

SSWP V2 Council Snapshot for Initial Funding Meeting

Project ID	SSWP404
Previous projects	SSWP172, SSWP223 IWCM, SSWP115
Project Name	Coolah Water Treatment Works
Project Folder	Coolah WT Works project folder
LWU	Warrumbungle Shire Council
Problem Definition	<p>The existing Coolah water supply system includes a bore water supply with three concrete reservoirs; Martin Street (1 res) and Wentworth Avenue (2 res). Disinfected water enters a rising main to Coolah where it is distributed to Martin St reservoir and also directly to some consumers; Wentworth Ave reservoirs are fed from a booster pump station connected to the reticulation system and located in Hospital St.</p> <p>There is no water quality instrumentation or analysers, except for a 24/7 ChloroClam installed at Martin St. As a result there is no validation of water quality prior to water entering the distribution system, nor means to monitor and control the plant to manage poor water quality.</p> <p>There is a need to improve disinfection contact time and to reduce water age within the reticulation system, which is affecting the ability to effectively control pathogens in the treated water supply.</p> <p>There are additional water quality and stabilisation issues that require resolution. These issues include; corrosivity issues that are indicatively caused by excess carbon dioxide, settled and floating precipitates forming at both reservoirs, pH variations between the reservoirs and high copper concentrations.</p> <p>There is a need for increasing the online monitoring, instrumentation, chemical dosing feedback control and automation of the WTP.</p> <p>The Martin St reservoir is in poor condition with extensive concrete spalling due to corrosion, that will require structural management. The reservoir has been structurally assessed, externally refurbished and replacement is scheduled for FY23/24.</p>
Project Scope	There is a need to provide suitable treatment processes and operational improvements to resolve the above water quality concerns, allowing LWU to meet requirements as per the ADWG Guidelines.
SSWP V2 Subsidy %	75%

Other funding sources	<i>To be confirmed.</i>
ERIL Risk for Asset Issue	2266 Coolah Water treatment, Risk Score 5, Risk Priority 13. Drinking water management fails to effectively control chlorine resistant pathogens (e.g. Cryptosporidium). High risk from Cryptosporidium as assessed by NSW Health.
Project Status (Risk reduction progress)	<p>A preliminary options study is funded under SSWP172. Council has engaged City Water Technologies to undertake the Phase 1 Options Study.</p> <p>Preliminary water quality investigations have been undertaken, including water quality data analysis and water stability modelling.</p> <p>A draft report has been received, DPIE comments provided and awaiting peer review comments. The preferred option to reduce water corrosivity issues has been to aerate the bore water prior to entering the main town reservoir.</p> <p>Further related SSWP funded, INSW funded, NSW Health and fully Council funded projects include:</p> <ul style="list-style-type: none"> - WTP Automation & Process Instrumentation Audit (SSWP) - Construction of a dedicated rising main - Replacement of main town reservoir (currently located in Martin St) - Replacement of chlorine room at town well site; this is then to be relocated – together with the fluoridation unit – to the main reservoir site; part of the chlorine room replacement is funded from surplus INSW funding for the new bore at Neilrex Rd, which is currently connected to Martin St reservoir directly and features a hypo sodium chloride disinfection system - Replacement of fluoridation unit (NSW Health funded project) - OWUA Bore Condition Assessment project (SSWP) - Elevation of booster pump station (which would not be required should the main reservoir be located at the Wentworth Ave site)
IWCM Status	<p>The earlier IWCMS is incomplete and requires substantial review, or a significant new risk needs to be added or reclassified. Council has now submitted a funding request for the IWCMS (SSWP223 – funding has yet been allocated). DPIE is assisting Council to define SoW to complete the IWCMS.</p> <p><u>The IWCM Strategy process has recently been deferred pending review and outcomes of the Town Water Risk Reduction Program.</u></p>
Section 60	<i>To be confirmed.</i>
Gateway Approval Point	<p>Project is between Gateway 0 (Development phase) and Gateway 1 (technical assurance gateway: preferred option endorsement).</p> <p>Need confirmation that Gateway 0 requirements have been met:</p> <ul style="list-style-type: none"> • Project addresses risk that has been identified as a priority for funding under the Safe and Secure Water Program. • Project was identified as required through an IWCMS or equivalent strategic planning report.

	<ul style="list-style-type: none"> • Proponent has demonstrated an understanding of the technical challenge faced and comprehensive planning of the project. • Proponent has demonstrated commitment from council/other investors. <p>To pass from options study phase to concept design, the proponent must receive endorsement of the options report for the project, including the preferred option to be taken forward into concept design.</p> <p><u>DPIE and Council need to determine any strategic context requirements for this project, as there are identified gaps in the IWCM Issues Paper that have not yet been resolved and the IWCM process has recently been deferred pending review and outcomes of the Town Water Risk Reduction Program.</u></p>
Project documents provided to DPIE	<i>To be confirmed.</i>
Project Deliverables	<i>To be confirmed.</i>
Key Risks and Issues	<p>Several other projects will be funded for this Council. This may impact their ability to deliver on these projects due to shortage of staff and \$ to co-fund projects.</p> <p>Council is currently preparing a 10-year Water and Sewer financial plan including financial modelling to assess loan requirements.</p>
Other Comments	Coolah connections 448 (Draft IWCM 2018) town has gravity sewerage with 413 connections. 2 bores 1.9MI/d capacity. Chlorination only.

DPIE and Council Initial Project SSWP V2 Funding Inception Meeting

Details

Meeting: SSWP404 Coolah WQ
Location: Coonabarabran / Teams
Date/time: 8/12/20
Chairperson: Nige Deacon WINSW DPIE

Invitees

1. David Swan WUB DPIE
2. Brendan Miller WUB DPIE
3. Roger Bailey WSC
4. Leeanne Ryan WSC
5. Andrew Milford WSC
6. Cornelia Wiebels WSC

Agenda items

No.	Description	Timing	Responsible
1	Council to confirm the risk associated with the asset is still a 5.		All parties agreed
2	Council to confirm they wish to proceed with the project to mitigate the risk.		
3	Council to confirm ability to co-fund the project as per the designated subsidy rate.		
4	Council to confirm current project final outturn cost estimate.		
5	Council to confirm project status and timing.		
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Summary Minutes,

No.	Issue
1	<p>Welcome and introduction</p> <p>ND confirmed this meeting was to discuss prioritisation of 5 WQ risks for funding under SSWP version 2 – Stream 1. These risks were prioritised for co-funding from NSW Government to mitigate the risk 5 score and that funding would be staged in line with SSWP milestones (Ref SSWP Assurance Poster) but that grant subsidy funding will be provided for all stages including implementation for the best value whole of life solution. Funding deeds are expected to be staged in line with SSWP gateway process with the deed varied as the cost of the next stage is understood.</p> <p>Project funding is available subject to co-funding commitment by Council but needs timeframe as funding for these risks deprives other Councils of funding from the limited remaining SSWP budget. ND recommended that Council at least progress the planning / development stage of all projects given;</p> <ul style="list-style-type: none"> • This is low cost (maybe 10% of total estimated cost) • Producing a business case will give Council full understanding of its funding needs and potentially allow it to access other funding co-contributions outside of SSWP. <p>Co-funding is also available for Project Management assuming external or backfill resources are specifically engaged in relation to this project.</p> <p>ND flagged that according to Council's 2018 draft IWCM Risk & Issues report there were bore headworks integrity issues at most sites; "The bore is not fully sealed against ingress" Council noted that they expect bore integrity issues to be clarified as an outcome from the Orana JO Bore inspection project – no details on timing of when this might happen.</p>
2	<p>Pursuant to agenda below; Risk discussion and confirmation of asset risk score.</p> <p>2266 Coolah Water treatment, Risk Score 5, Risk Priority 13</p> <p>ND asked WSC to confirm that the risk remained unmitigated as described and Council concurred.</p>
3	<p>Council appetite to proceed with the project to mitigate the risk.</p> <p>ND asked WSC to confirm that it was committed to prioritising resolution of this risk. Council concurred.</p>
4	<p>Council's ability to co-fund the project as per the designated subsidy rate (being 75%).</p> <p>ND asked WSC to confirm that it was committed to co-funding the best value solution. Council advised that it would need to review affordability as total cost was better understood.</p>
5	<p>Project cost estimate</p> <p>Total Estimated Cost still to be determined</p>
6	<p>Project status and timing.</p> <p>WSC has recently submitted to DPIE a consultant's report (CWT) addressing concerns with the corrosive nature of the treated water which could lead to leaching of heavy metals plus other impacts – affect on chlorination etc. This options assessment did not consider all recommendations from Council's Automation and Process Instrumentation Audit to ensure product water is monitored 24/7 for compliance to ADWG nor potential crypto contamination issues.</p>

7	<p>General</p> <p>Funding Deed process;</p> <p>Initial deed will likely be based on co-funding revised options report (Gateway 1) to consider crypto, appropriate instrumentation and automation and other issues particularly the corrosivity of the water already considered in the draft options report prepared by CWT. Deed will then be varied to fund concept design and Business case stage to reach Gateway 2A. Once this stage is complete and engineers estimate is available the deed will be varied to fund the implementation phase with a final review possible at Gateway 2B once the preferred tender price is known.</p> <p>NSW Health should be advised of funding availability and invited to provide advice on identified Crypto risk score 5 and potential scope of options study.</p> <p>Tech / Section 60</p> <p>DPIE technical team are reviewing previous CWT report - BM to follow up.</p>
8	<p>Council to review minutes and subject to any changes confirm their specific concurrence to items 2,3,4 above. Once received DPIE will confirm SSWP commitment to work with Council to co-fund the best value risk mitigation solution.</p>
<p>Post Meeting Note</p> <p><i>If Council has any concerns or comments on the snapshot included in the agenda and below please advise.</i></p>	
<p>Attachments;</p> <ul style="list-style-type: none"> • SSWP Project lifecycle poster with Gateway review hold points <ul style="list-style-type: none"> ○ Gateway 0, Gateway 1 requirements to be addressed in initial submission • Draft High risk funding deed, note for this project the deed will be varied at each stage as project achieves gateway approval and progresses to next phase. 	

A follow up meeting was held in Dubbo/via Teams on 17/12 to clarify the scope for this project. Present were Chris Devitt, Andrew Milford, Cornelia Wiebels (WSC); David Swan, Brendan Miller, Nige Deacon (DPIE); and Josh Tickell (NSW Health). This included the recommendation to look at UV disinfection for the bore water.

Stage 1 and 2 of the OWUA Bore Condition Assessment have been completed and assessed the main water supply bore as low/moderate risk (70m deep, commissioned in 1996); the well is only 10m deep and was built in 1965 – a risk assessment could not be undertaken on it due to insufficient available information. The abandoned well (11m deep, built in 1963), identified via this project, is scheduled to be decommissioned in FY21/22.