

“Is User Pay Possible for remote town water supply – Case Study”



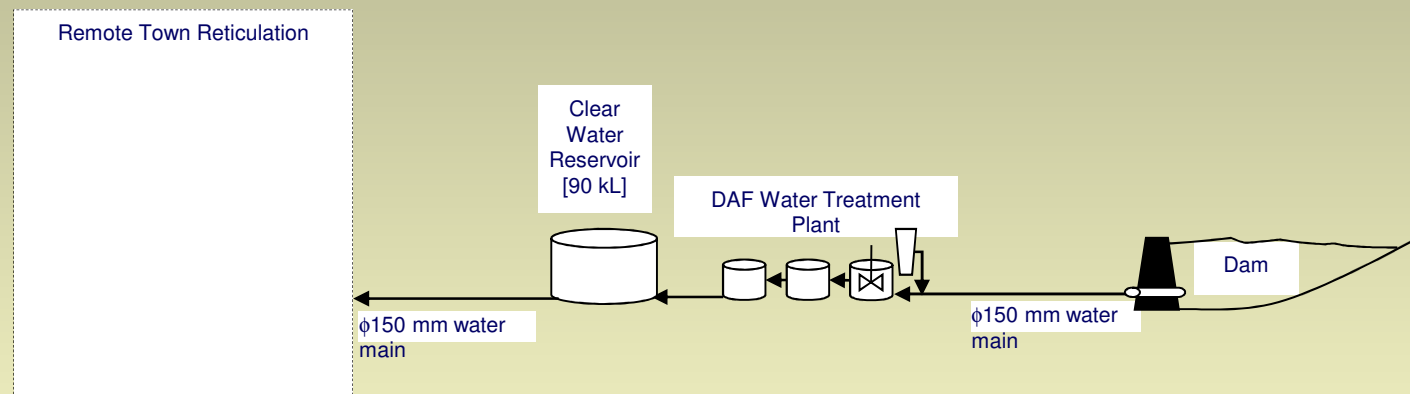
A town called “REMOTE”

Population (2006)	111
Population (2011)	144 (est)
Future growth	1 – 2 persons/year
Connections	75
Industry	Cattle/Mining/Retirees

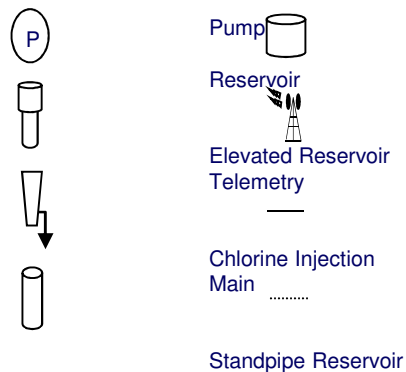


Water supply system

Water is sourced from a dam located 6 kilometres from the township. The water supply is treated by a DAF water treatment plant commissioned in 2006. Treated water is fed to a 90 kL service reservoir which in turn gravity feeds the township.



LEGEND



Telemetry Linkage



Water Supply System



Water Supply System



Water Supply System



Water Supply System



Water Supply Statistics

Treatment plant capacity	2 - 3.4 l/s ~ 150kL/day
Reservoir capacity	90 kL
Avg Daily Cons (AD over 3 yrs)	100 kL/day
MDMM	137 kL/day



Operating costs/revenue

Discount & concessions	\$8,200
O & M	\$186,700
<u>Renewals & improvements</u>	<u>\$90,000</u>
TOTAL COST	\$284,200

Rates & Charges	\$84,180
Interest	\$250
<u>Connection fees</u>	<u>\$2,000</u>
TOTAL REVENUE	\$86,430



Water Charges

Base Charge (vacant lot)	\$315/Annum
Base Charge (20mm service)	\$629
Cons Charge (< 700 kL)	\$0.61/kL
Cons Charge (> 700 kL)	\$1.11/kL



Future issues

- DAF treatment plant is ageing and may require replacement in 10 – 15 years
- Raw water pipeline is poorly constructed and requires replacement
- Raw water quality is poor and significant labour, chemical and power costs occur
- Reservoir is poorly constructed , leaks and requires urgent work
- Additional storage capacity of 140 kL required to satisfy design requirements
- Population growth is minimal



What are the real future capital costs

Additional reservoir (now) 155 kL	\$100,000
Replace the WTP (in 15 years) - \$5K/EP	\$875,000
Replace raw water pipeline (in 15 yrs)	\$1,000,000
Upgrade dam intake structure (in 15 yrs)	\$100,000
Cost now	\$100,000
Cost per year over 15 yrs	\$132,000



User Pays

Operating costs	\$284,000
Capital cost now	\$100,000
Annualised future cap cost	\$132,000
Est Cost per connection/yr	\$6,880
Current average revenue/conn/year	\$1,152
Subsidy required/connection	\$5,728
Total Subsidy required/Year	\$429,600



What are the options

Decommission WTP only and provide non potable supply to consumers

Is the only option that is financially sustainable in the long term in the absence of a significant Government Grant



Option 1

Decommission entire water supply system

- Politically unattractive
- Notice required under the Water Act
- Residents up in arms



Option 2

Continue to operate and look for a future grant to cover the cost of plant replacement

- Financially irresponsible
- No future certainty about funding
- High risk option



Option 3

Future Decommission of WTP only and
provide non potable supply to consumers

- Financially viable and sustainable
- Difficult to sell to consumers
- Politically unattractive



Option 4

Decommission WTP and look for alternative clean water source

- Politically attractive
- Requires significant financial grant
- Difficult to sell to consumers



Preferred Option

Continue with Business as Usual and try to extend the life of the infrastructure as long as possible by low cost preventative maintenance. This will necessitate continued cross subsidisation of the scheme.



**Is User Pay Possible for remote
town water supply ??**

**the answer in this case is probably
NO**

