

Woorabinda Aboriginal Shire Council (WASC)

1. Water Security Plan and Asset Fixes

A brief update on status of the Integrated Water Security Plan development and associated asset management initiatives related to water security.

The purpose is to keep Council, Management and WASC teams informed of progress.

Overview

The status of water security for Woorabinda remains serious. Some relief has been provided with the near full capacity of the 2ML storage tank at the Water Treatment Plant from the relining of the tank.

Actions to address priorities are problematic due to logistic complexity of fixing the water bores (4) with each having distinctive problems.

There are strategies in place to focus on critical actions, summarised below.

Bore Pump Actions

1) Bores 3 & 4 – Productive Bores

Bores 3 & 4 have the 50–60-year-old Centrilift pumps, adapted from oil pumps in the US. Old but still respected for work at depth and resilience to hot water. Dowdens Pumping & Water Treatment are arranging quotes to have Bore 3 & 4 pumps (most productive) pulled from 900m and 950m respectively:

- a. TSM via Dowdens has been in contact with a specialist Centrilift bore pump operator in Perth, who engaged in the last lifting of these pumps;
- b. A special steel frame & winching mechanism is needed in unison with a very large truck rig to lift the expected 8-10 tonne weight of the large pumps (12+ metres in length), wiring and conduits from such depth;
- c. No operator on the east coast has such rigging capability, are not willing to construct, or unwilling to construct due to needs for Engineering certification or the impact on their insurances;
- d. Costs are expected to be high (est \$120 - \$200k) given the expertise and materials sourced from WA. Plan is to have a version of the steel frame & winching mechanism left at site for future use (tbc). In terms of value management, with each bore replacement costs likely to be upward of \$1m each, the long-term benefit makes such expenditure worthy.
- e. One of the bore pumps (likely Bore 3) will be lifted firstly to understand extent of repairs required, best cost-benefit scenario (re repair v replacement) and long-term viability.
- f. Second bore pump (4) will be lifted after with learnings from first used to action repairs or replacement of that set up.

Timing: Giving complex logistic considerations, quotes sought should be with WASC by end of February. Deployment may be after wet season given current high demands.

2) Bore 1 – Pump stuck & Damaged bore casing 124m depth

- a) Separate quotes have been sought to have a rig onsite to recover voided pump & gravel at Bore 1.
- b) Once this is done, bore monitoring equipment can be used to determine extent of damage to casing at about the 124m depth.
- c) If casing is badly damaged and unable to be fixed, option to use new pump at 115-120m depth will be considered. This may affect high yield capacity but will provide consistent low flow source of water.
- d) If the casing or obstructions can be fixed, quotes will be sought to place a new pump down borehole to re-commission this bore.

Timing: Initial quote of approximately \$30-40,000 (recovery lift and clearing), needs to be revisited, based on other actions planned (see below re Bore Network). Plan is to finalise by end of February. Again deployment may be affected by current demand for water services during hot-dry weather. If casing/blockage can be fixed, a quote for new pump and commissioning will need to be sought.

3) Bore 2 – Black Boy Camp

Bore has consistently been graded as low yield and therefore of low priority for action. However Bore Network work (see below) should augment current low yield.

Electrical or controller problems leading to pump cut outs in part has been addressed.

4) Bore Network adjustments

Given the timing of individual bore actions, the TSM has followed up with potential contractors and others to temporarily augment the Bore field pipe network to facilitate supply at Black Boy camp and to enable WPC use in cattle watering points while Bores 3 & 4 are being addressed.

- 1. Dependent on findings as under 2 (c) above, a replacement pump at 115-120m at Bore 1 will be commissioned;
- 2. While Bores 3 & 4 are still de-commissioned the pipe network will be adjusted to enable water to feed and top-up the Holding tank (0.75 ML) from the new or repaired pump at Bore 1;
- 3. Gravity feed will enable flow to WPC cattle water points (e.g. troughs)
- 4. Gravity feed will also enable flow to Black Boy Camp with adjustments to valves
- 5. If Baralaba Weir source is interrupted due to floods/electrical problems, maintenance of full levels of the Holding Tank, will be a back-up to the WTP.

Timing: As indicated in 2) above timing will be dependent on the work planned for Bore 1. Valve adjustments can be undertaken initially to enable flows from Holding tank if water levels are suited.

Baralaba Wier Actions

Replacement of the Pump 2 at the Weir has been completed successfully. Electrical work on switchboards has also been finalised.

2. Integrated Water Security Plan – Stage 3

SMEC were commissioned to undertake Stage 1 Rapid assessment and Situation Analysis. This stage is now completed and they have been asked to forward a detailed quote and work plan for **Stage 3 for the Integrated Water Security Plan**.

Stage 3, as a Strategy & Action Plan shall include more substance on future water needs from development including industrial, commercial, community and nature-based uses. It shall also include:

- an appraisal of the review of the Fitzroy Basin Water Plan (ongoing engagement phase), in terms of accommodating Woorabinda's future needs;
- coverage of catchment hydrological matters to appraise opportunities for future sources of water or improvements to waterways & catchments to protect and enhance current sources;
- deep dive into planned and prospect future uses and development within Woorabinda lands, and future demand scenarios;
- medium to longer term plans to augment current source infrastructure to meet demands;
- Summary of smart tech and innovation that is practical and effective in future water supply and water source management work;
- An Education, awareness and training strategy to assist with nurtured human resource capacity development over time

Actions

- 1) Meeting held with **SMEC Friday 9 Feb24** to discuss important inclusions needed for Stage 3 Strategy work:
 - a. Stakeholder facilitator to be added to the SMEC team
 - b. Catchment hydrology specialist to be added to the SMEC team
 - c. Inclusion of **Fitzroy Basin Water Plan review** status in terms of proposed allocation for Woorabinda and forecast of needs based on future development options
- 2) SMEC is to submit a detailed **Costing and Work Plan** to be completed within the remaining budget for the Project. This submission is to be finalised by the end of February 2024.
- 3) A more detailed focus on the Stage 3 work will be provided for the **next Council Meeting**