



DIRECTOR SHIRE SERVICES REPORT

13 October 2009

DSS8	POINT PLOMER ROAD – MAINTENANCE AND CAPITAL EXPENDITURE	{Folio No. *}
	FILE: R POINT PLOME MJT	

SUMMARY:

Reporting on the financial implications for council for the maintenance of Point Plomer Road, Crescent Head.

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DESCRIPTION:

This matter had previously been put before the council at its ordinary meeting held on 11 August 2009. This report provided a range of options for the continuing maintenance of the road for consideration by council with a recommendation that council reduce the level of maintenance on this road to be commensurate with other roads within the local government area. At this meeting council resolved "*That this matter be deferred pending further information from the Acting Director Shire Services*". The report has been reviewed to see what other information or options could be included and restructured to clarify the estimated costs that would relate to each of the options.

Since the consideration of the report in August, letters have been received by council asking that the current level of maintenance be maintained and to object to any consideration to seal the road. In addition, the state government are currently reviewing the management of the area, with suggestions that Goolawah State Park will be transferred to the National Parks and Wildlife Service. The potential change in management for this area needs to be considered by council in its long term maintenance strategy for Point Plomer Road.

Recent reports/letters published in the Argus newspaper have mentioned the rustic nature of this area and the article mentioned that council should endeavour to protect this environment in its natural state. Port Macquarie–Hastings Council (PMHC) has adopted this philosophy with the southern link that traverses similar terrain behind the coastal dunes. PMHC asset is classified as a not maintained 4WD access track only.

Council currently receives numerous complaints concerning the current road, with some typical concerns being:

- Speeding motor vehicle (usually in the vicinity Goolawah reserve) bitumen surface
- Dust, potholes, rutting, general condition of MY road from the residents, damage to their motor vehicles, the amount of traffic using the road including surf buses
- Drainage and stormwater run-off concerns with water flowing into Goolawah coastal system (Dept of Lands)

The options vary from reclassifying the road to that of an unmaintained four wheel drive track through to that of increasing the level of service to that of a sealed road. In terms of funding, Point Plomer Road is extremely unlikely to attract any future section 94 development contributions and the state government is unlikely to contribute to the road costs, so any capital costs will need to be borne by council. The current annual rates income from all residents of this road network is \$64,909.24. It is hard to quantify the degree of other income directly attributable to council from other users.

Point Plomer Road is 9.4kms in length; it has bitumen sealed sections of 3.2 kilometres with two separate gravel sections remaining, being 4.0 kilometres and 2.2 kilometres in length respectively. The current unsealed road pavement is built on a sub-grade of black sand that has little body to it, has little binding qualities and it not very water tolerant.

On current practices, taking into account traffic movements of greater than 200 vehicles per day and the type of vehicles, to maintain the structural integrity of the pavement, Point Plomer Road would require gravel re-sheet every 12 months.

Kempsey Shire Council's historical practices have established a minimum gravel pavement compacted thickness of 100mm. For every grading of gravel pavement, there is a 10mm thickness loss between services. Council currently grades the gravel pavement four times per year resulting in a loss of approximately 40mm of pavement per year of the 100mm pavement. This results in pavement breaking up due to only having a pavement thickness of 60mm. As a result, the sand of the sub-grade becomes mixed with gravel pavement material, resulting in a lack of binding material to hold the pavement together. This then increases the speed with which potholing occurs on the road.

ARRB and AustRoads guides for sustainability pavements indicate that gravel pavements with Average Annual Daily Traffic (AADT) greater than 200 vehicle movements per day should be sealed to maintain the integrity of the pavement. It is commonly accepted that the tipping point for the whole of life maintenance costs for a sealed versus unsealed road is around 100 vehicles per day. The traffic volumes on Point Plomer Road are such that the whole of life costs for a sealed road would be less than those for an unsealed road.

The financial implications for various levels of service are detailed below.

***OPTION 1: GRADING CONTINUED ON CURRENT PRACTICES
(100MM COMPACTED GRAVEL THICKNESS, WITH APPROXIMATELY
50% GRAVEL RESHEETED PER ANNUM)***

This is the level of service currently attributed to this road. The level of service provided to road users between maintenance grades can deteriorate to a very low standard.

Activity (Length 6.2KM)	Cost/Km	Cost Per Service	Number of Services	Total Cost Per Annum
Maintenance Grade	\$3,000	\$18,600	4	\$74,400.00
Gravel Resheeting	\$25,000	\$155,000	0.5	\$77,500.00
TOTAL AVERAGE ANNUAL MAINTENANCE COSTS				\$151,900.00

The current budget for the maintenance of council's roads has not been increased at a level commensurate with the increased costs of undertaking these works. This has resulted in a gradual decrease in the total length of road that can be gravel re-sheeted each year as funds have been reallocated to this road from within the existing budget for the entire network.

The actual expenditure by council on Point Plomer Road, as recorded in council's financial management system for the five year period from 1 July 2004 to 1 July 2009 was \$899,656 for Capital items and \$640,000 for maintenance activities. This equates to an annual maintenance expenditure of \$128,000 per annum. The estimated cost to continue the current level of service is \$151,900 per year. Whilst this is higher than the historical five year average expenses, it correlates well given the extent of increases in costs to perform this type of work over the same period.

OPTION 2: ROAD CONSTRUCTED TO SUITABLE PAVEMENT STRENGTH (300MM COMPACTED GRAVEL), WITH A REDUCTION IN THE FREQUENCY OF ROUTINE MAINTENANCE.

It is anticipated that Point Plomer Road could be maintained in a sustainable manner with two maintenance grades per year and gravel re-sheet every six years after the road pavement is constructed to a suitable standard. The estimated cost to construct the pavement to a suitable standard is in the order of \$800,000. A budget provision is not currently available for this work.

Activity (Length 6.2KM)	Cost/Km	Cost Per Service	Number of Services	Total Cost Per Annum
Maintenance Grade	\$3000	\$18,600	2	\$37,200.00
Gravel Resheeting	\$25,000	\$155,000	Every 6 Years	\$25,800.00
TOTAL AVERAGE ANNUAL MAINTENANCE COSTS				\$63,000.00

OPTION 3: ROAD CONSTRUCTED AND SEALED

It is anticipated that Point Plomer Road could be maintained in a sustainable manner as a sealed road for the costs indicated in the table below. The estimated cost to construct and seal the road would be in the order of \$1,400,000. A budget provision is not currently available for this work.

Activity (Length 6.2KM)	Cost/Km	Cost Per Service	Number of Services	Total Cost Per Annum
Routine Maintenance	\$500	\$3,100	Periodic pothole and drainage works	\$3,100
Re seal	\$32,000	\$198,400	Every 12 years	\$16,550.00
Pavement Rehabilitation	\$160,000	\$992,000	Every 50 years	\$19,850.00
TOTAL AVERAGE ANNUAL MAINTENANCE COSTS				\$39,500.00

OPTION 4: ROAD REVERTS TO 4WD NON MAINTAINED TRACK

The option of reclassifying Point Plomer Road to a 4WD not maintained track could overcome the majority of the complaints currently received. A sand track would filter run-off naturally, motor vehicle speeds would be considerably reduced and the natural rustic ambience of the road surface would reduce traffic movements and the types of vehicles that would use this road.

If council reclassified the road to a non-maintained 4WD track it is anticipated that there would be an initial cost of \$180,000 to improve drainage. The ongoing annual maintenance cost would be minimal with periodic drainage maintenance being the only commitment.

Activity (Length 6.2KM)	Cost/Km	Cost Per Service	Number of Services	Total Cost Per Annum
Routine Drainage Maintenance	\$500	\$3,100	Periodic drainage works	\$3,100
Drainage Rehabilitation	\$29,000	\$180,000	Every 10 years	\$18,000.00
TOTAL AVERAGE ANNUAL MAINTENANCE COSTS				\$21,100.00

OPTION 5: SIMILAR LEVEL OF SERVICE TO OTHER RURAL ROADS

That council reduce the level of service for this road to be commensurate with the level of service normally accorded to a rural road; being one maintenance grade per year. This option is not considered viable as the current traffic volumes would result in the condition of the road deteriorating to an unacceptable level for large portions of the year. The estimated cost for this level of service would be difficult to estimate as the extent of work required to maintain the road would be considerable on each visit.

Activity (Length 6.2KM)	Cost/Km	Cost Per Service	Number of Services	Total Cost Per Annum
Maintenance Grade	\$3,000	\$18,600	1	\$18,600
Gravel	\$130,000	\$800,000	Once	\$32,000

Resheeting			every 25 years	
TOTAL AVERAGE ANNUAL MAINTENANCE COSTS				\$50,600

OPTION 6: SIMILAR LEVEL OF SERVICE TO OTHER RURAL ROADS, WITH TWO MAINTENANCE GRADES

That Council reduce the level of service for this road to two maintenance grades per annum. This would have similar consequences to option 5 although not as extreme.

Activity (Length 6.2KM)	Cost/Km	Cost Per Service	Number of Services	Total Cost Per Annum
Maintenance Grade	\$3,000	\$18,600	2	\$37,200
Gravel Resheeting	\$130,000	\$800,000	Once every 25 years	\$32,000
TOTAL AVERAGE ANNUAL MAINTENANCE COSTS				\$69,200

A summary of the options now for council to consider are:

Table of Comparisons of Costing:

	Option 1	Option 2	Option 3	Option 4	Not Sustainable	Option 5	Option 6
Maintenance	151,900	37,200	3,100	3,100		\$18,600	\$37,200
Initial Upgrade	0	155,000	1,400,000	180,000		\$800,000	\$800,000
Lifetime Annual	151,900	63,000	39,500	21,100		\$50,600	\$69,200

RECOMMENDATION IMPLICATIONS:

- **Environmental**

Point Plomer Road traverses a culturally significant area and any decision made would need to be further investigated prior to work commencing.

- **Social**

The decision by council to reclassify the road to a non maintained 4WD track may result in additional social dislocation for the residents who use Point Plomer Road to access their property. A 4WD access track would enhance the rustic ambience of the area into the future.

- **Economic (Financial)**

Point Plomer Road is currently a financial burden on council, one which council cannot continue to maintain at the current level of service without either an increase to the rural road maintenance budget or a reduction in the level of service provided to some other rural roads.

The average cost over the past 5 years spent on Point Plomer Road is \$308,000 per year which equates to 2.9% of council's overall rate budget.

To maintain the existing levels of service 1.5% of council's overall rate budget will be consumed.

- **Policy or Statutory**

Nil

- **Director's Review**

Given council's current budget shortfall for the maintenance of gravel roads the current practice of grading Point Plomer Road four times per year is difficult to justify.

- **General Manager's Review**

Taking into account that it is not considered sustainable to maintain the road at the same level as other roads, that funds are limited to upgrade the road network and that the traffic movements are not likely to change unless the track reverts to a 4WD trail, it is considered there are only two options, to upgrade to a sealed surface or revert to a 4WD unmaintained trail. The decision will be driven by the perception of the benefit campers provide to the local community and the value ratepayers place on easier access to this location as it will have to be funded to the detriment of other roads on the local network if an approach to upgrade the road is taken.

RECOMMENDATION:

- 1 That council seek to progressively upgrade Point Plomer Road to a sealed road by reducing road maintenance and diverting these funds to upgrading to a sealed road.**
- 2 That in anticipation of the increasing roughness of the road surface that the traffic committee be asked to consider a lower speed limit on the affected sections of road.**
- 3 That in anticipation of the increasing roughness of the road surface that appropriate signage warning motorists of the road conditions be installed.**
- 4 That council advises the Department of Lands of council's decision to reduce the level of service for the maintenance of Point Plomer road.**

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Bruce Morris
DIRECTOR SHIRE SERVICES