

Ordinary Council Meeting

Late Items of Business

Maclean - 26 April 2022 - 2:00pm



AGENDA

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10.22.002 Contract T20/21 - Shannon Creek Dam Remediation of Tailwater Dam
Variation

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10. LATE ITEMS OF BUSINESS AND MATTERS ARISING

ITEM 10.22.002 CONTRACT T20/21 - SHANNON CREEK DAM REMEDIATION OF TAILWATER DAM VARIATION

Meeting	Council	26 April 2022
Directorate	Works & Civil	
Prepared by	Manager Water Cycle, Greg Mashiah	
Attachments	A. CMC Contract T20/21 - Variation detail (Confidential)	

SUMMARY

The final variation for Contract T20/21 is reported to Council for information as, due to greater complexity in constructing the final design that includes and increased volume of material, the variation is approximately \$650,000 (ex GST) higher than the indicative budget amount foreshadowed in the report to the February 2022 Council meeting.

OFFICER RECOMMENDATION

That Council notes the variation price for Contract T20/21 *Shannon Creek Dam Remediation of Tailwater Dam* is \$5,256,757.55 (including GST).

LINKAGE TO OUR COMMUNITY PLAN

Theme Infrastructure

Objective We will have communities that are well serviced with appropriate infrastructure

KEY ISSUES

The Contract is “design and construct” and the final design was completed in late March, which enabled the contractor to price the required works. Council’s dam safety consultant has reviewed and is satisfied with the design.

The Contractor has followed an “open book” approach to this variation and provided detailed information justifying the nearly \$650,000 (ex GST) increase from the indicative budget estimate. The price increase results from:

Item	Cost Increase	Justification/Comment
Construction time	\$62,000	The budget estimate was based on a 5-month construction period. As a result of the greater complexity with the final design (refer below), the construction is anticipated to take 8 months. This has increased equipment hire and maintenance of environmental works.
Larger Crane	\$72,000	The final design requires an 80-tonne crane as compared with a 50 tonne for the original option. Additional material is also required for the crane access and support.
Foundation Anchorage	\$147,000	The foundation anchorage system in the final design is significantly more complicated than in the original options. Piering with oversight by a Geotechnical engineer has now been specified.
Concrete Volume	\$369,000	The volume of concrete in the new tailwater dam wall has nearly doubled and the abutment walls have increased in size by nearly 67% (87m ³ compared with 55m ³), with more complicated support necessitating the larger crane.

Council staff consider the claimed increases (compared with the indicative budget estimate reported to the February Council meeting) as a reasonable market response as a result of the design changes. Due to material price increases the Contractor can only hold their variation price for 14 days, which is why this is being reported to Council as a late report.

BACKGROUND

As its meeting of 22 February 2022 Council noted (Resolution 07.22.027) a foreshadowed variation for Contract T20/21 due to adverse ground conditions. The report stated:

The Contractor's design consultant has reviewed three foundation options to address the adverse ground conditions and the Contractor has advised these options have indicative budget estimates ranging between \$3.16 million and \$4.13 million.

Following receipt of the final detailed design the contractor has submitted a variation price of \$4,778,870.59 (ex GST) as per the confidential attachment.

COUNCIL IMPLICATIONS

Budget/Financial

A budget variation will be undertaken to reflect the variation. Under the current Regional Water Supply agreement Coffs Harbour City Council (CHCC) are financially contributing 44% of the cost of the remediation. CHCC staff have been advised of the variation and have verbally concurred that it is necessary to complete the remediation work.

Asset Management

The contract will remediate an asset which is at the end of its life to an "as new" condition.

Policy and Regulation

The final variation is being reported to Council for transparency.

Consultation

CHCC staff were advised of the variation.

Legal and Risk Management

Were the works completed with a foundation anchorage and abutments as per the option on which the February 2022 budget estimate was based, it is likely the works would prematurely fail.

Climate Change

As outlined in report 6e.21.013 to the meeting of 27 July 2021 when Council awarded the tender, the renewed structure is designed to increase future resilience. Were the variation works not undertaken as per the final design it is likely the structure would fail in a storm event which is less than the design storm event.