

Late Item 8.3.3

Ordinary Meeting

Thursday, 7 December 2017

commencing at 9.00am

Council Chambers, Corner Currie and Bury Streets, Nambour

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8 REPORTS DIRECT TO COUNCIL**8.3 LIVEABILITY AND NATURAL ASSETS****8.3.3 MAROOCHYDORE GROYPNE FIELD RENEWAL (GEOBAG TO GEOBAG)****File No:** Council meetings**Author:** Coordinator Coastal, Constructed Water & Planning
Liveability & Natural Assets Group

PURPOSE

The purpose of this report is to provide the outcomes and subsequent recommendation of the additional cost benefit analysis and broader community consultation in relation to the available replacement options for the Maroochy River groyne field. This includes the recommendation of the Maroochy River Estuary Consultation Group.

EXECUTIVE SUMMARY

Southern migration of the Maroochy River entrance in the 1990s saw erosive pressure placed against the Cotton Tree Holiday Park. From 2001 Council constructed a number of groynes and a section of seawall to protect caravan park assets, utilising stacked geotextile sand containers (commonly referred to as geobags). A number of these coastal structures have now reached the end of their useful life.

In January 2017, a report was presented to Council seeking direction on this issue. From this meeting Council resolved to undertake a further analysis and wider community engagement on the available options (including a geobag to geobag option).

An interim Council report and Councillor workshop extended reporting requirements, confirmed a community engagement plan which supported the establishment of an external consultation group, and removed a number of the original renewal options.

The further analysis and engagement work on this issue provided that there was strong community support for a preferred groyne field replacement option of geobag to geobag and that there was only a relatively small cost difference over a fifty year design life between the remaining options (geobag to geobag and geobag to rock).

Accordingly the recommendation of this report is to proceed with a like-for-like replacement of the current river entrance geobag groyne field structure. Improvements in structure design and geofabric material will be explored as part of this replacement process.

OFFICER RECOMMENDATION**That Council:**

- (a) receive and note the report titled “Maroochydores Groyne Field Renewal (geobag to geobag)”**
- (b) approve the preferred groyne field replacement option of geobag to geobag and**
- (c) note detailed design, numerical modelling along with statutory approvals will be undertaken in the 2018-2019 financial year with works to commence in the 2019-2020 financial year.**

FINANCE AND RESOURCING

In January 2017 a report was presented to council which recommended the replacement of the existing geobag groyne field with rock given a forecast \$10 million raw asset replacement cost differential over a fifty year asset life relative to replacing the existing geobag structures with similar geobag material.

A subsequent cost benefit analysis that considered the economic, tourism, social and environmental aspects of the available options including the retention of geofabric bags highlighted a modest saving for the geobag to rock option in comparison to the geobag to geobag option of \$397,345 over a design life of 50 years.

The cost benefit analysis (CBA) undertaken by JB Pacific shows a P90 (90% probability that cost will not be exceeded) cost estimate of \$2.6 million to undertake the proposed geobag to geobag groyne field replacement only.

Funding has been allocated in the coastal 10 year capital program to undertake this work (subject to council budget approval).

CORPORATE PLAN

Corporate Plan Goal: *A healthy environment*

Outcome: 3.2 - Protection and enhancement of our natural assets and distinctive landscapes

Operational Activity: 3.2.1 - Trial new approaches to beach nourishment to provide for healthy and resilient beach systems

CONSULTATION

Portfolio Councillor Consultation

Councillor McKay has been included as part of the significant internal consultation on this issue over the last 12 months.

Internal Consultation

A significant amount of internal consultation has been undertaken on this issue over the last 12 months.

This consultation includes (but is not limited to):

- Specific briefings to the Mayor, Deputy Mayor and Divisional Councillor
- Three Council reports and associated agenda reviews
- Numerous All Councillor and previous Executive Leadership Team (ELT) email updates
- Strategic Discussion Forum
- Councillor only onsite inspection
- Councillor workshop, and
- Mayoral minute.

External Consultation

A significant amount of external consultation (including community engagement) has been undertaken on this issue over the last 12 months.

This consultation includes (but is not limited to):

- Development of a 'fit for purpose' advisory group to review public submissions
- Five regional community consultation sessions
- Numerous customer request responses
- Numerous media releases

- Regular email updates to key community stakeholders
- Online community survey
- Email updates to a range of relevant State Agencies, and
- Community webpage.

Community Engagement

As per external consultation section of this report.

PROPOSAL

The Maroochy River entrance position naturally migrates in response to the prevailing coastal and estuarine processes, with the entrance being located both north and south of Pincushion Island at different times over the years.

Southern migration of the entrance in the 1990s saw erosive pressure placed against the Cotton Tree Holiday Park. From 2001, Council constructed a number of groynes and a section of seawalls, to protect park assets, utilising stacked geotextile sand containers (commonly referred to as geobags). A number of these coastal structures have now reached the end of their useful life.

In line with Council's endorsed Shoreline Erosion Management Plan (SEMP) 2014, investigation into future coastal infrastructure upgrades was undertaken.

In January 2017, a report was presented to Council at the Ordinary Meeting that sought direction for the future coastal infrastructure upgrades as part of the broader Maroochy River mouth management.

The report included an assessment by consultants WBM of a range of options in relation to the renewal of the river mouth groyne field, as follows:

- Option 1 – Replace existing groynes (geobag to rock)
- Option 2 – New 200m rock groyne at Cotton Tree
- Option 3 – Northern channel with constructed beach, and
- Option 4 – Northern channel with breakwater.

From this meeting Council resolved to:

- undertake a further analysis of the economic, tourism, social and environmental aspects of the available options including the retention of geofabric bags at the Maroochy River entrance groyne, and
- undertake wider community engagement on the available options to inform any future recommendations for Council's consideration.

A further report was taken to council in April 2017 which approved the consultation plan and communication strategy for this issue, endorsed the formation of the Maroochy River Estuary Consultation Group (MRECG) and extended the deadline to report to council to December 2017.

Cost Benefit Analysis

Through a competitive process, Council engaged JB Pacific to undertake a cost benefit analysis (CBA). The use of an economic appraisal has allowed the options to be compared through their cost to construct and maintain, and the benefits received by the local community, such as: the protection of high-value coastal land with historic and cultural significance, environmental constraints, associated assets, recreational areas, and visitor infrastructure.

It also included consideration of the protection of assets and infrastructure at risk of future erosion, the role of the caravan park on tourism and visitor spending within the local

government area (LGA), and the potential to reduce the need for ongoing beach nourishment south along Maroochydoore Beach.

Based on the consideration of all of these social, economic and environmental variables all options returned a positive cost-benefit ratio, and were therefore considered economically viable.

Overall the CBA identified that the most beneficial option was the single large rock groyne (as compared to a groyne field) although it was assessed only as a conceptual design and held considerable risk in terms of other damages such as down-drift erosion and visual amenity concerns.

The CBA also indicated that two options to re-establish the Maroochy River mouth to the north of Pincushion Island have the lowest economic justification, due to their high construction costs and associated risks.

A subsequent Councillor workshop removed these three options above from being considered, primarily due to the strong community rejection of these options.

For the remaining options, the analysis concluded that the most financially beneficial material for a new groyne field was rock, rather than geobags, although it must be noted that the cost saving between rock vs geobag over the life of the asset does not demonstrate a significant margin over fifty years (\$397,345). This is in contrast to the basic asset replacement costs cited in the January 2017 report of \$10 million over fifty years as this assessment did not consider all of the non-asset related variables considered in the CBA.

Community Consultation and the MRECG

To ensure council received informed feedback across all sections and regions of the Sunshine Coast, community engagement was undertaken in two parts.

The first part was via the establishment of the Maroochy River Estuary Consultation Group (MRECG) with an independent chairperson, while the second key component was a broader community consultation program. It is important to note that the tenure of the MRECG is not bound to the groyne renewal project.

The MRECG undertook a number of meetings with the focus being on the review of public submissions to the Group on the issue and the results of the cost benefit analysis. The MRECG concluded that only renewal of a geobag structure in the current footprint was the preferred option.

The second phase of community consultation sessions were conducted across five regional locations and a community engagement webpage containing all the information on this issue, including an opportunity to complete a survey, was established.

Information sessions were held at the following venues:

- Coolum Surf Club, Coolum Beach
- Caloundra Power Boat Club, Golden Beach
- Maroochy Surf Club, Maroochydoore
- Maleny RSL Sub Branch, Maleny, and
- Nambour RSL, Nambour.

Results of this engagement work include:

Website hits: 1757

Total number of surveys completed:

844 responses

Sunshine Coast Residents 90.87% (766)

Tourists or visitors 9.13% (77) – *one skipped this question*

Approximately 325 respondents indicated they had attended a consultation session.

Preferred options:

603 Answers – (note 241 skipped this question)

Geobag to geobag replacement 88.60% (513)

Geobag to rock replacement 5.46% (19)

200 metre rock groyne 4.39% (15)

Northern entrance sand nourishment 7.12% (26)

Northern entrance rock breakwater 4.56% (16)

Note 83.81% of respondents believed general rates should pay for the work (245 skipped).

Consultation sessions:

5 sessions – total of 350 attendees (observed/signing sheets)

Repeat attendance (2 – 5) from 20 to 40 depending on location

FAQ's based on meeting notes from these sessions were developed and posted on the webpage developed to provide updates on this issue.

Summary

In summary, the further analysis and extended engagement work on this issue provided that there was strong community support for a preferred groyne field replacement option of geobag to geobag and that there was an only a modest cost difference over a fifty year design life between the remaining options (geobag to geobag and geobag to rock).

While a Mayoral minute (OM17/184) postponed the reporting date to Council from December 2017 to March 2018, given the overwhelming response from the community as demonstrated through the consultation sessions, the community survey and advice from the MRECG to retain a like-for-like renewal arrangement it was recommended that the report be brought forward to December 2017, the previous reporting date (OM 17/51), to resolve the matter prior to the Christmas holiday period and not contribute to any further unnecessary community angst during this period.

Accordingly the recommendation of this report is to proceed with a like-for-like replacement of the current river entrance groyne field structure. Improvements in structure design and geofabric material will be explored as part of this replacement process.

Legal

Provided all appropriate approvals are sought, Council is able to undertaken the renewal works recommended by this report.

Policy

The recommended option of this report is consistent with Council's endorsed Shoreline Erosion Management Plan (SEMP) 2014.

Risk

The recommended option of this report is consistent with Council's endorsed Shoreline Erosion Management Plan (SEMP) 2014 which manages risks associated with coastal hazards.

Previous Council Resolution**Council Resolution** (OM17/1) 25 January 2017

That Council:

- (a) *receive and note the report titled “Maroochy Beach Renourishment Evaluation and Future Coastal Infrastructure Works”*
- (b) *support referral for an ongoing operational project bid to continue the Maroochy Beach Renourishment Program to the 2017/2018 budget process for Councils consideration*
- (c) *undertake further analysis of the economic, tourism, social and environmental impacts of the available options for the Maroochy Coastal Infrastructure Upgrade (including the retention of geofabric bags at the Maroochy River entrance groyne) and that an appropriate community engagement program on the available options be undertaken to inform any future recommendations to Council and*
- (d) *request the Chief Executive Officer to provide a further report to Council by June 2017.*

Council Resolution (OM17/51) 20 April 2017

That Council:

- (a) *receive and note the report titled “Maroochy River Mouth Coastal Infrastructure Renewal Community Consultation Plan”*
- (b) *approve the Maroochy River Mouth Coastal Infrastructure Renewal Community Consultation and external Communication Strategy*
- (c) *endorse the formation of the Maroochy River Estuary Consultation Group and*
- (d) *extend the deadline for the June 2017 report to council on the further analysis of the Maroochy Coastal Infrastructure Upgrade and the results of a broader community consultation program to December 2017 Ordinary Meeting.*

Council Resolution (OM17/184) 12 October 2017

That Council accept the recommendation of the independent Maroochy River Estuary Consultation group to extend the timeframe for consideration of the groyne renewal options at the Maroochy River, with a report to be prepared for Council's March 2018 Ordinary Meeting.

Related Documentation

The recommended option of this report is consistent with Council's endorsed Shoreline Erosion Management Plan (SEMP) 2014.

Critical Dates

Delivery timeframes will be as per project budget associated with Council's 10 year capital program.

These timeframes include:

- 17/18 – concept design/ numerical modelling
- 18/19 – detailed design, permits and approvals
- 19/20 – construction

Implementation

Implement the preferred renewal recommendation utilising Council's 10 year capital program, once approved.