



**COFFS HARBOUR CITY COUNCIL
ORDINARY MEETING
(CITY SERVICES COMMITTEE)
COUNCIL CHAMBER
COUNCIL ADMINISTRATION BUILDING
COFF AND CASTLE STREETS, COFFS HARBOUR
1 MARCH 2007**

**Commencing at the conclusion of
Land Use, Health & Development Committee**

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CONFIDENTIAL REPORT

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

A portion of this report is 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.

S16 TENDERS: CONSTRUCTION OF EMERGENCY STORAGE TANKS
FOR SEWAGE PUMP STATION 12 - PACIFIC HIGHWAY COFFS
HARBOUR

55



COFFS HARBOUR CITY COUNCIL

ORDINARY MEETING

(CITY SERVICES COMMITTEE)

1 MARCH 2007

Mayor and Councillors

CITY SERVICES DEPARTMENT REPORTS

S8 TRAFFIC COMMITTEE MEETING NO. 1/2007

Purpose:

To confirm minutes from the Traffic Committee Meeting held on 15 February 2007.

Recommendation:

T.1 – Pacific Highway, Coffs Harbour - Ulysses Club AGM (R.511410 [1581520])

That

- 1. Approval be given to the Ulysses Motorcycle Club for the for the proposed Grand Parade route and for the following road closures associated with the AGM Grand Parade to be held between 9.00am and 11.00am on 26 May 2007:**
 - (i) Stadium Drive - East bound traffic lane closed between Phil Hawthorne Drive and Hogbin Drive 9am - 11am on Saturday 26 May 2007.**
 - (ii) Hogbin Drive - North bound traffic lane closed between Stadium Drive and Albany Street 9am - 11am on Saturday 26 May 2007.**

subject to the following conditions:

- (a) Organisers implement traffic management measures in accordance with approved traffic control plans.**
- (b) Organisers arrange for extensive media coverage of the expected traffic delays associated with the parade.**
- (c) Organisers to be responsible for all costs associated with the event.**

Cont'd

S8 - Traffic Committee Meeting No. 1/2007 (Cont'd)

T.2 – Pacific Highway, Coffs Harbour - Ulysses Club AGM (R.511410 [1581520])

That a temporary bus zone, 5.00pm - Midnight on 25 & 26 May 2007, be approved on the Pacific Highway, Coffs Harbour, for Ulysses Motorcycle Club AGM, as per Plan No. T.2.

T.3 – CBD Parking - Bike Parking (Parking [1548125])

That a single car parking bay in Harbour Drive, Coffs Harbour, be converted to 5 motorcycle parking bays, as per Plan No. T.3, subject to the following conditions:

1. Consultation with Harbour Drive traders.
2. Monitoring of utilisation of spaces for a period of three months.

T.4 – Pacific Highway, Woolgoolga - Bus Zone (R.504410)

That an additional timed bus zone be installed on the eastern side of the Pacific Highway, Woolgoolga, north of Pullen Street, as per Plan No. T.4.

T.5 – Bonville Station Road / Archville Station Road, Bonville - B-Double access (1113 [1549120])

That Bonville Station Road and Archville Station Road, Bonville, between the Pacific Highway and the Pacific Highway Bypass corridor be designated 25m B-Double access routes for a period of twelve months, subject to the following conditions:

1. **Bonville Station Road :**
 - Hours of B-Double operation: 9.30am - 2.30pm / 4.00pm - 6.00pm Monday to Friday,
8.00am - 1.00pm Saturdays
 - Maximum of five (5) B-Doubles per week for the duration of the project.
 - All drivers will be instructed to drive at maximum speed of 40km/hr.
 - All loads will be covered as per RTA standards for all deliveries to site.

Archville Station Road :

- Hours of B-Double operation: 7.00am - 6.00pm Monday to Friday,
8.00am - 1.00pm Saturdays
 - Maximum of five (5) B-Doubles per week for the duration of the project.
 - All drivers will be instructed to drive at maximum speed of 40km/hr.
 - All loads will be covered as per RTA standards for all deliveries to site.
2. That a Maintenance Agreement be secured with Abigroup Pty Ltd on the impact of heavy vehicle movement on these roads.

Cont'd

S8 - Traffic Committee Meeting No. 1/2007 (Cont'd)

T.6 – Marcia Street / Coral Avenue, Coffs Harbour - 'No Stopping' signs (R.505190 [1572471])

That 'No Stopping' sign be installed in Marcia Street, Coffs Harbour, west of Coral Avenue, as per Plan No. T.6.

T.7 – High Street, Woolgoolga - Traffic Management Proposal (R.508630)

That approval be given to the partial closure of High Street, Woolgoolga, and reversal of Stop sign control at the Fawcett Street intersection, as per Plan No T.6, subject to the following conditions:

1. A safety audit of regulatory signposting in Scarborough Street and Gordon Street, Woolgoolga, be carried out.
2. A trial installation of the partial closures be undertaken subject to funding.
3. Results of the trial and additional community consultation to be brought back to the traffic committee for consideration.

T.8 – Hogbin Drive / Stadium Drive, Coffs Harbour - Merge lane (R.500390)

That linemarking and signposting to re-instate the merge lane for north-bound traffic on Hogbin Drive, north of Stadium Drive, be implemented as per Plan No. T.8.

T.9 – Lyons Road, Sawtell - Pedestrian Refuge (R.500170)

That a pedestrian refuge be installed on Lyons Road, Sawtell, as per Plan No. T.9.

Attachments:

**COFFS HARBOUR CITY COUNCIL
TRAFFIC COMMITTEE MINUTES 1/2007
15 FEBRUARY 2007 - 10.30AM**

Present: Snr Constable Scott Jackson, Coffs Harbour Police
Greg Scifer, Roads and Traffic Authority
George Stulle, Coffs Harbour City Council
David Brooks, Coffs Harbour City Council

Apologies: Cr Bill Palmer, Coffs Harbour City Council
Greg Miers, Busways
Darren Williams, Sawtell Coaches
Kevin McKenzie, Coffs Harbour Taxi Network
Anne Shearer, Coffs Harbour City Council

Minute Taker: Ann Graham

T.1 – Pacific Highway, Coffs Harbour - Ulysses Club AGM (R.511410 [1581520])

Consider traffic control plans for Ulysses AGM grand parade to be held on Saturday 26 May 2007.

Matt Sponberg, Jeff Gowans (Workforce International), and Tony Lawlor attended the meeting on behalf of the Ulysses Motorcycle Club.

Recommended: that

- 1. Approval be given to the Ulysses Motorcycle Club for the for the proposed Grand Parade route and for the following road closures associated with the AGM Grand Parade to be held between 9.00am and 11.00am on 26 May 2007:**
 - (i) Stadium Drive - East bound traffic lane closed between Phil Hawthorne Drive and Hogbin Drive 9am - 11am on Saturday 26 May 2007.**
 - (ii) Hogbin Drive - North bound traffic lane closed between Stadium Drive and Albany Street 9am - 11am on Saturday 26 May 2007.**

subject to the following conditions:

- (a) Organisers implement traffic management measures in accordance with approved traffic control plans.**
- (b) Organisers arrange for extensive media coverage of the expected traffic delays associated with the parade.**
- (c) Organisers to be responsible for all costs associated with the event.**

T.2 – Pacific Highway, Coffs Harbour - Ulysses Club AGM (R.511410 [1581520])

Consideration of a traffic management plan for buses transporting Ulysses members to functions for their annual AGM (2-3,000 people attending).

Recommended: that a temporary bus zone, 5.00pm - Midnight on 25 & 26 May 2007, be approved on the Pacific Highway, Coffs Harbour, for Ulysses Motorcycle Club AGM, as per Plan No. T.2.

Reason: to ensure a safe pick up/drop off area is available for buses servicing the Ulysses Motorcycle Club members' functions.

T.3 – CBD Parking - Bike Parking (Parking [1548125])

Consideration of provision of motorcycle parking bays in Harbour Drive, Coffs Harbour.

Recommended: That a single car parking bay in Harbour Drive, Coffs Harbour, be converted to 5 motorcycle parking bays, as per Plan No. T.3, subject to the following conditions:

- 3. Consultation with Harbour Drive traders.**
- 4. Monitoring of utilisation of spaces for a period of three months.**

Reason: Investigation into the introduction of formal Motorcycle parking in Harbour Drive was a recommendation of the CBD parking committee. The monitoring period will be used to determine the effectiveness of the parking and whether there is a need to convert additional car parking bays to motorcycle bays. The proposed layout is in accordance with Australian Standards.

T.4 – Pacific Highway, Woolgoolga - Bus Zone (R.504410)

Consider extension of bus zone on east side of Pacific Highway, north of Clarence Street, Woolgoolga.

Recommended: that an additional timed bus zone be installed on the eastern side of the Pacific Highway, Woolgoolga, north of Pullen Street, as per Plan No. T.4.

Reason: To cater for additional school buses.

T.5 – Bonville Station Road / Archville Station Road, Bonville - B-Double access (1113 [1549120])

Consideration of a request from Abigroup Pty Ltd for 25m B-Double access to Bonville Station Road and Archville Station Road, Bonville.

Recommended: that Bonville Station Road and Archville Station Road, Bonville, between the Pacific Highway and the Pacific Highway Bypass corridor be designated 25m B-Double access routes for a period of twelve months, subject to the following conditions:

1. Bonville Station Road :

- **Hours of B-Double operation: 9.30am - 2.30pm / 4.00pm - 6.00pm Monday to Friday,
8.00am - 1.00pm Saturdays**
- **Maximum of five (5) B-Doubles per week for the duration of the project.**
- **All drivers will be instructed to drive at maximum speed of 40km/hr.**
- **All loads will be covered as per RTA standards for all deliveries to site.**

Archville Station Road :

- **Hours of B-Double operation: 7.00am - 6.00pm Monday to Friday,
8.00am - 1.00pm Saturdays**
- **Maximum of five (5) B-Doubles per week for the duration of the project.**
- **All drivers will be instructed to drive at maximum speed of 40km/hr.**
- **All loads will be covered as per RTA standards for all deliveries to site.**

2. That a Maintenance Agreement be secured with Abigroup Pty Ltd on the impact of heavy vehicle movement on these roads.

Reason: The proposal is required to allow material delivery to the Abigroup Pacific Highway Bonville project. The approval will reduce the volume of 19.0m semi trailer movements on the subject roads.

T.6 – Marcia Street / Coral Avenue, Coffs Harbour - 'No Stopping' signs (R.505190 [1572471])

Consideration of a request for 'No Stopping' signs to be erected in Marcia Street adjacent to their driveway at No. 19 to improve vision when backing out of driveway.

Recommended: that 'No Stopping' sign be installed in Marcia Street, Coffs Harbour, west of Coral Avenue, as per Plan No. T.6.

Reason: The area is heavily parked out during business hours with vehicles obstructing access to a residence.

T.7 – High Street, Woolgoolga - Traffic Management Proposal (R.508630)

Consideration of a proposal for traffic management in High Street, Woolgoolga.

Recommended: that approval be given to the partial closure of High Street, Woolgoolga, and reversal of Stop sign control at the Fawcett Street intersection, as per Plan No T.6, subject to the following conditions:

- 4. A safety audit of regulatory signposting in Scarborough Street and Gordon Street, Woolgoolga, be carried out.**
- 5. A trial installation of the partial closures be undertaken subject to funding.**
- 6. Results of the trial and additional community consultation to be brought back to the traffic committee for consideration.**

Reason: The intersection of High Street and Scarborough Street has a poor accident history. The proposed closure will eliminate one of the main conflict points at this intersection. High Street has extremely poor vertical geometry and a high component of through traffic volumes. The proposal will eliminate a proportion of this through traffic. Analysis needs to be undertaken of the amount of traffic diverted and the impact on other streets in the area.

T.8 – Hogbin Drive / Stadium Drive, Coffs Harbour - Merge lane (R.500390)

Consideration of a proposal for changes to lane disciplines and introduction of merge lane for north-bound traffic on Hogbin Drive at the Stadium Drive roundabout.

Recommended: that linemarking and signposting to re-instate the merge lane for north-bound traffic on Hogbin Drive, north of Stadium Drive, be implemented as per Plan No. T.8.

Reason: The arrangement will better cater for the morning peak traffic flows on Hogbin Drive.

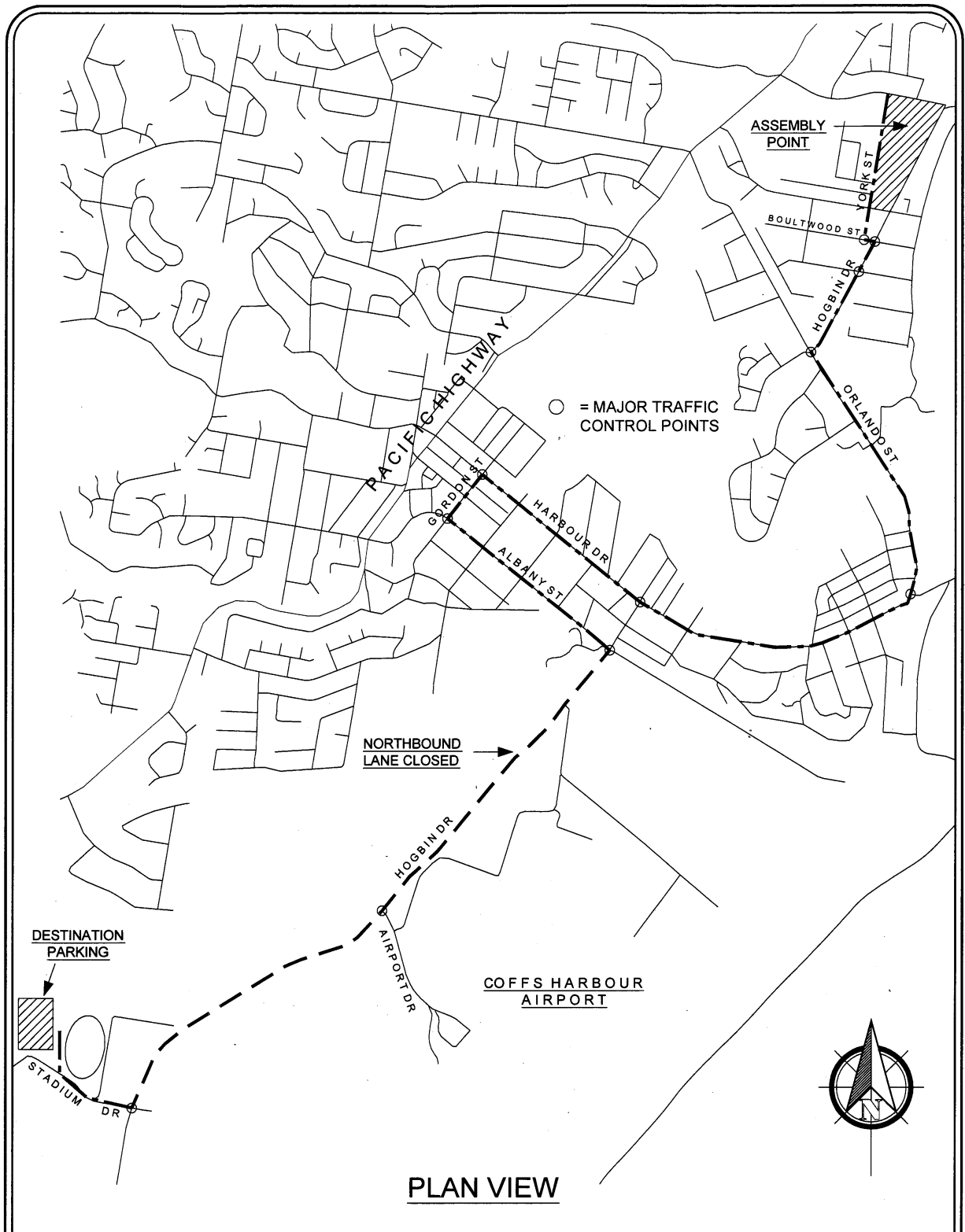
T.9 – Lyons Road, Sawtell - Pedestrian Refuge (R.500170)

Consideration of plans for installation of a pedestrian refuge on Lyons Road, Sawtell.

Recommended: that a pedestrian refuge be installed on Lyons Road, Sawtell, as per Plan No. T.9.

Reason: To promote safe pedestrian access across Lyons Road at an existing footpath crossing point.

The Meeting closed at 12.30pm.



PLAN VIEW

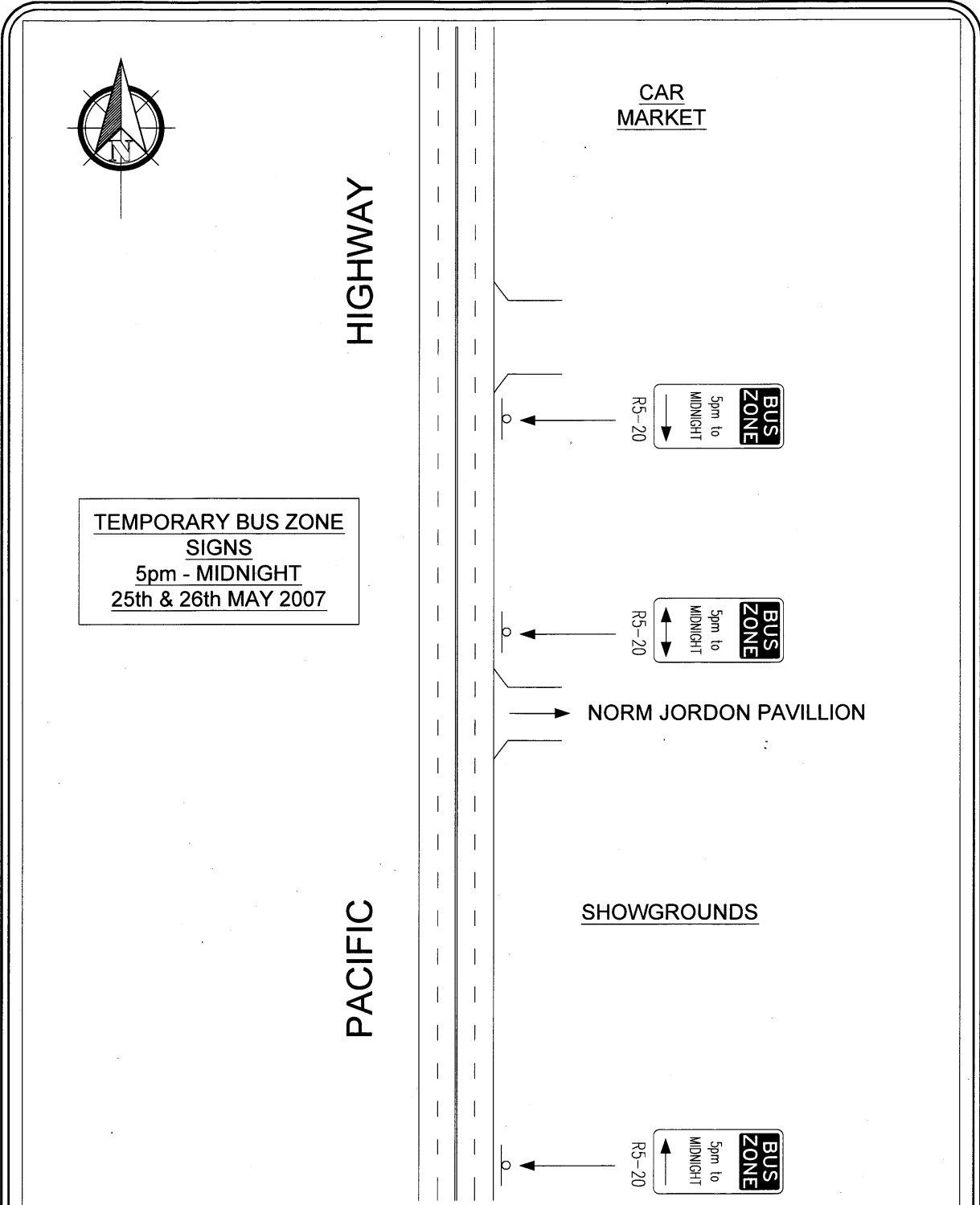
NOTES:

Approval be given to the Ulysses Motorcycle Club for the proposed Grand Parade route and for the following road closures associated with the AGM Grand Parade to be held between 9.00am and 11.00am on 26 May 2007

TRAFFIC INSTRUMENT

T.1-2007

**ULYSSES CLUB A.G.M
COFFS HARBOUR**



PLAN VIEW

NOTES:
 THAT A TEMPORARY BUS ZONE, 5.00PM - MIDNIGHT ON 25 & 26 MAY 2007, BE APPROVED ON THE PACIFIC HIGHWAY FOR ULYSSES MOTORCYCLE CLUB AGM,

TRAFFIC INSTRUMENT
 T.2-2007
 PACIFIC HWY (SHOWGROUND)
 COFFS HARBOUR

S9 REPORT ON MOTORISED SCOOTERS

Purpose:

To respond to a request from Council to explain the legal status of motorised or powered scooters on roads and road related areas

Description of Item:

Definitions

Road or Road related area

- An area that is open to the public and designated for use by the public for driving, riding or parking vehicles

Footpath

- Bicycle riders are prohibited on footpaths unless they are under the age of 12, or adults accompanying riders under the age of 12. Bicycles should keep left, give way to pedestrians, and warn them of their presence by using their bell or hooter.
- Motorised wheelchairs are classed as pedestrians so they may ride on footpaths.

Shared Path

- Shared paths may be used by all bike riders including power assisted bicycles, pedestrians and motorised wheelchairs. Bikes and wheelchairs should give way to pedestrians. Shared paths must be signposted.

Bicycle Path

- Bicycle paths are designated for the use of bicycles, including power-assisted bicycles.
- Motorised wheelchairs and pedestrians pushing wheelchairs are permitted to use bicycle paths.
- Rollerblades, rollerskates or other similar wheeled recreational devices are allowed on bicycle paths.

Motorised scooters and mini-bikes (prohibited on road and road related areas in NSW).

In NSW any device with a motor must be registered for use on a road or road related area unless it is specifically exempt.

Motorised foot scooters, miniature motorbikes (mini-bikes) and other motorised recreational devices do not meet minimum Australian design standards for safety and so cannot be registered. This means they must not be used on roads or in any public areas such as footpaths, car parks and parks.

There are heavy penalties for using unregistered and uninsured vehicles. Police can also seize and take possession of unregistered vehicles.

There are some retailers who sell these vehicles and fail to warn customers that they cannot be used on roads or in public areas. Some websites are misleading as they say that these vehicles are legal on roads and road related areas. This is true in some States, but not in NSW.

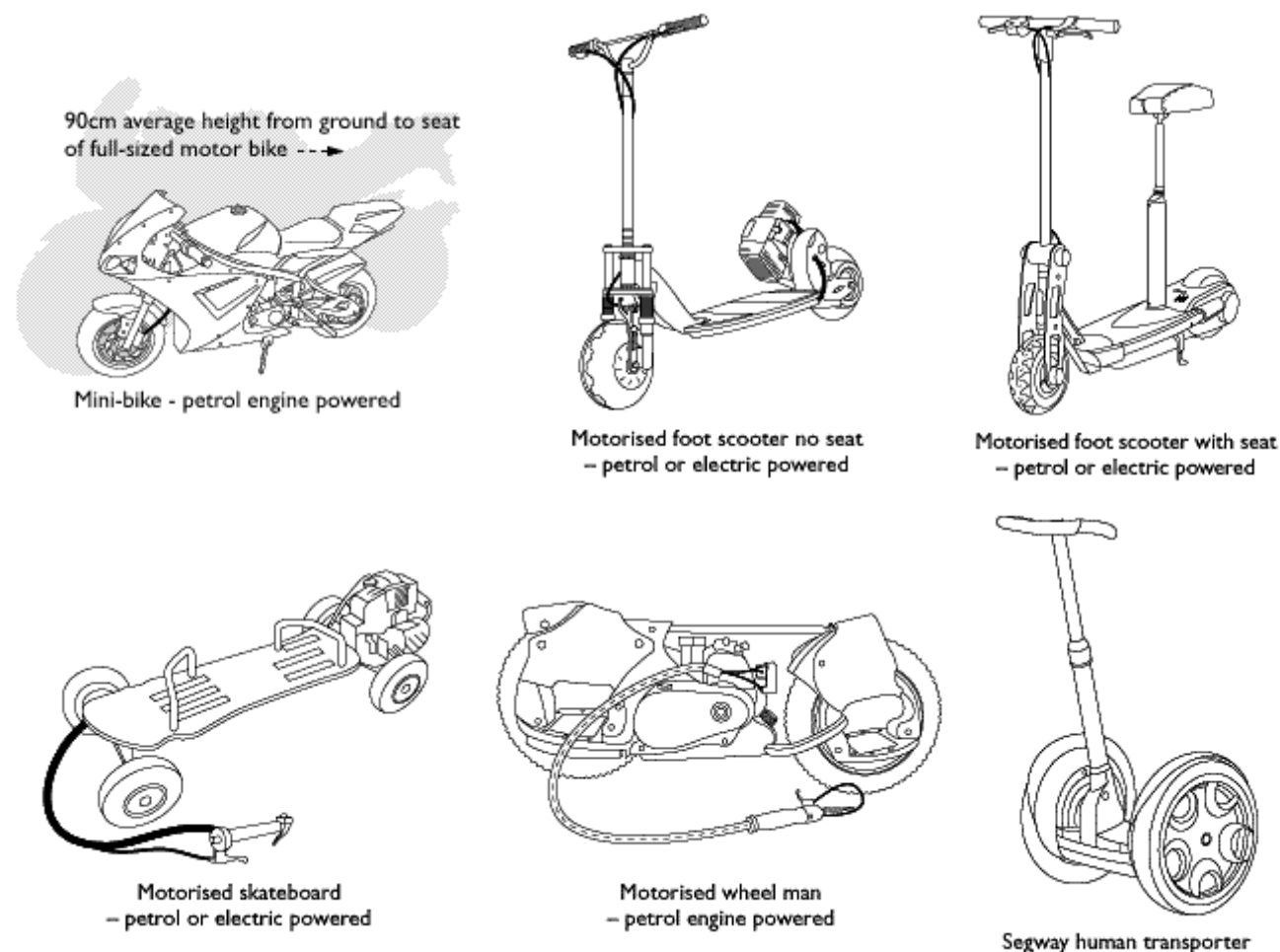
Cont'd

S9 - Report on Motorised Scooters (Cont'd)

Prohibited vehicles (cannot be used on roads or public areas in NSW)

The following vehicles (irrespective of the power output of the motor) are banned from use on roads or in public areas.

- Motorised foot scooters (with or without a seat) – electric/petrol engine
- Mini-bikes
- Motorised human transporters such as the WheelMan, or SEGWAY
- Motorised skateboards – electric/petrol engine



Mopeds (must be registered and travel on "road" only)

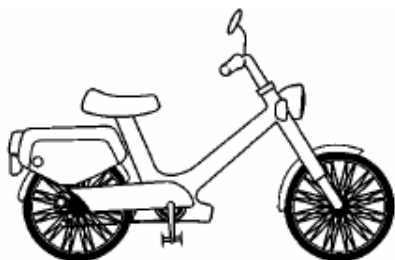
Mopeds can be two wheeled or three wheeled. They must comply with Australian Design standards and have a compliance plate. They must be registered and obey the same rules as motorcyclists. They must wear a helmet, hold a class "R" licence. They must have amber turning signals or use hand signals.

Cont'd

S9 - Report on Motorised Scooters (Cont'd)

They must have

- ❑ An engine cylinder capacity not exceeding 50ml and a maximum motorcycle speed not exceeding 50kph or
- ❑ A power source other than a piston engine, and a maximum motorcycle speed not exceeding 50kph.



Moped

- Pedal assisted
- engine displacement not more than 50ml
- maximum speed not more than 50km/h

Motor Assisted Pedal Cycle (can be used on roads, bicycle paths and shared paths)

This is a bicycle fitted with a small auxiliary motor (can be home made). It does not have to be registered and is treated as a bicycle under the Australian Road Rules provided the motor does not exceed a maximum power output of 200 watts (200 watts is roughly the power of a small whippersnapper motor)

Riders must follow the same road rules as for bicycles, including wearing a suitable safety helmet.

E Bikes (status subject to Supreme Court decision)

There is now a kind of motor assisted pedal cycle called an “e” bike. This is an imported bike, and is the subject of several court cases. There is currently a matter pending with the Supreme Court challenging the legality of these vehicles on the road reserve. The dispute seems to arise over the method of propulsion; with most motor assisted pedal cycles the method of propulsion is via the pedals. The Police maintain that the method of propulsion of an “e” bike is the motor, which means they are classed as a vehicle. However the vehicle does not meet Australian Design Standards so they are unregistrable and therefore illegal on the road and road related areas.

There is also a Ministerial Group working on the definitions.



Motor assisted pedal cycle

- motor output not more than 200 watts

Cont'd

S9 - Report on Motorised Scooters (Cont'd)

Motorised wheelchairs (can be used on road, footpaths and shared paths)

Motorised wheelchairs/scooters, or gophers, as they are sometimes called may be three or four wheeled. They are an aid for people with impaired mobility. They must travel less than 10kph (on level ground). They are defined as a pedestrian under the Australian Road Rules. This means they are allowed to travel on footpaths and shared paths. They must not travel on the road if it is practicable to travel on the footpath or nature strip. If they are traveling along the road, they must stick as far right or left of the road as possible. They are not required to wear a helmet, or to register the wheelchair.

They are encouraged to wear bright clothing and put a flag on the back of their motorised wheelchair to assist visibility.

They are advised to travel at walking speed (3–4 kph) in high pedestrian activity zones and shopping centers.



Sustainability Assessment:

- **Environment**

There are increasing numbers of scooters and bicycles sold in the Coffs Harbour area. These options are more environmentally friendly than most cars, and their use could reduce congestion on the roads, as well as significantly reducing carbon emissions.

There would also be the potential to include these vehicles as part of the corporate fleet, reducing short car trips around the City.

- **Social**

These vehicles and bicycles are a cheap alternative form of transport to the car, and would allow access for many transport-disadvantaged people. Senior citizens may be more comfortable riding a scooter than a motorised wheelchair while they are physically able. It also enables people with a low income to obtain work whilst living in lower cost housing in the rural areas around the LGA.

They would be more able to avoid traffic jams so the time spent traveling could be shorter.

There is the potential for conflict on shared paths between scooters, bicycles and pedestrians. Some scooters are purportedly traveling at low speeds, but this doesn't happen in practice. This could put vulnerable road users at risk.

Cont'd

S9 - Report on Motorised Scooters (Cont'd)

Many of the owners of these vehicles and bicycles seem unaware of the road rules. The results of the Ministerial Inquiry and the Supreme Court case should give us some guidelines that we could then pass on to the community.

There is also the potential for crashes on the highway as many scooters and “e” bikes are very quiet - riders are sometimes unpredictable and can be hard to see by other vehicles.

- **Economic**

Broader Economic Implications

More sustainable transport options are vital for the Coffs Harbour economy since there are above average numbers of elderly people, unemployed, zero vehicle households. They also present more affordable transport options for students, people on low incomes and other people who are transport disadvantaged.

Depending on the results of the Court Case, there is the potential for more powered vehicles competing for space on shared paths, increasing the number of conflicts with pedestrians. There would also be a demand for more bike parking. Council would need to look at their bike plan and possibly increase the numbers of shared paths.

As a “cleaner, greener” city, it could attract more tourists, and there is the potential for a successful bike hire business.

Management Plan Implications

Continued development of Council's PAMPS and Cycleway Plans will promote the establishment of an arterial network of well signposted shared paths to provide for future increases in pedestrians (including motorised wheelchairs) and bicycles (including power assisted bicycles).

Other benefits to the Management Plan would be less demand for car parking spaces, and smaller vehicles on the road producing less carbon emissions and therefore less economic impact.

Consultation:

Consultation on the issues in this report has been carried out with:

Council Rangers
Coffs Harbour Police - Traffic Branch
Police Legal Branch, Traffic Services, Sydney
RTA, Grafton.

Statutory Requirements:

Issues discussed in this report are covered under the Motor Vehicles Taxation Act 1998 and the Australian Road Rules

Cont'd

S9 - Report on Motorised Scooters (Cont'd)

Issues:

Guidelines need to be clarified pending the case before the Supreme Court and the Ministerial Inquiry

Recommendation:

- 1. Council consider the results of the Supreme Court case regarding the status of “e” bikes and the classifications of motorised scooters and power assisted pedal cycles arising from the Ministerial Inquiry when they become available**
- 2. Council liaise with Coffs Harbour Police in an education and enforcement program on the results of the Supreme Court case and Ministerial Inquiry into motor assisted pedal cycles.**

S10 WATER SENSITIVE URBAN DESIGN

Purpose:

To update Council on the status of Water Sensitive Urban Design (WSUD) development in Coffs Harbour

Description of Item:

In April 2006 engineering staff attended the 4th International Conference on Water Sensitive Urban Design.

The Conference included papers on a number of theoretical systems and techniques designed to improve the retention and quality of urban storm water run-off. However it also included a number of examples of Water Sensitive Urban Design (WSUD) systems installed in Australia and overseas which have had varying levels of success.

Sustainability Assessment:

- **Environment**

Water Sensitive Urban Design is considering integration of water cycle management into urban planning and design. The key principles of Water Sensitive Urban Design are:

- Protect and enhance natural water systems within urban developments. Promoting and protecting natural waterways as assets allows them to function more effectively and supports the ecosystems that rely on them.
- Improve the quality of water draining from urban developments into receiving environment. Through filtration and retention, water draining from urban developments can be treated to remove pollutants close to their source. This approach reduces the effect that polluted water can have upon the environment and protects the natural waterways and environment.
- Reduce peak flows from urban development by local detention measures and minimising impervious areas. Local detention and retention enables effective land use for flood mitigation by utilising numerous storage points in contrast to the current practice of utilisation of large retarding basins. This approach subsequently reduces the infrastructure required downstream to effectively drain urban developments during rainfall events.

- **Social**

Integration of stormwater treatment into the landscape can be achieved through incorporating multiple use corridors that maximise the visual and recreational amenity of developments. The natural stormwater drainage system can be utilised for its aesthetic qualities within parklands and walking paths, making use of natural topography such as creek lines and ponding areas.

Cont'd

S10 - Water Sensitive Urban Design (Cont'd)

- **Economic**

Broader Economic Implications

Application of WSUD principals can minimise the drainage infrastructure cost of development. The reduction of downstream drainage infrastructure due to reduced peak flows and runoff minimises the development costs for drainage, whilst enhancing natural features such as rivers and lakes that add value to the properties of the area.

Life cycle maintenance costs of WSUD installations however are yet to be tested. Some information is available on theoretical maintenance costs for various WSUD treatments however little validated information is available at this stage. Much of the research and investigation work currently being carried out by various authorities is aimed at establishing real life cycle maintenance costs for various types of WSUD treatments.

Management Plan Implications

Environmental Levy funding was allocated in 2005/06 for development of a Council WSUD policy. Some work on policy development has been undertaken however it is apparent that further development of the WSUD industry is required in order to allow development of a meaningful WSUD policy for Council.

The introduction of large-scale WSUD treatments in new development areas could have significant implications on future Council Management Plans through the increase in maintenance costs.

Consultation:

Council will eventually need to develop and adopt a formal WSUD policy for new developments and for redevelopment of Council assets. Part of this process will be to liaise with the development industry in adopting a set of practical and achievable standards and guidelines.

Research has been undertaken on the current status of WSUD development in other NSW Councils. Many Sydney metropolitan councils are well advanced in that they have WSUD policies in place for new developments and are undertaking trial WSUD treatments on Council owned land and within road reserves. The metropolitan councils have established a WSUD forum for exchange of ideas and data on WSUD development and this is a valuable information resource.

Many north coast councils have also adopted a WSUD policy or incorporated WSUD principals into Water Cycle Management plans. The practical application of WSUD however has mostly been limited to new development areas where the developer has proposed WSUD treatments as part of the development proposal.

A list of typical WSUD projects currently underway in the Sydney area and on the North Coast is included in Appendix A.

Statutory Requirements:

The following statutory matters need to be considered in the process of dealing with Stormwater.

Cont'd

S10 - Water Sensitive Urban Design (Cont'd)

State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71)

State Environmental Planning Policy No. 71 – *Coastal Protection* (SEPP 71) has introduced controls, which deal with the disposal of untreated stormwater to coastal waterways. Specifically, clause 16 provides that:

“The consent authority must not grant consent to a development application to carry out development on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform. “

Explanatory notes for SEPP 71 authored by the Department of Planning provide that the level or degree of treatment is influenced by the nature of both the development (the pollutants it will generate) and the receiving water, and that Councils should have regard to the objectives for new development contained in their local stormwater management plans (Council's Urban Stormwater Management Plan). These objectives are shown below.

Coffs Harbour Urban Stormwater Management Plan (CHUSMP), adopted by CHCC in 25 May 2000 requires new development to comply with the following set of objectives :-

Objective Set A

- A.1 To implement 'best practice' stormwater management techniques
- A.2 To maintain natural drainage patterns as far as possible
- A.3 To maintain watercourses in their natural form, i.e. watercourses should not be piped or channeled
- A.4 To maintain adequate vegetation buffers around waterways and sensitive areas, i.e. at least 20 metres

Objective Set B

- B.1 To ensure no net increase in the average annual load of pollutants entering the stormwater system and receiving waters, above that occurring under pre-development conditions
- B.2 To improve water quality where possible

Objective Set C

Construction Phase

- C.1 **Soil Type C*** To ensure suspended solids concentrations do not exceed 50mg/L for all flow events up to 25% of the one year ARI flow
- C.1 **Soil Types F** and D***** To ensure suspended solid concentrations do not exceed 50mg/L for all five day rainfall totals up to the 75th percentile rainfall event (75th percentile rainfall event in Coffs Harbour = 34.4mm)
- C.2 To limit the application, generation and migration of toxic substances to the maximum extent practical

Cont'd

S10 - Water Sensitive Urban Design (Cont'd)

Post Construction Phase

C.3 To retain 80% of the average annual load of suspended solids

C.4 To retain 45% of the average annual load of Total Phosphorus

C.5 To retain 45% of the average annual load of Total Nitrogen

C.6 To retain litter greater than 50mm for flows up to 25% of the one year ARI peak flow

C.7 To retain sediment coarser than 0.125mm for flows up to 25% of the one year ARI peak flow

C.8 To ensure no visible oils for flows up to 25% of the one year ARI peak flow, in areas with concentrated hydrocarbon deposition

* Soil Type C = Coarse soils, with less than 33% finer than 0.02mm

** Soil Type F = Fine soils, with more than 33% finer than 0.02mm

*** Soil Type D = Dispersible soils, with more than 33% finer than 0.02mm and more than 10% dispersible materials

For further details, consult the Department of Housing's Managing Urban Stormwater: Soils and Construction.

Building and Sustainability Index (BASIX)

Further provisions, dealing with stormwater management, relating to residential development (houses and units) has been introduced by the State Government through the Building and Sustainability Index (BASIX) legislation. BASIX requires all new residential applications to include a BASIX Certificate to show that the development achieves energy efficiency, water efficiency and appropriate stormwater disposal methods to limit the impact of that development on the environment.

Issues:

The International Conference on Water Sensitive Urban Design included a number of detailed case studies.

The majority of case studies, and examination of those systems visited on the technical tour, were inconclusive in regard to the effectiveness and long term viability of the WSUD treatments. The general conclusion of the conference was that while State and Local Governments should embrace WSUD principals, a good deal more work and research is required on the application of these principals in practice.

Some success was evident in application of WSUD principles in greenfield development, however few examples of successful retro-fitting of WSUD treatments, other than water tanks, in existing urban areas was provided.

In Coffs Harbour, two of Council's key Development Control Plans (Moonee and Hearnese Lake) rely on the application of WSUD principles to mitigate impact on coastal estuaries. Major development applications are being submitted to Council which include significant WSUD treatments and proposals. While it is difficult to assess these development applications without a Council WSUD policy in place, it is a good opportunity to assess each application on its merits, and thereby develop skills and knowledge within Council on WSUD design and practices.

Cont'd

S10 - Water Sensitive Urban Design (Cont'd)

There is also opportunity to trial on a small scale, installation of WSUD treatments as part of Council road and drainage projects. The proposed design for Moonee Beach Road reconstruction for example includes a short section of innovative kerb outlet design and swale drain behind the kerb and gutter to treat road run-off. This will allow assessment by Council staff of this type of treatment's effectiveness and maintenance requirements and costs.

In May 2006 Cr McKelvey in General Business asked the General Manager "*when a workshop would be scheduled to discuss Council's position on Water Sensitive Urban Design*". Given the above issues, it is considered that a number of tasks need to be completed prior to holding such a workshop.

1. Development applications incorporating WSUD principals continue to be assessed in-house in order to develop staff skills and knowledge on WSUD design and practices.
2. Small scale WSUD treatments be incorporated where practicable in Council road and drainage projects to allow assessment by Council staff of treatments effectiveness and maintenance requirements.
3. A program of monitoring and assessment of WSUD installations in Coffs Harbour be undertaken to establish effectiveness and likely maintenance costs of various treatments.
4. A further report be brought back to Council on the status of WSUD development in Coffs Harbour in twelve months time.

Recommendation:

That

1. **Development applications incorporating WSUD principals continue to be assessed in-house in order to develop staff skills and knowledge on WSUD design and practices.**
2. **Small scale WSUD treatments be incorporated where practicable in Council road and drainage projects to allow assessment by Council staff of treatments effectiveness and maintenance requirements.**
3. **A program of monitoring and assessment of WSUD installations in Coffs Harbour be undertaken to establish effectiveness and likely maintenance costs of various treatments.**
4. **An interim WSUD policy be brought back to Council in three months time with a further report on the status of WSUD development in Coffs Harbour in twelve months time.**

Attachments:

Appendix A

Typical Metropolitan WSUD projects

- Riparian restoration
- Street tree bio-retention
- Car park reconstruction using WSUD treatments
- Golf course stormwater treatment and reuse
- Streetscape stormwater treatment and reuse
- Swales and wetlands in reserve development
- Urban street reconstruction using WSUD treatments
- Groundwater harvesting
- Water harvesting and reuse on Council owned buildings and depots
- Greenfield site development incorporating rainwater tanks, street swales and wetlands.

Typical North Coast WSUD projects

- Wastewater recycling and reuse
- Litter booms and gross pollutant traps on drainage outfalls
- Landform policy minimising cut/fill for new housing developments
- Incorporation of WSUD requirements into DCPs
- Stormwater detention.

Coffs Harbour WSUD projects currently underway

- Wastewater recycling and reuse
- Implementation of Basix
- Planning and design of West Coffs Detention basins
- Installation of gross pollutant traps at locations identified in Urban Stormwater Management Plan
- Corindi River drain rehabilitation - Red Rock.

Designed and constructed WSUD subdivisions in Coffs Harbour

- Sawtell Gardens Estate, Lyons Road, North Bonville - water tanks, flush kerb/filter strips
- BBK Developments, Vista Close, Woolgoolga - Infiltration trenches, mini wetland/basin
- Lever subdivision (Stage 2), Split Solitary Road, Sapphire - infiltration trenches, flush kerb
- Forest Heights Estate, Old Bucca Road, Moonee - flush kerb/filter strips
- Heritage Park Estate, Pacific Highway, Moonee - flush kerb/filter strips
- The Lakes Estate, North Boambee Road, Boambee - mini wetlands, artificial lakes, detention basin.

Designed and approved WSUD subdivisions in Coffs Harbour (not yet constructed)

- North Sapphire Estate, Split Solitary Road, Moonee -flush kerb, swales, filter strips, gross pollutant traps, detention basin
- Bella Vista Estate, Shephards Lane, West Coffs - flush kerb, infiltration.

S11 OPERATIONS BRANCH REPORT

Purpose:

To advise Council of the progress of construction and maintenance programs undertaken by Operations Branch – Asset Construction, Maintenance and Recreational Services up to 16 February, 2007.

Description of Item:

Asset Construction Report:

1. Completed Works to 16 February 2007

- Road Rehabilitation Sawtell Road Blackspot, 100m east of Wirrabilla (900m²)
 Pullen Street, Woolgoolga (60m²)
 Hubbard Street, Woolgoolga (102m²)
- Footpaths/Cycleways SH10, Cook Drive to Hurley Drive, (120m)
- Spray Seal reseals Sherwood Creek Road (9672m²)
 Kathleen Close (39924m²)
 Eastbank Road (8017m²)
- Drainage Orlando Street Coffs Harbour Jetty (60m kerb and gutter)
- Sewer and Water Pacific Bay water main (253m of 200 dia, 66m of 150dia, 22m of 100dia)
 Hogbin Drive North, sewer (60.5m of 150mm dia) and water main (103.5m of 100mm dia) relocations
 North Boambee Road, Boambee, water main (600m of 150mm dia)
 Camperdown Street Coffs Harbour bridge RSM temporary relocation (60m of 50mm)
- Hogbin Drive Stage 2 Coffs Creek to Orlando Street – southern embankment

2. Works continuing or planned for commencement - February / March 2007

- Hogbin Drive Stage 2 Albany Street to Harbour Drive construction
 Harbour Drive roundabout construction
 Coffs Creek - bridge
- Infrastructure Upgrading Hogbin Drive airport roundabout (landscaping and lighting)
- Road Rehabilitation Lyons Road Sawtell (pavement 5660m², kerb and gutter 850m, stormwater 30m of 375mm dia)
 Bucca Road Nana Glen (290m guard rail, 1200m road shoulder widening, culvert extension and headwall works 4.8m of 900mm dia with dual headwall, 2.4m of 3m wide 1.8 high with headwall, 3.6m of 600 dia with two headwalls, 2.44m of 3m wide 1.7 high with headwall, plus multiple headwall modifications)

Cont'd

S11 - Operations Branch Report (Cont'd)

- Footpaths/Cycleways SH10 Cook Drive to Hurley Drive (250m)
- Sewer and Water SH10 Everingham Lane Coffs Harbour, water main , (170m of 225mm dia)
North Street Coffs Harbour reuse (430m of 150mm dia)
- Spray Seal Program Red Rock Road Corindi (28858m²)
O'Keefe Drive Coffs Harbour. (6180m²)
- Drainage Ocean View Road Mullaway (125m kerb and gutter, 60m of 375mm dia stormwater pipe)
- Bridgeworks Coral Street, Corindi bridge demolition
Construction of Whitneys Bridge, Brooklana

Attached for Council's information is a summary of expenditure verses budget for the 2006/07 Capital Works Program.

Asset Maintenance Report

- Asset maintenance expenditure within allocated budgets.
- Repairs on Houlahans Bridge, Dairyville are complete and the load limit raised to 20 tonne until replacement can be funded

Recreational Services Report

- Hogbin Drive/Harbour Drive – landscaping of the banks commenced using native plants
- Englands Road tip site – landscaping of approximately 60m².
- Botanical Garden – Concept Plan for Japanese Garden completed, landscape architect has started work on more detailed plans
- A large Phoenix palm has been transplanted to Hogbin Drive/Stadium Drive roundabout and forms part of an overall planting theme for Hogbin Drive roundabouts.
- The annual flower display is due for change toward the end of February

Recommendation:

That Council:

1. **Notes the progress report on asset construction, maintenance and recreational services works undertaken by Operations Branch up to 16 February, 2007.**
2. **Notes the individual program expenditures are being monitored and are within the allocated 2006/2007 budget.**

Attachments:

OPERATIONS BRANCH
Capital Projects Budget/Expenditure
2006/2007 Program

AS AT DATE: 16-Feb-07

Description	Original Budget	Revised Budget	Actual Expenditure	% Project Complete	% Costs Expended
Local Roads					
Sealed Roads Reseals	\$644,000	\$644,000	\$445,156	69%	69%
Sealed Roads Reseals - Asphalt	\$61,000	\$61,000	\$35,000	57%	57%
Sealed Roads Rehabilitation	\$950,000	\$1,045,077	\$476,008	44%	46%
Dust Sealing	\$165,000	\$165,000	\$175,105	100%	106%
Unsealed Roads Gravel Resheeting	\$118,000	\$118,000	\$84,371	69%	72%
Total:	\$1,938,000	\$2,033,077	\$1,215,640		
Federal Roads to Recovery					
Residential Street Rehabilitation	\$340,000	\$349,994	\$224,058	62%	64%
Gravel Resheeting	\$20,000	\$20,000	\$18,578	100%	93%
Sealed Roads Reseals	\$170,892	\$170,892	\$170,892	100%	100%
Bridges (Middle Ck)	\$275,000	\$275,000	\$13,604	5%	5%
Supplementary R2R Grant					
Sealed Roads Reseals	\$185,108	\$185,108	\$79,102	43%	43%
Sealed Roads Asphalt Reseals	\$24,851	\$24,851	\$23,006	100%	93%
Sealed Road Rehabilitation	\$274,000	\$274,000	\$57,642	22%	21%
Bridges	\$284,433	\$284,433	\$53,437	19%	19%
Total:	\$1,574,284	\$1,584,278	\$640,319		
Regional Roads					
3 X 3 Program	\$131,000	\$131,000	\$0	0%	0%
Regional Roads Repair Program	\$224,000	\$224,000	\$31,165	14%	14%
Federal Blackspot Funding	\$1,190,000	\$1,190,000	\$120,914	10%	10%
Total:	\$1,545,000	\$1,545,000	\$152,079		
Drainage					
Drainage Impts / Nuisance Flooding	\$230,000	\$236,184	\$67,748	27%	29%
Total:	\$230,000	\$236,184	\$67,748		
Bridges					
Major Repairs	\$168,000	\$330,000	\$94,161	29%	29%
Cathodic Protection (Fred Hanson Bridge)	\$200,000	\$193,195	\$154,602	80%	80%
Middle Creek Bridge	\$675,000	\$675,000	\$0	0%	0%
Coral St Bridge	\$620,000	\$620,000	\$7,400	1%	1%
Total:	\$1,663,000	\$1,818,195	\$256,163		

Footpaths / Cycleways

Footpath Construction (\$25,000 to PAMPS)	\$267,000	\$242,000	\$150,850	60%	62%
PAMPS Footpath Works	\$0	\$50,000	\$0	0%	0%
Beacon Hill Environmental Levy	\$87,000	\$93,000	\$92,117	100%	99%
Cycleway Projects	\$118,000	\$295,834	\$99,796	34%	34%
Total:	\$472,000	\$680,834	\$342,763		

Community Facilities Program

Hogbin Drive Extension	\$15,000,000	\$15,000,000	\$8,552,332	54%	57%
Jetty Strip Improvements	\$100,000	\$100,000	\$1,520	2%	2%
Jetty Structure Improvements	\$680,000	\$680,000	\$9,545	1%	1%
Woolgoolga Town Improvements	\$400,000	\$400,000	\$0	0%	0%
Sawtell Headland Improvements	\$380,000	\$380,000	\$0	0%	0%
Sawtell Town Improvements	\$300,000	\$300,000	\$0	0%	0%
Nana Glen Improvements	\$235,000	\$235,000	\$3,049	1%	1%
Total:	\$17,095,000	\$17,095,000	\$8,566,446		

Other

Hogbin Drive Airport Roundabout	\$750,000	\$750,000	\$846,010	95%	113%
Total	\$750,000	\$750,000	\$0	95%	0%

S12 WAIHOU ROAD LEVEL CROSSING

Purpose:

To seek Council approval to enter into a licence agreement with the Australian Rail Track Corporation for the level rail crossing at 644.766km (ARTC reference) Waihou Road, Nana Glen and have the Crown section of Morrows Road and Waihou Road dedicated as local road.

Description of Item:

Waihou Road is located at the northern end of Morrows Road, Nana Glen (see attached map). Waihou Road is vested in the Crown and administered by the NSW Department of Lands, while Morrows Road is a local road administered by Council up to No. 271 then a Crown road to the rail crossing.

The Australian Rail Track Corporation (ARTC) has requested that Council enter into a licence agreement for the level crossing on Waihou Road. This level crossing was closed as a public facility in 1943, but retained as a private accommodation facility. To reflect the current usage of the crossing the status should be converted back to a public crossing, meaning an additional 1.67km of Crown Road becomes Council owned.

Since the crossing is on a Crown road the Department of Lands should be the licensee, however the Department has declined since they do not have resources for level crossing upgrade and maintenance. There are three property owners living on the northern side of the crossing, all within the Coffs Harbour City Council LGA. If the crossing is closed, access across the track will not be legally available over the rail corridor for the residents.

For the crossing to remain open, the following needs to occur:

- The Department of Lands to dedicate Morrows Road from No. 271 and Waihou Road to Council as local road.
- Council enter into a level crossing licence agreement with ARTC.

By Council becoming the licensee of the crossing, maintenance of the crossing and approaches becomes Council's responsibility.

Sustainability Assessment:

- **Environment**

With Council becoming the licensee minor vegetation clearing on the edge of the road will be needed to upgrade sight distances at the approaches to the crossing. This clearing is negligible and will only have a slight impact on roadside vegetation.

- **Social**

There are three property owners who rely on this crossing for access to their properties. By Council becoming the licensee, their access over the rail corridor is secured.

Cont'd

S12 - Waihou Road Level Crossing (Cont'd)

- **Economic**

Management Plan Implications

The works required in Council becoming the licensee is a minor upgrade of the road pavement on the approaches and clearing of scrubby vegetation on the road side. The cost of these works is estimated at \$2,500 and can be accommodated in the rural roads maintenance budget.

Consultation:

Meetings have been held between the ARTC, Department of Lands, Council and Steve Cansdell, Member for Clarence, to resolve a way forward for all stakeholders.

The three property owners on the northern side of the crossing have been contacted regarding Council becoming the licensee for the crossing and are in agreement for Council to proceed.

Related Policy and / or Precedents:

Council is currently the licensee of several level crossing where local roads cross the ARTC rail corridor.

Statutory Requirements:

Provisions of the Public Works Act 1912 have been amended resulting in the ARTC not being required to provide access over the rail corridor where the actual usage does not align with the status of the crossing. Hence this request from ARTC for a public licence agreement over the level crossing at Waihou Road, Nana Glen. If agreement is not reached ARTC can close access to the rail corridor of Waihou Road.

Issues:

The residents of Waihou Road would like Council to take over the maintenance of Waihou Road and the northern end of Morrows Road. At the moment Council maintains to the last residence on Morrows Road and no maintenance is undertaken on Waihou Road as it has a current Crown Road status. Council officers have met with the residents of Waihou Road to explain Council's policy regarding unmaintained Local and Crown roads.

Council has previously resolved that:

"Council not undertake the construction or maintenance of any road not currently identified in the asset register for roads"

The Crown sectors of Morrows Road and Waihou Road that will be dedicated to Council are proposed for inclusion on Council's unmaintained roads register.

There is an option for the users to share the upgrade costs with Forestry and National Parks & Wildlife, who are frequent users of Waihou Road. This is being co-ordinated through Mr Steve Cansdell's office in Grafton and it is hopeful that a suitable outcome will be reached. Council officers are assisting in providing advice on required standards and cost estimates.

Cont'd

S12 - Waihou Road Level Crossing (Cont'd)

Prior to the status of a level crossing changing, proposals are submitted to the Level Crossing Strategy Committee within the ARTC for assessment. This committee considers safety, operation, environment etc. and attaches conditions to the licence agreement. In the case of the level crossing at 644.776km the conditions are likely to include minor vegetation clearing to improve sight distances and upgrade of the road pavement on the approaches. These conditions are standard and are easily accommodated.

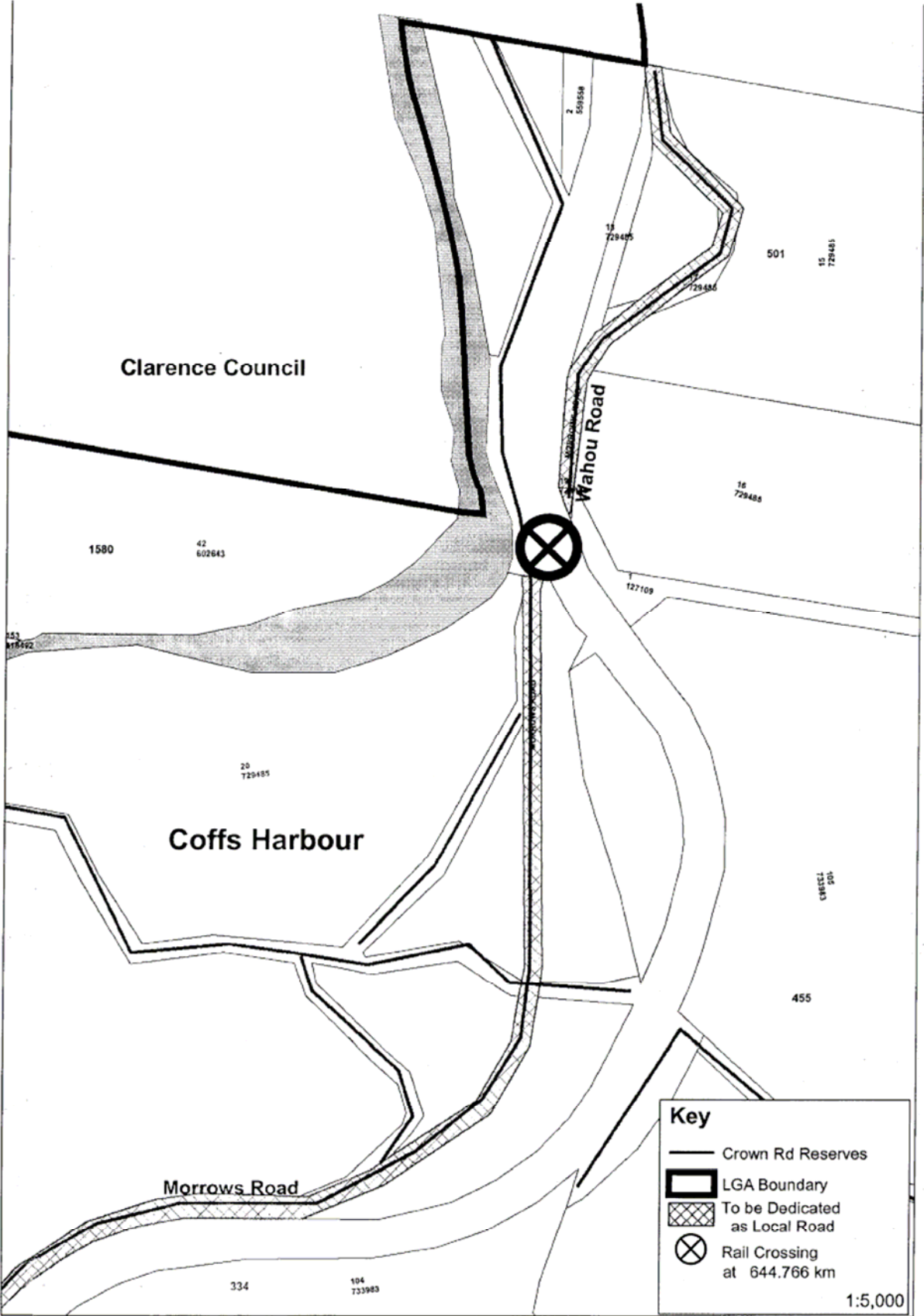
A copy of a draft licence agreement is being reviewed by Council Risk and Insurance Officer and it may be necessary to negotiate some amendments to the indemnity clauses pending advice from Council's insurers.

Recommendation:

That Council:-

- 1. Request that the Department of Lands dedicate the Crown portion of Morrows Road and Waihou Road as Local Road under the provisions of the Roads Act 1993.**
- 2. Enter into a Level Crossing Agreement with Australian Rail Track Corporation for level crossing at 644.776km, Nana Glen.**

Attachments:



S13 TIMBER AND CONCRETE BRIDGE REPORT

Purpose:

To advise Council on the status of bridge assets and recommend consideration of essential funding in 2007/2008 Management Plan

Description of Item:

According to the reporting requirements of ASS27 a bridge is defined as any structure whose span is greater than 6m which includes bridge, box culverts and piped culverts. For the purpose of this report box and piped culverts are not considered.

The management of Council's bridges has always been recognised as being critical to providing safe, unimpeded access throughout the local government area. Council has some 116 bridges, 74 of which are timber and 42 concrete.

These bridges amount to 2.43km in length or deck area of 15,290m² representing 0.35% of Council's road network. The following table provides a breakdown of Council's timber and concrete bridge stock.

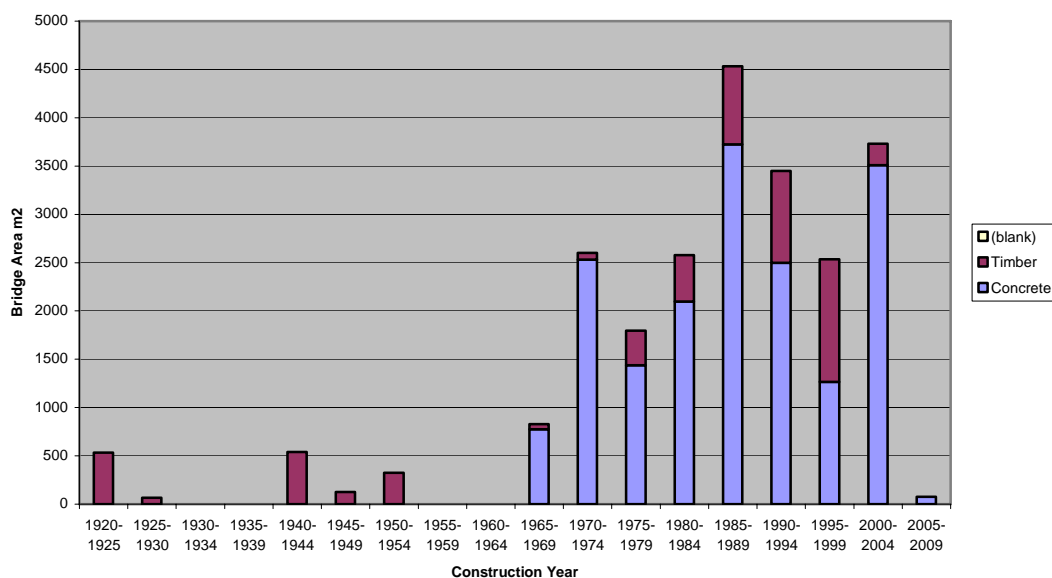
No. Spans	Concrete		Timber		Total	Total
	No	m ²	No	m ²	No	m ²
1	21	1954	57	2482	78	4436
2	6	1470	17	1471	23	2941
3	11	3379	5	670	16	4049
4	3	2101	1	187	4	2288
5	1	552	1	174	2	726
6			2	242	2	242
7					0	0
8			1	534	1	534
9					0	0
10			1	73	1	73
Total	42	9457	85	5833	127	15290

The age of the bridge stock varies with a significant number of bridges being constructed over the last 40 years. Up until 10 years ago the construction of timber bridges was considered to be economically viable. The following graph provides a brief profile of the age composition of Council's bridges.

Cont'd

S13 - Timber and Concrete Bridge Report (Cont'd)

Age Distribution of Bridge Stock



In light of the closure of the Coral Street Bridge and the weight limit imposed on Middle Creek Bridge earlier this year, Council's Operational Branch recently adopted the Bridge Inspection Manual produced by VicRoads and BridgeAsyst software to more comprehensively assess and effectively manage Council's bridge assets.

In July and August 2006, Council's bridge crew undertook Level 2 inspections of all bridges in accordance with the VicRoads Bridge Inspection Manual. The process of inspection involves visually condition rating each component of each bridge, undertaking borehole testing and identifying defects that warrant monitoring or maintenance works.

The intention of this data collection process was to:

- Adopt appropriate renewal and maintenance programs to maintain low life-cycle costs for the community.
- Determine future cash flow requirements for the replacement and rehabilitation of bridge assets.
- Improve existing inventory information including data on the condition and performance of Council's bridge assets.
- Reduce exposure of risk to Council and the general public through better management practices.

The VicRoads Bridge Inspection System is based upon three levels of inspection.

1. Routine Maintenance Inspections (Level 1)
Carried out as a routine maintenance check to monitor the general serviceability of the structure for road users.
2. Bridge Condition Inspections (Level 2)
Carried out to assess the condition of each structure and its components.
3. Detailed Engineering Inspections (Level 3)

Cont'd

S13 - Timber and Concrete Bridge Report (Cont'd)

Undertaken on a needs basis to assess the structural condition and capacity of structures which have been identified as being potential candidates for rehabilitation, strengthening, widening or replacement.

Now that level 2 inspections have been completed on all Council's road bridges, it is intended that future inspections will be carried out at the following frequencies.

	Level 1	Level 2	Level 3
Timber	Once per Year or following storm event	Once per Year	As required
Concrete	Once per Year or following storm event	Once every 2 Years	As required

The inspections produce a condition rating for each bridge between 1 and 5.

- 1 Excellent condition
- 2 Good condition
- 3 Fair condition
- 4 Poor condition
- 5 Very Poor (broken down)

Bridges identified for replacement or major repair are prioritised considering a combination of the bridge condition and the risk score for each structure. The risk score is a product of the bridge condition and the consequence of failure, and in this way the criticality of the bridge to the community and road network is properly considered.

Attached is a list of the timber bridges showing their bridge condition number (BCN) and Risk Score.

The following table is a summary of the condition of the bridge stock.

Condition Score	Data	Concrete Bridge	Timber Bridge	Grand Total
1	No. Of Bridges	39	8	47
	Deck Area m2	8703	1003	9,705
2	No. Of Bridges	3	43	46
	Deck Area m2	754	2711	3,465
3	No. Of Bridges		15	15
	Deck Area m2		1038	1038
4	No. Of Bridges		15	15
	Deck Area m2		926	926
5	No. Of Bridges		4	4
	Deck Area m2		155	155
Total No. of Bridges		42	85	127
Total Deck Area m2		9457	5833	15,290

Cont'd

S13 - Timber and Concrete Bridge Report (Cont'd)

As shown above, Council currently has a situation where there is large number of timber bridges (19) of condition rating 4 & 5 (ie where generally the most suitable treatment option is complete replacement). Unfortunately, this creates a large demand on Council's resources and an unreasonable risk to the community. In order to bring Council's bridge stock to an acceptable and manageable condition (ie condition rating 3 and below), funding and resources need to be allocated in the short term to address the situation.

Sustainability Assessment:

- **Environment**

Timber is no longer considered a sustainable resource that should be used to construct bridges. With the advance in pre stressed concrete techniques, concrete bridges are economical and less pressure on the environment to manufacture.

During timber bridge replacement works appropriate environmental assessments are undertaken and the works carried out in accordance with recommendations to ensure minimal environmental impact.

- **Social**

The community's expectation is that access for all types of vehicles, heavy loads included, should be available to the front gate. Equity in access is a concern to residents when load limits are placed on bridges and inconvenience suffered during repairs. If the timber bridge stock continues to deteriorate access to parts of the LGA will be restricted affecting the community's ability to function as desired.

- **Economic**

Broader Economic Implications

Australia wide councils are struggling to finance the replacement and major repairs required to their timber bridge stock. The State Government has recognised the difficulty and offers a 50/50 partnership for bridge replacement on regional roads. Likewise the Federal Government is assisting through the Roads to Recovery program, but overwhelmingly the burden has fallen to councils to fund bridge renewals. Coffs Harbour City Council is not alone in quickly heading to a point where major capital expenditure will be required for bridge replacement. Bridges are not an option for the community but part of the necessary asset inventory that must be provided.

Management Plan Implications

In order to reduce Council's exposure to bridge failure and the ensuing consequences, the following Bridge Program is proposed. The program assumes that those bridges with the greatest risk to Council and the community are treated first through either replacement or major repairs.

Cont'd

S13 - Timber and Concrete Bridge Report (Cont'd)

Bridge Name	Treatment	07/08	08/09	09/10	10/11	11/12
Coldwater Creek MR151	Replacement	\$450,000				
Englands Road	Replacement	\$90,000				
Ulong Creek MR120	Replacement	\$585,000				
Major Repairs	Major Repairs	\$40,000				
Eves Creek MR120	Replacement		\$355,000			
Houlahans	Replacement		\$750,000			
Little Nymboida MR 120	Replacement		\$295,000			
Longs	Replacement		\$150,000			
Major Repairs	Major Repairs		\$30,000			
Bobo River MR120	Replacement			\$710,000		
Lees MR151	Replacement			\$470,000		
Mount Coramba	Replacement			\$150,000		
Timmsvale	Replacement			\$150,000		
Sissons	Replacement			\$150,000		
Major Repairs	Major Repairs			\$30,000		
Hoys	Replacement				\$160,000	
Murrays	Replacement				\$120,000	
Old Bucca Road	Replacement				\$180,000	
Davies	Replacement				\$530,000	
Major Repairs	Major Repairs				\$30,000	
Wedds	Replacement					\$80,000
Corfes	Replacement					\$160,000
Kellets	Replacement					\$390,000
Hartleys	Replacement					\$760,000
Major Repairs	Major Repairs					\$30,000
	TOTAL	\$1,165,000	\$1,580,000	\$1,660,000	\$1,020,000	\$1,420,000

Major repairs allow for specific component replacement extending the life of the bridge until other critical components fail and replacement becomes the only option.

The above works program reflects the present situation and does not account for future deterioration. At this stage Operations Branch does not have the ability to forecast deterioration however this capability should be available once Council has implemented its asset management software.

Issues:

With regards to the replacement of the bridges found on Council's regional roads, these bridges are intended to be replaced under the Regional Bridge Partnership Program where funding is nominally split 50/50 between Council and the RTA.

Cont'd

S13 - Timber and Concrete Bridge Report (Cont'd)

Recommendation:

That Council:

- 1. Notes the 2007 Timber and Concrete Bridge report, and**
- 2. Considers provision for funding for replacement and major repairs as highlighted to Council's bridge stock, as contained in this report, in the 2007/08 budget, and**
- 3. Pursues funding alternatives for the current and future shortfall in bridge replacement and major repairs on local roads.**

Attachments:

Bridge No.	Bridge Name	Road Name	Risk Score	Condition Score
72	DUNCANS	Duncans Bridge Rd	60.14	4.9
70	LONGS	East Bank Road	61.01	4.8
20	ENGLANDS RD	Englands Rd	55.82	4.8
2	SINGLETONS	Crossmaglen Rd	53.67	4.5
34	CORFES No2	Corfes Rd	37.31	4.4
106	MURRAYS	Lower Bo-Bo	40.44	4.3
102	TIMMSVALE	Timmsvale Rd	51.12	4.2
32	HOYS	Hoys Rd	40.68	4.2
65	COLD WATER CREEK	Coramba Rd	84.64	4.2
45	MOUNT CORAMBA	Mount Coramba Rd	49.07	4.2
89	HOULAHANS	Dairyville Rd	66.01	4.1
110	WHITNEYS	Whitneys Rd	47.47	4.1
94	SISSONS	Moleton Rd	42.33	4.0
33	OLD BUCCA RD	Old Bucca Rd	39.99	3.9
18	CYCLE WAY	Hogbin Dr	0.00	3.7
109	DAVIES	Upper Bo-Bo	43.31	3.7
112	EVES CREEK	MR120	64.14	3.6
84	KELLETTTS	Island Loop Rd	34.26	3.5
63	MORROWS	Morrows Rd	52.41	3.5
190	McCELLANDS	McCcellands Rd	27.07	3.3
113	WEDDS	Wedds Road	39.02	3.2
103	ULONG (Ulong Ck)	MR120	54.02	3.0
48	CRAIGES	Central Bucca Road	29.11	2.9
83	BARBARACOS	Barbaracos Rd	35.24	2.8
67	FERRETTTS	Ferretts Rd	35.62	2.7
184	TAYLORS CORINDI	Taylors Rd	20.70	2.7
54	WILLIAMS	Wears Rd	22.26	2.7
53	HOSTS (SNAKE GULLY)	Wears Rd	33.51	2.7
69	SCHOONERS	East Bank Road	38.78	2.6
97	LITTLE NYMBOIDA	MR120	36.39	2.6
73	HARTLEYS	Hartleys Rd	34.66	2.6
57	HERDS	Herds Rd	31.76	2.6
171	LOWER BO-BO	Lower Bo Bo	0.00	2.6
44	BECKETTS	Central Bucca Road	27.16	2.6
49	POWIKS	Central Bucca Road	26.35	2.4
9	CASSIDYS	Cassidys Rd	26.93	2.4
1	KEOGHS	Keoghs Rd	22.98	2.4
5	BARDENS	Crossmaglen Rd	30.01	2.4
93	MOLETON No3	Moleton Rd	27.06	2.3
6	NTH BONVILLE	Nth Bonville Rd	32.15	2.3
36	PUHOS	Puhos Rd	24.59	2.3
80	HOSCHE	Fridays Ck Rd	26.87	2.3
96	WADES	Camp Creek	24.66	2.3

Bridge No.	Bridge Name	Road Name	Risk Score	Condition Score
62	HALLGATHS	Hallgaths Rd	26.14	2.2
85	BOULTWOODS	Island Loop Rd	31.38	2.2
81	THOMPSONS	Fridays Creek	23.70	2.1
47	SECCOMBES	Central Bucca Road	23.90	2.1
52	MARDELLS No 2 STH	Mardells Rd	19.09	2.1
104	CORFES No1	Corfes Rd	28.02	2.0
90	SECOMBS	Dairyville Road	26.82	2.0
27	OLD COAST RD	Old Coast Rd	23.32	2.0
105	ROHDES	Lower Bo-Bo	20.41	1.9
111	KELLEYS	Upper Bo-Bo	20.22	1.9
183	MURPHYS	Murphys Rd	18.36	1.9
10	LINDSAYS	Lindsays Rd	28.60	1.7
58	GILLARDS	Gillards Rd	19.68	1.7
46	TAYLORS	Mount Coramba Rd	23.95	1.7
37	CONDONS	Condots Rd	25.61	1.7
3	BAKES	Bakes Rd	19.91	1.7
107	SECCOMBS	Seccombs Rd	18.64	1.7
108	BO-BO	MR120	31.50	1.7
98	LOWANNA	Lowanna	29.67	1.7
11	SOUTH BOAMBEE	Sth Boambee Rd	27.30	1.7
77	COCHRANES	Cochranes Pool Rd	25.53	1.7
68	FLAGON GULLY	East Bank Road	21.11	1.7
29	OLD COAST RD	Old Coast Rd	20.79	1.7
30	OLD COAST RD	Old Coast Rd	20.79	1.7
86	DINGO CREEK	Dingo Ck Rd	19.89	1.7
51	MARDELLS No 1 NTH	Mardells Rd	16.45	1.7
31	GAUDRONS RD	Gaudrons Rd	15.88	1.7
74	LEES	Coramba Rd	53.95	1.7
60	RANDELLS	Randells Rd	21.07	1.7
91	ARCHERS	Dairyville Road	24.44	1.7
78	WALTERS	Walters Rd	19.89	1.7
173	SAWTELL FOOTBRIDGE	Sawtell Rd	9.03	1.7
71	CORAMBA FOOT BRIDGE	Martin St	24.70	1.7
180	LAZYMANS CK	Sherwood Ck Rd	15.99	1.5
92	MOLE CK	Moleton Rd	20.13	1.5
174	BISHOP DRUITT FOOTBRIDGE	Nth Boambee Rd	5.66	1.5
35	ALLISON ST FOOT BRIDGE	ALLISON ST	10.58	1.2
28	FINLAYS	Finlays Rd	48.98	0.0
181	DUFFUS No1	Duffus Rd	0.00	0.0
14	CHINAMANS	Lyons Rd	85.11	0.0
185	CORAL ST	Coral St	0.00	0.0
186	OLD CORAMBA BRIDGE	Old Coramba Rd	0.00	0.0

S14 PURCHASE OF LONG REACH EXCAVATOR FOR MAINTENANCE DREDGING

Purpose:

To gain Council approval to purchase a long reach excavator with a standard boom and arm for the maintenance dredging of the Coffs Harbour boat ramp and other duties.

Description of Item:

The boat ramp is located within the State Park, extending from Sawtell to Macauleys Headland. As Council is the appointed Corporate Manager for the Coffs Coast State Park Trust, the care and maintenance of the boat ramp is Council's responsibility.

Sand build up at the mouth of the boat ramp and within the ramp itself has become an increased maintenance burden due to approximately 55,000m³ of sand infilling the Coffs Harbour per annum. To keep the boat ramp operational, continued dredging of sand is required.

Records show that expenditure on maintenance dredging at the boat ramp reflects the increase in sand build up within the Harbour as follows:-

<i>Financial Year</i>	<i>Maintenance Dredging Expenditure</i>
1998 / 99	\$3,437
1999 / 20	\$28,520
2000 / 01	\$18,401
2001 / 02	\$6,509
2002 / 03	\$64,347
2003 / 04	\$76,480
2004 / 05	\$89,588
2005 / 06	\$71,194
Total	\$358,476

Council has tried pumping the sand from the boat ramp and adjusting the configuration of the mouth to reduce siltation, however this was unsuccessful. The current configuration of the mouth is accepted as safe and efficient and the most economical method of sand removal has found to be by mechanical excavation.

Clearing of sand from the boat ramp has been undertaken using a contract long reach excavator or a drag line when needed. These items of plant are not available locally and are generally transported from Brisbane, Sydney or Newcastle. The transport of the plant is expensive and the operator's rate high when including accommodation costs etc. With no alternative methods of clearing the sand Council has no choice other than to pay the market rate. For each dredging event, contract plant costs between \$11,000 and \$12,000.

Council purchasing a long reach excavator has been considered previously but deferred in the hope that the sand bag groyne wall would have a flow on effect in keeping the mouth of the boat ramp free of sand. The groyne wall has achieved its objective of reducing surge on the ramp however it has not decreased the rate of infill into the boat ramp. To ensure that the boat ramp is kept open and dredged at an economical rate, suitable plant within Coffs Harbour is required that can be quickly bought onto site.

Cont'd

S14 - Purchase of Long Reach Excavator for Maintenance Dredging (Cont'd)

Sustainability Assessment:

- **Environment**

Using Council based plant to dredge the boat ramp eliminates vehicle emissions as transport of heavy equipment is reduced from interstate to local shifts only.

- **Social**

Dredging maintenance of the ramp is difficult to arrange as it requires the organisation and transportation of specialised machinery that is not always available when required. This situation makes it necessary to close the boat ramp until appropriate dredging machinery can be brought on site. As a result there is generally a backlash from the boat ramp users and at times strong complaints from users outside the Coffs Harbour local government area.

- **Economic**

Broader Economic Implications

By having the boat ramp closed, the desirability and reputation of the Coffs Coast as a fishing destination is damaged and detrimental for the local tourist industry.

Management Plan Implications

The purchase price of a second hand long reach excavator with a minimum reach of 18m will be in approximately \$150,000. To maximise plant utilisation a standard boom and dipper arm can also be purchased for approximately \$25,000 to fit the excavator. These purchases can be funded by the Plant Fund.

Each time Council dredges the boat ramp, around \$8,000 is spent on transport costs and a plant hire rate of \$185 per hour is charged to Council. If Council owned and operated its own plant transport, a local shift of \$140 and hire rate of around \$90 per hour would apply. A saving in the order of \$9,500 per dredge could feasibly be achieved.

Issues:

Council cannot provide the level of service expected at the boat ramp without an easily accessible long reach excavator. The requirement for dredging is unpredictable, a north easterly swell can infill the ramp in 24 hours and necessitate the closure of the ramp. This occurred at Christmas 2006 where prior to Christmas the ramp was clear however during the holiday season a swell infilled the ramp. The RTA and Queensland Main Roads would not allow a wide load on the Pacific Highway over Christmas and the ramp was only able to be opened on the high tide during the holiday season.

Again the high seas of 5th and 6th February 2007 infilled the ramp in a short period. Fortunately a dragline based in Port Macquarie was available and could clear the ramp within a week. Events such as this highlight how quickly the boat ramp can be infilled and become inoperable.

A long reach excavator will be able to clear 90% of the ramp, however approximately once per year a dragline will be required to clear the middle of the ramp.

Cont'd

S14 - Purchase of Long Reach Excavator for Maintenance Dredging (Cont'd)

To ensure that ownership of the excavator is viable, it is an option to purchase a standard boom and dipper arm for the excavator. This will ensure that utilisation is maximised and the machine is not a drain on the plant fund. In 2005 and 2006 Council hired external excavators for the equivalent of 53 weeks and 40 weeks respectively. To further ensure the use of the excavator it can be hired out locally as it will be the only long reach excavator in the area. To change from the long boom to the standard boom and dipper arm is a straight forward operation taking around 3 hours.

Implementation Date / Priority:

A dragline is scheduled to dredge the boat ramp just prior to the East Classic fishing competition in April. It can be expected that within three months of these works another dredge will be required using a long reach excavator. To begin to achieve efficiencies in the operation it should be targeted to have a long reach operational for this clean. Delivery is therefore desirable in June, 2007.

Recommendation:

That:

- 1. Council purchases a second hand long reach excavator with a minimum of 18m reach and a standard boom and dipper arm.**
- 2. The purchase of a long reach excavator with a standard boom and arm be paid for from the 2006/07 Plant Fund.**

S15 COFFS HARBOUR WATER REPORT OCTOBER TO DECEMBER 2006

Purpose:

Information on maintenance, operation and construction activities for the three month period October to December 2006 for Coffs Harbour Water.

Description of Item:

In addition to the routine maintenance and operation activities, the following works were carried out:

1. Assisted construction gang with cut-ins at Corindi, Bay Drive Coffs Harbour and lowering of water services in Robin Street.
2. Carry out super chlorination and de-chlorination of water mains in new subdivisions at Halls Road and The Summit.
3. 12 TAFE Plumbing students toured Karangi Dam, Cochranes Pool Pump Station and Nana Glen Water Treatment Plant.
4. Commenced a new contract with SNP Security for monitoring of Coffs Harbour Water's telephone and telemetry systems.
5. Flushing of water mains carried out in all areas between 21 November and 8 December 2006.
6. Annual settlement survey of Karangi Dam carried out by Ross Robinson Surveyors.
7. Assisted construction gang with relocation of water mains at the new Hogbin Drive Roundabout.
8. Welding repairs and painting of sewerage rising main 14A on the southern bank of Coffs Creek bridge on Orlando Street.
9. Upgrade of two sewage pump station telemetry switchboards in Woolgoolga and one in Sawtell.
10. It should be noted the effect of rain during the holiday period on the 14 day average consumption this year was much lower (18ML/d) than last year (20ML/d) due to regular rainfall which indicates that high increase in consumption over this period is largely due to hot weather and outdoor water use and not increases in population.

1. Water Supply

		Oct	Nov	Dec	Quarter
1.	Total Consumption - Karangi Dam Supply (ML)	495	489	532	1516
2.	Average Daily Consumption (ML/d)	16.0	16.3	17.2	16.5
3.	Rainfall at Karangi Dam (mm)	77.6	116.2	93.7	287.5
4.	Karangi Dam (%) (end of month)	99.6	99.7	93.7	-
8.	Total Extraction from Cochranes Pool (ML)	178	406	48	632
5.	Inflow from Regional Water Supply pipeline (ML)	311	146	474	931
6.	Orara River flow d/stream of P/S (ML/d) (end of month)	53.2	53.2	55.5	-
7.	Nymboida River flow upstream of off take (ML/d) (end of month)	674	872	539	-

Cont'd

S15 - Coffs Harbour Water Report October to December 2006 (Cont'd)

9.	Total Karangi Dam Seepage (ML)	14.5	15.2	14.7	44.4
10.	Total Evaporation (ML) (average for month)	45	45	33	123
11.	Total Consumption Coramba (ML)	2.6	2.7	2.8	8.1
12.	Total Consumption Nana Glen (ML)	1.8	1.5	1.5	4.8

Notes:

1. The majority of flow from the Nymboida to Karangi Dam is through gravity which results in good power savings.
2. Refer to attachments for graphs relating to this data table.

Regional Water Supply

Shannon Creek storage is a critical component of the Regional Water Supply project. The project involves the upgrading of existing roads and the construction of a new portion of road into the Dam site and then the construction of the Dam. Earthworks on the road is complete and the new access road is 70% complete to pavement level. To date 120m of the excavation for diversion trench is complete and excavation of the Dam footprint on the left abutment is complete to rock level. Work is now starting on the left abutment and trench.

To date approximately \$17M out of the target \$104M has been spent. Works are still on track with final completion expected in December 2008.

2. Sewerage/Reclaimed

Below is a breakdown of the effluent reuse meters read throughout the City. Volumes shown are in kilolitres.

EFFLUENT VOLUMES (kL) - October to December 2006

		% Reuse	Total Effluent	Effluent Reused	Effluent Disposed	Rainfall
October	Coffs Harbour	5%	296,500	14,375	282,125	94
	Sawtell	2%	110,422	1,980	108,442	82
	Woolgoolga Moonee	16%	63,559	10,107	53,452	87
	Corindi Beach	159%	6,090	9,700	9,700	41
	Monthly Total	8%	476,571	36,162	453,719	
November	Coffs Harbour	5%	326,736	16,555	310,181	120
	Sawtell	2%	118,415	2,203	116,212	121
	Woolgoolga Moonee	15%	80,606	12,071	68,535	85
	Corindi Beach	130%	5,098	6,610	6,610	138
	Monthly Total	7%	530,855	37,439	501,538	
December	Coffs Harbour	8%	285,836	22,555	263,281	76
	Sawtell	4%	111,674	3,945	107,729	83
	Woolgoolga Moonee	71%	67,660	48,027	19,633	42
	Corindi Beach	121%	4,793	5,810	5,810	80
	Monthly Total	17%	469,963	80,337	396,453	

Cont'd

S15 - Coffs Harbour Water Report October to December 2006 (Cont'd)

REUSE USAGE BREAKDOWN (kL) - October to December 2006

	October	November	December	Total
COFFS HARBOUR WRP	2352	1289	1969	5610
OVERHEAD FILL POINT	0	0	0	0
UNMETERED TRUCK FILL POINT	270	690	280	1240
PS 47 OVERHEAD FILL POINT	3	2	71	76
PS 47	432	905	754	2091
RSPCA	123	59	32	214
AIRPORT	95	16	0	111
RACE CLUB	208	2529	3238	5975
UNIVERSITY	0	0	0	0
ADVOCATE PARK	260	390	277	927
HOCKEY FIELDS	0	0	0	0
MOTO X	27	349	1	377
STADIUM	2680	484	170	3334
FLUSHING POINT (STADIUM)	1997	1747	1418	5162
GOLF CLUB	0	0	8889	8889
CITY HILL	0	0	0	0
STADIUM DAM	1540	2217	1308	5065
STADIUM DR - fruit trees	1388	1812	319	3519
REX HARD. OVAL	1874	1854	1181	4909
SAWTELL RUGBY UNION	286	1126	1838	3250
SAWTELL NURSERY	108	344	259	711
SAWTELL ROUNDABOUT (BARCOO)	732	742	551	2025
JOHN PAUL COLLEGE	0	0	0	0
LEIGHTONS	0	0	0	0
TOTAL COFFS HARBOUR WRP	14375	16555	22555	53485
SAWTELL WRP	157	328	94	
SAWTELL BOWLING CLUB	379	259	339	977
CROQUET CLUB	88	89	240	417
CHINAMANS CK P/S	108	297	278	683
SAWTELL GOLF CLUB	1248	1230	2994	5472
TOTAL SAWTELL WRP	1980	2203	3945	8128
WOOLGOOLGA WRP				0
HIGH ST PLAYING FIELDS	366	0	120	486
GRAHAM DR - tomatoes	88	134	304	526
MORGANS RD - cut flowers	5	4	11	20
UNWINS RD (TOP) - bananas	954	528	1426	2908
UNWINS RD (BOTTOM) - bananas	371	1006	3737	5114
CONDONS RD - bananas & avocados	997	902	2026	3925
CONDONS RD - bananas & blueberries	546	193	30510	31249
CONDONS RD - avocados	313	49	38	400
HOLLOWAYS RD - bananas & blueberries	0	0	0	0
MORGANS RD - tomatoes & cucumbers	1228	931	700	2859
MORGANS RD - tomatoes & cucumbers	0	0	0	0
TANKER FARM1	1	0	0	1
GRAHAM DR - bananas	4	0	0	4
MORGANS FARM 1	69	605	391	1065

Cont'd

S15 - Coffs Harbour Water Report October to December 2006 (Cont'd)

MORGANS FARM 2	1683	2628	1827	6138
MORGANS RD - bananas & blueberries	93	655	67	815
NEW (MORGANS)	1913	1153	3390	6456
PACIFIC H/WAY - macadamia nuts	0	0	0	0
PACIFIC H/WAY - 25mm	46	116	150	312
PACIFIC H/WAY - 50mm	0	0	0	0
MORGANS RD	663	619	781	2063
CONDONS RD	7	0	0	7
MORGANS RD	73	14	20	107
MORGANS RD	0	0	0	0
HOLLAWAYS	0	0	0	0
HOLLAWAYS	24	1385	476	1885
CONDONS RD	0	0	0	0
CONDONS RD	2	0	312	314
PACIFIC HWY	13	4	9	26
PACIFIC HWY	4	0	0	4
PACIFIC HWY	0	0	0	0
WESTER FARM BOUNDRY	434	287	420	1141
WESTER FARM BOUNDRY	0	549	353	902
WESTER FARM BOUNDRY	210	309	959	1478
TOTAL WOOLGOOLGA WRP	10107	12071	48027	70205
CORINDI WRP				
ARABLE	50	930	20	1000
PASTURE	9650	5680	5790	21120
TOTAL CORINDI WRP	9700	6610	5810	22120

3. Capital Works

1. Arrawarra / Mullaway – Works associated with the underbore of Arrawarra Creek and Pump Station No. 28 have been completed satisfactorily and properties north of Connor Close should be able to connect from 1 March 2007. Of the properties south of Connor Close, 290 have already connected with a further 69 still to connect.
2. Renewal of 325m of 200mm water main at Bay Drive from Resort Drive to Marine Science Centre. This main was laid in ductile iron and located in the roadway to replace the existing uPVC main in the footpath that had a high failure rate, due to the street trees etc.
3. Completion and commissioning of Pump Station 43A at Cook Drive and PS 51 at Isles Drive, Coffs Harbour associated with South Coffs Sewer Augmentation Contract 05/06-218-TO.
4. Completion of the section of James Small Drive 200mm water main – from Pacific Highway opposite Bruxner Park Road to Tranquility Drive, Korora. These works were part of the Strategy and were incorporated with a new subdivision.
5. Completion of the section of James Small Drive 150mm water main – Tranquility Drive, to Korora Bay Drive, Korora. These works were a mains extension and part of the strategy.
6. Maintenance and repair to Lower Condons Road reclaimed water pump station.
7. Relocation of 75m of 100mm water main and 75mm sewer rising main to avoid conflict with security carpark extension at Coffs Harbour.

Cont'd

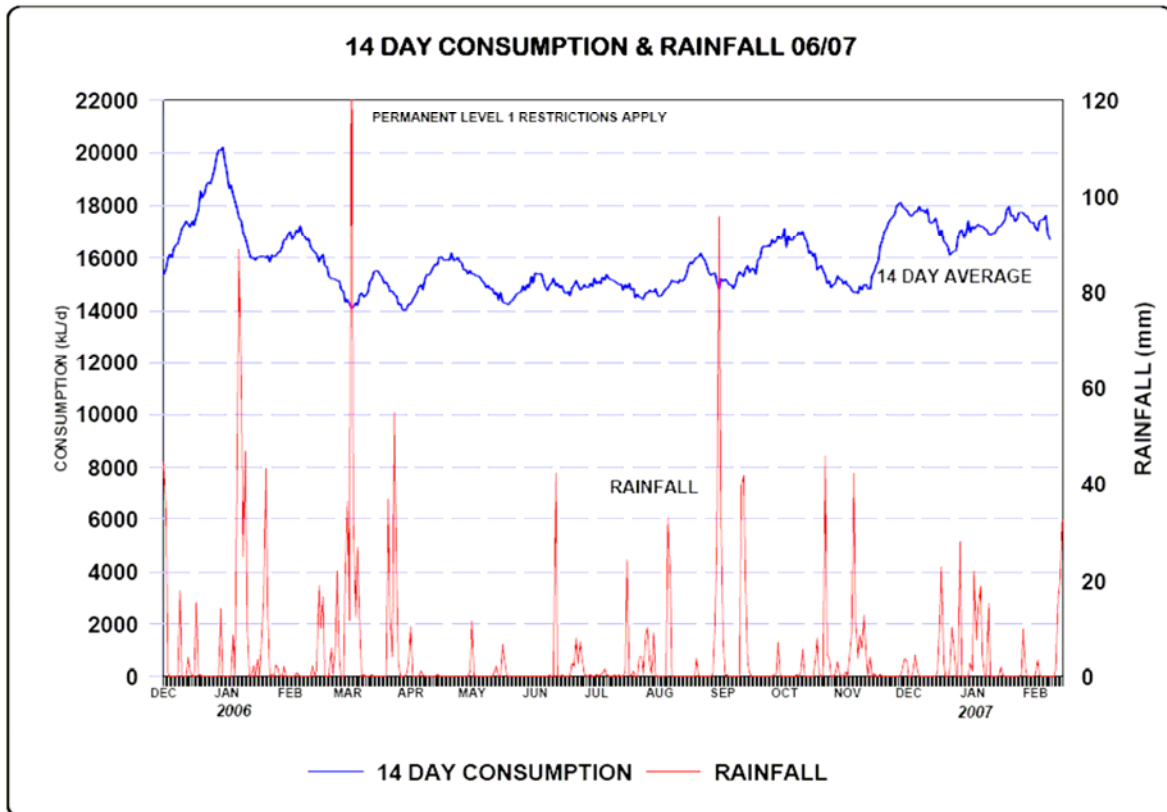
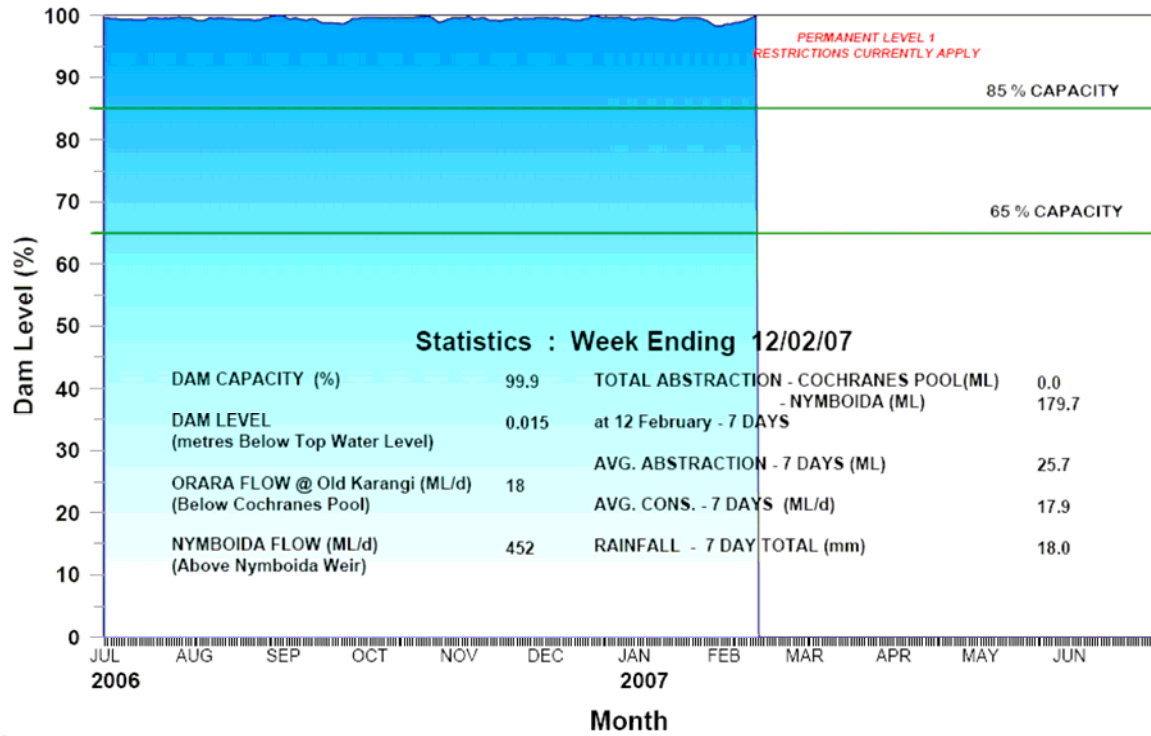
S15 - Coffs Harbour Water Report October to December 2006 (Cont'd)

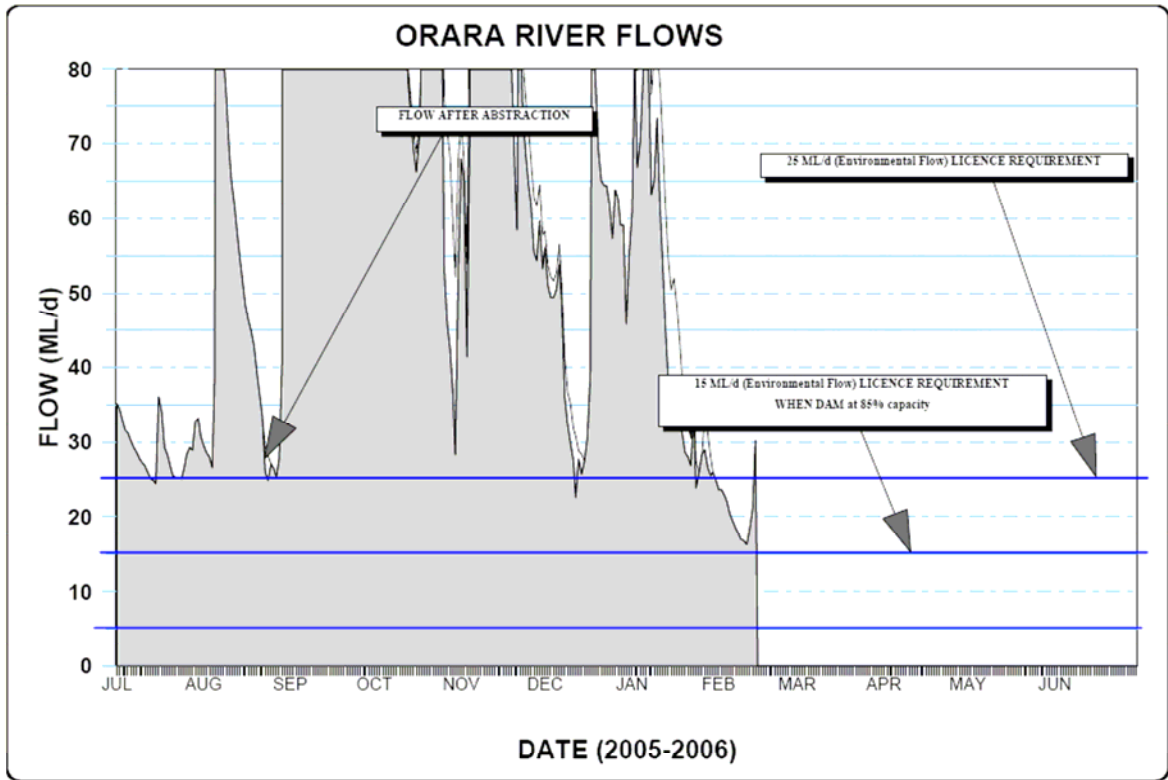
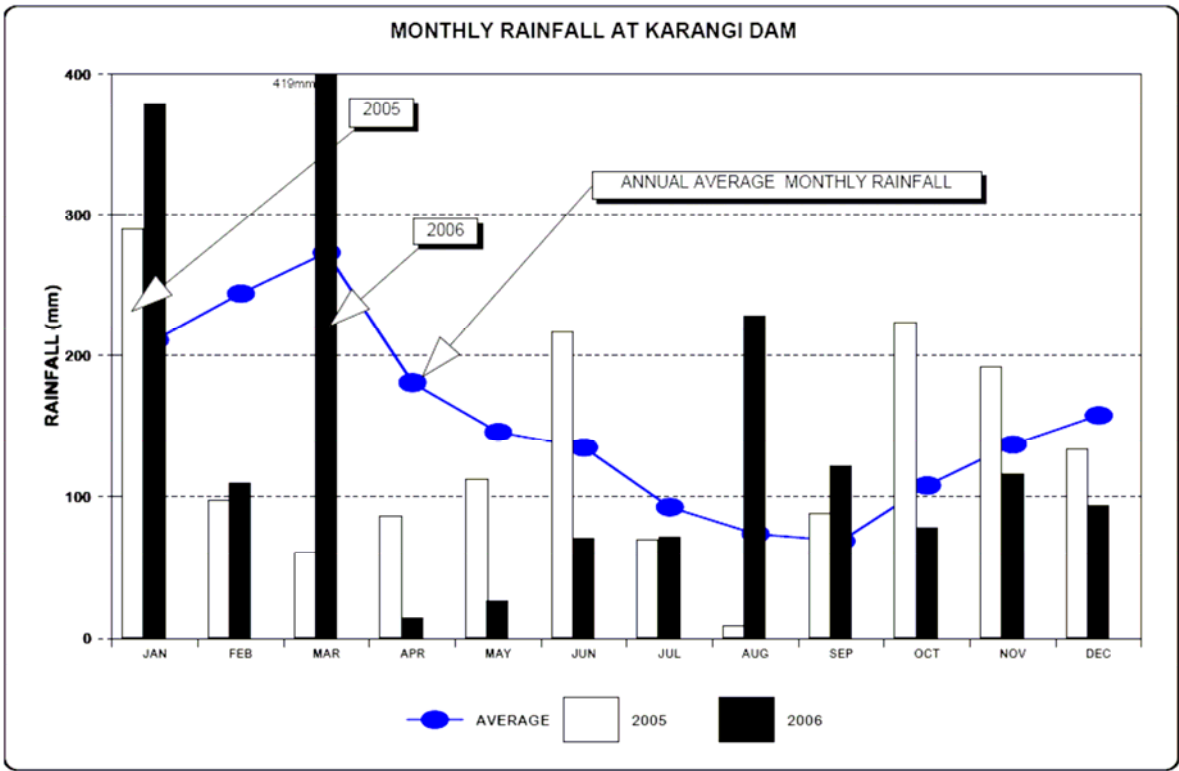
Recommendation:

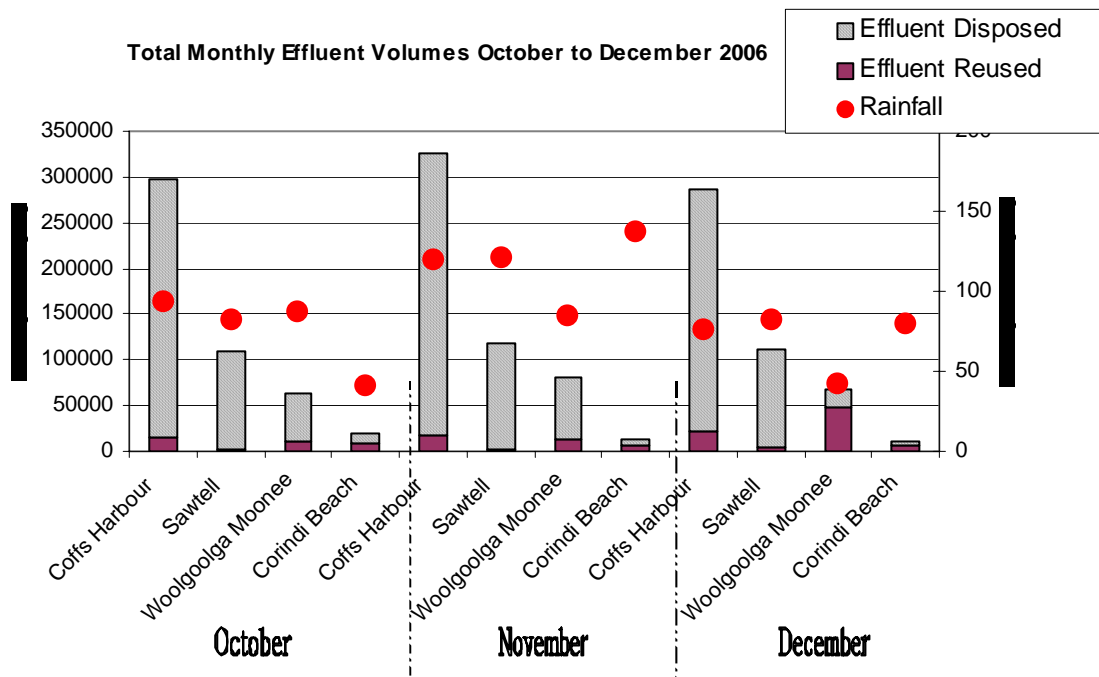
- 1. That the report on Coffs Harbour Water maintenance, operation and construction activities for the three month period October to December 2006 be noted.**
- 2. That the average daily consumption for the December quarter of 16.5 ML/day, total extraction for the quarter from Cochranes Pool of 632 ML, total inflow to Karangi Dam from Regional Water Supply P/L of 931 ML, total consumption for the quarter of 1516 ML and Karangi Dam storage level of 100 % on 13 February 2006 be noted.**

Attachments:

Karangı Dam Capacity 2006 - 2007







RAINFALL AT KARANGI DAM

MONTH	AVG	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
JANUARY	211	161	385	164	62	237	174	147	57	18	284	290	379	98
FEBRUARY	244	413	157	206	160	255	78	413	266	394	110	98	110	42
MARCH	273	381	221	138	107	219	152	755	297	258	368	61	419	
APRIL	181	64	102	25	166	319	145	155	71	108	60	87	14	
MAY	146	183	786	154	28	161	136	103	39	203	16	113	26	
JUNE	135	42	75	38	30	269	43	8	47	63	19	216	71	
JULY	93	8	76	32	60	364	11	73	4	13	41	70	71	
AUGUST	74	12	60	8	209	102	56	21	137	6	15	9	228	
SEPTEMBER	69	34	30	52	131	89	13	32	6	3	63	88	122	
OCTOBER	108	73	38	93	34	65	100	26	31	79	270	224	78	
NOVEMBER	137	263	339	190	240	108	323	129	41	84	107	192	116	
DECEMBER	158	128	101	60	101	123	131	28	68	107	96	133	94	
TOTAL YEAR	1829	1760	2370	1159	1329	2312	1363	1849	1064	1337	1448	1581	1727	140

S16 TENDERS: CONSTRUCTION OF EMERGENCY STORAGE TANKS FOR SEWAGE PUMP STATION 12 - PACIFIC HIGHWAY COFFS HARBOUR

Purpose:

To report on tenders received for the construction of emergency storage tanks for Sewage Pump Station No.12 (on the Pacific Highway near the Mid Way Motor Inn), Coffs Harbour and to gain Council approval to accept a conforming tender.

Description of Item:

This project is part of the necessary works identified in the Coffs Harbour Sewerage Strategy and also needs to be undertaken to meet the requirements of the Environmental Protection Authority (EPA) as part of the recent upgrade of Sewage Pumping Station No.12.

The project involves the construction of storage tanks to contain sewage which may discharge from the existing sewerage system at times when major storms and power outages occur. The work under this contract includes:

- The construction of storage tanks consisting of 2 x 19.2m long x 2.4m diameter concrete pipes fitted with precast concrete access chambers and concrete end caps
- The connection of pipework from an existing sewer access chamber to the storage tanks
- The restoration of the existing sealed pavement, the restoration of the existing garden bed and the formation of a turfed area between these areas.

Open tenders were called in local and Sydney newspapers and closed at 3.30pm on Tuesday, 6 February 2007.

Tenders were evaluated on the following:

- Tender Price
- Experience and Performance in similar works
- Compliance and Logic of Construction Program
- O.H. & S. Management Systems and Performance.

Five tenders were received as follows.

1. AJ Pipelines and Construction Pty Ltd
2. Bob Chambers Pty Ltd
3. Loose Screw Constructions Pty Ltd
4. Malin Excavations Pty Ltd
5. Patroy Enterprises.

An alternative tender was also submitted by AJ Pipelines and Constructions Pty Ltd and this is discussed in the issues section of this report.

Cont'd

S16 - Tenders: Construction of Emergency Storage Tanks for Sewage Pump Station 12 - Pacific Highway Coffs Harbour (Cont'd)

Sustainability Assessment:

- **Environment**

The work under this contract is situated within the Pacific Highway road reserve and between the existing driveways to the Clog Barn and the Midway Motor Inn. This project will require major earthworks in this area, however, the contractor will be required to implement and monitor an Environmental Control Plan for the duration of the project to ensure that any adverse environmental affects will be minimal.

The provision of the proposed emergency storage facility will benefit the local environment by reducing the risk of sewage overflows into the local estuary and nearby properties should power outages occur and when major storms prevail. The project will also relieve existing pressures on sewage pumping station No.12 and the existing sewage network in the area and will also assist Council's operational staff in managing response times.

The works will also require the removal of established shrubs situated in the existing garden bed which adjoins the fence line at the frontage of the Coffs Village Caravan Park. Compensatory plantings of disturbed vegetation in the existing garden area is to be arranged on completion of the storage tank construction.

- **Social**

This project has received the support of the RTA and the local businesses and community consultation with these groups has been undertaken to establish the ideal location and orientation of the emergency storage facility and the extent of site restoration. All work is to be restricted to normal business hours and the businesses affected are to be kept informed of the activities and progress.

During construction the local amenity and traffic conditions will be temporarily affected. Proper security and restoration of the site and strict traffic control as required by the specification will be implemented and monitored to minimise disruption to access and the daily activities associated with the operations of the local businesses.

- **Economic**

The tendered sum includes GST, which is not a net cost to Council.

Expenditure has been budgeted for in the 2006/2007 Management Plan under Sewerage Capital Works.

Related Policy and / or Precedents:

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

Tender details and assessment are included in the Confidential Attachment.

Cont'd

S16 - Tenders: Construction of Emergency Storage Tanks for Sewage Pump Station 12 - Pacific Highway Coffs Harbour (Cont'd)

Statutory Requirements:

The calling, receiving and reviewing of tenders was carried out in accordance with the Local Government (General) Regulation.

Implementation Date / Priority:

The contract completion time is 10 weeks from the date of the Letter of Acceptance. If Council resolves to award a contract, construction will begin in April, and it is expected that work will be completed in June 2007, barring unforeseen circumstances.

Issues:

While AJ Pipelines and Constructions Pty Ltd submitted a conforming tender a non-conforming alternative tender was also submitted by the company. The alternative tender was not considered as it would result in an inferior type of protective lining to that specified in the tender documentation.

The specification required the internal walls of the concrete storage tanks to be protected by a plasticised lining which is specially designed to be embedded in the concrete and offers long lasting protection and is considered to be ideal for this project.

Recommendation:

1. That Council accept the tender of A J Pipelines and Constructions Pty Ltd, ABN 40 083 081 645, for Contract No. 06/07-299-TO, Sewage Pump Station 12 – Emergency Storage Tanks for the lump sum amount of \$261,327 including GST, on the basis that:-
 - a) The tender is the highest scoring tender following the application of Council's Tender Value Selection System
 - b) The Tenderer has the necessary experience in similar works and his referees have confirmed his ability and satisfactory performance
 - c) The Tenderer's financial references are satisfactory
2. That the contract documents be completed under Seal of Council

Jason R Gordon
Director of City Services