



*Minutes of the Adjourned Ordinary Meeting of Council  
4 April 2007  
commencing at 12:42 pm*

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**PRESENT**

**Councillors** – D P Egan (Deputy Mayor), W J Bellerio, M J Cox, R Davis and D G Pitt.

**Staff** – J F Leu (Acting General Manager Community & Corporate), I B Barton (General Manager Finance & Administration), R J Baade (General Manager Engineering), P T Gleeson (Acting Strategic Planner), A M Rodgers (Manager Corporate Support) and S K Andrews (Corporate Support).

**APOLOGY**

An apology was received from Cr Berwick of his inability to attend the meeting due to family illness.

An apology was also received from Cr Sciacca.

**CHAIR**

In the absence of the Mayor, Cr Egan assumed the Chair.

**07/0403/55A SUSPENSION OF STANDING ORDERS**

Moved Cr Bellerio

Seconded Cr Cox

*“That standing orders be suspended to allow Council to consider the following items left on the table from the meeting of 3 April 2007: 07/0403/18, 07/0403/26, 07/0403/30, 07/0403/31, 07/0403/38 and 07/0403/52.”*

**Carried unanimously**

07/0403/18      **MOSSMAN GORGE TRAFFIC MANAGEMENT STUDY**

The following motion was left on the table at the meeting held on 3 April 2007:

Moved Cr Berwick

Seconded Cr Pitt

*"That Council staff meet with the Mossman Gorge Community to discuss the Mossman Gorge Traffic Management Investigations Report."*

An amendment to the motion was moved:

Moved Cr Davis

Seconded Cr Cox

07/0403/18

*"That Council endorses the following traffic management strategy for Mossman Gorge Road:*

**Stage One (1)**    *Directional signage and traffic management devices such as islands and road alignment be adequately designed and constructed on Mossman Gorge Road to direct tourist traffic into the proposed Transit Centre. All Gorge Community traffic, emergency vehicles, Queensland Parks & Wildlife Service etc and Douglas Shire resident traffic may still access the top car park.*

*All works associated with Stage One (1) will be undertaken by the developer of the transit centre as prescribed by the Material Change of Use Development Permit dated 5 February 2007.*

*Monitoring of traffic levels, safety and level of compliance with signage is to be undertaken by the operators of the Transit Centre and Council. The purpose of this monitoring is to determine the effectiveness of Stage One (1) measures from the time of the commencement of the use for a period not exceeding three months.*

**Stage Two (2)**    *If the monitoring mentioned in Stage One (1) identifies that the signage is not deterring tourist traffic from accessing the top car park then Council will commence procedures aimed at restricting access to particular traffic types through a temporary road closure under Section 915 of the Local Government Act 1993."*

For:                    Cr Davis, Cox, Egan, Pitt

Against:            Cr Bellero

**Carried**

The amendment became the motion and was put:

For:                    Cr Davis, Cox, Egan, Pitt

Against:            Cr Bellero

**Carried**

ATTENDANCE/WITHDRAWAL

The Acting Strategic Planner withdrew from the meeting at 12:45 pm.

07/0403/26      MOSSMAN SEWAGE PLANT UPGRADE

Moved Cr Bellerio

Seconded Cr Pitt

*"That Council adopts the recommendations made within the planning report (attachment 2) and supports the application for funding subsidies for the upgrade of the Mossman Sewage Treatment Plant."*

**Carried** unanimously

07/0403/30      JS0307M – PRESSURE CLEAN BICYCLE LANE AND FOOTPATH,  
BUCHANAN CREEK ROAD, COW BAY

The following motion was left on the table at the meeting held on 3 April 2007 :

Moved Cr Sciacca

Seconded Cr Pitt

*"That Council staff pressure cleans the path on a regular basis being a minimum of three times a year."*

An amendment to the motion was moved:

Moved Cr Davis

Seconded Cr Bellerio

07/0403/30      *"That the engineers instigate the initial cleaning of the path and report back with other solutions in relation to cleaning or resurfacing the path."*

**Carried** unanimously

The amendment became the motion and was put:

**Carried** unanimously

07/0403/31 JS0407M – ROADS TO BE SEALED – DIVISION THREE

The following motion was left on the table at the meeting held on 3 April 2007 :

Moved Cr Sciacca Seconded Cr Bellerio

*“That Council includes the roads listed in the 2007/08 budget:*

- 1. completion of Buchanan Creek Road, Cow Bay;*
- 2. 500 m of Camelot Close, Cape Tribulation;*
- 3. 1 km of Forest Creek Road;*
- 4. 1 km of Kingston Road; and*
- 5. 1 km from Daintree township to Stewarts Creek Road.”*

An amendment to the motion was moved:

Moved Cr Davis Seconded Cr Egan

07/0403/31 *“That Council includes the roads listed in the 2007/08 budget:*

- 1. completion of Buchanan Creek Road, Cow Bay;*
- 2. 500 m of Camelot Close, Cape Tribulation;*
- 3. 1 km of Forest Creek Road;*
- 4. 1 km of Kingston Road; and*
- 5. 1 km from Daintree township to Stewarts Creek Road;*

*and further that these roads together with any feedback received as a result of the Community Engagement Strategy be considered in conjunction with Council’s already adopted road programme and a priority list be submitted for budget consideration.”*

For: Cr Egan, Bellerio, Pitt

Against: Cr Davis, Cox

**Carried**

ATTENDANCE/WITHDRAWAL

Cr Bellerio withdrew from the meeting at 12:58 pm.

The amendment became the motion and was put:

For: Cr Egan, Pitt

Against: Cr Davis, Cox

**Carried** on the casting vote of the Chair

07/0403/38      MC0507M – REX SMEAL PARK, PORT DOUGLAS - FUNCTIONS

The following motion was left on the table at the meeting held on 3 April 2007 :

Moved Cr Cox

Seconded Cr Davis

*“That Council adds to its policy that a maximum of two functions per month may, upon application, be permitted an extension of hours for use.”*

ATTENDANCE/WITHDRAWAL

Cr Bellerio re-attended the meeting at 12:59 pm.

An amendment to the motion was moved:

Moved Cr Cox

Seconded Cr Bellerio

07/0403/38

*“That Council amends its policy for the use of Rex Smeal Park, Port Douglas, to allow, on a three (3)-month trial basis, use of the park up to twelve (12) midnight on the following conditions:*

- 1. users must comply with Queensland State noise control legislation that noise not exceed fifty (50) dB, or ten (10) dB above background noise, whichever is the lower; and*
- 2. all removal of equipment etc must be completed by 1:00 am.”*

For: Cr Cox, Bellerio, Egan, Davis

Against: Cr Pitt

**Carried**

The amendment became the motion and was put:

For: Cr Cox, Bellerio, Egan, Davis

Against: Cr Pitt

**Carried**

07/0403/52 RD3207M – AWARD SYSTEM CHOICE

The following motion was left on the table at the meeting held on 3 April 2007 :

Moved Cr Davis

Seconded Cr Egan

*“That Council’s employees have the final say on whether they would prefer to stay under the State awards system or not and, by so doing, the Douglas Shire Council rescinds its 17 October 2007 resolution determining its status as a trading corporation.”*

**With the agreement of the mover and the seconder the motion was withdrawn**

07/0403/52A SUSPENSION OF STANDING ORDERS

Moved Cr Cox

Seconded Cr Davis

*“That standing orders be suspended to allow Council to consider items not included on the agenda but referred from the briefing session.”*

**Carried** unanimously

07/0403/56 DAINTREE FERRY PRECINCT MASTER PLAN

Moved Cr Davis

Seconded Cr Egan

*“That the General Manager Engineering, Bob Baade, and Acting Strategic Planner, Paul Gleeson, prepare a list of issues for guidance for a consultant Town Planner to prepare the Terms of Reference (ToR) for the Daintree Ferry Precinct Master Plan; and that \$10 000 be transferred from the Engineering Department’s budget, namely ‘Road Management Study – ESI Cape Tribulation/Bloomfield Road’ (Budget Item 7909) to prepare the ToR.”*

**Carried** unanimously

07/0403/57 DOUGLAS SHIRE ROAD PROGRAM DEVELOPMENT

Moved Cr Davis

Seconded Cr Cox

*“That \$42 020 be transferred from the Engineering Department’s budget, namely ‘Road Management Study – ESI Cape Tribulation/Bloomfield Road’ (Budget Item 7909), to the Douglas Shire Road Program Development.”*

**Carried** unanimously

ATTENDANCE/WITHDRAWAL

The Chief Executive Officer attended the meeting at 1:00 pm.

The General Manager Finance & Administration withdrew from the meeting at 1:00 pm.

07/0403/36    BB0707M – NATIONAL HERITAGE LISTING OF DAINTREE LOWLANDS

Moved Cr Egan

Seconded Cr Pitt

*“That Council advises the Hon Malcolm Turnbull MP, Minister for the Environment & Water Resources, that Council does not support the proposed National Heritage listing of freehold land in the Daintree lowlands north of the Daintree River, as it is of the view that the conservation, cultural and environmental values of the area are well protected by:*

- 1. Douglas Shire Council’s planning scheme and vegetation protection local law;*
- 2. existing State and Commonwealth cultural and environmental legislation; and*
- 3. the stewardship of the landowners.”*

For:            Cr Egan, Pitt, Bellerio

Against:      Cr Davis, Cox

**Carried**

TERMINATION

The meeting was closed at 1:05 pm.

Presented to and confirmed by Council on the *twenty-fourth* day of April 2007.

**M P Berwick**  
**Chair**

Attachment 2

## 11.0 Conclusion & Recommendations

### 11.1 Preferred STP Augmentation Approach

A total of six (6) augmentation options were assessed which included the following:

- **Option 1** - Maintain the existing oxidation ditch as a treatment process. Provide a new oxidation ditch and two clarifiers to boost treatment capacity. A new compartmentalised aerobic digester would be provided to stabilise WAS.
- **Option 2** - Construction of a single oxidation ditch and two clarifiers to handle all flow. The existing oxidation ditch and clarifier would be converted into an aerobic digester.
- **Option 3** - Construction of 2 compartmentalised 4 Stage Bardenpho bioreactors with diffused aeration and 2 clarifiers. The existing oxidation ditch and clarifier would be converted into an aerobic digester.
- **Option 4** - Construction of 2 Sequence Batch Reactors (SBR) of similar design to the Port Douglas plant. Existing oxidation ditch and clarifier would be converted into an aerobic digester.
- **Option 5 A** - Construction of a MBR process using the Zenon membrane technology with two compartmentalised 4 Stage Bardenpho bioreactors with diffused aeration. Two MBR trains would be provided each housing 4 Zenon Membrane Cassettes.
- **Option 5 B** - Construction of a MBR process using the Kubota membrane technology with two compartmentalised 4 Stage Bardenpho bioreactors with diffused aeration. Two MBR trains would be provided, each housing 9 EK400 double-decker, flat-plate membranes.

The MBR Option 5B was identified as the lowest whole of life cost option closely followed by MBR Option 5A. The capital cost estimates for Options 5A and 5B were \$11.7M and \$12.6M respectively. The lowest capital cost conventional approach was Option 4 (SBR process) at \$14.5M. Option 4 also had the lowest ongoing operations and maintenance cost for all options considered.

Option 4 was ranked the highest based on a consideration of non financial factors with the MBR options (5A and B) scoring slightly lower.

Given the significant capital cost difference between options 5A/B and the conventional gravity clarification approaches, it is recommended that an MBR approach be adopted for Mossman STP. At this high level investigation it is not possible to clearly identify a preferred MBR supplier and it is recommended that this be determined later after more in-depth conceptual design studies have been undertaken or on a competitive basis.

In recommending MBR technology as the preferred approach it is important to realise the O&M cost for the MBR options are higher than conventional gravity clarification approaches (i.e. Options 1-4). It is recommended that a close watching brief of tendered MBR capital costs be undertaken through the future phases of the Mossman STP upgrade. If it is identified that MBR capital cost are higher than the estimates outlined in this document then revision of the preferred upgrade approach to Option 4 (SBR) may be required.

For the purpose of preparing a budget estimate for the upgrade, this report recommends the cost of Option 4 be carried. This will provide for the uncertainty associated with the actual costs of MBR processes, given that this technology has not yet matured in the Australian marketplace. Therefore, it is recommended that Council carry a capital estimate of \$14.5M for the upgrade of the Mossman STP.

For either of the augmentation options adopted (Option 5A/B or 4) it is recommended the following common facilities be established:



- Size the infrastructure for a Stage 1 planning horizon of 15 years (2024) but make allowance in the design to facilitate a simple upgrade for a further 15 years beyond 2024 (Stage 2). For Options 5A/B this would involve an aeration upgrade and the retrofit of further membrane cassettes/modules within the existing membrane trains.
- Size the inlet works for the Stage 2 hydraulic capacity. Include 3 mm aperture automatic fine screens followed by grit removal of flows up to PWWF.
- There is uncertainty regarding the sewage characteristics of the combined stream which will flow to the Mossman STP after the upgrade. Supplemental carbon dosing may be required. This needs to be closely reviewed during subsequent design stages.
- Due to the potential limited carbon available in the raw sewage it is recommended that phosphorus removal be achieved by chemical means.
- Provide a medium pressure UV system to disinfect the permeate for discharge and reuse.
- Retain the existing chlorine dosing system and contact tank. Chlorine dosing of recycled water transported to reuse customers may be required to guarantee water quality. The contact tank may be required to provide adequate contact time for future dual reticulation effluent reuse approaches.
- To reduce capital cost, re-configure the existing oxidation ditch process to an aerobic digester. Operate the digester at a low solids concentration of 0.75% w/w to ensure effective aeration with the existing aeration system.
- Retain the existing sludge lagoons as emergency sludge storage or for effluent re-use storage.
- Utilise the existing Humbolt centrifuge to develop a dewatering facility within a building structure. Provide a process to thicken WAS to greater than 1.5% w/w to enable dewatering by centrifuge.
- Provide a rapid load out style biosolids storage silo to enable management of dewatered cake.

#### 11.1.1 Further Studies and Investigation Recommended

It is recommended that further monitoring of the raw sewage quality be undertaken as outlined in Appendix C. A better understanding of the sewage characteristics is important to avoid an overly conservative and costly design due to uncertainties associated with the sewage quality.

#### 11.2 Effluent Reuse Opportunities

An extensive review of effluent reuse opportunities in the Mossman area was undertaken. From this assessment two preferred reuse opportunities were identified which included the Mossman Golf Course and potentially the Newell Esplanade. These sources had a larger demand for water and no real impediments to use. It is recommended that Council keep a watching brief on other reuse opportunities including dual reticulation and agricultural reuse on sugar cane.

The capital cost to achieve reuse at the Golf Course and Newell Esplanade was identified to be \$2.11 M and \$1.49M respectively. The volumetric cost to Council including both capital and O&M costs was identified as \$0.69/kL and \$1.42/kL for the Golf Course and the Newell Esplanade respectively, provided a 50% subsidy is available.

#### 11.3 Beach Community Reticulation

Previous studies undertaken for DSC have determined that a pressure system is the preferred reticulation system for the outlying communities. The connection of the communities to a reticulation system will enable the existing septic systems to be decommissioned thereby reducing the possible public health risks associated with the septic systems. Construction and commissioning of the beach community reticulation systems should be undertaken to coincide with the commissioning of the upgraded Mossman STP.