

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 North Coast 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, councils, communities, Aboriginal people and other stakeholders to ensure local and traditional knowledge informs the draft North Coast Regional Water Strategy and that it serves the regional community, including First Nations, the environment and industry.

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@dpi.nsw.gov.au or post to Regional Water Strategies, Department of Planning, Industry and Environment, Locked Bag 5022, Parramatta NSW 2124 **by 16 May, 2021**.

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@dpi.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.

Submission Questionnaire



Draft North Coast Regional Water Strategy –
Submission Form

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>

1. Information on confidentiality and privacy*

I give permission for my submission to be made 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*

[Redacted]

Name*

[Redacted]

Address*

[Redacted]

Contact phone number*

[Redacted]

Do you identify as an Aboriginal person?

Yes No

Are you making this submission as an individual or as a representative of an organisation?*

Individual Organisation

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3. Organisation or business details

Who do you represent?

- Government (please specify)
 - Commonwealth
 - New South Wales
 - State other
 - Local
- Local Water Utility
- Peak representative organisation (please specify)
 - Environment
 - Industry
 - Business group or business chamber
 - Community organisation
- Other (please specify)

4. Draft regional water strategy objectives and vision

The draft North Coast 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 North Coast 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 the proposed vision for the North Coast 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 North Coast Regional Water Strategy

The draft North Coast 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 North Coast 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 also consider.

The impact of possible large scale mining in the Clarence River System catchment and the possible massive water use needed by mines. A sthis water use might impact other initiatives

6. Stochastic modelling method

We used a stochastic modelling method (this is a method that uses the characteristics of the climate data to generate long term, extended datasets) 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?

Seems thorough

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

See answer in question above (b)

7. Opportunities and challenges for water management in the North Coast region

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

- Minimal **water infrastructure** to capture, store or divert flows
 - All rivers are unregulated and the region has six independent river catchments
 - Local councils source town water directly from the region's rivers, upriver alluvial or coastal sands groundwater sources
 - Many councils are investigating new or additional local storages
 - Sea level rise and saline intrusion is an additional risk to future town water security
- Rivers are under **high hydrological stress** and affected by poor water quality
 - Shifts towards intensive horticulture have changed the demand for water placing further stress on waterways
 - New climate modelling shows that the annual volume of water flowing in rivers may reduce by around 24%
 - Water quality ratings for major rivers vary from fair to very poor

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- Maintaining a **healthy riverine and estuarine environment** is important for ecosystem diversity and a strong economy
 - Nearly 40% of the region is protected within National Parks and the natural assets are the key attractions for visitors with tourism rated as the second highest valued industry
 - In 2018/19 the commercial estuarine industries for the North Coast was worth around \$17 million
- Greater knowledge and information for **groundwater** sustainability
 - Groundwater is found in fractured and porous rocks, coastal sands and alluvial aquifers around rivers and creeks
 - Limited data on groundwater use
 - Groundwater sources have been impacted by saline intrusion most likely linked to changes induced by groundwater extraction
- Land and waters of the North Coast region is deeply significant for **Aboriginal people**
 - Access to water and Country is key to supporting social, cultural and spiritual needs
 - Aboriginal people are concerned about the impact of extraction and land uses on river flows and water quality
 - Opportunities to include Aboriginal people's involvement in water management
- Opportunities to improve how we **manage and use water**
 - Improve data collection to ensure resources are managed sustainably
 - Existing infrastructure is fit for purpose so that towns, communities and industry have secure water supplies
 - Protect and bring back critical riverine habitats and species
 - Review and clarify rules and procedures to those who need to follow them
 - Provide transparency and confidence to water users
 - Support more flexible water access arrangements
 - Encourage innovation in how we collect water data and encourage more efficient water use
 - Build capacity to support water stewardship and local decision making
 - Support further research to understand risks of the region's water resources

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

Obviously increased coastal population growth especially places more strain on the system of reliable and secure water supply. The current RWSProject I seem to remember had envisaged a 50 year relevance before reassessment. With discussion re Bellingen and Nambucca areas being tacked on....this changes the above timeframe considerably and given water flows from climate change projections maybe looking to our headwaters is not going to yield a solution that is not environmentally damaging. Demand management and reduction of system losses should all have been happening since the RWSProject inception and be ongoing.

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

8. Draft North Coast Regional Water Strategy options

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

The 36 options are grouped in different categories, being:

- Maintaining and diversifying water supplies
- Protecting and enhancing natural ecosystems
- Supporting water use efficiency and conservation

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. Expand the Clarence-Coffs Harbour Regional Water Supply Scheme | 9. Protecting coastal groundwater resources for town water supplies and rural water users |
| 2. Portable desalination | 10. Remove impediments to water reuse projects |
| 3. Emergency water supply provided by new pumped hydro storage projects | 11. Increase use of recycled waste water for intensive horticulture |
| 4. Augment Shannon Creek Dam | 12. Indirect potable reuse of purified recycled water |
| 5. Upgrade major town water treatment facilities | 13. Direct potable reuse of purified recycled water |
| 6. Repurpose existing assets to provide emergency storage for local industries | 14. Increased harvestable rights |
| 7. Vulnerability of surface water supplies to sea level rise and saline intrusion | 15. Increased on-farm water storage |
| 8. New industry and rural licence category within major council storages | |

Protecting and enhancing natural ecosystems

| | |
|---|--|
| 16. Establish sustainable extraction limits for North Coast surface water and groundwater sources | 23. Fish-friendly water extraction |
| 17. Convert low-flow water access licences to high-flow water access licences | 24. Improve fish passage in the North Coast region |

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Protecting and enhancing natural ecosystems

| | |
|--|---|
| 18. Long-term water plans to support healthy coastal waterways | 25. Addressing cold water pollution |
| 19. Characterising coastal groundwater resources | 26. Coastal, regional focused water reference groups |
| 20. Protecting ecosystems that depend on coastal groundwater resources | 27. Planning for climate change impacts on coastal groundwater resources |
| 21. Improve stormwater management and estuarine habits | 28. River Recovery Program for the North Coast: a region-wide program of instream works, riparian vegetation and sediment control |
| 22. Bringing back riverine and estuarine habitats and threatened species | |

Supporting water use efficiency and water conservation

| | |
|---|---|
| 29. Improved data collection on water use and patterns | 33. Regional network efficiency audit |
| 30. Active and effective water markets | 34. Regional capacity building program and skills hub |
| 31. Apply the NSW Extreme Events Policy to the North Coast region | 35. Support for local councils to lift performance standards |
| 32. Regional demand management program | 36. Regional framework to manage restrictions for non-urban water users of town water |

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

Please list the option numbers in order of importance with one (1) being the most important

1. Option number 2
2. Option number 11
3. Option number 12
4. Option number 13
5. Option number 18

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

The first 4 options I have listed are all about the actual amount of water we have or can have at our disposal for both drinking and agriculture and industry.
The fifth option (18) is really the overarching umbrella that everything else should fit under.

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

Please list the option numbers in order of least importance with one (1) being the least important

1. Option number 1
2. Option number 3
3. Option number 4
4. Option number 9
5. Option number 7

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

Expanding the RWSP would seem to have issues of being able to deliver in light of projected climate effects on predicted river flows. Raising the Shannon Creek dam it seems may not be a panacea in light of the above plus the times water can be captured and its turbidity.
Pumped hydro....mmmm where and when?
Groundwater extraction has not been a strategy used in this region as widely as further north and south.

E. Do you have any other comments on the draft options?

As raised at the Grafton workshop....solar thermal desalination was investigated for the RWSP and was the second option behind the much cheaper dam. This option should be followed up for the possibility of government grants in this era of renewable energy projects. The solar thermal system as advocated by Prof Kaneff at the time was going to yield a surplus of energy from the distillation of water. Brine could be taken to a dried salts stage and had industrial markets.

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 North Coast region and do not have unintended impacts.

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

The eventual result would most likely be a multifaceted approach combining reuse/recycling along with desalination and water efficiency and system loss strategies (ongoing from the past). Some selective on-farm storage and high flow extraction.

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B. Are there any additional options that we should consider?

See solar thermal desalination above. These systems can be multiply sited close to where most demand is eg upriver in tidal reaches or close to large population demand on the coast

10. Other comments

Do you have any other comments about the North Coast 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 website
- Communication from peak body
- Word of mouth
- Other (please describe)

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12. Additional information

If you would like to provide any supporting documents to help us understand your feedback, please 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 North Coast 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 any 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 16 May, 2021.



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.

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