



June 19, 2024

RE: GBRMPA Southern Plan of Management – University of Sydney Submission

Dear Spatial Planning Team

The University of Sydney, through its One Tree Island Research Station operated by our Faculty of Science, is pleased to provide input on the Great Barrier Reef Southern Plan of Management (SPoM) public consultation process.

The University has a particular interest in this region as the operator of the One Tree Island Research Station (OTIRS), located in the Capricorn Bunker Group.

The University is in its 50th year running the station and takes great pride in OTIRS being recognised internationally as a premier destination for cutting edge coral reef research and immersive student learning experience.

One Tree Reef holds the unique distinction of being the sole entire reef within a Great Barrier Reef Marine Park Authority (GBRMPA) science-only zone.

We approach our custodial responsibilities with the upmost seriousness, operating OTIRS based on sustainability principles to minimise environmental impacts.

We have organised our feedback to these consultations around the key questions discussed with you at a meeting held 13 June 2024.

What is unique about the reef and region around OTIRS?

- One Tree Reef is the only entire reef captured within a science-only zone. This means this is the only place on the GBR where comparisons between different reef habitats and zones around a reef can be free of concern about the impact of other outside uses on observed differences. The value of this as a baseline for understanding change and assessing the impacts of management efforts cannot be understated.
- Some previous research has suggested the southern reef may experience generally lower recruitment levels. While there is still much to learn about this, if true, this places this region in a precarious context for recovery from impacts such as the recent mass bleaching events. It emphasises the need for even greater sensitivity to the need for protection and careful monitoring, which could provide insights for future scenarios in other areas, where impacts have reduced broodstock to such an extent that larval supply has become a limiting factor to reef recovery.
- This region has largely avoided widespread bleaching since the 1998 event and thus its recovery trajectory from the 2024 event will provide an informative contrast to that of areas on the central and northern GBR which have experienced multiple, intensive bleaching since 2016.

How could the SPoM affect the ability of OTIRS to support research and education?

- Permitting remains a challenge to research and education activities. While we strongly support a robust permitting system, we would like to see the SPoM consider how current obstacles to



rapid permitting processes could be overcome. We recognise that this issue is not unique to just the southern region. Some important considerations include:

- The significant benefits that would flow from creating a more streamlined permitting system for low impact work. Many users of OTIRS will only take pictures and measure things, all low impact. Yet they must go through lengthy application processes, often needing help from OTIRS staff. We would like to see GBRMPA support rapid approvals for low impact work, potentially via permits issued to the station which can be extended to visitors with minimal reporting requirements.
- Related to the previous comment, we recommend a review of the definition of low impact activities to consider the merits of broadening its scope. Currently, most forms of tools are excluded from low impact consideration, even if this may involve simply the use of a battery-operated drill to fix a few instruments in place. This issue especially affects geoscience researchers.
- We suggest consideration within the permitting system which allows us to make better use of station staff for background monitoring of the reef with things like drones and autonomous vehicles. These initiatives bring great value to our understanding of the reef and any reduction in the processes required to allow them will promote their use.

What novel initiatives could the SPoM assist in supporting?

- As indicated previously, OTIRS is unique in being located on the only reef that sits entirely within a science-only zone. We hope that this review does not seek to change that status given its value as a reference point. However, we also see significant value in this review considering whether other orange zones can be similarly expanded - so there is more than one such reef within the broader management system of the GBRMPA.
- The University is committed to developing opportunities for greater engagement with traditional owners and OTIRS represents an excellent opportunity for this to occur. The SPoM could assist by facilitating the creation of relevant networks, sharing learnings and pathways to success.
- Research stations are expensive and challenging to run. The SPoM provides an opportunity for the GBRMPA to recognise these realities by working to support the longevity of the stations and highlight their value.
 - OTIRS is a model for sustainability, but this comes at substantial cost in such a remote location. The same can be said of other stations. We hope to see initiatives from the GBRMPA which support ongoing development of sustainability - either directly or via supporting and facilitating information exchange among members.
 - Research stations like OTIRS represent very cost-effective solutions for collecting reef monitoring data as staff can deploy and service devices much more easily than could be done otherwise. OTIRS has invested in monitoring infrastructure, but challenges arise in easily sharing the data we collect more broadly. Other stations are likely in the same situation. There is an opportunity to create data networks which not only assist in sharing data in a common format, but support the stations in gathering such data, recognising the large financial investment required to obtain it.
 - OTIRS relies very heavily upon Heron Resort for critical services. Heron Resort is also operating in a challenging climate and their objectives may sometimes lead to OTIRS-related services not being prioritised. The SPoM presents an opportunity to consider ways in which operators, such as Heron Resort, could be incentivised to work closely

with research stations like OTIRS and Heron Island Research Station towards the mutual benefit for all parties.

What impacts does OTIRS observe from other users and how could the SPoM assist with these?

OTIRS staff occasionally spot vessels fishing inside the orange zone. If they are able, they will try to get photos, advise the Authority and on occasions politely let the operators know that fishing is not permitted in the zone. Marine Parks Enforcement has been very good in supporting our staff when these incidents occur. Acknowledging the huge areas Marine Parks Enforcement must monitor and patrol, while we have staff based permanently on the island, we are keen to collaborate with the GBRMPA to conduct a risk assessment and to consider the joint development of protocols and appropriate training for our staff. This would help ensure that staff only ever engage with illegal fishers and other possibly unlawful incursions in ways that are appropriate and safe.

If you would like to further discuss any of these issues, please feel free to reach out.

Kind regards,

(signature removed)

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