Item 10: Operations

10.1 Charbon Village Sewer System

REPORT BY THE WATER & SEWER TREATMENT TECHNOLOGIST
TO 20 FEBRUARY 2019 ORDINARY MEETING
GOV400067, COR400202

RECOMMENDATION

That Council:

1. **receive the report by the Water & Sewer Treatment Technologist on the Charbon Village Sewer System;**
2. **accept the tender submission from Pressure Sewer Services Australia (PSSA) for the installation of a Pressure Sewer System (PSS) at the tendered the price of $X,XXX,XXX.00**
3. **authorise the General Manager to finalise and execute the contract on behalf of Council with PSSA Pty Ltd.**
4. **authorise the General Manager to approve contract variations up to a cumulative total of 10% of the original contract sum; and**
5. **note that grant funding to the value of $1,310,000 from Restart NSW has been provided for this project.**

Executive summary

The townships of Rylstone and Kandos are currently serviced by gravity sewer systems. The sewerage from these systems is treated by Trickling Filter technology, which does not meet industry standards for effluent water quality.

Charbon and Clandulla are serviced by On-site Sewer Management systems (septic systems). These systems are old with known failures.

In 2009 Council engaged Hydro Tasmania Consulting and NSW Public Works to investigate the development of a sewer system that would meet the current and future needs of the communities of Kandos, Rylstone, Charbon and Clandulla.

The recommendations resulting from this process was the development of

- A new Extended Aeration Sewer Treatment Plant at Kandos.
- Construction of new sewer networks at Charbon and Clandulla.
- Construction of pump stations and sewer rising mains to transfer all sewerage to the new treatment plant at Kandos.

With this in mind Council, in October 2018, called tenders for the construction of a sewer network and transfer pump station to service the village of Charbon. Four companies responded to the Request for Tender (RFT). Four submitted tenders for Pressure Sewer Systems (PSS) and two of the four also submitted tenders for a gravity sewer system with a sewer pump station and rising main to Kandos.

Disclosure of Interest

Nil.

Detailed report

Advertised

Open to Market: 26 October 2018
Closed: 30 November 2018
35 days in total

Then above tender was advertised in the:

- Mudgee Guardian on Friday
- Council's e-Tendering portal – Tenderlink and/or VendorPanel
- Sydney Morning Herald Tuesday
- Information regarding this tender was published on Council's Website

Tenders Received

There were six tender submissions from four companies. Four tenders were for Pressure Sewer Systems and two were for Gravity Sewer Systems. Of the six tender submissions received, four tenders were conforming and two tenders were non-conforming.

Late Tenders

There were no late tenders received.

Process of Evaluation

The process of evaluation, the methodology used and TEP members are in accordance to the information provided in the Procurement & Evaluation Plan.

Tender Evaluation Panel Members:

Chairperson	Vincent Ridley	Water & Sewer Treatment Technologist
Panel Member 1	Tom Baldwin	Acting Business Manager Services
Panel Member 2	Neil Bungate	Acting Chief Financial Officer

Probity

The tender has been conducted in accordance with Clause 166(a) of the Local Government (General) Regulation 2005. Conflict of Interest Declarations were signed by all participating evaluation panel members both on advertising of the tender and prior to evaluation. The declarations are available to be viewed if required.

All tenderer insurance records and compliance information were checked against Tender requirements and potential non-conformities were noted in the Evaluation Matrix for the consideration of the panel.

The evaluation was conducted in accordance with the Local Government Tendering Guidelines and confidentiality and probity were maintained throughout the process.

Methodology

All tenders were assessed and scored against the evaluation criteria listed in the tender documentation and weightings in the evaluation plan to determine the successful applicant.

The responses from companies fell into two categories of technology:

1. Gravity Sewer System. In this system the sewerage from the resident's property travels under the force of gravity to a transfer pump station, where it is then pumped to the sewer treatment plant for treatment.

2. Pressure Sewer System. In this system the sewerage from the dwelling is collected in a small pressure pump out station located on each property. These pump the sewerage to a transfer pump station or directly to the sewer treatment plant.

The companies that tendered for the construction of the sewer system at Charbon were;

Company	Conforming	Type of System
J Holdings Group Pty Ltd	No	Gravity
J Holdings Group Pty Ltd	No	Pressure System
Newlands Civil Constructions	Yes	Pressure System
PSSA	Yes	Pressure System
Thompsons Irrifab	Yes	Pressure System
Thompsons Irrifab	Yes	**Gravity**

Conforming prices ranged from $1,206,526 to $2,448,128.
The tender evaluation methodology was adopted to ensure the selected tender offered the best value for money in a rational and defensible way which is fair to all tenderers and provides a low risk to Council. The evaluation criteria were identified in the Request for Tender documentation. Tenders were evaluated strictly in accordance with Tender Evaluation Plan and in compliance with the provisions of the Local Government Act 1993 and Local Government (General) Regulation 2005.

Preferred Option: The submission by PSSA was very comprehensive. It demonstrated the company had carried out system modelling to determine the flow velocity and sewerage age in the reticulation.
Should Council wish to stay with gravity then the only option presented was by Thompsons Irrifab. They demonstrated a good understanding of the system and what is required.

The recommendation to accept the tender from PSSA represents a shift in Councils approach to the development of the sewer systems in the region. Up to now, all sewer has been gravity with the sewerage either gravitating directly to the sewer treatment plant, or to a pump station from where it

is pumped. This type of system is more costly to construct with a low ongoing operational and maintenance cost.

The advantage of the pressure sewer system is it is cheaper to install, and can be installed at any location, without the need for major excavation to ensure the correct grade is maintained.
Whilst a pressure sewer system is more affordable to construct there is an ongoing operational and maintenance cost over the life of the asset.

To sum up the basic difference is a shift in the use of the capital investment. The move is from a high initial outlay with a small ongoing cost to a low initial outlay with a slightly higher ongoing operational cost.

Community Plan implications

Theme	Looking After Our Community
Goal	Effective and efficient delivery of infrastructure
Strategy	Provide infrastructure and services to cater for the current and future needs of our community

Strategic implications

Council Strategies
This project will contribute to the improvement and upgrade of Council assets

Council Policies
Environmental Policy

Legislation
No applicable

Financial implications

Council currently has within the 2017/21 Delivery Program a total budget of $3,025,000 over 2 year (2018/19 & 2019/20), which includes $1,310,000 of grant funding, with the remainder funded from Sewer Fund Reserves. If Council adopts the recommendation to construct a pressure sewer system at Charbon it will free up $1,715,000 that can be used to fund the Rylstone to Kandos rising sewer main and upgrade the sewer pump station.

It is expected that the maintenance costs will be comparable with future maintenance estimates and therefore only minimal change to the Operating Performance Ratio. The Own Source Revenue Ratio will decrease due to the external funding and the Building and Infrastructure Renewal will increase due to the installation of the new asset.

Budget Year	Operating Performance Ratio	Own Source Revenue	Building & Infrastructure Renewal
2018/19	-	✗	✓
Future Years	-	✗	✓

Associated Risks

Although this project is well advanced, there has been little consultation with residents regarding their contribution to the costing of this project. Typically, the cost incurred by residents would be the connection of the internal plumbing to the new sewer system, the estimate by using private plumbers is in the vicinity of $7,000. With this proposal this will occur during construction and is included in the contract price, this will include the connection of the pump unit to the residents private power supply and the plumbing connection to the internal private sewer lines. The connection of the internal sewer pipes will include a disconnection of any illegal storm water connections, these disconnections will not be extended to the street. That part of the project will be the responsibility of the residents.

All the internal plumbing will be assessed to comply with the AS3500 Plumbing Code, if the internal plumbing is non-compliant an estimate of the rectification costs of these defects will be supplied to both the owners and Council. If council agrees to pay these costs, there will be a need to recover these costs from the owners. The owners will also be responsible for sewer headworks charges of $4288 (2019/20 fees & charges).

There are several options, which Council may offer to residents to pay the connection fee including upfront payment, regular term payments, a Caveat on the property, which is repaid upon the sale of the property. Council may also consider another subsidy towards these costs, of 50% discount on the Headworks Charge in recognition of the septic fees that the residents have paid prior to the availability of the sewer.

The residents will also be now required to pay an annual sewer access charge of $864 (2019/20 fees & charges).

Staff will manage the construction project risks including works program and costs. Any construction risks associated with wet weather, environmental and all EPA approvals.

VINCENT RIDLEY
WATER & SEWER TREATMENT TECHNOLOGIST

GARRY HEMSWORTH
DIRECTOR OPERATIONS

8 January 2019

Attachments: 1. Charbon Village Sewer System Evaluation Report. (Confidential - separately attached)

APPROVED FOR SUBMISSION:

BRAD CAM
GENERAL MANAGER