

LATE CONFIDENTIAL REPORT – 12 JUNE 2013 COUNCIL MEETING

Item No	21.6
Report Title	DPTI Stage 3 Program
Council Meeting Date	12 June 2013
Author	John Fernandez
Title	Project Manager
Senior Manager	Michael Culley
Department	Asset Services
Attachments	Nil
File Ref - Records	
Hours to compile	2.0
Strategic Plan Reference	4.3 Construct and maintain road infrastructure in an innovative and sustainable manner.
Purpose	To inform elected members of the Renewal of Unsealed Roads program for Stage 3: 2013/2014, to be presented to DPTI for approval.
Executive Summary	This report seeks to inform Elected Members of the proposed program of works for the DPTI Stage 3 program for 2013/2014, which has been driven by analysis of the budget, material availability, vegetation issues and requests to conduct a Polymer Binder stabilization treatment of a section of unsealed road.
Recommendation 1	That Council approves under the provisions of Section 90 (2) of the Local Government Act 1999 an order be made that the public be excluded from attendance at the meeting with the exception of the, in order to consider, in confidence, a matter on the grounds of Section 90 (3) – b) Information the disclosure of which – i) Could reasonably be expected to confer a commercial advantage on a person with whom the council is conducting, or proposing to conduct business, or to prejudice the commercial position of the council; and (ii) Would, on balance, be contrary to the public interest;
Recommendation 2	That this late report be received for information.
Recommendation 3	That Council approves: a. That all documentation relating to the above matter be kept confidential, pursuant to Section 91 (7) (b) of the said Act. b. Further, that pursuant to Section 91 (9) (a) of the said Act, that part “a” of this resolution shall cease from 30 June 2014.

Discussion

Elected Members will recall Item 10.5 of the 8 May 2013 Ordinary Meeting of Kangaroo Island Council, delivered by the CEO with regard to the overall Department of Planning Transport & Infrastructure (DPTI) Renewal of Unsealed Roads Program.

In that report the CEO advised that the original DPTI program was based on delivery of in excess of thirty kilometres of new road construction prior to competitive civil industry tendering for Stage 1. The outcome after tender evaluation and completion of Stage 1 was delivery of approximately 34 kilometres of North Coast Road.

Based on the outcome of Stage 1, and in consideration of a combination of two years funding, 25.595 kilometres was targeted for Stage 2, (with subsequent stages to be assessed individually) to bring the funding stream back on the target of \$2.0m per year.

It is now considered that 25 kilometres, +/- 5 kilometres annually, can be achieved with the \$2.0m annual allocation. Factors affecting the final total output are:

1. Proximity of borrow pits to work sites.
2. The number of material sources close to the work site.
3. Competitive civil industry tendering
4. Achievement of conformance with the pit material grading & quality requirements

In October 2012 a report was submitted to the Council Meeting (Item 15.10) outlining a proposed and extended program of works for the DPTI renewal of Unsealed Roads Program, with an average output of 25 kilometres. As a result the order of the initial program list was not changed, however the roads listed originally were extended out to match the revised and estimated deliverable kilometres.

Following the 8th May 2013 report Item 10.5, a scoping of roads listed in the revised program has been undertaken. In summary there are items and factors driving a conclusion with regard to any changes to the program:

- a) **Hickmans & Wedgewood Roads** are likely to be constructed using Ironstone Rubble, as there are limited supplies of Limestone material available within close proximity to the project.
- b) Asset Services Department have undertaken an investigation and 'potholing' of available product in the vicinity of the proposed alignment to be upgraded, and have found suitable material of estimated quantities on 4 separate farms. The spread of these locations will ensure reduced haulage distances of the 60,000 +/- ton required for this 15 kilometre road upgrade.
- c) Samples from each farm site have been collected and are to be sent to a registered NATA Laboratory for grading, testing and determination of a suitable PI and other criteria. A grading chart will be produced from this testing, for inclusion in the tender documents and reference at various material Hold Points in the project rollout.
- d) Stormwater upgrade requirements have been scoped and will be included in the tender document.

The "eastern ring route" comprising **East West Road, Willson River Road (part) and Cape Willoughby Road (part)** have been scoped and the following issues noted:

1. **Cape Willoughby Road**, between the end of existing seal and Willson River Road was assessed.
2. There are considerable quantities of heavy and overgrown vegetation that falls within the construction envelope required for the project. Clearance of this vegetation will require a submission to Native Vegetation Council, as the removal of this vegetation falls outside of the compliance of the Kangaroo Island Council's Roadside Vegetation Management Plan 2007.
3. A purchase order has been issued to a vegetation consultant to complete an assessment, documentation and report of the vegetation, including any Threatened Plant Species (TPS) on Cape Willoughby Road and Willson River Road (this is funded by the DPTI program). This report will be used to support the

NVC application for clearance. The NVC approval process can take some months to complete. The removal of vegetation, based on clearance costs of Stokes Bay Road, may require up to \$100,000 from program funding.

4. Other sections of Cape Willoughby Road display considerable narrowness of the current alignment, with one section less than 6.0 metres, and another area near Chapman River requiring considerable earthworks formation prior to the resheeting program commencement. This is expected to consume significant funding, in order to create the level of road safety delivered by the approved typical road cross section for the "B" and Class C1 Collector roads, as part of the overall program.
5. There is only one borrow pit that is suitable for the eastern ring route, and this is located some 21 kilometres from Ian Road. The Cape Willoughby Road segments will require approximately 30,000 ton of Limestone material.
6. The stormwater requirements for the Cape Willoughby Road section have been assessed and there will be considerable work required to extend, replace and strengthen the infrastructure. Higher costs than those on Willsons/Starrs/Elsegood Roads are expected due to the terrain of the verges of Cape Willoughby Road, in parts.
7. **East West Road** has been assessed as having a suitable width envelope at present, with minimal shoulder widening required along the route.
8. Additionally, any vegetation clearance required will be minimal and will fall within the confines of the Roadside Vegetation Management Plan 2007.
9. There are two (2) stormwater crossing upgrade requirements along the 9.4 kilometre alignment.
10. The maximum haulage distance for this road will be 11.4 Km from the pit source.

Pavement Stabiliser Treatment

DPTI have requested, via the Chief Executive Officer (CEO), that the program support the use of pavement stabilising along a section of unsealed road, from the program funding. Previous correspondence to the CEO from residents of Parndana, adjacent to **Rowland Hill Highway**, between Wedgewood Road and Playford Highway - has driven this to be a suitable site for the work.

Accordingly, soil samples for testing have been taken along this 1.050 kilometre section to determine the subgrade California Bearing Ratio (CBR), from which a suitable pavement depth will be advised by report from the NATA Laboratory, charged with the work.

This testing, combined with the grading & charting of the Ironstone Rubble to be used for Wedgewood Rd / Hickmans Rd project, will determine the pavement thickness required to support the traffic flow on this road.

DPTI have advised of their involvement with a pavement stabilising project in South Australia, and have offered to supply the Project Management information regarding the outcome of this work, and to visit the site if required. There are several requirements with pavement stabilising, including location, drainage, material quality and construction methods, all of which will be assessed prior to any decision to proceed.

A previous investigation of polymer treatment on this section of Rowland Hill Highway, undertaken in 2011, determined that a suitable application of product into a resheeted pavement would cost in excess of \$100,000. As this work is aimed at reduction of dust & nuisance levels for adjacent residents, a target distance of 550 metres near the houses is reasonable, with the balance of the road section to be resheeted.

The entire road section is proposed to become part of the Pavement Investigation and Monitoring project that was funded in 2011/12 and continues at present, with monitoring sites established on North Coast Road and Bark Hut Road. Further sites are to be established on DPTI completed works and other Council completed resheeting projects.

Estimate cost of this work, funded by the DPTI Stage 3 program is \$100,000.

Summary

1. The construction of Hickmans & Wedgewood Roads will likely be realised at lower tender costs due to the use of Ironstone rubble, and the proximity to pit sources along the route - est. \$52,500 per km.
2. The construction of the Cape Willoughby Road section (11.70 Km) will incur higher costs due to long haulage distances and crushing requirements of limestone - EST \$71,500 per km.
3. The removal of vegetation on Cape Willoughby will impact on overall project funding – est. \$100,000.
4. Formation requirements of sections of Cape Willoughby Road will impact on overall project funding – est. \$150,000.
5. The stabilisation of 1.050 km of Rowland Hill Highway is estimated to cost \$100,000.
6. The construction of East West Road is expected to be realised at costs similar to the Stage 2 project rollout – est. \$57,400 per Km.
7. Project Preliminaries costs are estimated to be in the order of \$130,000.

Governance Considerations

(relates to consistent management, cohesive policies, guidance, processes and decision-rights for a given area of responsibility)

Nil at this time

Risk Management Considerations

(identification, assessment, and prioritization of risks (defined as the effect of uncertainty on objectives, whether positive or negative) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities)

Improved road pavement increases road safety and reduced costs to operate- particularly for freight/school bus/tourism visitation routes etc.

Economic Considerations

(Assessment of likely financial implications of pursuing a course of action)

Improved road pavement increases road safety and reduced costs to operate- particularly for freight/school bus/tourism visitation routes etc.

Social Considerations

(Assessment of likely impacts with the Community)

Improved safety, speed of transit, comfort and accessibility for the Community to key centres with corresponding reduced vehicle wear and tear.

Environmental Considerations

(Assessment of likely impacts on the environment)

Stormwater upgrades assist in road maintenance and reduced environmental nuisance