GWMWater

On-farm works

Commissioning of the first sections of the Wimmera Mallee Pipeline is scheduled for October 2007. This will provide piped water to the Longerenong to Yaapeet section and the area around Berriwillock and Culgoa.

While drought conditions and water carting arrangements have forced farmers to review their water management arrangements on-farm, it is important that on-farm infrastructure complies with conditions for connection to the pipeline. A key resource for farmers is the On-Farm Water Reticulation Guide. This provides practical assistance in designing and implementing the connection of pipes, pumps and troughs.

Where will the pipeline go?

Preferably, the pipeline is being installed on cleared farmland close to roads. The design team is identifying and assessing vegetation and culturally- significant sites as part of selecting the best route for the pipeline. To minimise impact on farming activities, landowners are being actively consulted during pipeline design and construction. Project managers are following agreed practices to reinstate fences and farmland to ensure property owners are not disadvantaged or inconvenienced.

Landowner responsibilities

The Wimmera Mallee Pipeline will provide water to property boundaries with landowners being responsible for providing works to store and distribute water around the property. Landowner responsibilities also include design costs of on-farm works, purchase, installation and maintenance of all pipe work and fixtures downstream of the meter.

On-farm facilities

Farm methods and operations can become more efficient through the introduction of a reticulated supply.

These changes include:

> Backfilling existing dams unless a catchment can maintain their viability

> Developing an allocation plan for roof catchment and pipeline supply water

> Re-shaping paddocks to take advantage of a piped water supply

> Designing tanks and pipes to achieve the most cost-effective layout

> Providing storage tanks with a capacity to match peak flows for activites such as spraying, fire fighting and hot-day garden supply. The Northern Mallee Pipeline Project has proven that a three-day supply is adequate

However, it will not be necessary to make these changes immediately. Farmers can do this work over time to fit in with on-farm tasks.

Pipeline design and supply

The pipeline system is designed to provide sufficient water for rural properties in the peak of summer, with the same level of service available to all properties. To balance system capital and operating costs, on-farm storage is a critical and inherent part of the supply arrangements to farms and needs to be planned carefully. This enables the on-farm water demand at peak usage times (eg such as a hot summer day) to be met from tanks, which will be replenished over the whole day at an average flow rate.

Pipe diameter

Water requirements, distances, heights and pressures all need to be taken into account when determining the best diameter of pipe for the various applications on your farm:

> Flows to single trough systems may operate with only a few metres of head

> Trickle or drip irrigation of homestead gardens requires pressure of at least 100kPa or 10 metres, which can be achieved by gravity

> 'Soak-it' hoses operate satisfactorily on 150kPa or 15 metres

> In general, sprinklers need a minimum of 200kPa or 20 metres for good performance, and this pressure is usually only achievable from a pump

In flat situations where power is unavailable, elevating a tank can be the best method of achieving enough pressure to deliver water to the troughs.

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The Wimmera Mallee Pipeline Project is a partnership between the Australian Government, Victorian Government and GWMWater

Tapping points

The location of tapping points is determined through consultation with individual landowners. Tapping points are generally located at the property boundary, providing easy access for meter reading. GWMWater will provide a tapping point at a location within 1.6 kilometres of the largest water demand on the property, such as the house, and within 2.3 kilometres of the most distant point of the property.

The standard tapping point size is 20 millimetres in diameter, which provides for the majority of customers' needs.

Cost estimates

Surveys of farmers indicate the cost of achieving like-for-like water availability, changing farming practices and providing for future growth ranges from $40,000 to $100,000. That equates to about $50,000 for a 1000-hectare farm.

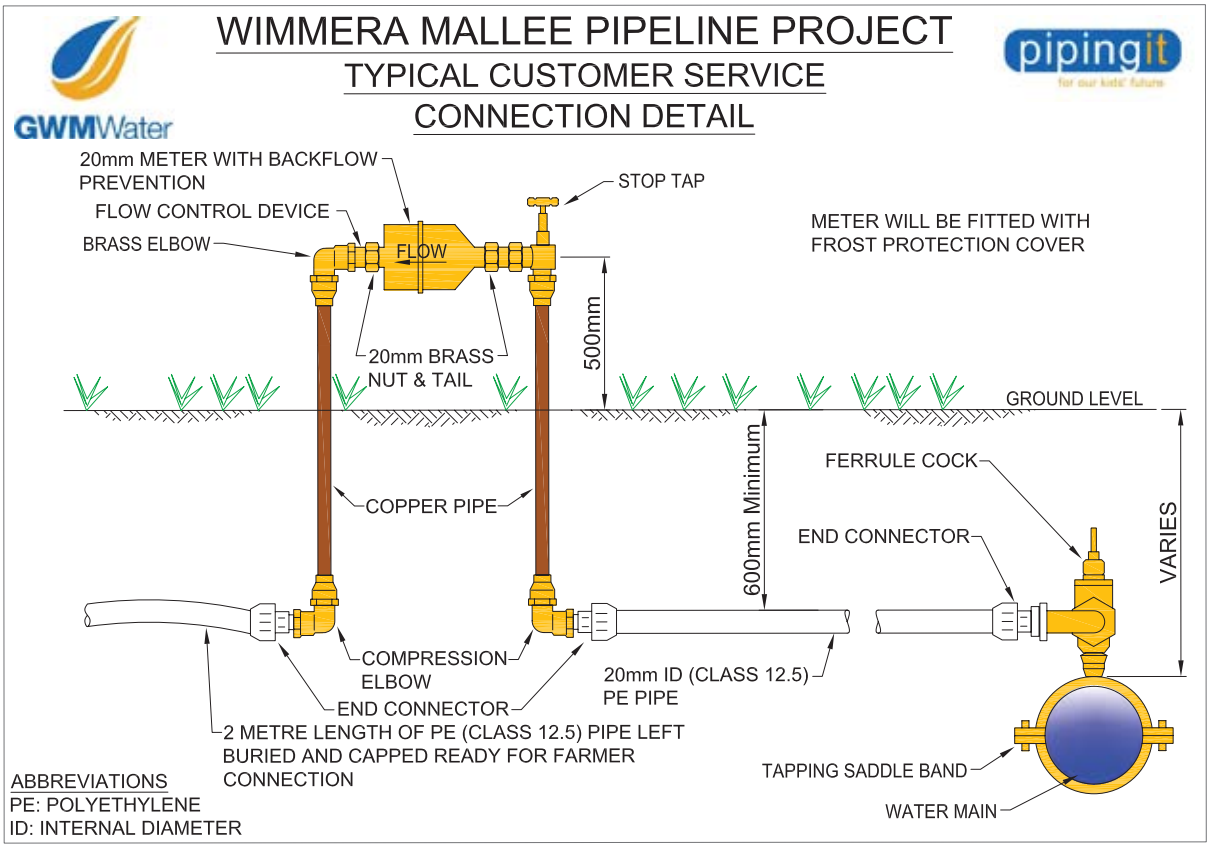
In other terms, the cost ranges from $38 to $96 per hectare ($16 to $40 per acre). These estimates are based on the assumption that contractors will carry out all work and will not provide discounts.

Tanks will account for about 49 per cent of the costs, troughs 26 per cent, pipes 19 per cent and fittings 6 per cent.

On-Farm Water Reticulation Guide

A comprehensive **On-Farm Water Reticulation Guide** has been produced to assist farmers connecting to the pipeline system with the planning, design and installation of piped on-farm systems. The guide provides practical technical advice covering all aspects of piped on-farm water systems.

A copy of the guide is available to all rural customers of GWMWater upon request. A video/DVD *Piping your Property*, which complements the guide, is also available.



Further information regarding on-farm works is available by contacting the **Horsham Piping It Office** on **1300 659 961** or by dropping into the office at **42-44 Kalkee Road.**