sup>1</sup> Australia is lucky to be one of 17 nations in the world that is 'mega-diverse', with natural resources that are internationally significant.<sup>2</sup> Despite this, Australia leads the world on

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<sup>1</sup> De Vos et al, *Estimating the normal background rate of species extinction*, 2015.

<sup>2</sup> Chapman, *Numbers of Living Species in Australia and the World*, 2009.

extinction rates of mammals,<sup>3</sup> and Eastern Australia has been identified globally as a deforestation front.<sup>4</sup>

As identified in the review document, the MRC supports many threatened species and ecological communities. These natural resources have increasing value as the extinction crisis continues. As such, their conservation should remain a priority objective in the revised MRC Management Plan.

The threatened species and ecological communities that are identified in the review document are supported.<sup>5</sup> Of particular concern is the conservation of critically endangered ecological communities, Natural Temperate Grasslands (NTG), and Box-Gum Grassy Woodland (BGGW). Both of which are listed Nationally and in the ACT, making their conservation locally and nationally significant.<sup>6</sup> The Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland (SGGW) Ecological Community should also be conserved under a revised MRC Management Plan. It has been reported that SGGW within the MRC is in moderate to poor condition and in a state of decline.<sup>7</sup> This ecological community has been identified as requiring conservation action.<sup>8</sup> However, it lacks formal threatened status as there is not sufficient information known about it.<sup>9</sup> Lack of information is not a viable reason to avoid conservation efforts, as exemplified by the precautionary principle.<sup>10</sup> The known decline of the ecological community is sufficient for it to warrant conservation management under the revised MRC Management Plan.

The success of the Murrumbidgee River Corridor Management Plan in meeting this objective is largely unknown as there is no exhaustive monitoring that occurs or is made publicly available. We commend the ACT Government for its WaterWatch program, however, the initiatives and data supported by the program are not comprehensive, leaving significant natural resources such as vegetation, weeds, and fish species unmonitored.

The 2019 State of Environment report suggests that this objective is not being met as evidenced by the fact that native fish species account for less than 30% of the abundance in the Murrumbidgee River, indicating a highly disturbed environment.<sup>11</sup> Under a revised MRC Management Plan, provisions should be made to support ongoing monitoring of the area's environmental health, both aquatic, riparian, and riverine. This should include vegetation surveys and mapping, invertebrate surveys, fish surveys, and invasive species surveys. Such data should be made publicly available and easily accessible alongside water quality data in a

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<sup>3</sup> Australian Conservation Foundation, *Extinction Crisis Protecting Critical Habitat*, 2018.

<sup>4</sup> Pacheco et al, *Deforestation fronts: Drivers and responses in a changing world*, 2021.

<sup>5</sup> ACT Government, *Review of the 1998 Murrumbidgee River Corridor Management Plan*, 2021 (p6-7).

<sup>6</sup> Nature Conservation (Yellow Box – Blakely's Red Gum Grassy Woodland) Conservation Advice 2020; Natural Temperate Grassland of the South Eastern Highlands; White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland National Recovery Plan.

<sup>7</sup> Johnston et al, *Survey of Vegetation and Habitat in Key Riparian Zones: Murrumbidgee River*, (2009).

<sup>8</sup> Sharp et al, *Setting Conservation Targets for Vegetation Communities in the ACT*, 2007.

<sup>9</sup> ACT Flora and Fauna Committee, *2011-2012 Annual Report*, 2012.

<sup>10</sup> Peterson, *Precaution: principles and practice in Australian environmental and natural resource management*, 2006.

<sup>11</sup> Office of the Commissioner for Sustainability and the Environment, *State of Environment Report 2019*, 2020.

centralised database. This monitoring could be conducted within the existing WaterWatch program.

## **Critical Issues to be Considered in a Revised Murrumbidgee River Corridor Management Plan**

### *Urban Development*

We strongly support the careful consideration of the impacts of urban expansion adjacent to the MRC as outlined in the review paper.<sup>12</sup> Of particular concern is the proposed development on the Western Edge.<sup>13</sup>

The Conservation Council ACT Region does not support the development of the Western Edge and questions the necessity of continuing to expand the ACT's urban footprint.<sup>14</sup> Urban development poses enormous risks to the precious natural environment within the MRC through both direct clearing and indirect edge effects and fragmentation.<sup>15</sup> In addition, urban development poses severe risks to the water quality within the MRC. This is discussed further below.

### *Invasive Species Management*

It is reported that managing invasive species, notably weeds, is a constant battle in the MRC. We support the statements outlined in the Review document that Blackberry (*Rubus fruticosus species aggregate*), Willow (*Salix spp.*), Serrated Tussock (*Nassella trichotoma*), African Lovegrass (*Eragrostis curvula*) and Box Elder (*Acer negundo*) are of particular concern.<sup>16</sup>

Future management of the MRC will require strong action to address the issue of invasive species. This will have to be supported by consistent funding. Furthermore, a clear line of site must be established between monitoring activities and objectives in order to ensure that mechanisms are working effectively. As discussed above, it is unknown how the proliferation of invasive species throughout the MRC is affecting the environment's health as there is a lack of comprehensive data. Further vegetation surveys, data, and mapping should be made publically available.

Community groups that undertake work on invasive species such as Landcare, should also be resourced to work in the MRC. A revised MRC Management Plan should consider how ongoing relationships between Government and community groups can be created and supported to ensure that initiatives are sufficiently resourced.

### *Climate Change and Fire*

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<sup>12</sup> ACT Government, *Review of the 1998 Murrumbidgee River Corridor Management Plan*, 2021 (p14).

<sup>13</sup> Environment, Planning and Sustainable Development Directorate, *Western Edge Investigation*, n.d.

<sup>14</sup> Conservation Council ACT Region, *Our Environment, Our Future, Election Priorities 2020*, 2020, p8.

<sup>15</sup> Commonwealth of Australia, *State of Environment 2016*, 2017.

<sup>16</sup> ACT Government, *Review of the 1998 Murrumbidgee River Corridor Management Plan*, 2021 (p9).

As noted throughout the Review document, climate change is a serious and ongoing threat facing the MRCs natural resources that must be addressed in a revised Plan. Research demonstrates that climate change will result in drier, hotter climatic conditions and more frequent fires.<sup>17</sup> This will impact all of the MRCs nature, of particular vulnerability is the wetland areas.

Restoration and maintenance of riparian vegetation is of the utmost importance in ensuring the landscape is resilient to climate change. Additionally, fire management procedures should be put in place to minimise the severity of fires in the future.

### *Working with Other Governments, Landholders and Community Groups*

A key challenge in water management is the effect of other landholders and Governments on water and ecosystem quality downstream. The ACT Government's commitment to ensuring that water leaving the ACT is of equal or better quality than it entered is commended.<sup>18</sup> However, effective management of the MRC cannot occur without collaboration between stakeholders. A Protected Areas Network could be utilised to ensure that conservation objectives are considered outside of the protected corridor.<sup>19</sup>

Additionally, the NSW Government should be engaged to discuss water quality issues. As the Murrumbidgee originates in NSW its condition within the ACT is highly influenced by upstream catchment conditions and management.<sup>20</sup> Thus, a combined cooperative approach is essential to ensuring the health of Canberra's riverine ecosystems. Specifically, we support the recommendation in the State of the Environment Report 2019 to increase water releases to the upper Murrumbidgee River under the Snowy 2.0 project to improve aquatic ecosystem health in the Murrumbidgee River, and recommend that the updated MRC Management Plan seeks to implement this.

## **Recommendations**

- Ecosystem conservation should remain a priority in the revised MRC Management Plan.
- Include Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland ecological community for conservation action under the revised MRC Management Plan.
- Provide publicly available and up to date data on vegetation health, mapping, water quality, and invasive species (both aquatic, terrestrial, and vegetated).
- Manage urban development as a critical threat to the MRCs ecosystem health.

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<sup>17</sup> Johnston et al, *Survey of Vegetation and Habitat in Key Riparian Zones: Murrumbidgee River*, (2009).

<sup>18</sup> ACT Water Strategy 2014-44: Striking the Balance.

<sup>19</sup> Conservation Council ACT Region, *Building a Protected Areas Network Across the ACT*, unpublished (expected published in 2022).

<sup>20</sup> Environment Planning and Sustainable Development Directorate, *Impact of the Snowy Mountains Scheme on the Murrumbidgee*, 2018.

- Manage invasive species as a critical threat to the MRCs ecosystem health, including increased funding and support for community groups.
- Manage climate change and fire as a critical threat to the MRCs ecosystem health, including maintenance and restoration of vegetation, and use up to date fire procedures.
- Take a cooperative approach to management of MRC including engagement with landholders, and other Governments to ensure that conservation objectives are considered outside of the MRC in areas where land management affects the health of the MRC.
- Increase water releases to the upper Murrumbidgee River under the Snowy 2.0 project to improve aquatic ecosystem health in the Murrumbidgee River.

### Objective 3: To Conserve Natural Landforms and the Valleys Scenery

The planting of exotic deciduous trees for social and visual amenity within the MRC is not supported as it is not consistent with best-practise reserve management, or the objectives of the Murrumbidgee River Corridor Management Plan.

Under IUCN Guidelines for applying protected area management categories outline that, “protected areas should ... maintain or, ideally, increase the degree of naturalness of the ecosystem being protected”.<sup>21</sup> Considering this, the planting of foreign trees is unacceptable. Furthermore, the planting of exotic trees is at odds with the plan's objectives as it contributes to an unnatural environment by introducing species that are not native. It also inhibits conservation of local endemic species by skewing resources towards introduced species and creating unnecessary competition. The introduction or conservation of any exotic species within the MRC should be prohibited in the revised management plan.

#### Recommendations

- Prohibit the introduction and conservation of exotic species in the MRC under the revised Management Plan.

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<sup>21</sup> IUCN (International Union for Conservation of Nature), *Guidelines for Applying Protected Area Management Categories*, (2008)

## Objective 4: To Conserve and Enhance Habitat Links Through the Regional Landscape

Connectivity is a concept in conservation planning that recognises that nature survives and adapts better when it forms part of a protected network. Prior to urban development, ecological communities are well connected and continuous. Once development occurs roads, fences and buildings serve to fragment the land into small islands, acting as blockages to species movements, reducing available habitat, and impacting on natural resources. This phenomenon has occurred across the ACT Region as urban areas have grown and nature has become increasingly fragmented.

Traditional approaches of conserving isolated pockets of vegetation does not on its own ensure the long-term survival of species and habitats. Confining flora and fauna to small, isolated habitat fragments decreases the diversity and amount of habitat available, increases competition, and reduces opportunities for reproduction.

Considering this, prioritising the maintenance of landscape and habitat connectivity as a primary objective under the revised MRC Management plan is strongly supported. The issues for consideration as outlined in the review document, namely a changing climate, regeneration, and in-stream connectivity are commended. Additionally, urbanisation is a significant threat that should be considered, particularly in reference to the Western Edge.

### Recommendations

- Maintain connectivity as a key objective in the revised MRC Management Plan.
- Identify urbanisation as a key threat to the maintenance and conservation of connectivity across the MRC.

## Objective 5: To Maintain Water Quality

The ACT Government is commended on its commitment to maintaining or improving water quality as it flows through the Territory<sup>22</sup>; it is recommended that this commitment also be enshrined as an objective in the revised strategy. Currently, the ACT has minimal water quality impacts on the Murrumbidgee River as evident by the finding that water is of comparable quality upstream and downstream.<sup>23</sup> Indeed, turbidity improves as the river moves through the Territory.<sup>24</sup>

Of concern, however, is the high occurrence of enterococci in the MRC.<sup>25</sup> This can occur where sewage, agricultural and urban runoff, stormwater, plant debris, polluted groundwater, soils,

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<sup>22</sup> ACT Water Strategy 2014-44: Striking the Balance.

<sup>23</sup> Office of the Commissioner for Sustainability and the Environment, *State of Environment Report 2019*, 2020.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

sediments, and sands pollute the river.<sup>26</sup> These impacts are likely to occur outside of the corridor, highlighting the importance of cooperation between ACT Government, landholders, and other governments in ensuring high water quality in the MRC.

Urbanisation, particularly of the Western Edge is another critical threat that will impact water quality in the MRC and should be considered in the revised strategy. While the Conservation Council does not support development of the ACT's western edge, if development proceeds, then clear regulatory requirements must be created to protect water quality in the MRC. The risk of urbanisation to water quality in MRC is even greater than that in other catchments as there is no lake to filter water.<sup>27</sup> Thus, the MRC is incredibly vulnerable to the effects of urbanisation.

## Recommendations

- Enshrine the ACT Government's commitment to maintain or improve water quality as it flows through the Territory in the revised MRC Plan.
- Identify enterococci as a key threat to MRCs water quality, and engage a Protected Areas Network to minimise the occurrences of outbreaks.
- Identify urbanisation, particularly of the Western Edge as a critical threat that will impact water quality in the MRC.

## Objective 8: To maintain a corridor of open rural and natural land on the western edge of Canberra, and to give clear definition to the transition from the urban landscape to the rugged forested landscape of the mountainous skyline to the west of the city

The western edge of Canberra has been identified for potential future development as evidenced by the ongoing Western Edge Investigation by ACT Government.<sup>28</sup> Urban development poses enormous risks to the precious natural environment within the MRC through both direct clearing and indirect edge effects and fragmentation; additionally, urban development poses severe risks to the water quality within the MRCs. For this reason, and others, as outlined above, the Conservation Council does not support development to the west of the current urban footprint.

A precondition of any development that may occur in the WEIA should be the consideration of areas of conservation values such as those at Bluett's Block, as well as areas that have the potential to support connectivity and that could be restored or enhanced to improve biodiversity

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<sup>26</sup> Alexandria et al, *Enterococci: From Commensals to Leading Causes of Drug Resistant Infection*, 2014.

<sup>27</sup> Office of the Commissioner for Sustainability and the Environment, *State of Environment Report 2019*, 2020.

<sup>28</sup> Environment, Planning and Sustainable Development Directorate, *Western Edge Investigation*, n.d.



outcomes. Forward planning and protection of natural resources is essential to ensuring that Canberra's beloved nature continues to thrive as the population grows.

The maintenance of the natural values of the Western Edge should remain an objective in the reviewed MRC Management Plan. Furthermore, strong regulations should be implemented to outline what development, if any, can occur and how close to the corridor such development can exist. This buffer should be considered with expert help and community consultation.

### **Recommendations**

- Include the maintenance of the natural values of the Western Edge as an objective in the renewed MRC Management Plan.
- Implement strong planning regulations to ensure that any development at the Western Edge does not impact on the natural values of the MRC or the water quality.

## Part B: Adequacy of the Murrumbidgee River Corridor Plan as a Primary Planning Document

The review document's recommendation, that the MRC Management Plan be reviewed as soon as is practicable is strongly supported. We agree with the notion that:

“Future planning for the MRC will benefit from more clearly identifying desired outcomes, values and management issues; addressing the need for monitoring, review and adjustment; involving local and Indigenous communities in its development and setting directions; and incorporating a logically linked, cascading series of management objectives, policies and actions. A new management plan should be explicitly underpinned by an adaptive management approach and integrated with a framework for monitoring and the evaluation of management effectiveness.”

It is recommended that the revised MRC Management Plan draw inspiration from the Aquatic and Riparian Conservation Strategy which has been deemed helpful by the community.

As evidenced above, the MRC Management Plan would also benefit from integrating or being integrated within a Protected Areas Network. It would also benefit from being cooperatively managed and negotiated with the NSW Government as the flow on effects of their water management greatly impede on the efficacy of the MRC Management Plan.

### **Recommendations**

- Follow all of the recommendations as outlined in Part 4.3 of the Review Document.
- Integrate MRC within a Protected Areas Network to ensure collaboration with landholders.
- Cooperate with the NSW Government to form a strategy with shared support from both Governments.

# Summary

Holistic reform of *The Murrumbidgee Management Plan 1998* is needed to enable it to provide for today's challenges, and support the ACT's unique nature.

The issues that are of critical importance to the MRCs ongoing management are:

- The need for cooperation between landholders, the ACT Government, and other governments;
- The lack of comprehensive publicly available data on vegetation health, mapping, water quality, and invasive species (both aquatic and terrestrial);
- The absence of a clear relationship between the Murrumbidgee River Corridor Management Plan's objectives, goals, and strategies;
- The risks to water quality and environmental health posed by urban development especially of the western edge of the ACT; and,
- The lack of community and volunteer resourcing.

## Summary of Recommendations

- Ecosystem conservation should remain a priority in the revised MRC Management Plan.
- Include Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland ecological community for conservation action under the revised MRC Management Plan.
- Provide publicly available and up to date data on vegetation health, mapping, water quality, and invasive species (both aquatic, terrestrial, and vegetated).
- Manage urban development as a critical threat to the MRCs ecosystem health.
- Manage invasive species as a critical threat to the MRCs ecosystem health, including increased funding and support for community groups.
- Manage climate change and fire as a critical threat to the MRCs ecosystem health, including maintenance and restoration of vegetation, and use up to date fire procedures.
- Take a cooperative approach to management of MRC including engagement with landholders, and other Governments to ensure that conservation objectives are considered outside of the MRC in areas where land management affects the health of the MRC.
- Increase water releases to the upper Murrumbidgee River under the Snowy 2.0 project to improve aquatic ecosystem health in the Murrumbidgee River.
- Prohibit the introduction and conservation of exotic species in the MRC under the revised Management Plan.

- Maintain connectivity as a key objective in the revised MRC Management Plan.
- Identify urbanisation as a key threat to the maintenance and conservation of connectivity across the MRC.
- Enshrine the ACT Government's commitment to maintain or improve water quality as it flows through the Territory in the revised MRC Plan.
- Consider enterococci as a key threat to MRCs water quality, and engage a Protected Areas Network to minimise the occurrences of outbreaks.
- Consider urbanisation, particularly of the Western Edge as a critical threat that will impact water quality in the MRC.
- Include the maintenance of the natural values of the Western Edge as an objective in the renewed MRC Management Plan.
- Implement strong planning regulations to ensure that any development at the Western Edge does not impact on the natural values of the MRC or the water quality.
- Follow all of the recommendations as outlined in Part 4.3 of the Review Document.
- Integrate MRC within a Protected Areas Network to ensure collaboration with landholders.
- Cooperate with the NSW Government to form a strategy with shared support from both Governments.