

Submission – Border Rivers Regional Water Strategy

Prepared by [REDACTED].

I am submitting the following response to the Border rivers regional water strategy.

Firstly, the Border Rivers Regional Water Strategies primary objective should only have one objective and that is to use available water in a in totally sustainable manner.

That sustainable objective must take into account environmental as well as human needs.

It is noted that the draft Strategy identifies river health as being under threat. As the health of riverine systems in the border rivers is critical to the biodiversity contained within them all efforts must be made to ensure their survival. Many native fish, waterbirds, and supporting invertebrate species in these systems are currently listed as endangered. Wetlands within these systems, Boobera Lagoon for example should not be seen as secondary considerations to commercial and human needs. The cultural link to water is also a critical need and Boobera Lagoons for example have been identified as one of the most culturally significant sites to the indigenous peoples of the area.

The following options are likely to provide better outcomes. For river health, and wetlands however I believe a thorough examination of the current condition of the Border River systems should be undertaken to provide a true baseline before their consideration.

- Option 10 : Fish passage strategy
- Option 11: Screening pumps to protect fish from being sucked out of the river
- Option 12: Fixing cold water pollution
- Option 13: Restore water quality
- Option 9, 14, 35, 36, 37, 40, 41: Groundwater - managing salinity, monitoring, sustainable access, research, cross-border management, fractured rock aquifers
- Option 15: Managing structures on floodplains
- Option 16 & 17: Private land incentives and riparian restoration
- Option 19: Protecting environmental flows. This project is a Northern Basin toolkit measure and should be identified as a commitment.
- Option 20: Improve benefits of Planned Environmental Water
- Option 21: Active management to protect environmental water - should be identified as a commitment under the Northern Basin toolkit measures
- Option 22: Improved management of unregulated rivers
- Option 23: Improve connectivity with Barwon-Darling
- Option 24: Protecting groundwater dependent ecosystems

The NSW Government's Climate Change predictions for the Border Rivers region are a worst-case scenario, but without an associated definitive plan to combat climate change those predictions are more likely to be a more realistic/optimistic outcome. CSIRO research indicates rainfall runoff in the region could reduce by up to 40%, winter & spring rainfall will decrease, autumn & summer rainfall will increase. Increased average temperatures and the number of hot days will increase leading to a large increase in evaporation.

The draft Strategy recognises that the MDBP Sustainable Diversion Limited in the Border Rivers has not been met. Over-allocation of available water has meant that existing commitments, let alone any projected growth in demand cannot be met.

The Mole River Dam is being presented as a government commitment rather than an option and the border river strategy documents state that this project will stand outside the analysis process used to evaluate other options. Why? This dam will not provide any new water and with the climate change predictions it will unlikely be full often enough to provide security of supply. [REDACTED] Identifies the purposes of this dam as improving security of supply to general security irrigators downstream. The consequences of the dam on the ecological systems in the Mole, Dumaresq and Barwon Darling system would be devastating. Part of the water strategy must evaluate the current farming practice and crop selection. Any thought that this dam would allow an increase in irrigated crop area as suggested in the [REDACTED] report is ludicrous given current water demands cannot be met. The reduction in flows caused by this dam will significantly reduce river health with the same disastrous results as are occurring in the Darling River. Farming practices need to be better tailored to utilise available water rather than trying to extract water that does not exist and is less likely to exist in the climate change future. The vast sums of money that would be wasted on this dam would be better spent on better agricultural science to utilise less not more water. Public funding of strategies likely to reduce demand that are mentioned in the draft strategy are very worthwhile, for example

- Option 18: Impacts of land use change
- Option 26: Reuse, recycle and stormwater harvesting
- Option 27: Water efficiency opportunities – this option must include managing high evaporation rates from on farm storage.
- Option 29, 30: Review of drought management records and allocation process in water sharing plan
- Option 38, 39: Extend cap and pipe the bores program, manage Great Artesian Basin

Another optional strategy that should be included are solutions to the problem of high evaporation rates from the current dams and on farm storages. Why not use dam funding to support the great many Australian products available to cover water surfaces or to build floating solar farms as has been done overseas. Floodplain harvesting captures 30% of natural surface water flows in the Border Rivers. This water is being stored in on farm storages, if better management practices of evaporation rates were to occur volumes harvested could be greatly reduced to provide better environmental outcome for the river and those that depend on it. The reduction of harvested water would help greatly with the current poor interconnectivity of the border rivers and the Barwon Darling systems.

Options 2 Raising Pindari Dam and option 3 Raising Mungindi Weir should be discounted as these would further regulate and alter the natural flow regime of rivers in the valley, impacting native species and ecosystems. They would also impact ground water recharge systems downstream from the dams with impacts on those that rely on groundwater for

domestic supplies. As these dams are primarily used as irrigation dams, part of the strategy should also look at the management practice of WaterNSW to better utilise these dams for drought supply of domestic water for the towns they service. A review of how they calculate environmental flow should also be part of this process.

Option 8 Inland diversions from the east, whilst seeming to provide more water to the west it may come at a cost to the eastern fall agricultural and fishing industries through reduced flow and destruction of the supporting ecologies. Piped systems to provide drought resilience to towns on the tablelands may prove beneficial. This should be seen as an emergency level practice only and water use reduction systems should be primary considerations. Large diversions for agricultural use will as stated have serious consequences for those in the east and definitely not be considered.

The axiom “More with less” should be the primary driver of the Border rivers water strategy. As climate change indicates the likelihood of less rainfall is a serious threat to all our livelihoods. Dams, dam management practices and poor outdated agricultural philosophies only take out more water from the natural systems and the more we interfere with natural systems the more likely we are increase the effects of climate change.

Submission Questionnaire

Draft Border Rivers Regional Water Strategy - Submission Form



Regional Water Strategies Public Exhibition Submission Questionnaire

The NSW Government is taking action to improve the security, reliability, quality and resilience of the state's water resources. The Border Rivers Regional Water Strategy will deliver healthy and resilient water resources for a liveable and prosperous regional NSW.

This draft strategy is being developed by the Department of Planning, Industry and Environment and provides an opportunity to re-shape what we are doing in regional water management and chart a path forward.

We have been working with local water utilities and councils to ensure local knowledge informs the draft Border Rivers Regional Water Strategy. We will work with First Nations people and the wider community to incorporate traditional knowledge and local aspirations in the final regional water strategy.

Your Voice is important

We have prepared this draft strategy to continue our discussions with you. We would like to hear your views on the draft strategy as a whole including the process we used to develop the strategy and the evidence that supports it. We are also seeking your feedback on the options presented in the draft strategy and whether you have any further information that could help us to assess the benefits and disadvantages of any of the options.

Please provide your feedback in the submission form below and email your completed submission to regionalwater.strategies@dpie.nsw.gov.au or post to Regional Water Strategies, Department of Planning, Industry and Environment, Locked Bag 5022, Parramatta NSW 2124 by **30 November, 2020**.

The questionnaire includes general questions about the regional water strategy including objectives, vision, modelling, opportunities and challenges. It also includes questions regarding the draft options along with personal information questions.

The questionnaire will take approximately 15 minutes to complete and your response can remain anonymous if you wish (see question 1).

Questions marked with an asterisk (*) require an answer.

If you have any questions about the questionnaire, please email:
regionalwater.strategies@dpie.nsw.gov.au

Making your submission public

We collect information about you, which may include personal information, to assess submissions in response to the department's dealings and activities, and perform other functions required to complete the project. This information must be supplied. If you choose not to provide the requested information we may not be able to assess your submission.

To promote transparency and open government, we intend to make all submissions publicly available on our website, or in reports. Your name or your organisation's name may appear in these reports with your feedback attributed.

If you would like your submission and/or feedback to be kept confidential, please let us know when making your submission. You will be asked for your confidentiality preference at question 1.

If you request your submission be kept confidential, it will not be published on our website or included in any relevant reports, however it will still be subject to the *Government Information Public Access Act 2009*.

Your submission will be stored securely consistent with the department's Records Management Policy and you have the right to request access to, and correction of, your personal information held by the department.

Further details can be found in our privacy statement available on our website.
<https://www.industry.nsw.gov.au/privacy>

Information from this form is collected for the purpose of receiving your feedback on the draft regional water strategy. The supply of this information is voluntary. Your details will be stored in NSW Department of Planning, Industry and Environment records. Information will be stored and managed in accordance with provisions under the Privacy and Personal Information Protection Act 1998. It will not be used for any other purpose and will not be given to any other third party except where required by law. To access or correct your personal information, contact us using the information at dpie.nsw.gov.au/contact

1. Information on confidentiality and privacy *

I give my permission for my submission to be publicly available on the NSW Department of Planning, Industry and Environment website.

Yes No

I would like my personal details to be kept confidential.

Yes No

2. Your details

Email address *

Name *

Address *

Contact phone number *

Do you identify as an Aboriginal person?

Yes

No

Are you an individual or representing an organisation?

Individual

Organisation

3. Organisation or business details

Who do you represent?

Government:

Commonwealth

New South Wales

State other

Local

Local Water Utility

Peak representative organisation:

Environment

Industry

Business group or business chamber

Community organisation

Other

4. Draft regional water strategy objectives and vision

The draft Border Rivers Regional Water Strategy is one of 13 strategies (12 regional water strategies and a Greater Sydney Water Strategy) being developed by the Department. All regional water strategies are being developed in line with the following objectives:

- **Deliver and manage water for local communities**
 - Improve water security, water quality and flood management for regional towns and communities
- **Enable economic prosperity**
 - Improve water access reliability for regional industries
- **Recognise and protect Aboriginal water rights, interests and access to water**
 - Including Aboriginal heritage assets
- **Protect and enhance the environment**
 - Improve the health and integrity of environmental systems and assets, including by improving water quality
- **Affordability**
 - Identify least cost policy and infrastructure options

All draft regional water strategy options need to address at least one of the above objectives. Our vision for this strategy is to have healthy and resilient water resources (that withstand extreme events and adapt to these changes) for a liveable and prosperous Border Rivers region.

To achieve this, we need to position the region so there is the right amount of water of the right quality, delivered in the right way to meet the future needs of Aboriginal people, towns, communities, industries and the environment.

Do you support this vision for the Border Rivers Regional Water Strategy?

Yes

No

If no, please outline your vision for the long term management of water resources in this region?

5. Information and modelling used to develop the Border Rivers Regional Water Strategy

The draft Border Rivers Regional Water Strategy packages the most up to date information and evidence with all the tools we have – policy, planning, behavioural, regulatory, technology and infrastructure solutions.

We have used the following information to develop the draft Border Rivers Regional Water Strategy:

- **New climate data**
 - Observed historical climate data - recorded rainfall, temperature and evaporation data
 - Paleoclimate data - scientific reconstructed data using sources such as tree rings
 - Climate drivers – key drivers of wet and dry periods
- **Review of existing studies – to identify drivers and risks for water resource management**
- **Community engagement**
 - Local councils and joint council organisations
 - Aboriginal peak bodies and Aboriginal community groups
 - Review of previous water management consultations

A) Do you have any comments about the information used to develop this strategy?

B) Please provide details if there is additional information you think we should consider?

6. Stochastic modelling method

We used a stochastic modelling method (based on the statistical characteristics of the new climate data) in order to get a dataset covering up to 10,000 years. This enables us to quantify the natural variability and extremes in the region with greater certainty.

A) Do you have any comments about the modelling method used to develop this strategy?

B) Is there any additional information that you believe could help us assess the benefits and disadvantages of draft options?

7. Opportunities and challenges for water management in the Border Rivers region

During the Border Rivers Regional Water Strategy drafting stage, the following opportunities, risks and challenges were identified.

- **Climate** conditions combined with the way we currently manage and share water are placing the region's water resources under stress
 - Region has a diverse climate that cycles between wet and dry
 - Long periods of low inflows interspersed by large inflows
 - Recent drought was the worst on record
 - Pindari and Glenlyon dams experienced the lowest 24 and 36-month inflows on record over 2017-19

- **Pressure on town water** supplies across the region
 - Over the last 12 months town water supplies have needed to support broader water needs
 - Some towns have faced critical surface water storage and turned to groundwater
 - Efforts by community and government to reduce water demand and conserve supplies have prepared many towns for future droughts
 - Proposal for Mole river dam may help to improve town water security
- **Water security and reliability** is essential for industry and economic development
 - On farm water storages to support agricultural needs impacts the net water supplied to the system for productive use
 - Increased water security can increase horticultural potential and stimulate economic development
 - Diversification of industries may provide opportunities to reduce water requirements
- **Water is essential for Aboriginal people's health, wellbeing and connection to country**
 - The health of the waterways impacts wellbeing
 - Current cultural water entitlements do not meet the needs of Aboriginal people
 - Opportunities to include Aboriginal people's involvement in water management
- **Challenges in meeting environmental needs**
 - Environmental flows support fish passages and connectivity to the Barwon-Darling system
 - Additional dams, weirs and pipelines along with operational changes alter natural flows
 - Floodwork structures are causing adverse ecological impacts
 - Climate variability will adversely impact riverine, aquatic and floodplain ecosystems
- **Better management of groundwater**
 - Groundwater use varies across the region with some areas over committed and highly used
 - Border Rivers alluvium is a shared resource with Queensland and legislative difference generate challenges.
 - Groundwater sustainability is important during dry periods
- **Water quality** and delivery issues can impact the availability of supplies
 - Blue-green algae blooms particularly in the warmer months pose health risks
 - Delivering water to the end of the system is a challenge in severe droughts
 - Dry conditions along with bushfires have decreased water quality
- **Opportunities to improve connectivity** to the Barwon-River system
 - The Border Rivers region contributes 19% to the Barwon-Darling flows

A) Do you have any comments on the opportunities, risks and challenges identified?

B) Are there any additional opportunities, risks and challenges that we should consider and what options could address these?

8. Draft Border Rivers Regional Water Strategy options

We have developed a long list of options that could be included in the final Border Rivers Regional Water Strategy. The options consider the opportunities and challenges facing the region and meet at least one regional water strategy objective.

The 51 options are grouped in different categories, being:

- Maintaining and diversifying water supplies
- Protecting and enhancing natural ecosystems
- Supporting water use efficiency and conservation
- Strengthening community preparedness for climate extremes
- Improving recognition of Aboriginal people's water rights, interests and access to water

Only feasible options will be progressed to the final strategy stage – following a rigorous assessment process. We are seeking your feedback to inform the options assessment process.

Maintaining and diversifying water supplies

- | | |
|---|--|
| 1. Final business case for building a new dam on the Mole River | 5. Improve cross-border management of flows at major breakout points |
| 2. Raising Pindari's Dam Full Supply Level (FSL) | 6. Reliable access to groundwater by towns |
| 3. Raising Mungindi Weir | 7. Intra-and inter-regional connections project investigation |
| 4. Piping water to stock and domestic water users in the unregulated section of the Boomi River | 8. Inland diversion from the east |
| | 9. Managing groundwater salinity |

Protecting and enhancing natural ecosystems

- | | |
|--|---|
| 10. NSW Fish Passage Strategy | 18. Investigate land use change impacts on water resources |
| 11. Diversion screens to prevent fish extraction at pump offtakes | 19. Revise water sharing plan provisions for planned environmental water |
| 12. Cold water pollution mitigation measures | 20. Improve benefits of planned environmental water |
| 13. Investigation of water quality mitigation measures | 21. Active management to protect water for the environment in unregulated water sources |
| 14. Implement state-wide groundwater quality monitoring program and management program | 22. Improve understanding of water use in unregulated water sources |
| 15. Modification and/or removal of existing priority floodwater structure causing adverse impacts | 23. Improve connectivity with downstream system |
| 16. Providing incentives to landholders to conserve and rehabilitate riparian, wetland and floodplain vegetation | 24. Protecting ecosystems that depend on groundwater resources |
| 17. Riparian habitat restoration and re-establishing threatened species | |

Supporting water use efficiency and conservation

- | | |
|---|--|
| 25. Review of water markets in the Border Rivers region | 27. Water efficiency projects (towns and industries) |
| 26. Reuse, recycle and stormwater projects | 28. Review urban water restrictions policy |

Strengthening community preparedness for climate extremes

- | | |
|---|--|
| 29. New drought operation rules | 37. Improved understanding of groundwater processes |
| 30. Review of regulated river water accounting and allocation process | 38. Extending the Cap and Pipe the Bores Program – Border Rivers catchment |
| 31. Investigation of licence conversions | 39. Maintaining the Great Artesian Basin for the future |
| 32. Improved data collection | 40. Support reforms to simplify and strengthen cross-border groundwater management |
| 33. Training and information sharing program | 41. Improve knowledge of fractured rock groundwater sources in the upper catchment |
| 34. Investigation to maintain amenity for regional towns during drought | |
| 35. Sustainable access to groundwater | |
| 36. Improved clarity in managing groundwater resources sustainably | |

Improving recognition of Aboriginal people's water rights, interests and access to water

- | | |
|--|--|
| 42. Culturally appropriate water knowledge program | 47. Water portfolio project for Aboriginal communities |
| 43. Water-dependent cultural practices and site identification project | 48. Aboriginal cultural water access licences review |
| 44. Secure flows for water-dependent cultural sites | 49. Co-management investigation of Travelling Stock Reserves |
| 45. Shared benefit project (environment and cultural outcomes) | 50. Regional Cultural Water Officer employment program |
| 46. Establish a regional Aboriginal Water Advisory Committee | 51. River Ranger Program |

A) Which five (5) options do you think are ***most*** important?

Please list the option numbers in order of importance with the first option being most important

Option Number

Option Number

Option Number

Option Number

Option Number

B) Please comment on why you think these options are most important?

C) Which five (5) options do you think are least important (if any)?

Please list the option numbers in order of least importance with the first option being least important

Option Number

Option Number

Option Number

Option Number

Option Number

D) Please comment on why you think these options are least important?

E) Do you have any comments on the draft options?

9. Option combinations

The option list provided in the draft strategy also identifies potential combinations of options. These combinations recognise that most options require associated works, further assessments and/or legislative, policy and planning changes to ensure they address the risks and challenges identified in the Border Rivers region and do not have unintended impacts.

A) Do you have any thoughts on how the options could be combined with other options?

B) Are there additional options that we should consider?

10. Other comments

Do you have any other comments about the Border Rivers Regional Water Strategy?

11. How did you hear about the public exhibition of this strategy?

We are interested to know how you heard about the opportunity to make a submission. Please indicate the communication methods below:

Newspaper

Radio

Department of Planning, Industry and Environment website

Direct email

Social media

Have your say NSW Government website

Communication from peak body

Other

12. Additional Information and submission process

If you would like to provide any supporting documents to help us understand your view, please either, email these from the same email you provided in this form, or attach supporting documents to this form if you are returning your submission by mail.

All submissions on the draft Border Rivers Regional Water Strategy will be reviewed following the public exhibition period. Further targeted engagement will be undertaken along with the final phase of stakeholder engagement later in the year to review the final documents.



Please email your completed submission and supporting documents to regionalwater.strategies@dpie.nsw.gov.au



or post to Regional Water Strategies, Department of Planning, Industry and Environment, Locked Bag 5022, Parramatta NSW 2124 by 30 November, 2020.



Further details on all regional water strategies can be found on our website <https://www.dpie.nsw.gov.au/regional-water-strategies>

Thank you for your submission.