

# SHELLHARBOUR CITY COUNCIL

Ordinary Council Meeting – 24 October 2006

Attachment 1 - Letter from Brian Dooley, Executive Officer of the Lake Illawarra Authority (Page 1 of 3) Lake Illawarra Authority - Entrance Works

Contact: Garry Clarke  
(p) 4224 9613

General Manager  
Shellharbour City Council  
PO Box 155  
SHELLHARBOUR CITY CENTRE NSW 2529

SHELLHARBOUR CITY COUNCIL	
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03 OCT 2006

Attn: Mr Arthur Webster

**SCANNED**

Dear Sir

### Lake Illawarra Entrance Works Project

Reference is made to the current funding allocation for the above project.

In 2003, the NSW Government announced its support to the recommendations of the Independent Review Panel's (IRP) report on the management of the entrance to Lake Illawarra. In announcing its support the government committed \$2 million toward the preparation of the necessary studies and construction of the works on the proviso that Wollongong and Shellharbour City Councils matched the government's commitment ie \$1 million each. The agreed funding ratio between the government agencies being 50% State: 25% Wollongong: 25% Shellharbour.

#### Current Position

Following of the closing of tenders for both the rock structures contract and the dredging contract a review of the financial position of the project has identified that the final cost of the project is expected to be of the order of \$5.75 million, an increase of \$1.75 million from the 2003 estimate. This implies an increase of State Government funds of \$875,000 and \$437,500 each from the two Councils is required to finish the project.

Cost increases have occurred across both pre-construction and construction activities as detailed in the attached spreadsheet (Tag A). A summary of costs is shown below.

Item	Estimate (2003)	Predicted (2006)
Pre Construction Activities		
Design, EIS, Specifications etc	\$200,000.00	\$403,874.60 <sup>(1)</sup>
Construction Activities		
Rock Structures	\$2,750,000.00	\$3,313,741.30 <sup>(2)</sup>
Dredging and Beach Nourishment	\$950,000.00	\$1,800,000.00 <sup>(3)</sup>
Supervision etc	\$100,000.00	\$231,023.00 <sup>(4)</sup>
Total	\$4,000,000.00	\$5,748,638.90

#### Notes:

(1) Budget amount exceeded due to increase in costs and inclusion of items not budgeted for such as the REF for importing principal supply of rock from the North Kiama Bypass project, LIA's Representations Report on EIS, Department of Planning's (DoP) planning approval fee, Low Crest Level Investigation requested by the DoP and Base EMP.

(2) Budget amount exceeded due to the increase in the amount of imported rock required and rate for supply of imported rock, which heavily escalated since 2003.

(3) Budget amount exceeded due to increase in the rate for dredging, which heavily escalated since 2003 - a contract for channel dredging and beach nourishment work has not yet been awarded.

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(4) Budget amount exceeded due to increase in costs and inclusion of items not budgeted for such as DoP's requirements (of which there were 56) for an Environmental Management Representative and establishment and operation of a Community Liaison Group. These had a major impact on the budget.

(5) The cost of fuel escalated dramatically over the last 15 months.

## Additional Funding Considerations

### Project Optimisation

As part of the design process a Technical Working Group (TWG) was established by the Authority. The TWG consisted of representatives of the Authority, two Councils, the IRP and the design consultant(s).

The TWG refined the original design to reduce costs including:

- Reduced the length of the walls from -3.5m to -2.5m water depth at mean tide level;
- Reduced the width of the walls;
- Reduced the distance between the walls from 100m to 90m;
- Reduced the crest level of the northern wall from 5m to 4m above mean sea level;
- Sourced 48,000 tonne of rock from the North Kiama Bypass project, resulting in a cost saving of around 50% from the cost of supplying rock from a local quarry; and
- Removed the need to place geofabric filter in the wall structures.

### Possible Reduction in Scope of Works

In an endeavour to reduce the project costs, a number of measures have been assessed (or reassessed) which would reduce the scope of works. These included:

- (a1) Reduce the length of the southern breakwater by 40m – a saving of \$127,955. This would result in an offset between the heads of the two breakwaters. The design report addressed this scenario and concluded that an offset would result in the entrance bar forming closer to the mouth of the lake thereby reducing the amount of sand that would be transported to the north away from the entrance. The design report recommended the heads of the two breakwaters extend to -2.5m AHD.
- (a2) Reduce the length of the northern and southern breakwaters by 20m – a saving similar to (a1). This would result in the heads of the two breakwaters being in shallower water. From the design report, the entrance bar would form closer to the mouth of the lake, less sand would be trapped by the breakwaters and more sand would migrate around the heads of the two walls into the channel increasing shoaling.
- (b) Remove the minor gap works from the existing training wall – a saving of \$49,460. The design report addressed this scenario and recommended that the existing gaps be reduced to reduce the movement of waves and tidal currents entering the swimming lagoon area and reduce shoaling in the vicinity of the gaps.
- (c) Reduce the amount of sand to be removed from the channel from 200,000m<sup>3</sup> to 100,000m<sup>3</sup> by decreasing the channel width from 100m to 50m – a saving of \$495,455. This would reduce the volume of sand being placed on to Warilla Beach, increasing the risk of damage to the existing seawall during a major ocean storm. A reduction in dredged volumes may also initiate a premature close of the entrance.

The total amount of savings which could be achieved by the above is \$672,870. This would reduce the additional state government contribution by \$336,435 and the two council contributions by \$168,217.50 however these theoretical savings would be reduced by associated compensation claims from the contractor.

Note: All savings are ex GST.

Given their impact on the success of the project none of these options for reducing the cost of the project are recommended.

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## Preferred Option

The preferred option is to complete the works as proposed to meet the expectations of government and the community.

Work completed to date amounts to some \$2 million (refer to spreadsheet). These costs have been covered from State and Council contributions received. Outstanding contributions owing from the two Councils amounts to \$975,000 (ex GST) - \$500,000 from Wollongong City Council and \$475,000 from Shellharbour City Council. Receipt of the outstanding council contributions will allow completion of the rock structures contract (currently in progress) and commencement of the dredging and beach nourishment contract (yet to be awarded).

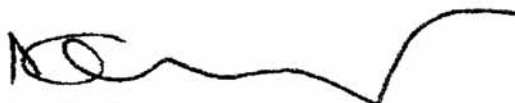
For 2006/07 the Authority is yet to be formally advised of its allocation from the NSW Government however it would seek to complete entrance works as its number one priority and is likely to allocate \$875,000 from the lake restoration program allocation toward entrance works.

To cover Council's additional contribution toward entrance works, the Authority suggests that Council reallocate \$437,500 'in cash' from its 2006/07 (and 2007/08 if necessary) lake restoration works program commitments. This would result in the scope of works under the lake restoration works program being reduced to essential items only but ensure the entrance works are completed as expected by government and the community.

Alternatively a separate (full or part) cash contribution could be made to the entrance project preserving separation between the entrance project and other lake restoration program activities.

Council's consideration to the above funding option would be appreciated as the award of the dredging and beach nourishment contract must await confirmation that funds are available.

Yours faithfully



Brian Dooley  
Executive Officer