

Council Agenda

SUPPLEMENTARY

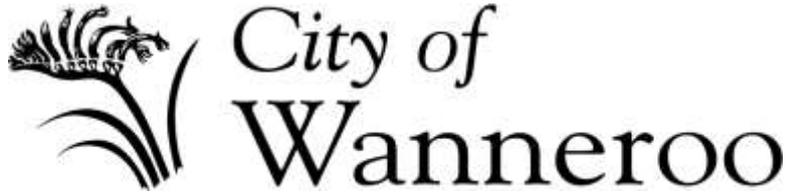
ORDINARY COUNCIL MEETING

7.00pm, 21 JULY, 2015

Alexander Heights Community Centre

18 Linto Way

ALEXANDER HEIGHTS



Notice is given that the next Ordinary Council Meeting will be held at the Alexander Heights Community Centre, 18 Linto Way, Alexander Heights on **Tuesday 21 July, 2015** commencing at **7.00pm**.

D Simms
Chief Executive Officer
17 July, 2015

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Item 9 Motions on Notice

MN03-07/15 Cr Sabine Winton – Quinns Ocean Pool Investigation

File Ref: 5523 – 15/252277
Author: Cr Sabine Winton
Action Officer: A/Director Infrastructure
Disclosure of Interest: Nil
Attachments: Nil

Issue

To consider the provision of an ocean pool as part of the scope of works for the Quinns Beach Long Term Coastal Management study (referred to herein as the 'Quinns study').

Background

Council has engaged Cardno to undertake the Quinns Study, which includes 3 stages to achieve the following objectives:

The key objectives for the Stage 1:

- Provide a succinct summary of all relevant key events and available studies conducted to date including historical information gathered from community representatives;
- Provide an update of the Cardno 2012 coastal processes assessment based on the extended study area and recently collected data (photographic monitoring, metocean data, beach profiles and hydrographic surveys);
- Develop calibrated numerical models to simulate wave conditions, hydrodynamics and sediment transport over the study area;
- Identify design criteria for detailed design;
- Obtain a detailed understanding of cross shore and longshore sediment transport during storm conditions and over typical summer and winter weather patterns; and
- Consider all potential coastal management options and identify a shortlist (minimum of 4 options) for concept design and further assessment.

The key objectives of the Stage 2:

- Develop conceptual layouts and design for a minimum of 4 coastal management options based on the recommendations from the Stage 1 report;
- Optimise conceptual layouts and assess the impacts on sediment transport and shoreline evolution for both winter and summer scenarios; and
- Conduct a Multi Criteria Analysis (MCA) Workshop with members of the CRG to identify a preferred option for detailed design.

The key objectives of the Stage 3:

- Develop a detailed design of the preferred coastal management option recommend in the MCA workshop. Design deliverables should be of a sufficient detail to allow for implementation of the works based on drawings and specifications provided.

The City's Coastal Management Plan (CMP) Part 1 adopted by Council at the May 31 Council Meeting 2011 included, amongst others, the following recommendations:

- *Recommendation 4: Undertake a feasibility study to establish the environmental impacts, as well as the suitability of a horse beach at Tamala Park;*
- *Recommendation 5: Undertake a feasibility study to determine whether artificial surf reefs would be suitable along the City's coastline; and*
- *Recommendation 6: Investigate the feasibility and suitability of a tidal pool in Quinns Rocks.*

In light of these recommendations, the City engaged coastal specialists MP Rogers to undertake the feasibility studies. MP Rogers has completed the draft Coastal Feasibility studies, however these have yet to be formally considered by Council. The initial results of the study into the feasibility and suitability of a tidal pool in Quinns Rocks indicate that:

- Due to the small tidal range and sand/sea weed movements along the City of Wanneroo coastline, a tidal pool is not considered feasible. It is likely that there would be ongoing issues with water quality due to inadequate flushing and high maintenance costs to remove sand and sea weed from the pool; and
- Whilst a pumped pool is feasible, the estimated total cost of construction is \$10.3M. An additional cost of \$50,000 - \$70,000 will be required annually to operate the pumps. Further, the City would be required to employ life guards for the pool.

Detail

The Quinns Study Stage 1 report was received in late April 2015 and was presented to the Community Reference Group in June after a review was completed by Administration and the Department of Transport. The details of the Stage 1 report are being considered by Council as part of a separate agenda item at this Council meeting noting that the Stage 2 work of the Quinns Study involving a detailed evaluation of the coastal protection options is currently progressing. Stage 3 of the Quinns Study involving a detailed design of the adopted coastal protection option is planned to take place from November 2015 to March 2016.

Consultation

Nil

Comment

This Motion was previously expected to be presented to Council but was considered premature by Administration until the draft report by MP Rogers of the Coastal Feasibility Studies and the Cardno Stage 1 Quinns Study were presented to Council. This has now occurred.

The MP Rogers study was a desktop feasibility study of constructing a separate tidal or pumped pool. It did not consider the separate but concurrent studies being undertaken by Cardno and as such did not contemplate the opportunity for a pool structure as part of the engineering solutions that are being currently developed as part of the Cardno work.

An opportunity now exists to seek a more detailed and technical feasibility study for an ocean pool at Quinns Beach by utilising the substantial and sophisticated numerical modelling and data that has been collected by Cardno that will inform the engineering solutions that is being considered in the Quinns Study Stage 2.

Such an approach would be cost effective given that Cardno is already engaged by the City to develop the coastal management options.

MP Rogers' initial investigation results indicate that a pool would appear cost prohibitive. A feasibility study into linking a pool into the groyne structures contemplated as part of the Quinns Studies would provide the City with information about the feasibility of an ocean pool as part of the eventual preferred coastal management option. Such a feasibility study would also provide the cost implications of this dual approach and better inform the feasibility study by MP Rogers that will go into Quinns Study Stage 2.

There has already been work undertaken by the Centre of Water Research at the University of Western Australia which studied the construction of ocean pools as part of man-made groynes. Furthermore, the Town of Cottesloe has contemplated the building of such a pool at Cottesloe Beach.

The City's priority should continue to be the long term coastal protection of our coast. The City continues to invest considerable funds into the studies of our coastal region. This Motion provides an opportunity to link two key important studies to provide the best possible advice to guide a feasibility study into an ocean pool at Quinns Beach.

Statutory Compliance

Section 5A of the *Local Government (Financial Management) Regulations 1996*, as quoted below, states that local governments must comply with the accounting requirements as stipulated by the Australian Accounting Standards (AAS):

5A. Local governments to comply with AAS

Subject to regulation 4, the annual budget, annual financial report and other financial reports of a local government must comply with the AAS

To ensure compliance with the AASB 116 *Property, Plant and Equipment*, if a capital work project is subsequently approved by the Council, this feasibility study expenses will be incorporated as part of the capital work project costs.

Strategic Implications

The proposal aligns with the following objective within the Strategic Community Plan 2013 – 2023:

“1 Environment - A Healthy and sustainable natural and built environment

1.1 Environmentally Friendly - You will be part of a community that has a balance of environmentally friendly development and conservation areas for future generations to enjoy”

Risk Management Considerations

Nil

Financial Implications

As there is currently no budget allocated to investigate the feasibility of an ocean pool as part of the Quinns Study in the 2015/16 Budget, in accordance to the City's Accounting Policy, Council will need to consider an unbudgeted consulting fee expenditure of \$60,000 to perform this investigation.

Voting Requirements

Absolute Majority

Recommendation

1. **AUTHORISES** the inclusion of a feasibility study for an ocean pool to be added to the scope of works included as part of the Quinns Beach Long Term Coastal Management Study; and
2. Pursuant to Section 6.8(1)(b) of the Local Government Act 1995 **APPROVES BY ABSOLUTE MAJORITY** the unbudgeted expenditure of \$60,000 to expand the scope of works and **NOTES** the following budget variation:-

Cost Code	From	To	Description
Municipal Funding – Cost code to be allocated	\$60,000		Funding will be allocated at mid-year review
Undertake Special Projects (Planning Services) – Consulting Fee Expenses 717569.9399.227		\$60,000	Feasibility study for an ocean pool at Quinns Beach

Administration Comment

Cardno has commenced the Quinns Beach Long Term Coastal Management Study in accordance with the previously agreed scope of works and the results of Stage 1 of the Quinns Study are available now. Initial feedback from Cardno includes very high level advice regarding an ocean pool and states that the most appropriate location (within the study area), would be at the southern end of Quinns Beach, however, it is unlikely that this structure would provide any benefits for coastal protection.

Feasibility Study for an Ocean Pool – Quinns Study Stage 2

The scope for the study being undertaken by Cardno is to evaluate and develop suitable coastal protection options and make suitable recommendations for Council to adopt to protect the public and private assets along the Quinns Rocks coastline.

Should Council support the recommendations of this Motion, the feasibility study for an ocean pool to be incorporated into one of the groynes at Quinns Beach will assess and be dependent on investigations of impacts on coastal processes, flushing, sediment transport, seaweed wrack movement and ongoing maintenance issues such as sand and debris accumulation in the pool. The feasibility should only be undertaken after the most suitable coastal protection option has been identified at the completion of the Quinns Study Stage 2 currently being undertaken by Cardno. Given that the Quinns Rock coastline has been identified as a site with very dynamic and complex coastal processes, such a feasibility study will require additional modelling of coastal processes and is expected to cost in the order of \$50,000 to \$60,000. Whilst this figure may seem high in the context of the costs of the current broader study it should be considered that this investigation involves preparation of a preliminary layout, coastal modelling to examine the sediment transport and effects on surrounding coastline, flushing assessment, seagrass movement and sedimentation issues within the pool, estimation of rock sizing and sketches of layout and cost estimates. No funding provisions have been made for this purpose. There will be an approximate three months impact of the timing of the delivery of the Quinns Study should Council agree to progress with these works.

City's Coastal Management Plan

As part of the preparation of the City's Coastal Management Plan Part 1 and as a separate exercise to the above, Administration appointed MP Rogers to undertake a feasibility study into a tidal pool at Quinns Beach. The draft report indicates that whilst a tidal pool is not feasible, a pumped pool is with an estimated total cost of construction of \$10.3M and ongoing additional annual costs of between \$50,000 - \$70,000 to operate the pumps. It should be noted that these costs relate to the construction of a pumped pool. In addition if the feasibility study is to occur then it should also consider issues relating to the potential requirements to fence the pool, life guard services, car parking and other amenities related to an ocean pool which may have both capital and annual operating impacts.

Town of Cottesloe Ocean Pool Proposal

With reference to the work undertaken by the University of Western Australia's Centre for Water Research, it is noted that this work was a preliminary high level feasibility study for an ocean pool at Cottesloe. It was reported in the media that the costs were in the order of \$1.65M.

Whilst the City of Stirling has endorsed a new aquatic facility at Scarborough Beach, this is a chlorinated aquatic facility and not utilising ocean water.

Community Facilities Plan

Council endorsed on the 31 May 2011 the Coastal Management Plan (CMP) Part 1 which included, amongst others, the following:

Recommendation 6: Investigate the feasibility and suitability of a tidal pool in Quinns Rocks

The City has prepared a Community Facilities Plan (CFP) to provide guidance for the number, type and location of community facilities to service the Coastal Growth Corridor. The CFP was endorsed by Council on 7 February 2012 and included the provision of a regional indoor aquatic and recreation centre at Yanchep City Centre. This includes an indoor pool and is considered sufficient to service the needs of the growing community.

As a regional facility, the catchment area would cover the Coastal Growth Corridor and be of a greater size and scale than the Joondalup Arena or Craigie Leisure Centre. It is also likely to be supplemented with smaller, privately operated pools such as learn-to-swim or StateSwim facilities that will provide additional opportunities for indoor swimming activities.

Summary

In summary, Administration does not support including a feasibility study for an ocean pool at Quinns Beach in the scope of the Quinns Study currently being undertaken by Cardno for the following reasons:

- An ocean pool has not been identified in the Community Facilities Plan as a need to service the coastal community, which would be catered for by a regional aquatic facility, although it is acknowledged that Council has requested a feasibility study be prepared for a tidal pool as part of the Coastal Management Plan Part 2;
- The cost of the feasibility study is estimated to be between \$50,000 and \$60,000 and no budget allocation has been made for this purpose; and
- Undertaking the feasibility study would delay the finalisation of Quinns Study Stage 2 by 3 months.

Notwithstanding the above, if Council supports the provision of an ocean pool along the City's coastline, Council may wish to consider a broader feasibility study be undertaken to determine the optimum location along the City's coastline, as Quinns Beach may not be the most suitable location.

Attachments: Nil