

To Mayor, Jane Smith
Central Coast Council

23-10-17

Dear Mayor,

The dredging issue of dredging and general maintenance of Brisbane Waters and in particular the entrance and Lobster Beach (Known as Ettalong Channel) has become critical and a matter of extreme urgency. The temporary pump dredging is ineffective and financially wasteful. As you would be well aware the Palm Beach to Wagstaffe ferry has been seriously compromised due to the lack of depth in the channel and has become a navigational hazard.

This Ferry service is a public/private transport system that is used extensively by School children, working commuters, tourists and the local community, with fares subsidized by the state government.

This vital ferry link has experienced dangers forcing it to cancel services on a regular basis when these services are heavily patronised .

We are concerned that if the channel does not receive satisfactory and lasting dredging, the ferry link will likely be closed, and the area will develop a reputation as a place where the waterways are not accessible, thus impacting significantly on the community.

The NSW government has committed funds to be available on grants and application by council is as a matter of urgency.

In the appendix to this letter we have documented some information for your consideration, our group has much more information should you require it.

Please advise when council will make urgent application for funds from the grants available.

Yours Faithfully

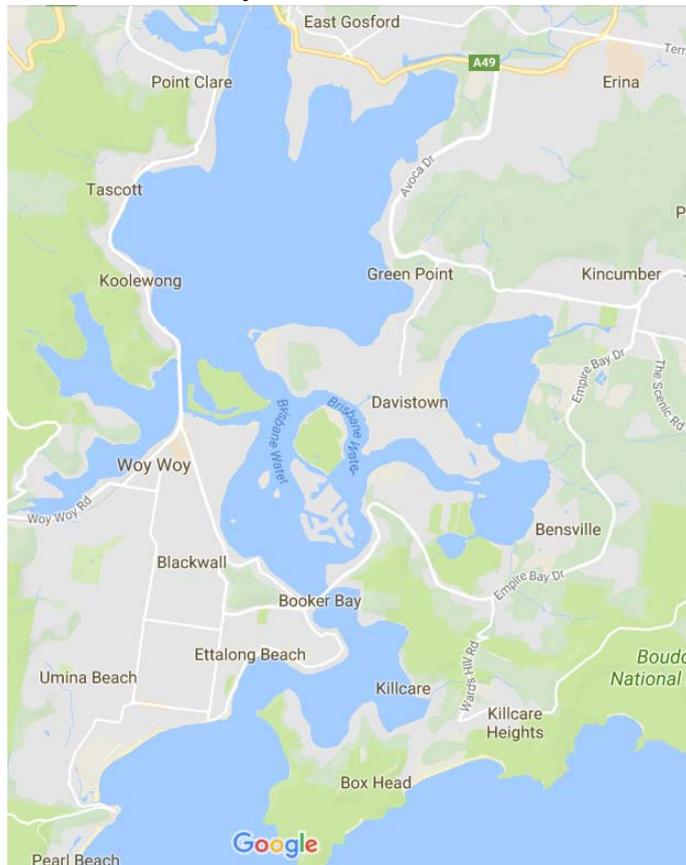
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Appendix

Information included in the appendix:

1. Channel priority order
2. Issues with the current dredging spoil deposits
3. A list of issues for consideration
4. An extract from the Coastal Zone Management Plan for Brisbane Water Estuary which has included the navigation channel dredging as a priority.
5. Revenue figures from Brisbane Waters
6. Recent press articles

1, Channel Priority Order



Our Members have reported issues with the following channels around Brisbane Waters, we've prioritized these in importance order:

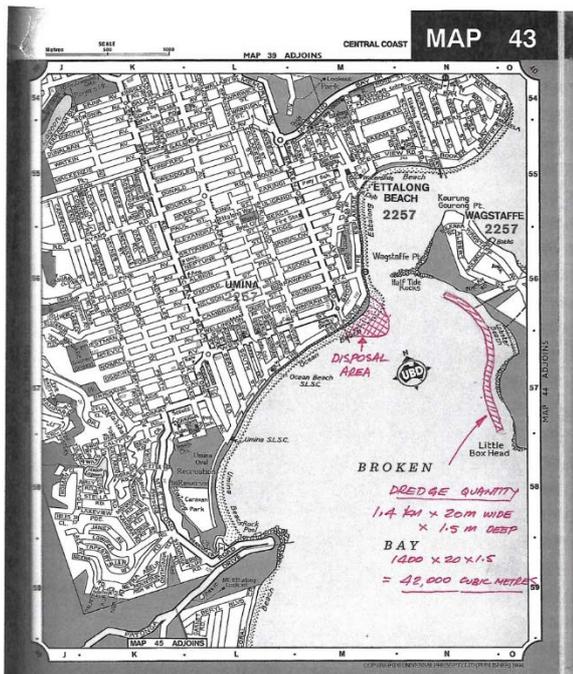
1. Box Head to Half Tide Rocks
2. Wagstaffe point to Hardy Bay
3. Ettalong beach
4. Paddy's Channel
5. Woy Woy Channel
6. Point Clare (Marine Rescue)
7. Access to Empire Bay
8. Access to Davistown

2, Issues with the current dredging spoil deposits

Recent dredging programs have been ineffective as the spoil has been deposited in a location too close to the channel and in a few days the spoil has been deposited in the channel again. Below is a photo taken on 21 October showing the spoil deposits directly adjacent to the channel.



Diagram showing channel dredging area



3, A list of issues for consideration

CHANNEL DREDGING ISSUES FOR CENTRAL COAST COUNCIL TO CONSIDER

- The NSW government should be requested to fund the work required to maintain the Channel at the entrance of Brisbane water between Box Head and Wagstaffe Wharf. The government collects all the revenue relevant to boating. The priority of this work is **urgent**.
- Recent dredging programs have been ineffective as the spoil has been deposited in a location too close to the channel and in a few days the spoil has been deposited in the channel again.
- Future dredging in the Lobster Beach channel should transport the spoil to Ettalong point. This will also nourish Ocean Beach
- Reported costs of \$5 million appear to be excessive
- Dredge quantities for the Lobster Beach channel should be in the region of 42,000 cubic meters. At an estimated cost of \$30 per cubic meter to move the sand to Ettalong point the project cost should be around \$1,260,000 – Dredging +\$240,000 – Establishment, for a total cost of \$1.5 million.
- The channel is expected to need occasional re-dredging for keeping a viable channel. Expected frequency is about once in 5 to 8 years or possibly at longer intervals if more effective programs are completed.
- The Coastal Zone Management Plan for Brisbane Water Estuary has recommended that maintenance of the channel be a high priority
- If Council has to contribute to the work it should look to setting aside an annual sum to be kept and accumulated for future dredging. \$ 100,000 per annum would allow a 50% shared program of \$1.5 million to be completed every 7.5 years.
- Requests for funding for other dredging work in minor channels are primarily in enclosed waters and could most probably be carried out using the dredge previously owned by Wyong Council. These minor channel projects are typically constrained by the need to find suitable spoil disposal sites. Funding for these projects may get subsidies from NSW Government.
- Other areas for consideration are: The Tuggerah Lakes entrance channel at The Entrance; Northern end of Paddy's channel, Gosford; Davistown channel east of Empire Bay; Woy Woy channel near Lions Park; The outlets of Tumbi Ck, Ourimbah Creek Wyong Ck and Wallarah Ck, Volunteer Rescue channel, Gosford Main Drain; silted areas near Gosford Sailing Club

4, An extract from the Coastal Zone Management Plan for Brisbane Water Estuary which has included the navigation channel dredging as a priority.

Coastal Zone Management plan for Brisbane Water Estuary

The Management Plan, which was adopted after extensive study and government input has recommended that maintenance of the channel be a high priority, see below. *Please note action R11 which was the highest priority has been recently addressed. Thus action W18 below is now the highest priority in Zone 6.*

The following is an extract from the Coastal Zone Management Plan for Brisbane Water Estuary

1. Management Zone 6 – The Entrance Reach

The top 5 actions proposed for implementation in Zone 6 have been mapped in **Figure 3.6**. The implementation process for each action is provided below.

Action R11: Investigate sedimentary processes to determine appropriate long term management strategies for the foreshore between Ferry Road Ettalong and eastern most point of Booker Bay foreshore.

Shoreline recession has been an issue at Ettalong Beach for a number of years and it is understood that this can impact on public access and recreational amenity for beach users. Shoreline erosion along the stretch of Ettalong Beach to the southwest of Ferry Road is currently being addressed by Council. Therefore, this action has been refined to involve an investigation of sedimentary processes to determine appropriate long term management strategies to maintain property protection and public access along the foreshore between Ferry Road, Ettalong, and the eastern-most point of Booker Bay foreshore. In some locations the shoreline appears to have eroded back to the property line, threatening the property and impacting on public access along the foreshore. There are some small sections of foreshore for which it protection works have been established.

The investigation should be undertaken by a suitably qualified engineer and should consider:

- □Review the existing reports and other relevant documents relating to coastal processes at this location.
- □Consider the need to obtain up to date survey of the beach and nearshore area.
- □Consider the need to update any existing computer models or undertake additional model in order to obtain an improved understanding of physical processes in this location.
- □The investigation should also consider the potential impacts of climate change on the shoreline.
- □Develop a series of preliminary concept options to improve shoreline stability and public access along the shoreline.
- □Undertake a cost:benefit analysis of the concept options. This process should be undertaken in consultation with the relevant stakeholders and the community.
- □Identify the preferred option, or suite of options, on the basis of technical feasibility, potential environmental impacts and cost of implementation (including environmental approvals).

Action W18: Periodically dredge the navigation channel

Navigation through the entrance to the estuary can at times be difficult due to the propagation of a flood tide delta. The navigation channel

markers are periodically relocated by NSW Maritime as required, but navigation can become difficult due to the strong currents in this region. This leads to issues with boating safety and access can be restricted for some tidal conditions.

The community is also concerned that sedimentation at the entrance has impacts on the tidal flushing of the estuary upstream of this point, and also that tidal velocity in the main channels decreases resulting in reduced scour, thereby exacerbating the sedimentation issues throughout the channels in the estuary.

Reference is made to linked Actions R09 and W28, which relate to the need to obtain regular hydrosurvey and potential for beach nourishment with the dredge spoils (respectively).

A more detailed assessment of coastal processes in this part of the estuary is provided in Cardno (2007). It is understood that the propagation of these flood tide shoals is an ongoing process and therefore regular maintenance dredging of the entrance channel would be required. There are a number of dredging scenarios available that may achieve the action objectives, and these were considered in some more detail in the Brisbane Water Dredging CLAM, which was discussed in Appendix H of the *Estuary Management Study* (Cardno, 2010).

The concept details for this action are for a generic dredging scenario involving the removal of approximately 50,000m³ of material from the entrance channel, although the optimal volume to be dredged is highly dependent upon the chosen dredge campaign. Furthermore, it is noted that the cost of implementation is highly dependent upon the volume dredged.

The implementation process is as follows:

- □ Conduct hydrosurvey of the area of investigation.
- □ In consultation with the community and OEH, consider the navigation requirements and the desired channel configurations.
- □ Consider constraints (e.g. sediment quality) and opportunities (potential to link with nourishment works).
- □ Develop concept options.
- □ Conduct modelling of the concept options to assess the sustainability of the option and identify a suitable disposal site for the dredge spoils.
- □ Conduct cost:benefit analysis.
- □ Select the preferred option.
- □ Obtain the necessary environmental approvals, permits and licences.
- □ Engage a contractor to undertake the work.
- □ Undertake post-dredge/works as executed survey.
- □ Undertake regular hydrosurvey of the channel and relocate the navigation markers and required.

END OF EXTRACT

5, Revenue figures from Brisbane Waters

An Estimate of the NSW Government Income from boating in Brisbane Water

Note: this is considered to be a conservative estimate but it is not precise as the size of the wharves and vessels varies considerably and many persons receive concessions. The numbers of licences and registrations may be greater than estimated. The real sum of the income may be considerably more.

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|--------------------------------------|----------------------|----|-------|------------------|
| Private Wharves and Jetties | 580 | at | \$500 | \$290,000 |
| Mooring fees | 620 | at | \$200 | \$124,000 |
| Boat Licences | 1500 | at | \$60 | \$90,000 |
| Boat Registrations | 2000 | at | \$100 | \$200,000 |
| Commercial Marinas | Booker Bay | | | \$25,000 |
| | Central Coast | | | \$25,000 |
| | Koolewong | | | \$75,000 |
| | Empire Bay | | | \$10,000 |
| | Gosford Sailing Club | | | \$28,000 |
| TOTAL ESTIMATED ANNUAL INCOME | | | | \$867,000 |

6, Recent press articles

<http://www.dailytelegraph.com.au/newslocal/central-coast/ettalong-channel-dredging-win-emergency-work-to-start-in-next-three-months/news-story/e8cae8b27eb649e35157896ae5832364>

<http://www.dailytelegraph.com.au/newslocal/central-coast/150k-emergency-dredging-work-begins-at-ettalong-channel/news-story/bca382e56fc7aa2b9a89d4c85e1c23d5>

<http://coastcommunitynews.com.au/2017/01/council-prepare-plan-channel-dredging/>