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# Review of the Richmond and Tweed water sharing plans

## Report summary

This slide pack provides an overview of findings and recommendations – the Commission’s full and official advice to the Minister is contained in the final report

# Acknowledgement of Country

- In the Tweed and Richmond areas, the Commission pays its respects to the Bunjulong and Githabul Traditional Owners past, present and future, as well as other Aboriginal peoples for whom these waterways are significant.

# Our review

- The Natural Resources Commission (the Commission) has a statutory role under s43A of the *Water Management Act 2000* to review water sharing plans approaching expiry
- Our reviews consider if a plan's environmental, social, cultural and economic outcomes have been achieved, and what improvements can be made
- As part of our reviews, we recommend whether a plan should be extended or replaced
- Our reviews consider relevant data and documents, technical advice, stakeholder consultation and public submissions – we received 17 submissions for the Richmond Plan review and 32 submissions for the Tweed Plan review



# Context

- The reviews occurred while DPIE-Water was developing the *Far North Coast Regional Water Strategy* and water supply augmentation options were being considered by local water utilities
- The plan areas hold significant environmental values, including World Heritage areas and habitat of threatened aquatic species (See report for full discussion)
- The Plan areas were affected by drought in 2019-20 which impacted the environment and water users
- Strong population growth will place pressure on water sources



# Overview of key issues



## Town water supply at risk

Town water supply needs have largely been met under the Plans but drought impacted water availability and saline incursion poses a risk to Tweed Shire's raw water supply.

Plans are not equipped to effectively manage predicted climate change and population growth



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## Environmental protections need strengthening

Plans lack fixed, sustainable numeric Long Term Average Annual Extraction Limits (LTAAELs)

Plan provisions for protecting low flows, environmental releases, the Richmond tidal pool and threatened native fish are insufficient and not effectively monitored.



## Now is opportunity to fix Plans to:

Manage risks from population growth and climate change

Set sustainable extraction limits

Strengthen environmental protections

Better manage connectivity

Reduce barriers to trade

Support outcomes for Aboriginal people

# Overall recommendation: Extend Plans to June 2023 and replace by July 2023



**Extend the Plans to  
build evidence**



**Integrate regional  
planning processes**



**Replace the Plans**

# Manage risks from population growth and climate change

## Key issues

- Town water supply needs were largely met under the current Plans, but drought affected water availability - saline incursion also posed a threat to Tweed Shire's raw water supply
- The Plans should consider other planning processes underway and align where appropriate
- Population growth is increasing demand for town water supply - increased entitlement may be needed in the Tweed area to meet the needs of Uki and Tyalgum
- Protection of third order or greater streams of high ecological value from in-stream dams is helping to achieve environmental outcomes. Plans should be updated based on the latest knowledge of areas of high instream value and key fish habitat

## Key recommendations for DPIE-Water

- Retain existing provisions in both Plans to protect third order and greater streams of high ecological value from instream dams; consider the outcomes of investigations undertaken as part of the *Far North Coast Regional Water Strategy* and relevant water augmentation options
- Review demand forecast for the Tweed area and other studies from Tweed Shire Council to determine if the share component of the local water utility access licences requires an increase to meet the forecast demand for Tyalgum and Uki, or whether this could be met through other measures

# Set sustainable extraction limits

Establishing clear, sustainable extraction limits is the most fundamental requirement of a water sharing plan - without these, extraction cannot be managed

## Key issues

- Current LTAAELs are not based on sound evidence of sustainability
- LTAAELs need to consider risks from growing basic landholder rights extraction and increasing demand for local water utility extraction associated with population growth
- Compliance with LTAAELs cannot be easily calculated -therefore available water determinations (AWDs) have not been used to ensure compliance with LTAAELs
- AWDs could also be explored as a tool to better manage extraction during drought

## Key recommendations for DPIE-Water

- Establishing fixed, numeric values for LTAAELs, based on best available information, including ecological requirements, an accurate estimate of basic landholder rights and climate change - this could include setting separate LTAAELs based on high flow and low flow
- Regularly and transparently assess LTAAEL compliance
- Consider using AWDs to manage extraction during drought in the Richmond tidal pool and alluvial aquifers including under predicted climate change
- Suggest that reasonable use guidelines be finalised by 1 July 2022



# Strengthen environmental protections

## Key issues

- Limited environmental releases have been made under the Richmond Plan, while releases under the Tweed Plan can be optimised
- There is limited evidence that provisions protecting the Richmond tidal pool, low flows and threatened native fish are effective
- Some rules are impractical to follow and do not reflect best available information
- No rules to mitigate the risk of disturbing acid sulfate soils, risking water quality issues

## Key recommendations for DPIE-Water

- Develop environmental flow rules for all dams and weirs in the Richmond Plan based on best available information and support releases with an environmental flows reference group and improved gauging network
- Amend the rules for Tweed Plan's Clarrie Hall Dam and Bray Park Weir based on investigations underway and best available data
- Model extraction impacts on Richmond tidal pool and refine provisions including cease to pump, pumping restrictions, town water supply access rules and trading rules
- Explore options to reduce pressure on low flows, including through high flow conversions and cease to pump rules
- Improve data on, and protections for, priority native fish
- Include provisions to manage risk of acid sulfate disturbance

# Better manage connectivity and groundwater-dependent ecosystems

## Key issues

- Limited consideration of surface-groundwater connectivity - environmental values in highly connected areas may not be adequately protected
- Potential impacts of extraction from the Alstonville Plateau on Richmond Plan water sources are not considered
- Protections for groundwater-dependent ecosystems (GDEs) are based on outdated approaches
- Tuckean Swamp – a high priority GDE listed in the Richmond Plan – is also managed under another plan, but alignment between the plans is unclear

## Key recommendations for DPIE-Water

- Undertake further studies and use best available data to identify highly connected systems, including the relationship between Alstonville Plateau groundwater and base flow in connected waterways in the Richmond Plan area
- Change access rules for bores beyond 40 metres of a river in areas with high surface-groundwater connectivity
- Define, map and ground-truth GDEs with up to date methods
- Review setback distances for GDEs to align with relevant policies and connected water sharing plans
- Clarify the management of Tuckean Swamp across plans

# Reduce barriers to trade

## Key issues

- Trade rules are complex and may unnecessarily inhibit trade
- The full range of socioeconomic values are not reflected in trade rules
- Mapping errors are a barrier to trade
- Support mechanisms for trade can also be improved

## Key recommendations for DPIE-Water

- Assess the full range of industries in the North Coast, industry changes and associated water requirements, including tourism and aquaculture
- Use this assessment to amend trade classifications and rules (noting that latest mapping of environmental values must also be considered to protect high-value ecosystems)
- Review and address trade barriers, such as mapping errors
- Work with WaterNSW to address trade rule ambiguity and strengthen administrative arrangements

# Support outcomes for Aboriginal people

## Key issues

- Native title claims and Indigenous Land Use Agreements not fully recognised
- Aboriginal values poorly understood and recognised
- Aboriginal specific purpose licences are complex and limit meaningful use – none were applied for

## Key recommendations for DPIE-Water

- Reflect native title claims and Indigenous Land use Agreements
- Work with Aboriginal stakeholders and Traditional Owners to identify and protect values
- Reserve unallocated water for Aboriginal specific licences or other Aboriginal water access options
- Finalise state-wide Aboriginal Water Strategy to provide consistent, transparent guidelines and resourcing for Aboriginal water management across NSW



# Strengthen MER and implementation

## Key issues

- As with other water sharing plans, there was minimal monitoring, evaluation and reporting (MER) - DPIE-Water is currently addressing gaps in MER for coastal and inland water sharing plans
- There is broad stakeholder support for a rollout of metering to support compliance
- State-wide issues relating to stakeholder engagement, governance, roles and responsibilities, and timelines remain
- Many issues require solutions beyond the scope of the Plans

## Key recommendations for DPIE-Water

- Continue to develop state-wide and plan-specific MER frameworks
- Complete studies to improve knowledge and support adaptive management
- Assess risk to plan implementation for users not captured under the state-wide metering policy
- Adopt state-wide processes to strengthen implementation
- Adopt an integrated catchment management approach



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