



## COFFS HARBOUR CITY COUNCIL

### ORDINARY MEETING

#### COUNCIL CHAMBERS COUNCIL ADMINISTRATION BUILDING COFF AND CASTLE STREETS, COFFS HARBOUR

27 AUGUST 2009

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The following items either in whole or in part may be considered in Closed Meeting for the reasons stated:

Portions of these reports are confidential for the reason of Section 10A (2):

- (d) commercial information of a confidential nature that would, if disclosed:
- (i) prejudice the commercial position of the person who supplied it, or
  - (ii) confer a commercial advantage on a competitor of the council, or
  - (iii) reveal a trade secret.

and in accordance with Section 10A (1) the meeting may be closed to the public.

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## COFFS HARBOUR CITY COUNCIL

### ORDINARY MEETING

27 AUGUST 2009

Mayor and Councillors

#### RESCISSION MOTION

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**DEVELOPMENT APPLICATION 162/09 - RECREATION FACILITY (CHALLENGE COURSE),  
LOT 87 DP 752818, 37 DANIELS ROAD, CORAMBA**

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#### **Purpose:**

Councillors Palmer, Hines and Arkan have given notice of their intention to move:

That Item Development Application 162/09 - Recreation Facility (Challenge Course), Lot 87, DP 752818, 37 Daniels Road, Coramba.

**Resolved** that the development be refused due to the impact of noise on the neighbouring properties.

**Be rescinded:**

#### **Reasons:**

We have concerns that the absence of two (2) Councillors from this meeting lead to insufficient debate.

#### **If the above resolution is rescinded, we intend to move the following:**

That the applicant be invited to submit an application to Council for review of the determination under Section 82a of the Environmental Planning and Assessment Act 1979 as amended.

#### **Staff comment:**

The Notice of Determination has been issued to the applicant.

## **GENERAL MANAGER'S REPORT**

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### **13 QUARTERLY PERFORMANCE REPORTING FOR QUARTER ENDED 30 JUNE 2009**

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#### **Purpose:**

To report on the achievement of customer service guarantees and performance targets for the April to June 2009 quarter and the 2008-2009 year.

#### **Description of Item:**

Council's Management Plan contains, among other things, customer service guarantees and performance targets for the year. The quarterly performance report describes the actual performance results as compared to the expected performance results.

A summary of results for each customer service guarantee is provided in Attachment 1 to this report.

A list of significant achievements for the quarter is provided in Attachment 2 to this report.

A summary of actual performance against each performance target is detailed in a separate booklet, which is available in the Councillors' Room.

#### **Sustainability Assessment:**

This report monitors Council's performance of strategies as outlined in the 2008-2011 Management Plan. An assessment using social, economic and financial indicators applies to individual strategies and an overall assessment is not required.

#### **Consultation:**

Managers from all Council departments have submitted performance reports for objectives that relate to their areas of responsibility. This involved consultation with appropriate staff and capturing data from Council's electronic information systems.

#### **Related Policy and / or Precedents:**

Quarterly Performance Reports have been submitted to Council since the implementation of Council's first Management Plan in the 1994/95 financial year.

#### **Statutory Requirements:**

Section 407 of the 1993 Local Government Act requires the General Manager to submit performance reports to Council within two months following the end of each quarter (ie July to September, October to December, January to March and April to June). The report is to describe the extent to which performance targets set out in Council's Management Plan have been met during the quarter.

Council's Annual Report is to include a yearly review of the achievement of performance targets set out in Council's Management Plan for that year.

**13 - Quarterly Performance Reporting for Quarter ended 30 June 2009 (Cont'd)**

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**Issues:**

There are 18 principal objectives incorporating 178 performance measures identified in Council's 2008-2011 Management Plan. Of the performance measures, 175 were achieved during the year. The following performance measures were not achieved.

<b>Original Measure</b>	<b>Revised Measure</b>	<b>Comment</b>
<b>COMMUNITY AND CULTURAL DEVELOPMENT</b>		
Finalising and implementing the affordable housing strategy	December 2009	Resource reallocations slowed progress.
<b>UNIQUE ENVIRONMENT</b>		
Adoption of vegetation strategy.	N/A	Process being integrated into Key Corridors and Habitat Strategy (which will replace Vegetation Strategy)
<b>SERVICES AND INFRASTRUCTURE</b>		
Bakers Road detention basin construction completed by June 2009.	December 2009	Land acquisition issues slowed progress

Achievement of 98% of the performance measures is considered satisfactory.

Council's electronic records management system provides data related to completion of tasks assigned across the organization. A total of 5,836 tasks were recorded in the system for the quarter with 4,573 tasks (78.4%) being attended to within the required timeframe. This represents an increase of 558 tasks compared with the January to March 2009 quarter, and a reduction in the level of achievement from 82.7% to 78.4%.

**Implementation Date / Priority:**

Management will continue to monitor the organization's performance with a view to improving service delivery.

**Recommendation:**

- 1. That Council notes the issues surrounding those measures that have not been achieved for the period ending 30 June 2009, as listed in the body of this report.**
- 2. That Council note the achievements of customer service guarantees, as outlined in Attachment 1 of the General Manager's Report for the April to June 2009 quarter.**
- 3. That Council note the organization's significant achievements, as outlined in Attachment 2 of the General Manager's Report for the April to June 2009 quarter.**
- 4. That Council note the achievement of performance targets, as outlined in a separate booklet which is available in the Councillors' Room for the April to June 2009 quarter.**
- 5. That Council continues to monitor its performance with a view to improving service delivery.**

**Stephen Sawtell  
General Manager**

**Attachments:**

**ATTACHMENT 1**

**CUSTOMER SERVICE GUARANTEES – QUARTERLY COMPARISON**

<b>Guarantee</b>	<b>2008/2009 Apr-Jun</b>	<b>2007/2008 Apr-Jun</b>
Respond to verbal enquiries within three working days	98% (882)	98% (753)
Ensure waiting time at the customer service counter does not exceed five minutes	100%	100%
Respond to major pollution incidents within one hour	0% (0)	0% (0)
Investigate 85% of complaints relating to stray dogs and stock within four hours	88% (469)	100% (451)
Attend to 90% emergency call outs within one hour	100% (2)	100% (1)
Reply to requests for work in public parks within seven days	100% (280)	100% (123)
90% of all requests for building inspections will be attended to within two days	100% (1,146)	100% (2,144)
100% development applications will be processed within forty days	86% (263)	84% (340)
Seal potholes on local roads within seven days	100% (93)	100% (41)
Repair or remove dangerous signs within one day	100% (5)	83% (12)
Repair defective signs within seven days	94% (17)	97% (31)
Grade gravel roads at least once per year	100%	100%
Clear blocked drains causing property damage within twenty four hours	92% (78)	100% (56)
Issue payment certificates within 14 days of receipt of claim from the contractor	87% (47)	77% (13)
Respond to water supply disruptions within two hours	100% (281)	100% (68)
Respond to sewer system failures within two hours	100% (514)	99% (171)

SIGNIFICANT ACHIEVEMENTS

- \$60M water filtration plant officially opened
- Following extreme storm events in late March and May, Council staff undertook significant levels of additional works to restore damage, with all works undertaken in an excellent manner
- Water Sensitive Urban Design policy adopted
- South Coffs release Area DCP and Contributions Plan adopted
- Osprey Nest at Hulberts Road Velodrome successfully relocated from flood light
- Vertebrate Pests Management Strategy placed on exhibition
- 2009-2012 Management Plan adopted
- Engineering Excellence Award won by the Regional Water Supply Scheme project
- Tender for the construction of Corindi Skate Park awarded
- Renovations commenced at Sportz Central
- Successful "Harmony Day" held at the Botanic Gardens with attendance in excess of 3,000
- 22,442 tonnes of mixed residual waste diverted from landfill (10,522 tonnes last year's corresponding quarter)
- Commenced fitout of level 1 Rigby House
- Visitor Information Centre souvenir sales exhibited sound growth
- 69,830 visitors to the library during the quarter
- Construction of a new viewing platform and lifeguard tower commenced at Diggers Beach
- City Centre Markets continue to flourish with 4 new stalls commencing during the quarter
- Youth Forum hosted at Norm Jordan Pavilion
- Coffs Harbour 2030 Summit hosted at CHEC on May 2, attracting 177 participants



## CITY SERVICES DEPARTMENT REPORTS

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### S39 COASTAL ESTUARY MANAGEMENT ADVISORY COMMITTEE

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#### **Purpose:**

To report minutes of the Coastal Estuary Management Advisory Committee Meeting held on 12 August 2009.

#### **Description of Item:**

All items were of a routine nature except for the following items:

4. Draft Hearnese Lake Estuary Management Study and Plan  
*CEMAC2 that a report be put to Council recommending the adoption of the draft Hearnese Lake Estuary Management Study and Plan.*
  
5. Draft Pipe Clay Lake Estuary Management Plan  
*CEMAC3 that a report be put to Council recommending the public exhibition of the draft Pipe Clay Estuary Management Plan subject to the following : -*
  - *The preliminary draft plan be amended to change Strategy 5: Register all known Sites of Cultural Significance under Heritage Law to 'Identify, Protect and Maintain all known Sites of Cultural Significance;*
  - *That Strategy 9: Improve Stormwater Management of Existing and New Development include possible stormwater treatment options;*
  - *The public exhibition period be a minimum of 6 weeks;*
  - *That a summary document of the plan be prepared and distributed during public exhibition;*
  - *That two presentations be held halfway through the public exhibition period, one for the Yarrawarra community and one for the Corindi community.*
  
6. General Business - Aboriginal Representation  
*CEMAC 4 that the Committee requests Council approve Deborah Dootson and a representative of the Local Aboriginal Land Council be formal members of the Coastal Estuary Advisory Committee.*

#### **Recommendation:**

**That Council note the minutes of the Coastal Estuary Management Advisory Committee held 12 August 2009.**

**Attachments:**

**COFFS HARBOUR CITY COUNCIL**  
**COASTAL ESTUARY MANAGEMENT ADVISORY COMMITTEE**  
**WEDNESDAY, 12 AUGUST 2009**

The meeting of the Coastal Estuary Management Advisory Committee (CEMAC) held at the Council Administration Building commenced at 1:30pm.

**Present:** Councillor John Arkan, Coffs Harbour City Council (Chairperson)  
Peter Smith, Community Representative  
Anna Sedlak, NSW Maritime  
George Stulle, Coffs Harbour City Council  
Mr Robert Kasmarik, Department of Natural Resources  
Martin Rose, Coffs Harbour City Council  
Daniel Rodger, Coffs Harbour City Council  
Deborah Dootson, Aboriginal Extension Project Officer  
Dee Murphy, Yarrowarra Aboriginal Corporation (YAC)  
Milton Duroux, Yarrowarra Aboriginal Corporation (YAC)

**Apologies:** Jason Gordon, Coffs Harbour City Council  
Clyde Treadwell, Coffs Harbour City Council  
Cherelle Brooke, Coffs Harbour City Council  
Craig Stehn, Community Representative  
Jim Green, NSW Maritime  
David Greenhalgh, Marine Park Authority

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**1. CONFIRMATION OF MINUTES**

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**CEMAC1** **RESOLVED** (Martin Rose/Robert Kasmarik) that the minutes of the Coastal Estuary Management Advisory Committee meeting of 9 December 2008, be confirmed.

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**2. BUSINESS ARISING**

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Daniel Rodger updated the Committee on the status of issues raised at the last meeting, as per the information provided attached to the meeting agenda.

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### 3. COAST AND ESTUARY PROJECTS PROGRESS

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Daniel Rodger gave a power point presentation on the following projects: -

- Council has completed erosion protection works along Corindi River at Red Rock Reserve;
- Council has recently adopted its Water Sensitive Urban Design Policy (as suggested in the majority of Estuarine Management Plans);
- Council has constructed a trial Bioretention Basin to assess the efficiency, plant performance, soil porosity and maintenance costs;
- Department of Lands have programmed dredging for July 2009 of the inner harbour entrance with sand nourishment on Park Beach.

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### 4. DRAFT HEARNES LAKE ESTAUARY MANAGEMENT STUDY AND PLAN

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Hearnes Lake Estuary Management Study and Plan was placed on public exhibition between 9 March and 8 May 2009. An assessment / summary of the submissions were forwarded to the Committee members with the agenda. A total of 37 submissions were received by Council with the majority supporting the plan. Daniel Rodger gave an over view of the submissions received and the major issues raised in the submissions. Minor changes were made to the draft plan.

**CEMAC2** **RESOLVED** (Daniel Rodger/Robert Kasmarik) that a report be put to Council recommending the adoption of the draft Hearnes Lake Estuary Management Study and Plan.

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### 5. DRAFT PIPE CLAY ESTUARY MANAGEMENT PLAN

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The Pipe Clay Lake Estuary Management Plan has been developed by BMT-WBM to allow the integrated long term management of Pipe Clay Lake. Community newsletters and site inspections were carried out in June and July 2008 respectively. The Plan acknowledges the Yarrawarra Aboriginal Corporation for their time and input to the document.

Daniel Rodger took the Committee through each of 16 proposed mitigation strategies.

Dee Murphy and Milton Duroux (YAC) raised concerns about *Strategy 5: Register all known Sites of Cultural Significance under Heritage Law*. They have concerns with registering the sites as it imposes restrictions on what can be done. Would like to see the strategy amended to '*Identify, Protect and Maintain all known Sites of Cultural Significance*'.

Dee and Milton also had concerns about how confusing the document was and that a simpler summary document be prepared for distribution for the public exhibition.

It was also suggested that the public exhibition period be a minimum of 6 weeks and that 2 presentations be held half way through the exhibition period, one for the Yarrawarra community and one for the general Corindi community.

*Strategy 9: Improve Stormwater Management of Existing and New Development*, possible stormwater treatment options were discussed and it was suggested that possible options be listed in the plan.

**CEMAC3** **RESOLVED** that a report be put to Council recommending the public exhibition of the draft Pipe Clay Estuary Management Plan subject to the following : -

- The preliminary draft plan be amended to change *Strategy 5: Register all known Sites of Cultural Significance under Heritage Law* to '*Identify, Protect and Maintain all known Sites of Cultural Significance*;
- That *Strategy 9: Improve Stormwater Management of Existing and New Development* include possible stormwater treatment options;
- The public exhibition period be a minimum of 6 weeks;
- That a summary document of the plan be prepared and distributed during public exhibition;
- That two presentations be held halfway through the public exhibition period, one for the Yarrawarra community and one for the Corindi community.

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## 6. GENERAL BUSINESS

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Milton Duroux raised the issue of Aboriginal representation on the committee, an issue which has been discussed before. It was recommended that Deborah Dootson, Aboriginal Extension Officer, CMA be on the Committee and that the Local Aboriginal Land Council be invited to have a representative.

**CEMAC4** **RESOLVED** that the Committee requests Council approve Deborah Dootson and a representative of the Local Aboriginal Land Council be formal members of the Coastal Estuary Advisory Committee.

Members of the Committee also expressed concern about the lack of effective sediment and erosion control in Corindi from the areas being developed. The stormwater runoff from the village into the estuary is often full of sediment. Council officers to follow up with Council's development inspectors and building inspectors.

The meeting closed at 3:05pm.

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## **S40 DRAFT PIPE CLAY LAKE ESTUARY MANAGEMENT PLAN**

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### **Purpose:**

The purpose of this report is to have the draft Pipe Clay Lake Estuary Management Plan approved by Council for public exhibition.

### **Description of Item:**

BMT WBM (formerly WBM Oceanics Australia) was contracted in 2008 to complete an Estuary Management Plan for Pipe Clay Lake. Figure 1 shows the study area.

The draft Pipe Clay Lake Estuary Management Plan (PCLEMP) was completed in January 2009 and reviewed internally by Council. Various changes were made due to Council operations and land tenure in the area with the amended Plan presented to the Coffs Coast and Estuary Management Advisory Committee (CEMAC) on 12 August 2009. The CEMAC consequently recommended the draft PCLEMP be put to Council for approval for a public exhibition period of six weeks (including two public presentations, one to the aboriginal and another for the local community by Council staff.

The Draft PCLEMP outlines 16 prioritised strategies, listed below. The strategies have been prioritised through a combination of their importance and implementation timeframe.

1. Implement a monitoring program to improve confidence in wild resource harvesting
2. Implement a monitoring program to determine environmental health
3. Interactive tour of estuary for Council staff
4. Develop a checklist for Council staff when assessing Development Applications around Pipe Clay Lake and Corindi Village
5. Identify, protect and maintain all known sites of cultural significance
6. Rehabilitate the freshwater spring adjacent to the caravan park
7. Maintain and increase the custodial role in estuary management of the local Aboriginal community
8. Implement a community education program within the catchment
9. Improve stormwater management of existing and new development
10. Ensure zonings and future developments within the catchment adequately reflect the environmental sensitivity of the lake
11. Introduce an environmental planning requirement for all new development to achieve no net increase in pollutant runoff loads, through Best Practice Stormwater Management
12. Upgrade the bbq facilities and picnic tables
13. Restrict non-pedestrian access to the bushtucker boardwalk
14. SIMP schools and buddies education project
15. Identify reasons for sewer overflows and upgrade the system accordingly to minimise occurrences in the future
16. Upgrade tenure of Crown Land surrounding Pipeclay Lake

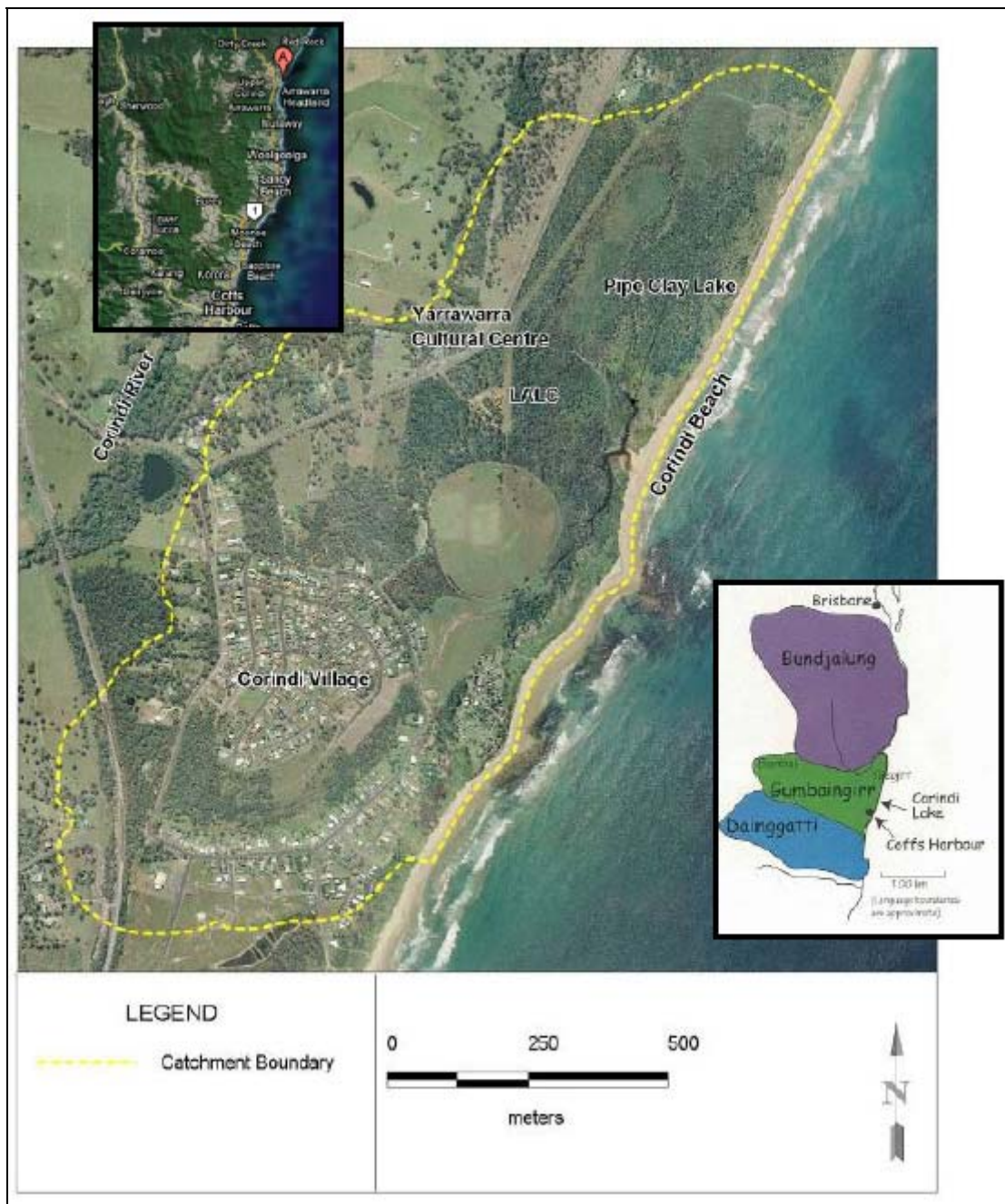


Figure 1: Location of Pipe Clay Lake, situated adjacent to the Corindi Village

**Sustainability Assessment:**

- **Environment**

The primary goal of the PCLEMP is to encourage the integrated, balanced, responsible and ecologically sustainable use of the Pipe Clay Lake catchment. This is reflected in the management strategies developed in consultation with regulatory authorities, stakeholders and the community, in relation to the future nature conservation, rehabilitation and development of the estuary.

All the recommended measures have been discussed with various departments of Council and are consistent with Council's planning, environmental plans and controls. The draft Plan has been developed in consultation with the CEMAC and is seen to be a positive step towards management of the Pipe Clay Lake catchment. The Plan has a number of recommended measures that vary from capital works to planning controls and public awareness programs.

Eight specific management objectives were derived based on the estuary processes assessment and consultation with the community and government authorities. These are:

1. To facilitate the traditional harvesting of wild resources with confidence
2. To reduce sediment and nutrient loads entering the estuary
3. To maintain the boardwalk
4. To manage weed invasion along the estuary
5. To strengthen and protect the existing association between the local Gumbaynggirr people and the Pipe Clay Lake estuary.
6. To ensure that implications for Pipe Clay Lake are fully considered during landuse planning and development assessment processes.
7. To collect a range of environmental data to help understand the important processes and overall condition of Pipe Clay Lake.
8. To manage Crown lands in a manner that maximises protection and opportunity for Aboriginal management

Additionally strategies are aligned to specific targets set by the Northern Rivers Catchment Management Authority, increasing the potential for future funding. Aligned strategies include:

- Revegetation works in creek buffers in the catchment;
- Regeneration of degraded areas along the foreshore;
- Support for increased water quality monitoring programs;
- Encouragement of vegetation conservation agreements etc;
- Raising community awareness, knowledge and skills.

### **Social**

The development of the draft Estuary Management Plan included investigations into numerous social considerations, covering:

- The essential features of the estuary including economic, social & aesthetic values;
- Current uses and activities, including land tenure, control and conflicts of use;
- Remedial goals of restoration of economic quality;
- Management objectives: identification, assessment and impacts of implementation.

As a result strategies have integrated various values of the estuary including:

- Ecological;
- Scenic;
- Aboriginal;
- Recreational;
- Socio-economic; and
- Educational values.

Of particular social importance are the following strategies.

*Strategy 7: Maintain and increase the custodial role in estuary management of the local Aboriginal Community.* This is aimed at fostering an increased management role between the local aboriginal community and Pipe Clay Lake through training and support from various stakeholders (Council, CMA, DECCW etc).

*Strategy 8: Implement a community education program within the catchment.* This strategy is designed to educate local residents as to the cause/effect relationship between stormwater pollution (in terms of nutrients, sediments, litter etc) and the lake. As many new residents are unaware that the stormwater flows directly into Pipeclay Lake this educational program could facilitate increased ownership by local residents while informing the community and general public as to the cultural values and issues affecting the lake.

*Strategy 12: Upgrade the bbq facilities and picnic tables.* Due to increased bank erosion a highly used picnic area situated along the Pipe Clay Lake boardwalk is being lost. The area is utilised by local and visiting Aboriginal people. This project could utilise Indigenous Green Teams such as those managed by the Yarrowarra Cultural Corporation.

Strategies outlined in the draft PCLEMP have been developed to protect the social amenity of the catchment and to ensure future land uses are consistent with the principals of Ecologically Sustainable Development (ESD).

### **Economic**

The draft Estuary Management Plan assesses the impacts of development on the environment in terms of ESD. Objectives within the Plan allow development in particular areas with constraints aimed at protecting the scenic, social and environmental features of the locality while allowing development, investment and growth in the area is suitable.

The draft Management Plan does not call for blanket bans on development in the catchment. *Strategy 10: Ensure zonings and future developments within the catchment adequately reflect the environmental sensitivity of the lake,* outlines specific areas where environmental modelling and assessment should be undertaken prior to future zonings (as outlined in the Our Living Settlement Strategy 2007). These areas include investigations into ICOLL breakout berm heights, sensitivity of ICOLL's to increased nutrients etc.

Additionally *Strategy 11: Introduce an Environmental Planning Requirement for All New Development to Achieve No Net Increase in Pollutant Runoff Loads, through Best Practice Stormwater Management* has recently been complete by Council through the adoption of the Water Sensitive Urban Design (WSUD) Policy which aims to improve the quality and management of stormwater throughout the Coffs Harbour LGA.

The PCLEMP, through its recommended strategies, looks to preserve the local and shire wide economic values currently experienced through our Councils Vision: Coffs Harbour - the Healthy City, the Smart City, the Cultural City for a Sustainable Future. Without protecting our natural assets in a sustainable nature, i.e. through the principals of ESD, the Coffs Harbour image of a pristine coastline could fade, allowing a more degraded image to take hold. By not properly protecting our natural assets (and thereby image), Coffs Harbour may be effected by broader economic implications.



### **Management Plan Implications**

Due to the current land tenure in the Corindi Village area (mainly managed by Dept Lands) Council is not the lead agency in the majority of management strategies recommended within the draft PCLEMP. Nevertheless some strategies can be undertaken by Council as funds become available and some strategies can be completed by Council staff as part of their roll in Council, subsequently requiring less expenditure.

### **Consultation:**

The preparation of the Pipe Clay Lake Estuary Management Plan has followed a modified DECC Estuary Management Process, as outlined in the NSW Estuary Management Manual (1992). The modification was due to the relatively small budget and size of the catchment, which did not require the number of steps a large study requires. The development of the Estuary Management Plan has had considerable community input through the various stages of development. They are as follows:

**1) Establish Estuary Management Committee:**

The Coast and Estuary Management Advisory Committee (CEMAC) has been established in the Coffs Harbour LGA with committee members from the Department of Environment and Climate Change (DECC) – Coasts and Catchments, DECC-Marine Parks Authority, DECC-National Parks and Wildlife Authority, NSW Maritime, Coffs Harbour Regional Landcare Inc, community representatives, Council staff and Elected Councillors. Aboriginal representatives were invited to attend CEMAC meetings concerning the PCLEMP.

This management committee oversees the development of the management plan and ensures the Plan has input from State and Local Government agencies, community groups, councillors and public representatives constantly. The committee itself is a form of public consultation.

**2) Assemble Existing Data**

BMT-WBM released a community survey as the first stage of the project. Approximately 500 surveys were distributed, consisting of 270 sent to each individual post office box in the Corindi, and 230 left at the local Post Office for other walk ins.

**3) Prepare Estuary Processes Study**

A desktop Estuary Processes Study was completed with additional water quality sampling and field visits. The results were incorporated into the Estuary Management Plan.

**4) Prepare Estuary Management Study**

An analysis of potential management strategies was undertaken between WBM-BMT and Council after the initial draft report. All non-relevant strategies were reworked to offer additional management potential. These strategies were incorporated into the Estuary Management Plan.

**5) Prepare Estuary Management Plan**

The Draft Pipe Clay Lake Estuary Management Study & Plan was presented to the CEMAC on 12 August 2009. Additionally representatives from the Yarrowarra Aboriginal Corporation, the Aboriginal Community and an Aboriginal Project Officer from the Arrawarra Corporation Employment and Training (ACET) organisation and the Catchment Management Authority were invited to attend the meeting, review the document and provide comments to the CEMAC.

The CEMAC recommended the draft Pipe Clay Lake Estuary Management Plan be approved by Council for public exhibition for six weeks.

**Related Policy and / or Precedents:**

- **Water Sensitive Urban Design Policy**

The completion and adoption of a Water Sensitive Urban Design Policy has been recommended in the majority of Estuary Management Plans. In particular within the PCLEMP it is proposed in 11: Introduce an Environmental Planning Requirement for All New Development to Achieve No Net Increase in Pollutant Runoff Loads, through Best Practice Stormwater Management. This strategy supports and strengthens Councils WSUD Policy by encouraging development with no net increase of pollutants entering the lake.

- **Moonee Creek Estuary Management Plan**

The Moonee Creek Estuary Management Study & Plan was adopted on 6 November 2008 by Council. It provides strategic direction in the management of Moonee Creek Estuary, similarly to how the Pipe Clay Lake Estuary Management Study and Plan will allow management of Pipe Clay Lake.

**Statutory Requirements:**

There is a requirement under the Coastal Protection Act 1979 No 13, Part 4A Coastal zone management plans, Division 1 General, *55B Requirements for coastal zone management plans* for Councils to prepare coastal zone management plans. Coastal zone management plans include Estuary Management Plans such as the Pipe Clay Lake Estuary Management Plan.

Additionally the PCLEMP has been prepared under the NSW Government's Estuary Management Program. The Program is designed to fulfill the requirements of the NSW Estuary Management Policy (1992) and the NSW Coastal Policy (1997). It also helps to satisfy the Northern Rivers Catchment Management Authorities (NRCMA) management target C2 – *complete management plans for all estuaries (65% by 2009); and implement identified priority actions that contribute to the improved natural resource condition.*

Under the 'Marine Parks Amendment (Solitary Islands) Regulation 2002', Pipeclay Lake is zoned 'Special Purpose zone 3'. The objective of Special Purpose zone 3 is to provide for rehabilitation, traditional use and research. A management action under the 'Operational Plan for the SIMP' requires the preparation of a conservation plan for Pipeclay Lake special purpose zone in consultation with local aboriginal land managers, Aboriginal Advisory Committee, NPWS, Aboriginal Heritage Trust and NSW Fisheries. This Plan is designed to meet these objectives.

**Issues:**

While all strategies have varying levels of difficulty to complete, once the document has been formally adopted increased funding opportunities will present themselves to Council to allow more effective completion of individual projects. The following outlines methods to complete each strategy as identified by Council Officers.

- Strategy 1: Implement a Monitoring Program to Improve Confidence in Wild Resource Harvesting  
Method: Council Environmental Health Officers provide training for the local Aboriginal community for water quality monitoring. Council laboratory to undertake water quality analysis with support from Marine Parks. (Grant funding currently applied for by CMA for costs of training and laboratory costs)
- Strategy 2: Implement a Monitoring Program to Determine Environmental Health  
Method: Council Environmental Health Officers provide training for the local Aboriginal community for water quality monitoring. Investigate Post-Graduate Aboriginal Student to do thesis on the environmental condition of the lake. Council laboratory to undertake water quality analysis with support from Marine Parks. (Grant funding currently applied for by CMA for costs of training and laboratory costs)
- Strategy 3: Interactive Tour of Estuary for Council staff  
Method: Free tour for Council staff and Councillors by Aboriginal Community
- Strategy 4: Develop a Checklist for Council Staff when Assessing DAs around Pipe Clay Lake and Corindi Village  
Method: Together with the local aboriginal community and the Jalumbo Research Centre develop a simple checklist for Council staff to use in the future when assessing Development Applications.
- Strategy 5: Identify, Protect and Maintain all known sites of Cultural Significance  
Method: Enter into discussions with the Yarrawarra Aboriginal Corporation, appropriate elders and Julumbo Research Centre on desired approach for culturally significant items.
- Strategy 6: Rehabilitate the Freshwater Spring Adjacent to the Caravan Park  
Method: A joint project between Corindi Beach Caravan Park and the YAC (Council could provide technical advice/design plans etc)
- Strategy 7: Maintain and Increase the Custodial Role in Estuary Management of the Local Aboriginal Community  
Method: Increased support for aboriginal research in the area (CMA and DECCW active in supporting aboriginal green teams and cadets)
- Strategy 8: Implement a Community Education Program within the Catchment  
Method: Through various stormwater quality improvement funding grants apply for funds to stencil drains and provide education to the residents of Corindi.
- Strategy 9: Improve Stormwater Management of Existing and New Development  
Method: Identify appropriate area for Water Sensitive Urban Design techniques (eg Council drainage reserve), Council to complete concept design and apply for funding through water quality improvement funding grants or DECC's Estuary Management Program.

- Strategy 10: Ensure zonings and future developments within the catchment adequately reflect the environmental sensitivity of the lake  
Method: When undertaking Local Environment Study for re-zoning or Corindi Beach area incorporate studies as outlined within this plan.
- Strategy 11: Introduce an Environmental Planning Requirement for All New Development to Achieve No Net Increase in Pollutant Runoff Loads, through Best Practice Stormwater Management  
Method: Completed (Councils WSUD Policy)
- Strategy 12: Upgrade the BBQ Facilities and Picnic Tables  
Method: Through grant funding utilise the Aboriginal Corporation Education & Training (ACET) organisation to upgrade and replace facilities.
- Strategy 13: Restrict non-pedestrian access to the bushtucker boardwalk  
Method: Through grant funding and utilising Aboriginal Corporation Education & Training (ACET) organisation install bollards or similar devices.
- Strategy 14: SIMP Schools and Buddies Education Project  
Method: Program ran by the Marine Park Authority
- Strategy 15: Identify reasons for sewer overflows and upgrade the system accordingly to minimise occurrences in the future  
Method: Council Water staff to complete reports on latest overflows. If system is under sized or illegal connections are suspected enter required works into Councils budget.
- Strategy 16: Upgrade tenure of Crown Land surrounding Pipeclay Lake  
Method: Support discussions for the lands around Pipe Clay Lake to be upgraded to a higher level of protection and management than current crown land practises allow.

**Implementation Date / Priority:**

Following approval by Council the draft Estuary Management Plan will be placed on public exhibition for six weeks, after which any public comments will be taken into account by Council staff and the CEMAC when finalising the Plan.

The completed Estuary Management Plan will then be recommended to Council for formal adoption, where the document will become an official Management Plan of Council. Implementation of the recommended strategies will follow the ranking and priorities given in the Plan subject to available funds and resources.

**Recommendation:**

**That Council approves the draft Pipe Clay Lake Estuary Management Plan for public exhibition for six weeks.**

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## **S41 DRAFT HEARNES LAKE ESTUARY MANAGEMENT STUDY AND PLAN**

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### **Purpose:**

The purpose of this report is to have the draft Hearnese Lake Estuary Management Study and Plan adopted by Council.

### **Description of Item:**

In accordance with the Coastal Protection Act, Council has commissioned Environmental Engineering consultants BMT-WBM to complete an Estuary Process Study and Estuary Management Study and Plan for the Hearnese Lake catchment. The Management Plan provides strategic direction for the future management of the Hearnese Lake catchment. Council is then eligible for funding to complete management objectives under the Department of Environment, Climate Change & Water's (DECCW) Estuary Management Program. Figure 1 shows the study area.

The Draft Hearnese Lake Estuary Management Study & Plan was presented to the Council's Coast and Estuary Management Advisory Committee (CEMAC) on the 9<sup>th</sup> December 2008, and consequently recommended by the CEMAC to be adopted as a draft by Council and placed on public exhibition. On 26<sup>th</sup> February Council approved the draft document to be placed on public exhibition for an extended period of 56 days, with this period extending from 9<sup>th</sup> March to 8<sup>th</sup> May 2009.

During this time a total of 37 submissions regarding the Draft Plan were received by Council, including comments from the Department of Environment and Climate Change, Marine Parks Authority, Northern Rivers Catchment Management Agency, Coffs Harbour Bushland Regeneration Group, local residents and local developers. Of the total submissions 29 were in support of the Draft Plan, five in opposition, while three were neutral or unclear, see Figure 2. All submissions have been taken into consideration with appropriate changes incorporated into a Final Estuary Management Study and Plan.



Figure 1-1 Hearnese Lake Catchment and Locality  
Figure 1: Hearnese Lake locality and catchment

**Sustainability Assessment:**

• **Environment**

The primary goal of the HLEMS&P is to encourage the integrated, balanced, responsible and ecologically sustainable use of the Hearnese Lake catchment. This is reflected in the management strategies developed in consultation with regulatory authorities, stakeholders and the community, in relation to the future nature conservation, rehabilitation and development of the estuary.

All the recommended measures have been discussed with various departments of Council and are consistent with Council's planning, environmental plans and controls. The draft Plan has been developed in consultation with the Coastal and Estuary Management Advisory Committee (CEMAC) and is seen to be a positive step towards management of the Hearnese Lake catchment. The Plan has a number of recommended measures that vary from capital works to planning controls and public awareness programs.

Specific environmental issues targeted through strategies outlined in this document include:

- Improvements to water quality;
- Prevention of bank erosion and sedimentation;
- Improvements to the ecology of the locality;
- Restrictions on future catchment development which adversely affects the environment;
- Redefinition of estuarine and catchment usage; and
- Identification and protection of items or locations with cultural or heritage values.

Additionally strategies are aligned to specific targets set by the Northern Rivers Catchment Management Authority, increasing the potential for future funding. Aligned strategies include:

- Revegetation works in creek buffers in the catchment;
- Regeneration of degraded areas along the foreshore;
- Support for increased water quality monitoring programs;
- Encouragement of vegetation conservation agreements etc.

**Social**

The development of the draft Management Plan included investigations into numerous social considerations, covering:

- The essential features of the estuary including economic, social and aesthetic values;
- Current uses and activities, including land tenure, control and conflicts of use;
- Remedial goals of restoration of economic quality;
- Acceptable commercial & public development, works & activities;
- Management objectives: identification, assessment and impacts of implementation.

As a result strategies have integrated various values of the estuary including:

- Ecological;
- Scenic;
- Aboriginal;
- Recreational;
- Socio-economic; and
- Educational values.

Of particular social importance is Strategy 6: Review and rationalise the current recreational uses of the estuary. This is aimed at reducing the conflict between users of the Hearnese Lake area, including social walkers, dog walkers, 4WD enthusiasts and their impact on the estuary and surrounding environment.

Additionally Strategies 15 and 28, 'Raise awareness of SIMP / Hearnese Lake values', and 'Raise awareness of cultural values' are important to the social aspects of the catchment. These are aimed at educating the community and general public as to the cultural values and issues affecting the lake.

Strategies outlined in the draft HLEMS&P have been developed to protect the social amenity of the catchment and to ensure future land uses are consistent with the principals of Ecologically Sustainable Development (ESD). These include:

- (Strategy number)
- (3) Remove cattle from lake margins
- (7) Prevent artificial opening of lake entrance
- (9) Promote eco-friendly development
- (18) Manage stormwater from existing and future development through adopting WSUD principles
- (21) Acquire and preserve foreshore land
- (22) Incorporate foreshore and coastal buffers into CCRP
- (26) Additional amenities and contributions
- (27) Conservation of private vegetation

### **Economic**

The draft Estuary Management Study and Plan assesses the impacts of development on the environment in terms of ESD. Objectives within the Plan allow development in particular areas with constraints aimed at protecting the scenic, social and environmental features of the locality while allowing development, investment and growth in the area.

Furthermore there are a number of facilities of local economic interest residing in the Hearnese Lake vicinity, which indirectly rely on the splendor of Hearnese Lake. These include a Caravan Park and tourism in the Woolgoolga area. The Coffs Harbour LGA itself could be seen to be linked to the relative beauty of our coastline, where degraded beach amenity could lead to reduced tourism.

The HLEMS&P, through its recommended strategies, looks to preserve the local and shire wide economic values currently experienced through our Councils Vision: Coffs Harbour - the Healthy City, the Smart City, the Cultural City for a Sustainable Future. Without protecting our natural assets in a sustainable nature, i.e. through the principals of ESD, the Coffs Harbour image of a pristine coastline could fade, allowing a more degraded image to take hold. By not properly protecting our natural assets (and thereby image), Coffs Harbour may be effected by broader economic implications.



### **Management Plan Implications**

Council is the lead agency in a number of the management strategies recommended within the draft HLEMS&P. These strategies have been ranked due to priority and required timeframe and have been given an implementation schedule spanning immediate, short and medium term timeframes. These relate to recommended implementation periods of 12-18 months, 1-3 years and 3-5 years respectively. After formal adoption by Council opportunities to gain funding for implementation of the strategies will be made available through organisations such as the Department of Environment, Climate Change and Water (DECCW) and the Northern Rivers Catchment Management Authority (NRCMA). Some strategies can be undertaken by Council staff as part of their roll in Council and subsequently require less expenditure. Other strategies will be implemented when funds become available.

### **Consultation:**

In the preparation of the Hearnese Lake Estuary Management Plan Council has followed the DECC Estuary Management Process, as outlined in the NSW Estuary Management Manual (1992). The development of the management plan has had considerable community input through the various stages of development. They are as follows:

**1) Establish Estuary Management Committee:**

The Coast and Estuary Management Advisory Committee (CEMAC) has been established in the Coffs Harbour LGA with committee members from the Department of Environment and Climate Change (DECC) – Coasts and Catchments, DECC-Marine Parks Authority, DECC-National Parks and Wildlife Authority, NSW Maritime, Coffs Harbour Regional Landcare Inc, community representatives, Council staff and Elected Councillors. This management committee oversees the development of the management plan and ensures the Plan has input from State and Local Government agencies, community groups, councillors and public representatives constantly. The committee itself is a form of public consultation.

**2) Assemble Existing Data**

BMT-WBM released a community survey as the first stage of the project. Letters to residents were sent out in April 2005, and a community survey was completed in May 2005. The results of which were analysed and presented to CEMAC on the 28<sup>th</sup> September 2005. Discussions included comments regarding the high interest from the community with approximately 150 responses received by Council/BMT-WBM.

**3) Prepare Estuary Processes Study**

A presentation to the CEMAC on the draft Estuary Processes Study was made on 28 March 2006 with copies distributed to CEMAC members for comment, with comments forwarded to BMT-WBM. Changes were minor and the amended study (October 2006) maintained as the final Estuary Processes Study.

**4) Prepare Estuary Management Study**

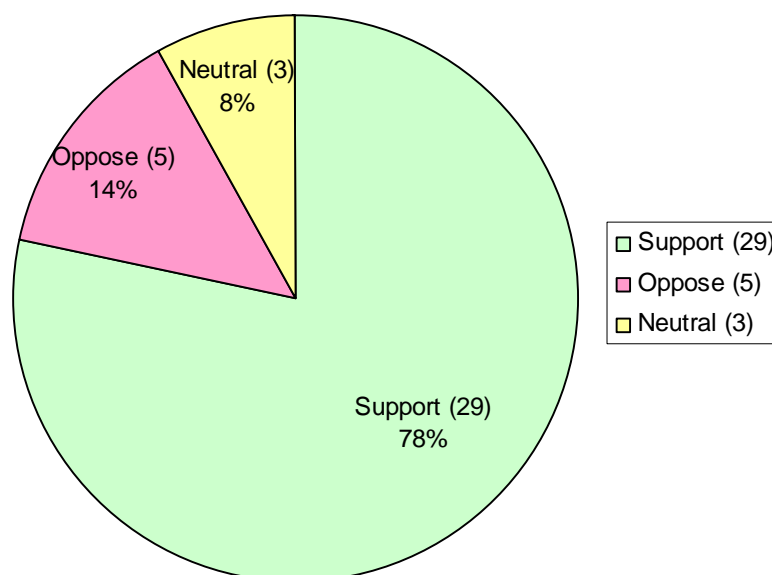
The Estuary Management Study was combined into the Estuary Management Study and Plan. Preliminary copies of the Hearnese Lake Estuary Management Study and Plan were distributed to CEMAC members at a meeting on 20 February 2007 and Council staff including Planning, Environmental, Recreational Services & Engineering branches. Committee Members ranked the management options, with the information forwarded to BMT-WBM to be used in finalising the document.

**5) Prepare Estuary Management Plan**

The Draft Hearnnes Lake Estuary Management Study and Plan was presented to the CEMAC on 9<sup>th</sup> December 2008, and consequently recommended by the CEMAC to be adopted as a draft by Council and placed on public exhibition. On 26<sup>th</sup> February Council approved the draft document to be placed on public exhibition for an extended period of 56 days, with this period extending from 9<sup>th</sup> March to 8<sup>th</sup> May 2009.

**6) Public Exhibition**

During this time a total of 37\* submissions regarding the Draft Plan were received by Council, including comments from the Department of Environment and Climate Change, Marine Parks Authority, Northern Rivers Catchment Management Agency, Coffs Harbour Bushland Regeneration Group, local residents and local developers. Of the total submissions 29 were in support of the Draft Plan, five in opposition, while three were neutral or unclear, see Figure 2. After assessment of submissions minor changes were made to the Estuary Management Study & Plan, in particular Section 9: Accommodating Future Climate Change.



**Figure 2: Nature of submissions for Hearnnes Lake Estuary Management Plan**

The draft (final) Hearnnes Lake Estuary Management Study and Plan was presented to the Coast and Estuary Management Advisory Committee on 12 August 2009. The Committee resolved to put the Management Study and Plan to Council recommending adoption.

\* Sandy Shores Developments made an interim submission during the exhibition period and a final submission was emailed to Council by heir consultants, Worley Parsons, on 12 August. Issues raised on behalf of Sandy Shores Developments are discussed later in this report. Further details of the public exhibition are provided in the attachments.

**Related Policy and / or Precedents:**

- **Hearnes Lake/Sandy Beach DCP**

The Hearnes Lake/Sandy Beach DCP (HL/SB DCP) applies to land from Hearnes Lake to Sandy Beach under the Coffs Harbour City Council LEP 2000. The controls set in the HL/SB DCP seek to achieve economic, social and environmental sustainability.

The DCP ensures that development takes into consideration environmental constraints, and outlines environmental buffers for water quality protection, areas of riparian vegetation for protection and outlines water quality targets as determined by the Urban Stormwater Management Plan. It outlines exclusion zones for development around environmentally sensitive areas and for the protection of high and very high value vegetation.

The DCP has innovative strategies derived from the draft HLEMS&P, such as vertical buffers, which have won Coffs Harbour City Council an award from the NSW Coastal Conference 2008. Buffers around the lake are extended 50 horizontally from a 3.5m vertical buffer, which will also accommodate future sea level rise uncertainties. The controls and restrictions in the HL/SB DCP are strengthened by the Hearnes Lake EMP.

- **Water Sensitive Urban Design Policy**

The completion and adoption of a Water Sensitive Urban Design Policy has been recommended in the majority of estuary management plans. In particular within the HLEMS&P it is proposed in Strategy DC-2 *Manage stormwater from existing and future development through adopting WSUD principals*. This strategy supports and strengthens Council's WSUD Policy by encouraging development with no net increase of pollutants entering the lake.

- **Draft LEP Amendment 29**

During preparation of the Hearnes Lake/Sandy Beach DCP Coffs Harbour City Council concluded that the 2E (Tourist residential) zoning surrounding Hearnes Lake under the 2000 LEP was no longer suitable for this land. Consequently, Council has made a draft amendment to the LEP to change landuse zonings around Hearnes Lake. Changes include additional buffers around the lake and larger environmental protection areas. This draft LEP amendment is currently with the Department of Planning awaiting gazettal. The draft Hearnes Lake Estuary Management Plan complements the draft LEP amendment 29.

- **Koala Plan of Management**

The Koala Plan of Management (KPoM) was prepared by the NSW National Parks and Wildlife Service (now DECC-NPWS) in close consultation with Coffs Harbour City Council (CHCC). The KPoM provides a consistent approach to koala management and planning throughout the City of Coffs Harbour. Koala habitat has been defined and mapped in the KPoM with specific management and planning guidelines established. The KPoM defines development restrictions similar to that of the Hearnes Lake EMP, with the HLEMS&P however covering a greater amount of environmental issues.

- **Site specific vegetation reports, Draft Vegetation Strategy 2003 and future updated Vegetation Strategies**

Various vegetation management strategies were supplied to BMT WBM as background information for the preparation of the HLEMS&P. These included the abovementioned KPOM, The vegetation of the Coffs Harbour Local Government Area (Fisher Report), Draft Vegetation Strategy 2003, Draft Vegetation Conservation DCP etc. While the HLEMP is not a vegetation strategy, data from these strategies may have been used as supplementary information for the Management Plan. Vegetation information was ground truthed during field trips to the Hearnes Lake study area to ensure accuracy and legitimacy. The HLEMS&P supplements future vegetation plans by providing areas recommended for revegetation or protection.

- **Moonee Creek Estuary Management Plan**

The Moonee Creek Estuary Management Study & Plan was adopted on 6<sup>th</sup> November 2008 by Council. It provides strategic direction in the management of Moonee Creek Estuary, similarly to how the Hearnes Lake Estuary Management Study and Plan will allow management of Hearnes Lake.

#### **Statutory Requirements:**

There is a requirement under the Coastal Protection Act 1979 No 13, Part 4A Coastal Zone Management Plans, Division 1 General, *55B Requirements for coastal zone management plans* for Councils to prepare coastal zone management plans. Coastal zone management plans include Estuary Management Plans such as the Hearnes Lake Estuary Management Plan.

Additionally the HLEMS&P has been prepared under the NSW Government's Estuary Management Program. The Program is designed to fulfill the requirements of the NSW Estuary Management Policy (1992) and the NSW Coastal Policy (1997). It also helps to satisfy the Northern Rivers Catchment Management Authorities (NRCMA) management target C2 – *complete management plans for all estuaries (65% by 2009); and implement identified priority actions that contribute to the improved natural resource condition.*

#### **Issues:**

The Hearnes Lake Estuary Management Plan has been developed to allow Council to make informed decisions to ensure it meets environmental, social and economic needs of the catchment and community. The major issues with the Hearnes Lake area is the amount of development that should be permitted within the estuaries catchment. Sandy Shores Developments have an application with the Department of Planning to develop 280 lots on the southern shores of the lake. The HLEMS&P does not support this level of development and recommends a 3.5 m vertical buffer with a 50m horizontal buffer, thus reducing the amount of developable land owned by Sandy Shores. Council, Councils consultants WBM-BMT, DECCW and independent reports commissioned by the Department of Planning support that 3.5 m buffer in the Estuary Management plan, while Sandy Shores consultant argues the buffer is too high. Details of the different reports are listed below.

- **Hearnese Lake Estuary Processes Study (2006)**

BMT-WMB was selected by CHCC/DECCW to undertake the study due to their experience in ICOLLs and Estuary Management Plans. Through analysis of historic photography the Estuary Processes Study it was found that Hearnese Lake has had an average maximum berm height of 3-4m AHD in the past 60 years of record. Higher berm heights (around 5m AHD) have been achieved in the past. The Study proposes a vertical buffer of 3.5m AHD to allow natural functioning of the lake taking into consideration possible berm heights of up to 3.0 m AHD and the effects of sea level rise (that being 0.5m – the mid range scenario at the time).

- **Sainty Report:**

In 2006 the NSW State Government through the Department of Planning commissioned Sainty and Associates to identify high conservation lands at the Hearnese Lake lower catchment. The Sainty Report supports the need for an environmental buffer at 3.5m AHD. This level was made without reference to lake water levels or berm heights, however the report notes that it is consistent with the 3.5m AHD vertical buffer proposed in the Hearnese Lake Estuary Processes Study.

- **Sandy Shores Developments Pty Ltd**

Sandy Shores Developments Pty Ltd have submitted a major project application under Part 3A of the Environmental Planning and Assessment Act to the Department of Planning for a subdivision along the southern portion of the lake. Various environmental assessments and a flood risk study are included within the report.

The *Scientific Assessment of Entrance Berm Elevation for Hearnese Lake, Sandy Beach* (2007) analysed historic photography and concludes that breakout events will be initiated through a pilot channel\* and that entrance berm elevations have varied from 0.1m AHD to 2.6m AHD in the 60 years of record. The report also suggests that typical entrance berm elevations lies between 1.0 - 1.6m AHD. The report concludes that an elevation of 2 m AHD is considered to be an estimate of the maximum contemporary entrance berm elevation for the lake.

\* DECCW and CHCC do not support the use of a pilot channel to control the entrance breakout levels.

The *Flood Impact Assessment* (2009) models various flood scenarios and gives 2.6m AHD (updated to 2.95m AHD with additional climate change investigations) as the 1 in 100 year recurrence flood level for Hearnese Lake, based on a typical entrance berm height of 1.6m AHD.

The *Climate Change Assessment* (2008) reviews sea level rise predictions from earlier reports in line with the latest data. The report proposes the use of a berm height of 2.55 m AHD (2.0m berm height + 0.55m Sea Level Rise), and a 1 in 100 year flood level of 2.95m AHD.

- **WMA Water Report (2009)**

In 2009 the State Government through the Department of Planning commissioned WMA Water to undertake a review of the Environmental Assessments submitted by Sandy Shores Developments Pty Ltd (including the afore mentioned *Assessment of Berm Elevations, Flood Impact Assessment and Climate Change Assessment*). The report found “*major issues with the derived flood planning level, particularly with respect to the methodology used to model the entrance closed/breakout condition and even more, the details of how sea level rise was modelled for this condition*”.

The WMA Water report also makes the following points:

- The use of a ‘typical’ berm height is not the correct way to determine design flood levels. Flood levels should be based on events with a rare (eg. 1% or 1 in 100 year) probability of occurring;
- It is clear from the data that berm levels higher than 2.0m AHD do occur;
- It is not unreasonable to assume that a maximum (say 1 in 100 year) berm level might not be 3.0 or 3.5m AHD including Climate Change sea level rise as defined in the Hearnnes Lake Estuary Processes Study;

- **Draft Hearnnes Lake Estuary Management Plan**

After additional analysis and the release of sea level rise policies by the State Government, the report was updated to reflect maximum natural breakout levels ranging from 2.2 to 3.0m AHD. A mid range value (2.6m AHD) was used in conjunction with a sea level rise scenario of 0.9 m to give a predicted berm height of 3.5m AHD. A horizontal buffer of 50m is recommended landward of this 3.5 m contour.

**Recommendation:**

**That Council adopts the draft Hearnnes Lake Estuary Management Study & Plan.**

## **Attachments:**

### **Attachment 1:**

#### **Public Exhibition of draft HLEMS&P**

During the public exhibition period 37 submissions regarding the Draft Plan were received by Council, including comments from the Department of Environment and Climate Change, Marine Parks Authority, Northern Rivers Catchment Management Agency, Coffs Harbour Bushland Regeneration Group, local residents and local developers. Of the total submissions 29 were in support of the Draft Plan, 5 in opposition, while 3 were neutral or unclear.

Submissions highlighting minor changes to various sentences were generally accepted with the draft Plan consequently amended. Several submissions however focussed on similar larger issues which did not warrant the document being changed. These issues included confusion with the Part 3A major project submission\* for development on the southern portion of the lake, justification on the sizing of buffers (most called for larger 100m-150m buffers around the lake), and compliance with a 7m AHD guideline from the Campbell's Beach Coastal Hazard Definition report.

\*Note: Part 3A Major Projects are administered by the Department of Planning under Part 3A of the Environmental Planning & Assessment Act. Currently a proposal for a 280 lot subdivision has been submitted for the land adjoining the southern portion of Hearn's Lake.

#### **General Support for the Estuary Management Plan**

The majority of submissions supported the draft Estuary Management Study & Plan. Support has ranged from submissions stating 'general support' to endorsement for specific strategies. The following is a brief summary on strategies or initiatives supported:

- Protection of the wetland habitat;
- Protection of the Endangered Ecological Communities;
- Protection of the sensitive ICOLL habitat;
- Protection for the local flora and fauna (inc Little Terns);
- Protection of the Solitary Islands Marine Park;
- Support for the inclusion of buffers restricting development around the low lying portions of the lake, whilst allowing small windows for subdivision in higher, less environmentally degrading areas;
- Support for the inclusion of Hearn's Lake into SEPP 14 legislation;
- Support for the incorporation of coastal land into Coffs Coast Regional Park;
- Support for revegetation of the foreshores and catchment area;
- Support for the limitations on pollutant runoff through Integrated Water Cycle Management;
- Agreement on the need for reticulated sewage systems;
- Agreement for tighter controls on 4WD's and dogs; and
- Support for increased monitoring of the water quality.

#### **Confusion with the Part 3A Application with the Department of Planning**

Several submissions in opposition to the Draft Plan have concentrated on the proposed development of the southern portion of the lake, currently submitted to the Department of Planning as a major project. Such development is not supported by the Draft Estuary Management Study & Plan, which proposes to restrict development from these low lying lands fringing the ICOLL. Both the Draft Estuary Management Plan and the Major Project Application were displayed concurrently, with some residents not distinguishing between the 2 processes. Examples include statements such as:

*“...we have been informed by one of our member groups, the Jetty Action Group, of their considerable concerns with yet another coastal development in a sensitive location at Coffs Harbour and its classification under Part 3A as a major project for a subdivision in a residential area of more than 25 lots, in this case 300 lots.....*

*... The plan claims the adoption of a peak 100 year occurrence flood level of 2.95 m AHD will provide sufficient redundancy over the design life of the project....”*

*“Any residential, eco-tourism or sports fields adjacent to the Hearn[e]s Lake are will be detrimental to the Hearn[e]s Lake area, as it is already degraded to a great extent, and this degradation should not be exacerbated. If this proceeds, then along with any other like plans, we will have no natural coastal habitat left.”*

### **Sizing of buffers**

Hearnes Lake is a significant coastal lake under State Environmental Planning Policy 71 – Coastal Protection. A significant amount of land within the Hearnes Lake area is constrained by a range of factors including: acid sulphate soils, endangered ecological communities, threatened species, high water tables, SEPP26 Littoral Rainforests, riparian areas, flooding, coastal inundation and the Solitary Islands Marine Park (SIMP).

Water levels in an ICOLL are dependant on the sand berm level at the entrance to the lake. These levels will act to hold water within the lake and often the adjacent floodplain. Traditional buffers from creeks and waterways have been based on horizontal distances from a static location, typically the mean high water level. As ICOLLs have significantly different hydraulic regimes compared to other estuary types due to fluctuating water levels, buffers developed from these levels are not appropriate (Haines 2005).

To achieve sustainable outcomes for biodiversity, estuarine and marine health, the draft Hearnes Lake Estuary Management Plan proposes to exclude development around the lake using a combination of two buffers (see Figure 3).

Firstly, a vertical buffer of RL 3.5m Australian Height Datum (AHD) has been recommended to allow for natural expansion and contraction of the Lake, to allow for a rise in future sea-levels and to allow existing vegetation communities to migrate upslope without being inhibited by new infrastructure. The vertical buffer is based on an assumed maximum entrance berm crest level plus an allowance for future sea-level rise. A horizontal buffer will then extend 50 metres landward of this 3.5m contour.



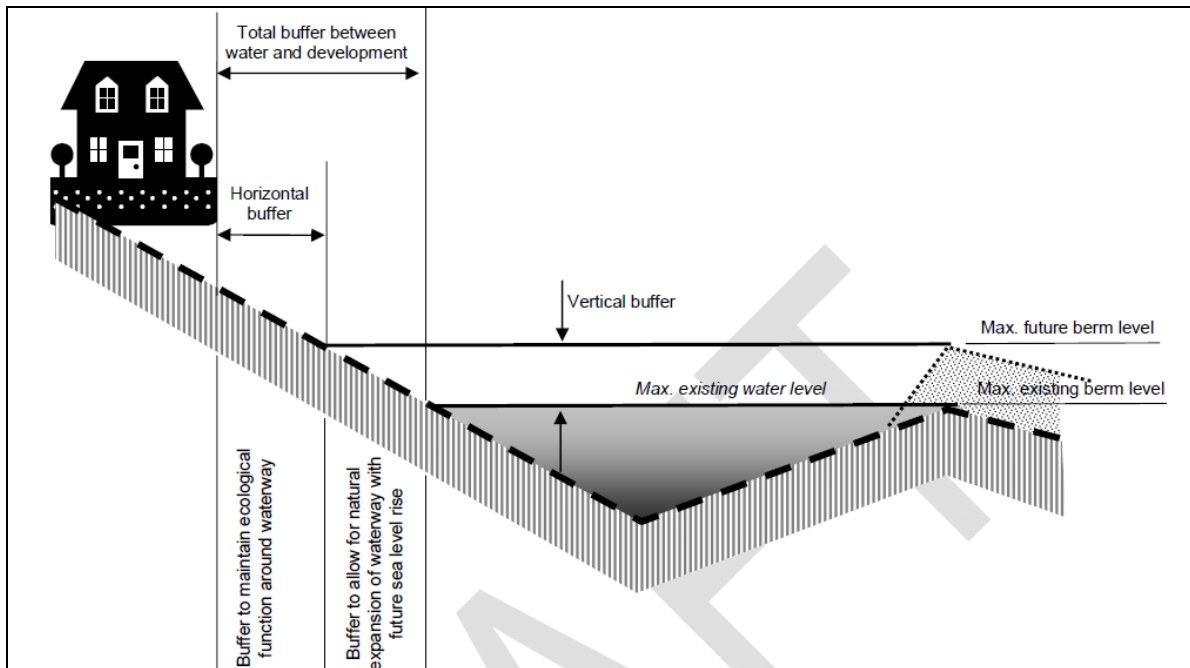


Figure 3: Vertical and horizontal buffers to accommodate future sea level rise (adapted from Haines, 2005), taken from the Hearnese Lake Estuary Management Study & Plan.

As determined by photogrammetric analysis during the Hearnese Lakes Estuary Processes Study and an analysis by the NSW Department of Natural Resources (currently DECC) during 2005, the maximum natural breakout level of Hearnese Lake is expected to be within the range 2.2 to 3.0m AHD.

It is commonly stated that future increases in mean sea level will result in a corresponding rise of beach profiles with an associated landward retreat (Bruun 1962, Dean and Maurmeyer 1983, Hanslow et al. 2000). In an ICOLL system the increase in berm height is expected to match the increase in sea level rise, given that the berm is built primarily by wave run-up processes (See Figure 4).

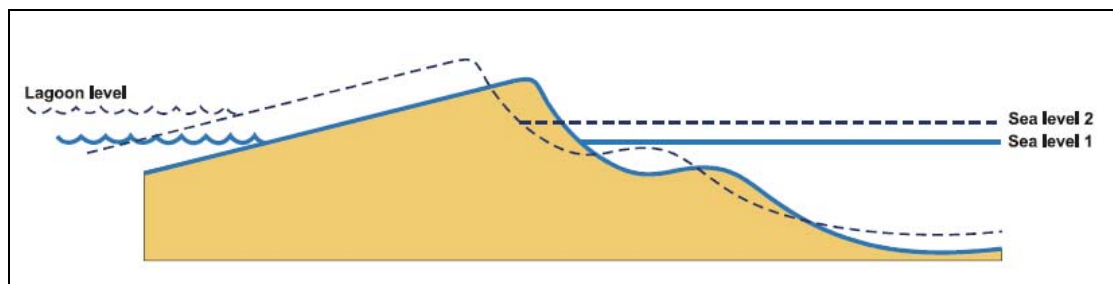


Figure 4: Shoreline response to increasing sea level, taken from Hanslow et al., 2000.

With an assumed increase in sea level rise of 0.9 metres by the end of this century (as per the NSW Draft Sea Level Rise Policy, and the adopted CHCC Sea Level Rise Policy), the natural breakout level by 2100 could be as high as RL 3.1 to 3.9m AHD. The value of 3.5m AHD has therefore been selected as the mid range of possible berm heights.

A horizontal buffer is proposed to extend landward of the vertical buffer. This will act to maintain sustainable functioning of fringing riparian ecosystems and protect the waterway environment from the potential impacts associated with adjacent urban development (including impacts associated with increased demand on amenity) (Haines, 2005)

In addition to the above, the horizontal buffer can be used to accommodate additional inundation around the foreshore in the event that flooding exceeds RL 3.5m AHD, while the vertical buffer allows for additional set-back between the waterway and future development (more than the 50m buffer) during times of normal water level (and during breakouts at lower berm levels).

### Wave run-up calculations

Various submissions made during the public exhibition period asked why the draft Hearnes Lake Estuary Management Study & Plan did not comply with wave run-up calculations of 7m AHD derived in the Campbell's Beach Coastal Hazard Definition Study. Wave run-up is the maximum vertical extent of a wave on a beach above the still water level.

The 7m AHD guideline originates a Coastal Processes and Hazard Definition Study completed by WPGeomarine, for the specific beach characteristics of Campbell's Beach (South Sapphire), see Figure 5. By using the same methodology and the Holman 1986 equation for the Hearnes Lake beach area, a more site specific wave run-up level could be given as 4.7m AHD (slope approx 1 in 20, 2.76 SWL, 8.4Hs, 225Ls).

Furthermore, as this equation is a wave run-up equation, very different values would be used in an ICOLL situation, due to the lagoon nature of Hearnes Lake, where large waves will not break within the lake area. Any wave run up effects will be blocked by the beach dunal system along the eastern portion of the lake.

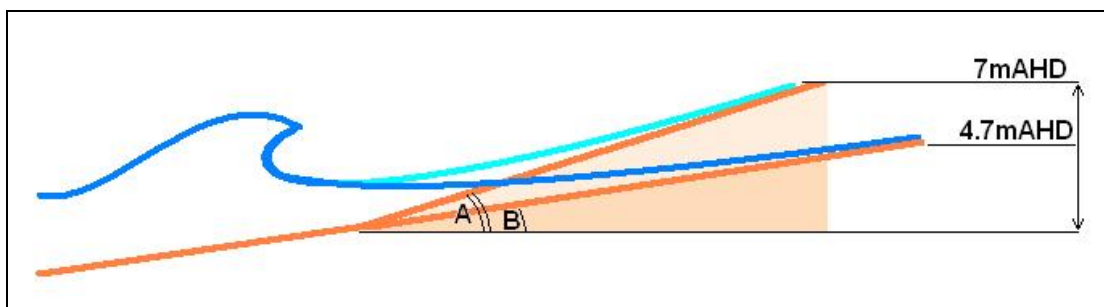


Figure 5: The angle of different beach slopes affect the possible wave run-up on beach profile. Campbell's Beach is a steep beach where waves can reach up to 7m on the dunal system, while Hearnes Lake beach is flatter with waves only reaching around 4.7m. The long flat beach slopes prohibit waves from reaching a large height due to the distances required to do so.

**ATTACHMENT 2 – SUBMISSIONS TO DRAFT HEARNES LAKE ESTUARY MANAGEMENT STUDY & PLAN EXHIBITION PERIOD (9/3/09-8/5/09)**

Sub No:	Support/ Oppose/ Neutral	Issues	Response
1	Support	Support due to the protection of the wetland habitat	
2	Support	Strong Support for Buffer around Lake, Removal of stock from lake margin, Removal of environmental weeds, Amendment of SEPP 14, Revegetation of foreshores and catchment area, limitations on pollutant and runoff, provision of reticulated sewage for caravan park, acquisition of foreshore land & incorporation into CCRP, conservation of privately owned land and vegetation removal prevention, tighter controls on 4WDs and dogs on adjacent beach.	
3	Neutral	The draft plan does not consider the extent of ASS within the catchment. The full extent of the mapped ASS risk area be included in the development buffer.	<p>The HLEPS maps the ASS areas around Hearnes Lake.</p> <p>The HLEMS&amp;P recognises the following publications which consider the threat of ASS and offer management strategies to address this issue:</p> <p>i) The Integrated Catchment Management Plan for the Upper North Coast. Catchment and Management Targets: 3: Land Management. L2: Modify flood mitigation and drainage works and implement land management practices over 10,000 hectares of Acid Sulphate Soils (ASS) Hot Spots by 2007;</p> <p>ii) Healthy Rivers Commission Independent Inquiry into the North Coast: Sustainable Agriculture: Of particular concern on the north coast are coastal floodplains subject to acid sulphate soils.</p>
		Buffer area should be expanded to include any area with credible environmental need: ASS(as above), zone 7a areas (gazetted and amended), historical drainage lines (reinstate), all feeder creeks through the catchment (double crossing creek and southern tip of lake), corridors for habitat connectivity, around wastewater re-use farm and properties with on-site wastewater re-use systems, existing mature native vegetation throughout the whole catchment	See Section 2.3 "Sizing of Buffers" of Draft Hearnes Lake Estuary Management Study & Plan - Comments After Public Exhibition document. Additional buffer areas have been provided for in the Hearnes Lake/Sandy Beach Development Control Plan.
		50 m buffer width is not effective for effluent nutrient control, or for intercepting other pollutants form land disturbances (e.g. sediment, oils & greases). Considering the sensitivity of the ICOLL it is recommended to increase buffer width to 100m.	See Section 2.3 "Sizing of Buffers" of Draft Hearnes Lake Estuary Management Study & Plan - Comments After Public Exhibition document.
		The LEP amendment does not match the recommended buffer in Figure 6-1 of the draft plan. The buffer zone should be expanded to include all Lott 22 DP 1070182 and the 7A section of Lot 21 1070182.	The draft LEP amendment 29 was completed and submitted to the DoP prior to LiDAR contour maps being commissioned by CHCC. As a result the draft LEP amendment has been based on previous elevation data, which has now been slightly superseded. The Estuary Management Study and Plan will always recommend a 50m landward buffer from the

			3.5m contour, regardless of maps adopted in previous DCPs and LEPs. Both the relevant DCP, LEP and the Estuary Management Study and Plan must be taken into consideration in new development.
		The Draft Plan should set clear targets and constraints to the Pacific Highway upgrade from Sapphire to Woolgoolga. Things to consider would include i) no encroachment east of the current highway for any infrastructure, ii) strict containment and treatment of all runoff during construction which complies fully with the 'Blue Book', iii) comprehensive water quality monitoring during construction and after commissioning, iv) provide permanent structures for controlling and treating runoff from the highway at commissioning (sediment ponds, wetlands etc.), v) locate any highway works and ancillary structures west of the current highway alignment, vi) provide improved drainage during the upgrade which closely reflects the original drainage regime, e.g. better connectivity between east and west of the highway, v11) provide habitat connectivity between Zone 7a land east and west of the highway - consider combining with drainage culverts, viii) provide habitat connectivity at Double Crossing Creek by setting bridge abutments will back from the estuary - beyond the final buffer zone , ix) provide noise barriers on the eastern side of the proposed highway alignment to maintain/improve the amenity of lake users.	The pacific highway upgrade has had to comply with legislation requiring the development of an Environmental Impact Assessment which would be otherwise outside the scope of the HLEMS&P. The upgrade will require Construction Environmental Management Plans (CEMPs) which will outline sediment and erosion controls, and sediment ponds etc. to be used within the project. Additionally the highway upgrade south of Double Crossing Creek is situated within or very close to the existing highway footprint. These comments will be forwarded to the RTA to be used during the preparation of any CEMPs or during on-ground works.
4	Support	Restrict development due to important coastal feature - ICOLL. Concerned future flooding or closed ICOLL would cause associated costs to Council or State Government which should not be the case if appropriate data is used.	
		Supports the protection of the Hearnese Lake wetland area	
5	Support	Agree with buffer from future development. Agrees that cattle are a problem around the lake and they should be removed immediately. Caravan park should connect to reticulated system. Agrees that there should not be any artificial openings of the ICOLL.	
6	Support	Support the Plan due to the potential for this area to become flooded, and zoning should ensure the land is retained in its natural state.	
7	Support	Supports the Plan as the natural beauty was an encouragement to buy into the area of Sandy Beach/Hearnese Lake. This plan is a necessary step in the sustainment of the Hearnese Lake coastal environment.	
8	Support	Completely supports the strategies proposed	
9	Oppose	Opposes the plan. Hearnese Lake is a beautiful spot, which should be preserved totally for day visitors. It has become very degraded over the years. It is an area of very high conservation value. This, its beauty and low-key family friendly recreational potential could make it a very successful attraction for both tourists and local families, It could become another must-see spot on our northern beaches.	Possibly confused with the Part 3A application with the DoP. Strategy A1 - review and rationalise the current recreational uses of the estuary (providing free canoe mooring facilities), A2 - additional amenities and contributions, PMC1 - acquire and preserve foreshore land, E1 - Raise awareness of SIMP/Hearnese Lake values, R6 - Revegetate foreshores, PMC2 - incorporate foreshores into CCRP, will all contribute to attracting day visitors and tourists.

10	Oppose	Applauds the environmental aspects of the plan but submits that trade-off of losing so much precious land to development is totally unwarranted.	The proposed buffer has been designed on environmental grounds to protect the environmental values of Hearnese Lake.
		The DCP calls for the loss of the best land to residential and tourism. The planned encroachment from the motorway turnoffs shows that the plan is obviously for the benefit of the wealthier tourists rather than being family orientated.	
		The lake and surrounds could be a very popular local family and tourist recreation and conservation area.	
		This seems like a repeat of past councils efforts into turning public recreation land over to developers. Submission indicates that they can guess the motives, but declines to express them for legal reasons.	
		The Sapphire beach study called for compliance with the 7m AHD guideline. The plan should be amended to show the 7m AHD contour	See Section 2.4 "Wave run-up calculations" of Draft Hearnese Lake Estuary Management Study & Plan - Comments After Public Exhibition document.
		The remnant of the catchment area east of the Pacific Highway has been badly neglected, as per previous council's underhand way of enhancing an area only when there's a development to be approved and good public land to be lost.	
11	Oppose	Any residential, eco-tourism or sports fields adjacent to the Hearnese Lake are will be detrimental to the Hearnese Lake area, as it is already degraded to a great extent, and this degradation should not be exacerbated. If this proceeds, then along with any other like plans, we will have no actual coastal habitat left.	Buffers will act to preserve coastal habitat, along with strategies for E5 - volunteer groups, PMC3 - appropriate vegetation management, PMC1 - Acquire and preserve foreshore land etc.
12	Support	Support for the plan as it appears to create a reserve over the majority of the area to the south of the entrance. If this area was to be developed his concerns are of rising sea levels, and the need for Council to have to protect low lying houses from inundation.	
		The land is of extremely high environmental value to both the residents and tourists.	
		The land contains a range of Endangered Ecological Communities.	
13	Support	Broadly supports the plan. Has written to the DoP objecting to the 3A application due to: Climate Change, low land inundation, etc.	
14	Support	The area should have limited development due to the sensitivity of the ICOLL	
		The naturally occurring vegetation in the coastal zone should be maintained for coastal biodiversity	
		The area is known to be habitat for a wide range of migratory species protected under federal legislation (the EPBC Act 1991) and international treaties	
		The plan does ignores the Geomarine guideline of 7m AHD	See Section 2.4 "Wave run-up calculations" of Draft Hearnese Lake Estuary Management Study & Plan - Comments After Public Exhibition document.
15	Support	General support, with a main focus on Council to consider the complete banning of 4WD access to the beaches in the vicinity of Hearnese Lake, and the support for the draft Plans support for EECs and critical habitat for a wide range of migratory birds.	

		The plan recognises the precautionary principal in regard to Climate Change, Immediate removal of cattle from lake margins, listing into SEPP 14, review of on-site sewerage, connection of caravan to on-site sewerage, WSUD, rural education, review of effluent farm to ensure ongoing best practise, ongoing monitoring.	
16	Neutral	Site E1[assume Map 5 of DCP]: this proposed residential area is close to the 1/100 year flood and is a gifted window of opportunity for more development	Submission appears to support the allowance of a small restricted development on the South-East portion of the lake.
		Site E2 (excluding caravan park) the areas are within the Lake drainage and potentially areas for lake pollution. Residential tourism can be a high density caravan park and semi-permanent residential housing.	Strategy R-3 aims to assess existing sewage systems in the catchment for under capacity systems, and upgrade any infrastructure if necessary. This will include connecting the caravan park to a reticulated system.
		Deferred or Urban Investigation: A dangerous zone of lowlands which can be interpreted by developers as land for future development.	Supports draft LEP amendment Number 29, while Part 3A Application is under the determination of the Department of Planning. The HLEMS&P outlines the area should not be used for future development.
		Sea level rise: Council should plan for an expected greater sea level rise than 1 metre.	Council has adopted an upper bound sea level rise figure of 0.91m by 2100, a figure which will be reviewed regularly (maximum of 12 months between reviews). This figure represents the upper level sea level rise from IPCC projections plus CSIRO estimates for the mid north coast. This is consistent with the draft State Government Sea Level Rise policy that adopts a rise of 0.9 by 2100.
17	Support	General support	
18	Support	General support, focus on preventing traffic along the beach and preservation for the wetland area.	
19	Support	General support, focus on preservation of the sensitive wetland area.	
20	Support	General support, focus on review and rationalise the current recreational uses of the estuary	
21	Support	General support, focus on why the DECC is not a signatory on the Plan?	The DECC has had input into the Plan and has many representatives within the CEMAC. The majority of strategies within the draft Plan are the responsibility of Coffs Council.
22	Support	General support, however there needs to be clarification on the following points:	
		DC-1 the buffer zone should be substantial (min 150m)	See Section 2.3 "Sizing of Buffers" of Draft Hearnes Lake Estuary Management Study & Plan - Comments After Public Exhibition document.
		Cattle should be removed forthwith and no domestic animal be grazed on the riparian land	
		Immediate steps should be taken to connect the caravan park to reticulated sewerage.	Strategy R-3 aims to assess existing sewage systems in the catchment for under capacity systems, and upgrade any infrastructure if necessary. This will include connecting the caravan park to a reticulated system.
		No development should be permitted between the residential area of Sandy Beach and the Caravan Park due to:	
		The potential for inundation	
		The need for large drainage systems to convey stormwater and their associated impacts (erosion etc)	
		The potential for sea level increase due to Climate Change	

		Management of stormwater systems and sewerage in Sandy Beach are a priority	
		Increased monitoring of the water quality in Hearn's Lake for the welfare of local residents	
		Pollution from vehicles will be a result from the highway upgrade.	
23	Support	General support, focusing on the State Governments draft sea level rise policy of 90cm and that the area is recognised in the Mid North Coast Regional Strategy as a 'green buffer belt'.	
24	Support	General support, focus on the health of the ICOLL	
25	Support	General support, encouraged by the support of demolition of the old timber cottages, and the rationalisation of recreational uses of the estuary (not a complete banning of 4WDs though - just fencing etc.)	
26	Support	General support	
27	Support	General support, focusing on the significant vegetation, the careful management needed due to the area being an ICOLL.	
28	Support	General support, focusing on the importance of the ICOLL and because the Plan is based on the scientific EPS.	
29	Support	General support, focusing on the significance of the Hearn's Lake area for flora and fauna	
30	Support	General support, focusing on:	
		The lake as an ICOLL is highly vulnerable to environmental pressures	
		Much of the surrounding land is highly significant - removal of cattle from lake margins is vitally important.	
		Hearn's Lake is now home to NSW's most significant Little Tern population which need protection, and Flat top rock and its surrounding waters are designated Sanctuary Zone under the MPAct.	
		Very much in support of removal or limiting 4WD access and leash free dog exercising areas.	
31	Support	General support	
32	Support	Support for adding Hearn's Lake into SEPP 14 legislation, buffer between lake and development, WSUD and Integrated Water Cycle Management, offset compensatory revegetation not outside the HL area, a targeted education program targeting rural landholders, monitoring the relative success of the Plan. Specific comments are as follows:	
		Various minor changes to sentences	Draft HLEMS&P has been amended with these changes
33	Support	Supports the document however the Plan uses a 3.5m AHD buffer based on a medium level (0.5m) sea level increase. This should be upgraded to reflect CHCC and the NSW Government's 0.91m sea level increase.	See Section 2.3 "Sizing of Buffers" of Draft Hearn's Lake Estuary Management Study & Plan - Comments After Public Exhibition document.
		MPA consistently ask for 100metre buffers around the Marine Park.	See Section 2.3 "Sizing of Buffers" of Draft Hearn's Lake Estuary Management Study & Plan - Comments After Public Exhibition document.
		Sediment and erosion control measures on development in the catchment	
		Various other changes are OK	

34	Neutral	Comments refer to Part 3A application, not the Hearnes Lake Estuary Management Plan (although concerns do go out to the 1% flood level of 2.95 and the ignored Geomarine 1998 level of 7m AHD).	After correspondence regarding this submission it was admitted applicant had not read the management plan.
35	Support	General Support, focus on the protection (assumed through rezoning) of the valuable vegetation in the area, and accommodating for future climate change, storm surges etc.	
36	Oppose	In regard to the site (within 45 Hearnes Lake Road) of the proposed detention system adjoining Hearnes Lake Road and the access driveway to your land, I believe a 5A Special Use - Drainage zoning is more appropriate than a 7A zoning in this location	
		In regard to the site survey; the 3.5 m height of the survey pegs was confirmed by Councils survey section. The area of land in the SE corner that falls inside the 3.5m Hearnes Lake buffer (as indicated on the Hearnes Lake Development Control Plan) and to be zoned 7A Environmental Protection Habitat and Catchment, will have an Restriction of Use covenant applied on title with Council as a party to the covenant. Such a covenant is to indicate that this section of 7A land will remain in private ownership but be a "no-build area"	Relates to proposed development at north of lake and location of revegetation outlined in the Short Listed R-6 strategy "Revegetation of foreshores and areas within catchment", which states "Of particular importance is the revegetation and re-establishment of wildlife linkage between the remnant littoral rainforest pockets along the northern foreshore of Hearnes Lake and the SEPP-26 Littoral Rainforest area behind the coastal dunes to the north of the lake entrance".
		Research indicates that edge effects in Littoral Rainforest can extend metres into vegetation stands. Edge effects are evident throughout the narrow bands of rainforest at Hearnes Lake. The structure and quality of vegetation in the buffer are probably more important considerations than the width (indeed housing is listed as an acceptable development within buffers). Wattle species generally occur as edge species along the margins of littoral rainforests. The most occurring wattle species which occur along the Littoral Rainforest edges in the Coffs Harbour LGA are <i>Acacia maidenii</i> , <i>A. melanoxylon</i> and <i>A longifolia</i> subs. <i>longifolia</i> . Wattle provides shelter for slower growing mesic species and increase nitrogen level in the rhizosphere. As the mesic species develop, light levels at soil decrease, thereby hindering germination and growth of further wattles and providing suitable habitat for mesic species. Fuel levels could be controlled by occasional removal of leaf litter and necrotic wattles.	
		The planting of mesic species, even known edge species along a vegetation margin is often counter-productive, because many rainforest species will remain dormant until conditions (meaning lower light levels and increased protection) are achieved. The preference is now five metres of wattle plantings, interspersed with the hardiest mesic species. These include <i>Cupaniopsis anacardiodes</i> , <i>Syzygium australe</i> .....etc.....	
		CHCC ecologist confirms a minimum five metres wide edge protection planting to the southern section of the littoral rainforest would be acceptable, although a wider buffer would be preferable, where this is possible.	
		CHCC ecologist confirms edge planting to remnant rainforest, around car park and beach access, to be acceptable to occur south of the existing access track to leaseholds (continuation of Hearnes Lake Road beyond	



		tarmac)	
		Existing access track to remain for fire fighting purposes and to link to proposed track in the part 3A application	
		CHCC ecologist, after consultation with relevant stakeholders, agrees with Ecological on management of Austral Toadflax and proposed regeneration of proposed reserve area east of proposed development.	
		Furthermore, we note that the demarcation prepared in the Sainly Report has never been agreed to by the owners of the site and substantial amounts of additional study have been prepared to refute the location of the Sainly line and support Eco Logical Environmental Consultants. There is a substantial body of information which demonstrates that the Sainly line is incorrect and prepared on inappropriate data. We request that Plan be amended in this regard.	The Department of Planning commissioned Geoff Sainly of Sainly and Associates to identify the high conservation lands on the site. Any opposition with this report can be expressed to the DoP.
		The Plan contemplates the possible retention of permissive occupancy licences at the Lake entrance. We submit that we are opposed to this and value the natural setting of this location and believe that on expiration of the leases the cottages should be demolished and the bushland regenerated.	
37	Oppose	Draft EMP does not refer to the findings of the report by Worley Parsons in January 2007 titled, <i>Scientific Assessment of Entrance Berm Elevation for Hearnes Lake, Sandy Beach North (Issue No. 2, January 2007)</i> . Results of this analysis showed that the elevation of the saddle point over the last 60 years of record was typically between 1.0 and 1.6m AHD. It concluded that an elevation of 2.0m AHD should be adopted as a conservative estimate of the maximum contemporary entrance berm elevation, and that a lake water level of 2.0m AHD would be required to initiate a break out.	Council and DECC have assessed the Worley Parsons report <i>Scientific Assessment of Entrance Berm Elevation for Hearnes Lake, Sandy Beach North</i> and disagree with the premise of using a 'typical' saddle height to determine break out or flood levels. A maximum height should be considered as per the recommended height in the Hearnes Lake Estuary Management Plan.

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## **S42 TENDERS: INTERNAL REPAINTING AND INTERNAL ALTERATIONS OF TOORMINA NO. 2 RESERVOIR - CONTRACT NO. 08/09-345-TO**

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### **Purpose:**

To report on tenders received for the internal repainting and internal alterations of Toormina No. 2 Reservoir and to gain Council approval to accept a tender.

### **Description of Item:**

Toormina No 2 Reservoir is a 12.8ML(million litre) steel tank 39.5m in diameter and 10.5m high. It was constructed and painted internally and externally in 1985. It has not been repainted since. A survey by divers in 2007 revealed that there are very significant areas of corrosion within the tank; these have to be dealt with. Whilst the tank is drained the inlet, outlet and ladder access will be altered and upgraded; these costs are included in the tenders.

It is vital that steel reservoirs be repainted from time to time (approximately every 20 years) to ensure longevity. Given proper maintenance the reservoir should be in service for at least 80 years.

The reservoir currently receives water from Red Hill Balance Tank and distributes water to Toormina.

Tenders were called in local and capital city newspapers and closed on 21<sup>st</sup> July 2009. Due to the stringent, detailed and highly specialised requirements of the painting specification, tenderers were restricted to those qualified to Class 4 by the Painting Contractors' Certification Program. All tenderers possess this qualification.

Tenders were evaluated on the following criteria:

- Tender price
- Experience in similar work
- OH & S management systems and performance
- Construction period – as nominated by the tenderer

Four tenders were received. All were conforming offers.

- a) Giovenco Industries (Aust) P/L
- b) KGB Protective Coatings – Site Services Pty Ltd
- c) Ray's Machinery Painting Pty Ltd trading as RMP Abrasive Blasting
- d) Transcote P/L.

### **Sustainability Assessment:**

- **Environment**

Abrasive blasting operations will generate significant amounts of dust. This will be controlled and collected using a 10,000 CFM dust collection unit within the reservoir. The compressor that services the dust collection unit will be located outside the tank. Additional screening of outlets will be used if required.

**S42 - Tenders: Internal Repainting and Internal Alterations of Toormina No. 2 Reservoir - Contract No. 08/09-345-TO (Cont'd)**

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The nearest house is 30m from the reservoir. All equipment will comply with EPA and Council's noise emission guidelines. Nearby residents will be personally informed of Council's intentions at least a fortnight prior to work commencing. The compressor will operate at no more than 75 dB(A) and will be located on the southern side of the tank which is farthest from the nearest residence. The equipment has often been used in high-density urban areas without complaint from the public.

The site will only be accessed via existing roads and equipment will be located on existing hardstand areas. Geofabric will be laid over stormwater drains and under plant and machinery.

Wastes generated during abrasive blasting operations will be non-toxic and disposed of in Council's landfill. Toxicity tests will be carried out prior to any material leaving site.

Used paint cans, brushes and rags will be treated as industrial waste.

Solvents used to clean equipment will be containerized and disposed of in a liquid waste facility.

- **Social**

The provision of potable water is of major importance to the community. The reservoir at Toormina supplies a significant part of the LGA – approximately 2,500 tenements. Maintaining it in good condition is therefore vital.

- **Economic**

**Broader Economic Implications**

There are no local companies capable of doing this work due to the very specialised nature of the paint systems. A local contractor will be used to fabricate and install the inlet and outlet spacers and flanges at an approximate cost of \$19,000. Approximately 200 nights accommodation and meals will be sourced locally.

**Management Plan Implications**

Provision for this work has been made in Council's 2008/2009 Water Fund Budget – Maintenance of Civil Works.

**Consultation:**

No consultation has occurred with local residents though they will be personally informed of the works at least a fortnight before work commences. Given the type of equipment to be used and the nature of the work, no inconvenience is likely to occur to nearby properties.

**Related Policy and / or Precedents:**

Tender procedures and analysis were carried out in accordance with Council policy, in particular the 'Tender Value Selection System'

**S42 - Tenders: Internal Repainting and Internal Alterations of Toormina No. 2 Reservoir - Contract No. 08/09-345-TO (Cont'd)**

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**Statutory Requirements:**

The tender process was carried out in accordance with Part 7 of the Local Government (General) Regulations 2005

**Issues:**

No untoward issues have arisen during the tender assessment period.

**Implementation Date / Priority:**

A contract can be awarded upon Council's resolution to accept a tender. Completion time for the contract is eight weeks with a forecast completion date of early November 2009.

**Recommendation:**

**That Council consider tenders received for the internal repainting and internal alterations of Toormina No2 Reservoir, Contract No. 08/09-345-TO, and move the motion as detailed in the confidential attachment**

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**S43 TENDERS: PACIFIC BAY EASTERN SEWER LINE UPGRADE - CONTRACT NO. 08/09-400-TO**

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**Purpose:**

To report on tenders received for the upgrading of the trunk sewer line to the east of the Novotel Pacific Bay Resort and to gain Council approval to accept a tender.

**Description of Item:**

The sewer main in question is the trunk sewer that services the area from Split Solitary Road, Sapphire to Korora. It is a critical link in the supply of sewer service to these areas. Investigation of the main has shown major deterioration of both the pipework and the manholes, to the point that the sewer is very close to being unserviceable. It is vital to the system that this trunk main be reconstructed to maintain service

The works comprise the construction of approximately 390m of vehicular access track including a culvert crossing, construction of six new manholes, 125m of 375dia sewer main and the installation of nine gas-tight manhole covers. The work necessitates some tree and vegetation clearing,

The work site begins on Bay Drive approximately 50m east of the National Marine Science Centre and tracks north to near Pacific Villas in Five Islands Drive. For the most part the sewer line is within the Regional Park, which is zoned Open Space 6A. This section of Regional Park is approximately 3.5km x 100m and forms a significant corridor along the coastline.

Tenders were called in local and capital city newspapers and on the Tenderlink electronic tender system, and closed on 21<sup>st</sup> July 2009.

Tenders were evaluated on the following criteria:

- Tender price
- Experience in similar work
- OH & S management systems and performance
- Construction period – as nominated by the tenderer

Three tenders were received. All were conforming offers.

- a) Bob Chambers P/L
- b) Ernie Burnett Plumbing P/L
- c) Lahey Constructions P/L

**Sustainability Assessment:**

- **Environment**

The reconstruction of the main and the placement of the necessary access track have been designed to have the least environmental impact as possible. The Part V Environmental Assessment considers that the work will not significantly impact on the ecosystems, endangered species or the natural habitat of the area. The environmental benefit of this work will far outweigh the impact. This is despite the fact that the work involves the removal of some trees and the crossing of a drainage path.

The main environmental benefit is the continuation of sewerage services to the areas mentioned above. By not undertaking this work the sewer would surely catastrophically fail within the next few years. This would result in major environmental damage, both at the site and to the areas this system services.

Failed negotiations to gain access from the western edge of the sewer line have resulted in CHCC's need to access the site from Bay Drive. Other options to gain access to the sewer line were investigated, but were deemed to have greater environmental impact.

Other environmental benefits of the proposed work include:

- Reduction of the odours that have been prevalent for some time
- Improved management of the track for maintenance
- Improved community access – track to be wholly on Regional Park land, not across private land, creating a link with the Solitary Islands Coastal Walk
- Opportunities for weed control and revegetation works to promote native regeneration and/or revegetation.
- Improvement to the sewer line and its ongoing optimal functionality
- Improvement of the site through formalised track.
- Weed control and revegetation works to promote self sustaining native vegetation in the future. Compensatory plantings of native vegetation will be undertaken to ameliorate any impact associated with the proposed works.

The Part V Environmental Assessment outlines measures to ensure environmental impacts are minimised. These include:

- Council's Environmental Officer to be on site to supervise vegetation removal
- Trees to be sectional lopped, not clear felled, to minimise damage to adjacent vegetation
- The works perimeter area to be minimised, with Para webbing installed to ensure no encroachment to adjacent vegetation
- Vegetated mulch to be spread on the ground after construction
- Construction of erosion and sedimentation provisions to minimise runoff and deflect storm water.
- Vegetation restoration works will be undertaken to compensate for the disturbance caused during the proposed works.
- Aboriginal heritage monitoring to be conducted during the work

National Parks require an easement to be established along the pipeline to better facilitate ongoing CHCC access and maintenance work requirements.



- **Social**

For several years there have been consistent complaints of moderate to very severe sewage odour experienced by the public when using the public walking track to the east of Pacific Bay Resort. Complaints have also been received from Pacific Bay Resort. Council has attempted several times to overcome the problem but with minimal success. Smoke tests undertaken early this year revealed several poorly constructed manholes and also severe concrete corrosion in many of them. CCTV inspection revealed severe damage and misalignment to a 125m section of the 375mm vitreous clay sewer that was constructed, it is believed, in 1982.

The proposed works will eliminate and control sewage odours as well as providing access for on-going maintenance by Council. Currently there is no vehicular access to the pipeline. If a manhole were to become blocked there could be a very significant environmental discharge that would be difficult to deal with given the steepness of the terrain. To date Council has been lucky in that no severe blockage has occurred.

- **Economic**

**Broader Economic Implications**

The permanent access track, when constructed, will require on-going maintenance at approximately 6-month intervals. This cost is considered acceptable as it allows for quick access to the trunk sewer in the case of environmental discharge.

**Management Plan Implications**

Provision for this work has been made in Council's 2008/2009 Sewer Fund Budget

**Consultation:**

Extensive discussions have been held with Novotel Pacific Bay Resort and National Parks. Both organisations support the proposed works.

**Related Policy and / or Precedents:**

Tender procedures and analysis were carried out in accordance with Council policy, in particular the 'Tender Value Selection System'

**Statutory Requirements:**

The tender process was carried out in accordance with Part 7 of the Local Government (General) Regulations 2005

**Issues:**

The cost split up (Schedule A) of the lowest tenderer contained arithmetical errors such that the sum of all the individual items did not agree with the total shown at the end of the schedule. This total, however, agreed with the tendered amount. In accordance with section 176 of the Local Government (General) Regulations 2005 the tenderer was allowed to correct the anomalies but was not allowed to alter the tendered amount.

**Implementation Date / Priority:**

A contract can be awarded upon Council's resolution to accept a tender. Completion time for the contract is 12 weeks with a forecast completion date of early December 2009.

**Recommendation:**

**That Council consider tenders received for the upgrading of the Pacific Bay Eastern Sewer Line Contract No. 08/09-400-TO, and move the motion as detailed in the confidential attachment**



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## **S44 TENDER - SUPPLY AND DELIVERY OF BITUMEN SEALING WORKS**

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### **Purpose:**

To obtain Council approval to accept a tender for the supply and delivery of bitumen sealing works for the 2009/10 and 2010/2011 financial years with the option for a further additional year.

### **Description of Item:**

Council called annual tenders for the supply and placement of hot bitumen seals including the incorporation of aggregates supplied under a separate contract. The current contract held by Boral Asphalt has been extended.

In compliance with Section 55 of the Local Government Act, open tenders were called in local and capital city newspapers and closed at 3.30pm on 28 July 2009 for the 2009/10 program for hot bitumen spray sealing.

Three tenders were received from:

1. Bitupave Ltd (trading as Boral Asphalt)
2. Pioneer Road Services Pty Ltd
3. SRS Roads Pty Ltd
4. EDI Downer Works Pty Ltd

Tenders were evaluated on the following criteria:

- Tender Price
- Experience and performance in similar works
- Financial resources
- Plant and equipment

### **Sustainability Assessment:**

- **Environment**

Bitumen is a petroleum based, non renewable resource. Historically the product has provided a very effective and economical waterproof seal to gravel road pavements. Unfortunately at this time there are no other comparable materials that perform the same function as bitumen when sealing roads.

To avoid the bitumen becoming airborne no spraying is undertaken in windy conditions.

- **Social**

Spray bitumen sealing is necessary to maintain a trafficable surface on Council's road network. Safety and driving conditions are improved and the likelihood of dangerous pavement failures is reduced.

## **S44 - Tender - Supply and Delivery of Bitumen Sealing Works (Cont'd)**

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- **Economic**

Undertaking periodic bitumen sealing on the road network extends the life of the road and ultimately provides economic benefit by reducing the overall whole of life costs of the road.

Funds for the supply and delivery of bitumen sealing works are available in the 2009/2010 Works Program and as further demonstrated in the management for subsequent years. The tendered rates include GST, which is not a net cost to Council.

### **Related Policy and / or Precedents:**

Tendering procedures were carried out in accordance with Council's policy. Council's Tender Evaluation System has been applied during the tender review process. Council's policy is that the tenderer with the highest weighted score becomes the recommended tenderer.

Tender details and evaluations are included in the confidential attachment.

### **Statutory Requirements:**

The calling, receiving, opening and reviewing of tenders were carried out in accordance with the Local Government (General) Regulations 2005.

### **Issues:**

The recommended tenderer, Boral Asphalt, has a local business address which will benefit the local community through employment opportunities and support to other local businesses.

Increases in crude oil prices have impacted heavily on the price Council pays for bitumen. Under the 1998/99 spray seal contract Council paid \$0.56 per litre. It is evident from the tenders received that the cost of bitumen sealing works has doubled in the past 10 years.

The result of this unusually high increase is that less roadway is resealed exposing the pavement to potential damage during wet periods and increasing length of roadway requiring rehabilitation at a much higher cost than resealing. Ultimately Council may have to assess the amount allocated to bitumen reseals to ensure that the road network is maintained to its current standard.

### **Implementation Date / Priority:**

The contract to supply and deliver bitumen sealing works should be awarded no later than late September to allow the resealing program to commence when the weather is suitable in September. A contract can be awarded upon Council's resolution to accept a tender. The due contract completion date is 30 June 2011 with the option to renew the contract for an additional year to 30 June 2012, subject to the performance of the contractor.

### **Recommendation:**

**That Council considers tenders received for the supply and delivery of bitumen sealing works for the 2009/10 to 2010/11 financial years, Contract No. 09/10-394-TO, and move the motion as detailed in the confidential attachment.**

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## **S45 TENDER - ANNUAL CONTRACT FOR THE SUPPLY OF QUARRY PRODUCTS**

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### **Purpose:**

To obtain Council approval to accept tenders for inclusion within a panel tender for the supply and quarry products for the 2008/09 financial year.

### **Description of Item:**

Selective tenders were called and closed on 28 July 2008 to establish a panel of recognised contractors for the supply of quarry products for civil works undertaken by Coffs Harbour City Council during the 2009/10 financial year.

Six tenders were received as follows, each tendering on various items of quarry products.

1. CEMEX Ltd
2. Coastal Homesites Pty Ltd
3. T J Jung Quarries Pty Ltd
4. Shantrac Pty Ltd
5. Green Bros. Investments Pty Ltd
6. Ian Grace (Lurcocks Road Quarry Glenreagh) Sole trader

### **Sustainability Assessment:**

- **Environment**

All quarries are required to operate in accordance with the NSW Department of Mineral Resources operational and environmental guidelines. The rate of use that Council proposes of this non renewable resource is within each quarry's operating licenses. Outside the quarry boundaries there are no environmental impacts.

- **Social**

The quarry products supplied under this contract are mostly used for civil construction works such as sealing aggregate for road surfacing, road base materials for road pavement construction and other material for drainage and gabion retaining walls etc. Quarry products play an integral part in providing and maintaining infrastructure for the community.

- **Economic**

#### **Broader Economic Implications**

All quarries are located locally, thus supporting local community employment and business. The amount of quarry products purchased by Council in relation to the total amount sold by the quarries operating within the City of Coffs Harbour is minimal. It is anticipated that proposed Pacific Highway upgrade works and ongoing residential subdivisions by developers will assume the majority share quarry products sold in the coming year. However, Council provides a constant and long term stream of income for the local quarries.

#### **Management Plan Implications**

The funds for supply of quarry products are available in the 2009/10 Works Program.

**Related Policy and / or Precedents:**

Tendering procedures were carried out in accordance with Council's policy. Council's Tender Evaluation System has been adapted to compliment the tender review process for a panel tender arrangement as detailed in the attachment.

**Statutory Requirements:**

The calling, receiving, opening and reviewing of tenders were carried out in accordance with the Local Government (General) Regulations 2005.

**Issues:**

In previous years, Council's Operations Branch utilised an annual contract for the supply and delivery of aggregate for its bitumen sealing and maintenance activities. The supply of other quarry products such as road base and natural gravel materials needed to be sourced and quoted for on a project to project basis.

The formation of a panel of recognised contractors in conjunction with the requirements and conditions of Contract 09/10-395-TO simplifies the purchasing requirements of Council as well as reduces the need for each quarry to provide individual quotations.

The distribution of work within the panel of contractors is to be such that it provides the best value for Council. A panel of recognised contractors under Contract 09/10-395-TO enables Council to obtain quarry products from these Contractors depending upon such considerations as:

1. The ability of a Contractor to supply a suitable product
2. The Contractors supply rates under the contract.
3. Haulage distance and time from Quarry to worksite or stockpile
4. The Contractor's available resources and performance capabilities
5. The Contractor's current commitments.

**Implementation Date / Priority:**

The contract to supply quarry products is an annual contract and should be awarded at the earliest opportunity to allow the resealing program and other road works to utilise this contract as soon as possible. The due date for Practical Completion of the contract is 30 June 2009.

**Recommendation:**

1. That Council adopt the following list of Recognised Contractors for the supply of quarry products to Council:
  1. CEMEX Ltd ABN 87 099 732 297
  2. Coastal Homesites Pty Ltd ABN 38 000 925 744
  3. T J Jung Quarries Pty Ltd ABN 76 119 123 707
  4. Shantrac Pty Ltd ABN 60 273 163 706
  5. Green Brothers Investments ABN 63 111 925 832
  6. Ian Grace (Lurcocks Road Quarry  
Glenreagh) Sole trader ABN 64 501 156 427
  
2. That Council accepts the tenders received from the above panel of recognised contractors for the products as tendered for Contract 09/10-395-TO, Supply of Quarry Products, on the basis that:
  - All contractors have demonstrated experience and capacity in fulfilling the requirements of the contract for the quarry products that they can supply.
  - The rates as tendered are reasonable.
  - It is the most advantageous arrangement for Council to have a panel of suppliers to select from.
  
3. That the contract documents be executed under the Common Seal of Council.

**Jason R Gordon**  
**Director of City Services**