



Natural
Resources
Commission

*Review of the Water Sharing
Plan for the Coffs Harbour Area
Unregulated and Alluvial Water
Sources 2009 – Report
summary*

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 10 public submissions for this review.



Coffs Harbour Plan area

- The *Water Sharing Plan for the Coffs Harbour Area Unregulated and Alluvial Water Sources 2009* (the Plan) covers over 20 coastal water sources on the mid-north coast, from north of Red Rock to above Repton in the south
- These include environmentally, socially and economically important assets such as national parks, estuaries and parts of the Solitary Islands Marine Park
- The Plan does not manage town water, which is drawn from the Orara and Nymboida rivers under a neighbouring water sharing plan
- Water extracted in the Plan area is largely used for irrigated horticulture and basic landholder rights - agricultural businesses shifted significantly during the Plan period from largely dryland banana production to more intensive irrigated horticulture
- Waterways in the region hold significant social, economic and cultural values to the Gumbaynggirr people

The Plan should be replaced

The Commission's advice is that the Plan should be:

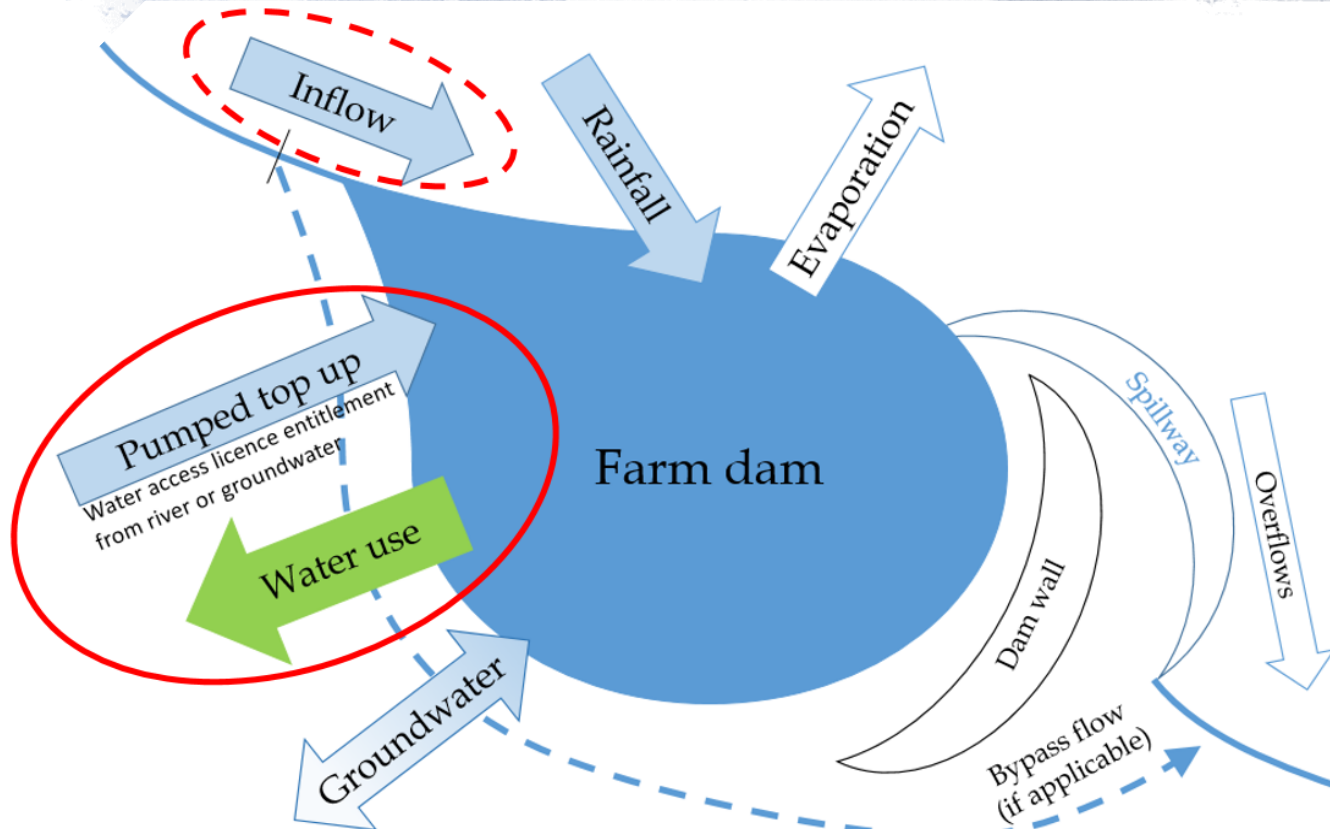
- **Extended until June 2022** to allow enough time and resources to make required Plan improvements
- **Replaced by June 2022** to address the recommendations in the Commission's report
- There is a significant amount of work required to address these recommendations – due to the risks to the unique environmental, social and economic values of the Coffs Harbour Plan area, the Commission encourages appropriate funding and resourcing to address these issues

Summary of key findings

Limited evidence to determine the Plan's impacts

- The Plan does not clearly specify environmental, social and economic outcomes that are prioritised in line with the principles in the *Water Management Act 2000*
- While there are no flow gauges and minimal ecological studies in the Plan area, findings from available ecological studies indicate that environmental outcomes are unlikely to be achieved
- The long term average annual extraction limit (LTAAEL) is not quantified and there are no flow targets to protect downstream processes, including estuaries
- There is significant stakeholder concern regarding water quality and impacts on estuaries and coastal environments downstream of the Plan
- Monitoring of water extraction and use is inadequate, and almost all licences in the Plan area are unmetered - most pumps in the Plan area will not require a meter under the NSW non-urban water metering reforms, entrenching the existing knowledge gap
- The benefits of a healthy river system are valued by the whole community but the Plan's social, cultural and economic benefits or impacts were not monitored

Summary of key findings (cont.)



Extraction from farm dams

- The Plan and external regulatory framework do not consider risks associated with increased use of farm dams, which capture significant volumes of flow and will impact low flows in the Plan area
- The use of farm dams has increased due to a shift towards intensive horticulture, altering the extraction profile in the Plan area
- Stakeholders were concerned about potential environmental impacts from this shift. The impact is currently unquantified due to a lack of monitoring and measurement, but the Plan does not address risks associated with changes in extraction profile

Extraction from mixed use farm dams. The aspects regulated by the Plan are circled in red, with those partly regulated (for capture above basic landholder rights) are circled in dashed red. Edited from SKM (2011) *STEDI: Estimating the impact of farm dams on streamflow, user manual*. Version 1.1.

Summary of key findings (cont.)

Social, cultural and economic outcomes

- The Plan does not consider the full range of requirements for estuarine and dependent coastal environments, and associated social, cultural or economic values
- The Plan has allowed for economic benefits to be realised through the expansion of horticulture
- Commercial and recreational fisheries and tourism are among the many industries relying upon Plan effectiveness and healthy estuaries, but these are not considered under the Plan
- Anecdotal evidence indicated that certain types of estuary in the Plan area are staying closed longer, contributing to local impacts
- The increase in farm dams will affect natural flow variability and may change estuary function, but site specific studies are needed

Plan development and implementation

- Compliance with water take laws is a significant issue in the area - issues with the Plan's clarity may contribute to compliance issues



Summary of key recommendations

The Commission recommends the Plan should be updated as follows:

Understand and better protect environmental water

- Define and assess the extent and impact of extraction and any changes since 2009
- Define a numeric extraction limit that protects the required volume of environmental water

Protect key environmental assets' flow requirements, variability and connectivity

- Describe the natural flow regime, define surface and groundwater water dependent environmental assets, identify key assets and functions and their needs
- Reassess cease to pump thresholds to protect low flow requirements if in-river extraction increases or at year two of the Plan
- Design and implement provisions to protect key environmental assets' flow requirements and implement mechanisms outside the Plan as necessary to support natural flow variability and function



Summary of key recommendations (cont.)

Collect and transparently report on key data and monitoring

- Set strong Plan foundations to improve implementation and measurement of Plan outcomes in line with the *Water Management Act 2000* priorities
- Identify locations, install, collect and evaluate data from local river flow gauges to provide a transparent evidence base for management and planning decisions
- Implement measures outside the NSW non-urban metering framework to understand and account for extraction including rainfall runoff harvesting to support decision making
- Report publicly on measurement of extraction and provide a roadmap for ongoing steps
- Finalise the monitoring, evaluation and reporting framework for coastal water sharing plans, including clear governance frameworks and timeframes for reporting and adaptation



Summary of key recommendations (cont.)

Incorporate climate change impacts

- Ensure the Plan functions appropriately under a range of climate change scenarios
- Use best available climate information and allow for amendments to address water availability based on evidence of changing climatic conditions

Determine economic dependence

- Assess the economic dependence of each water source including the full range of economic benefits and impacts (such as intensive horticulture, tourism, aquaculture, community and ecological services such as recreation and suitable water quality)