

JUNE 2007

BULLETIN

NO. 1

MOKOAN DIVERTERS PIPELINE



Produced by Goulburn-Murray Water

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PIPELINE PROJECT UPDATE

Scheme Description

The scheme concept is shown adjacent. It consists of:

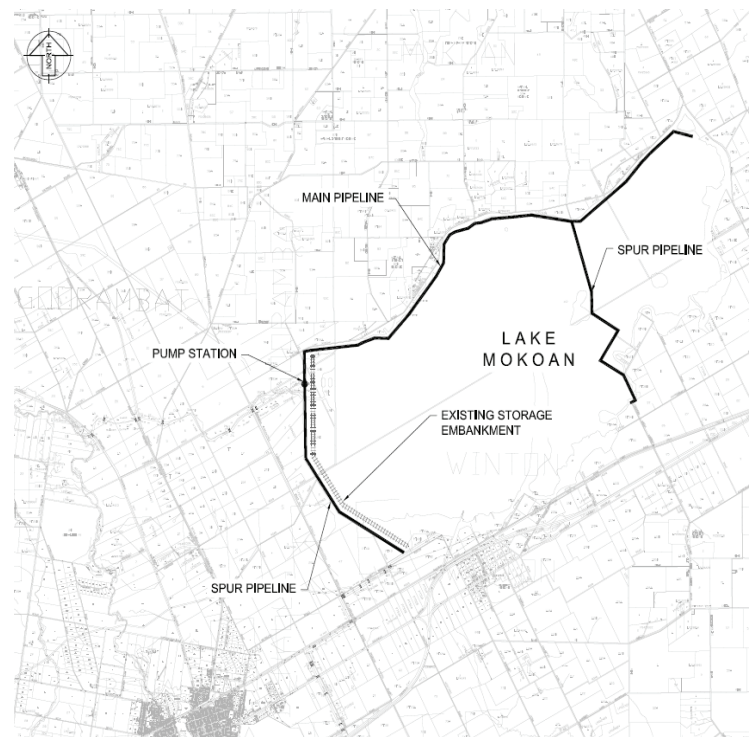
- A deepened section of the Lake Mokoan Outlet Channel
- 21- 27 ML/d Pump station located on the Mokoan Outlet Channel
- Approximately 28km of uPVC pipes ranging in diameter between 575mm to 100mm, consisting of one main trunk and two spur lines
- Metered tapping points to replace current diversion pumping points.

It should be noted that there is no balancing storage as originally suggested in the concept design stage. The preliminary design investigated various scheme arrangements, including an assortment of pump station, pipeline and storage sizes. It found that the scheme was best optimised both from a cost perspective and operationally if there was no balancing storage.

Timelines

The following outlines anticipated timelines for the project:

- | | |
|----------------------------|---------------|
| • Stakeholder Consultation | July 2007 |
| • Detailed Design complete | Sept 2007 |
| • Pipe supply commences | Sept 2007 |
| • Construction commences | October 2007 |
| • Scheme Commissioning | February 2008 |



DESIGN CRITERIA, SERVICE LEVEL & PIPELINE CAPACITY SHARES EXPLAINED

In June 2006 RMCG Consultants undertook a study to assist in the establishment of the required service level for Lake Mokoan Diverters. The study involved gathering from Lake Mokoan diverters, specific water usage and enterprise information.

The study adopted an entitlement based method to determine a pipeline capacity share for each customer.

The pipeline capacity share approach is similar to that adopted at Red Cliffs and Woorinen; both horticultural districts in drier climates.

For more information visit the website www.lakemokoan.com
or contact the Project Engineer on (03) 5833 5458



Each customer's pipeline capacity share has been determined taking their irrigation entitlement and stock and domestic entitlements into account and has used the following method:

- Irrigation pipeline capacity share = 1.3% entitlement ML/d or entitlement supplied in 77 days

e.g. 100 ML irrigation entitlement

$$\frac{100ML}{77days} = 1.3 \text{ ML/d pipeline capacity share}$$

- Stock & Domestic capacity share = 1% entitlement ML/d or entitlement supplied in 100 days

e.g. 2 ML stock & domestic entitlement

$$\frac{2ML}{100days} = 0.02 \text{ ML/d pipeline capacity share}$$

The property information sheet included herein outlines what has been allocated for each diversion licence. The sum of all customer pipeline capacity shares and where they occur in the system has determined the capacity of the pipeline and the pump station.

Design Capacity (ML/d) - Is the maximum, instantaneous volume of water that the scheme is capable of delivering.

Service Level - consists of varying elements that a customer perceives as a service, for example the rate at which one can access water is considered a level of service. The service point, ease of access, operation, pressure, timing and water quality are also elements of service level.

Pipeline Capacity Share (ML/d) - A minimum rate in ML/d in which a customer can access water during the peak week of the peak month of the year.

ON FARM STORAGE

On-farm storage will not only assist with meeting any additional peak demands experienced on farm but will also act as a buffer to any supply interruptions that may be experienced with the scheme. It provides more access flexibility to your water and also provides the opportunity to pump during non-peak periods to help reduce operation costs.

For stock and domestic licences, the project recommends landowners to ensure access to a minimum on farm storage to cover approximately 4 days (~0.08ML) to provide a buffer to any supply or maintenance interruptions that may be experienced by the scheme.

On farm storage is a requirement that the scheme will recommend each customer implement on farm. Most properties have this already in place. Where a possible shortfall in on farm storage for irrigators has been identified, the project will recommend storage options available.

EXPANSION CONSIDERATIONS

If a customer considers their allocated pipeline capacity share may not meet future property requirements (e.g. planning change in enterprise, watering application or future enterprise expansion), there are several ways by which this increase in usage could be catered for:

- Increase on farm storage to buffer peak demands. Customers can take their water during lower demand periods to fill on farm storage. Together with the pipeline capacity share, the buffer storage will increase the amount of water available during a peak irrigation period.
- The project will consider applications from customers who want to invest in the pipeline scheme capital infrastructure in order to 'buy' additional capacity share and be assured of its availability.

Existing customers will be provided information on the incremental cost to 'increase' their pipeline capacity share beyond their current amount. Preliminary estimates indicate that the capital cost per ML/d of additional pipeline capacity increase will cost in the order of \$220,000. This capital cost is to be met by interested diverters and will need to be paid for prior to commencement of construction.

OPERATION— PRESSURE & TIMING

The system will operate 365 days of the year on demand, subject to the availability of flows in the Broken System.

The pump station has been designed with a preliminary pump duty of 70m. This sizing would result in a minimum pressure of 5m at each property service point.

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WATER ORDERING

The Lake Mokoan Diverter Pipeline will be part of the Broken River system, therefore subject to the same requirement as other Broken Diverters of a four day ordering time period after which water will be delivered. Adherence to this requirement will assist in the smooth operation of the Broken System and reduce operating losses.

SERVICE POINTS & METERING

The location of individual service points is approximate only and will be determined more precisely through your feedback or confirmed with you at the time of construction. Service points have been allocated to replace your existing service point, therefore in most cases each licence holder will be allocated one service point capable of delivering at least their pipeline capacity share.

Each service point will be metered. More specific information relating to the types and operation of the meters will be made available during the detailed design process.

WATER TRANSFER

Water Transfer within the system and into the scheme is possible. The delivery of this water will be managed to ensure no third party impact.

TARIFFS

Those diverters supplied from the pipeline will continue to be treated the same as all other Broken System diverters. The pipeline is considered to be 'part of the river'. The same tiered tariff structure is expected to apply across the Broken System.

ENVIRONMENT

An environmental assessment of the project areas environmental values has been undertaken and recommends strategies or works to minimise the impact of threats and protect the values within the project area. An Environmental Management Plan will be developed around these strategies and works to assist in the design, construction and operation of the pipeline scheme and to comply with all legislative requirements.

HERITAGE

An archaeological assessment for Indigenous and non-Indigenous cultural heritage values along the proposed pipeline alignment has been undertaken

The final scheme alignment will be selected utilising this information and avoid disturbance to any areas identified to have cultural heritage values.

A Cultural Heritage Management Plan will be developed as a requirement under the new Aboriginal Heritage Act 2006; this will be undertaken in consultation with the Registered Aboriginal Party/s.

PROVISION FOR FIREFIGHTING

The retention of a year round supply from the Lake Mokoan Outlet channel will provide access to water for fire fighting purposes. A water tapping point off the Main Pipeline will also be provided at the Chesney Vale CFA Shed and at the end of the pipeline. Further discussion with CFA and DSE is proposed on this matter.

CONSULTATION

The purpose of this information pack is to provide a summary of information relating to the pipeline scheme and provide an opportunity for each Lake Mokoan customer to confirm individual details and raise any issues they may have with the proposed scheme.

The Project Team will provide customers with the opportunity to arrange individual meetings with staff to discuss or clarify any further issues. The project team will also be undertaking consultation with various affected external stakeholders about the details of the project.

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