Staff investigation and response – Notice of Motion "Acquisition of low-lying, high-risk rural floodplain areas"

Responsible officer: Group Manager Planning and Delivery (Andrew Logan)

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Recommendation

That Council adopt the following position regarding the acquisition of low-lying, high-risk rural floodplain areas:

1. Acknowledge the challenges associated with coastal riverine floodplain land uses, particularly those relating to the lowest lying land (i.e. less than 1m above mean sea level); and
2. Write to the State Government requesting a review of current floodplain land uses and development of a long-term strategic direction on how different areas of the floodplain will be used, acknowledging all stakeholders, including First Nations, interests.

Background

Of growing concern is how the lowest lying land on coastal riverine floodplains is zoned and used. There are a range of issues associated with these areas that are predicted to worsen under a changing climate and increased sea levels. The recommended resolution provides an agreed position for Rous and identifies a strategic approach which will benefit all stakeholders.

- **Position summary/overview**

Land use zonings and practices on the floodplain are historical and have changed very little since they were established. They do not reflect current scientific understanding or broad community values. Of highest concern is the lowest lying land on the floodplain (i.e. less than 1m above mean sea level). These areas are mostly privately owned and zoned suitable for agriculture but require intensive drainage for that to occur. These areas were once near permanent wetlands.

- These areas are already difficult to drain and landowner's expected levels of service are generally not being met. This difficulty relates to the opportunity floodgates have to drain on the tidal cycle, not related to maintenance difficulties.
- A large proportion of the lowest lying land is marginal for agricultural use and mostly supports low intensity grazing. A few areas of higher value agriculture do exist in the Richmond.
- These areas were badly impacted in recent floods and property and life are high risk of future flooding.
- Drainage of these low-lying areas has a significant environmental impact on the health of the estuary.
- The lowest lying land represents 12% of the Richmond River floodplain (12,000ha).
- Rous has maintenance responsibility for the main canals and floodgates that drain these low-lying areas. These assets are usually the main control structures which connect large drainage networks to the river.

The issues associated with draining and farming the lowest lying land are all set to worsen under a changing climate and increased sea levels. It is widely accepted by researchers and all tiers of government that to prepare for the impact of sea level rise and improve the health of the estuary, drainage of the lowest lying land must cease. However, this would result in a change of land use (away from agriculture) and there are currently no supporting government policies or programs that facilitate the removal of drains, land use change or voluntary acquisition, and no fit for purpose external funding sources that can be utilised, or organisation that has the capacity to manage areas voluntarily acquired in the long-term.

As further research occurs, a long-term land use strategy is required for all floodplain stakeholders, industries and landowners. Such a strategy will provide confirmation and confidence in making future decisions. Given the strategic nature, the relevance at a state level, State Government has a key role in providing long-term strategic direction on how different areas of the floodplain will be used.

- **Further information**

Role of Rous

- Rous is an infrastructure manager with maintenance responsibility for drains, canals, floodgates and levees across the Richmond River floodplain. Rous also has responsibility for reducing the environmental impact of this infrastructure.
- Although Rous is responsible for a large network of flood mitigation infrastructure, it has no influence over land use planning or land use practices.
- Currently flood mitigation at Rous is constrained by limited resources. As a result, current activities relate mainly to the maintenance and operation of existing infrastructure.
- A strategic review is currently underway to explore long-term direction and focus of flood mitigation at Rous.
- Despite these constraints, Rous is recognised as an authority and leader in floodplain management. As a respected front-line infrastructure manager Rous can make a valuable contribution by sharing the challenges it faces and its concerns for the future.

Need for a position

A ‘business as usual’ approach is difficult to maintain due to:

- increasing difficulty in draining low-lying land,
- increasing concern of the environmental impact of draining the lowest lying land, and
- shifting values in the broader community.

Continuing the current approach is likely to result in a decline in the drainage provided by Rous infrastructure along with a continual decline in the health of the estuary.

Environmental impact

- Despite all efforts, no appreciable improvement has been made to date in reducing the most critical environmental impacts of draining the lowest lying land. The environmental impact of draining the lowest lying land will worsen with climate change. There is scientific concern that ecological resilience of the estuary is unknown, and if impacts continue and worsen, that tipping points may be reached. Note that drainage on higher parts of the floodplain doesn’t have the same environmental impact.

Difficulty in draining

- Recent released studies show that there are already a high number of Rous floodgates that only drain for small periods in the tidal cycle. Similarly, there are parts of the floodplain where drainage of land is already very difficult. This is set to rapidly increase with only small changes to sea level. The recently released Richmond River Floodplain Prioritisation Study commissioned by the NSW State Government identifies floodgated drainage systems and areas most at risk.

Community expectations

- There is also a growing divide between the expectations of landowners in the lowest lying areas who are reliant on Rous drainage to allow their land to be suitable for agriculture and the broader downstream community who experiences the negative impact on the estuary. Managing the expectations of these two conflicting groups is a key challenge for Rous now.

Rous has a key role as a front-line organisation in observing, reporting and responding to these challenges. However, given the current capacity and resourcing of flood mitigation at Rous, there is limited opportunity to take a lead role or actively participate in the voluntary acquisition of properties.

With our current capacity and resourcing, Rous can make a valuable contribution by:

- highlighting emerging issues and concerns, and
- advocating for strategic decisions from State Government.

Conclusion

Recommended that Rous affirms an agreed position which will provide strategic direction that will benefit all stakeholders by a resolution of Council. This will allow Rous to continue to advocate and lobby for change as opportunities arise and consider this issue within the pending internal strategic review.

Related documents

Operational Plans

2022-2023	Review and identify the challenges in reducing the natural resource impact of flood mitigation assets in a changing climate.
2023-2024	Engage with the NSW Government and other floodplain stakeholders to pursue opportunities and funding to better understand the impacts of a changing climate on the floodplain and the strategic direction. • Discussion paper shared with stakeholders and NSW Government. • Written representation to NSW Government agencies made on need for strategic direction on natural resource impact of flood mitigation assets.

Other documents

- Harrison A, Rayner D, Tucker T, Lumiatti G, Rahman P, Gilbert D and Glamore W (2023) Richmond River Floodplain Prioritisation Study. UNSW Water Research Laboratory. Report prepared for NSW State Government https://www.marine.nsw.gov.au/projects/coastal-floodplain-study
- Glamore, W and Rayner D (2023) A Discussion Paper on the Natural Resource Management Issues Arising from Flood Mitigation Infrastructure Managed by Rous County Council. Report written for Rous County Council.