

## 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@dpie.nsw.gov.au](mailto: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 14 April, 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@dpie.nsw.gov.au](mailto: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.

# 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

### 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.

## 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?**

**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 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?

### 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. Option number
3. Option number
4. Option number
5. 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 one (1) being the least important

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

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

**E. Do you have any other 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 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?**

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

## 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)

## 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](mailto: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 14 April, 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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## Extracted answers from fillable form above:

Question 4.

Generally supportive but recommend the following changes:

"Sustainable land and water management delivering healthy and resilient water resources (that withstand extreme events and have the capacity to cope with changes) for a liveable and prosperous North Coast region."

This aligns with existing objectives and puts emphasis on the source of many water quality / quantity issues - improved agriculture and intensive horticulture practices, urban design, floodplain / ASS management, etc.

Question 7A.

We support the imperative to make some hard decisions that give the region the best chance of achieving sustainable levels of extraction, supporting long-term viable agriculture and horticulture, improving adoption of best practice soil and water management, and turning around the declining health of water-dependant ecosystems and populations of native species.

This imperative is driven by a number of compounding and interacting issues - for example, the combined impacts of increasing area of intensive agriculture with high water needs, lack of data on actual water usage, demand and competition for water peaking during drier months, likely lower rainfall during the drier winter in the future, the existing levels of hydrologic stress in many rivers, not to mention increasing population. In this regard, the strategy could present a more holistic view of how it is going to take an integrated approach to addressing the interaction of these issues.

Improving governance around water management in the first instance could be mentioned as a focus for achieving this integrated approach.

While climate change is mentioned, there needs to be more emphasis on how we are going to help out waterways cope with change risk and uncertainty into the future. How might we use policy, governance, strategy and changes to on ground practice and behaviour to address climate impacts?

#### Question 8B.

The five options listed are some of the most important in relation to North Coast LLS business and expertise. Our aim is to help farmers manage land so that water is managed efficiently, soil and nutrient loss is minimized, agriculture is sustainable, and aquatic ecosystems are improved. There are many others that are equally important to LLS. For example, community engagement and capacity building.

Our top 5 will underpin change across a suite of areas – they reflect the overarching driver, the most needed change in policy, changes to on ground practice, and building the knowledge record to underpin future thinking and planning in water management. Option 26 - "coastal water reference groups" is also important.

#### Question 9B.

Additional option a: FARM RUN-OFF MANAGEMENT - The management of farm runoff is a major issue that should receive greater consideration in the Options Paper. This is an ongoing source of poor water quality in the north coast region. Management of farm runoff is related to several existing options but should be a separate Option.

A farm runoff management option should consider measures to increase the monitoring of, and compliance with, farm runoff standards.

The ANZECC guidelines provide a benchmark for preferred water quality standards that could be used as a basis for monitoring and compliance.

Recent work indicates runoff with poor nutrient, pesticide, heavy metal, DO and pH levels is reaching coastal lakes and estuaries from sources such as upland intensive horticultural (protected and unprotected cropping), lowland cropping like cane, and lowland agricultural production systems on the floodplain.

Additional Option b: RE-USE OF ON-FARM WASTEWATER - Clear guidelines to address the rules around on-farm retention ponds for nutrient rich wastewater should be considered. It appears farmers are unclear on whether they can catch, hold and re-use wastewater or not.

This proposed option would be a "potential combination" with Option 10 (remove impediments to water reuse) which does not seem to include farm water re-use, and Option 11 (increase use of recycled wastewater for intensive hort) but does not need to be limited to intensive horticulture and Option 11.

Question 10.

North Coast LLS has a lead role in the development and promotion of strategies and practices that support sustainable agriculture and the protection of natural assets. North Coast LLS should have a senior representation on any governance structure established to implement the NC RWS.

North Coast LLS has expertise in the following RWS initiatives, and so should have a key role in implementing a number of Options. For example:

- River recovery and instream works (e.g. options 28, 24)
- Protecting aquatic habitats and threatened species (22)
- Managing rural area run-off and water quality (proposed addition option) which is related to the North Coast LLS current MEMA projects on bioreactors and rural road runoff.