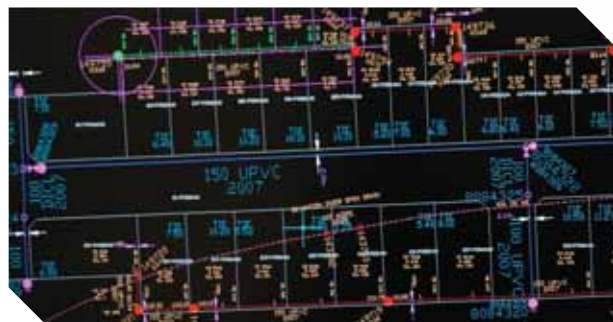


ASSETS AND INFRASTRUCTURE

Assets

Goulburn Valley Water operates 1,677 kilometres of water mains, 1,172 kilometres of pressure and gravity sewers, 340 pumping stations, 92 tanks and reservoirs, 40 water treatment plants and 26 wastewater management facilities. Details of all these facilities are stored in the Asset Register. The same system also manages the maintenance and operation of the Authority's assets.

The Asset Register and Maintenance Management System are used, along with consultation with District Managers and Operations and Maintenance Staff, to identify water mains that are in need of replacement and to formulate a sewer inspection program.



Cad Screen

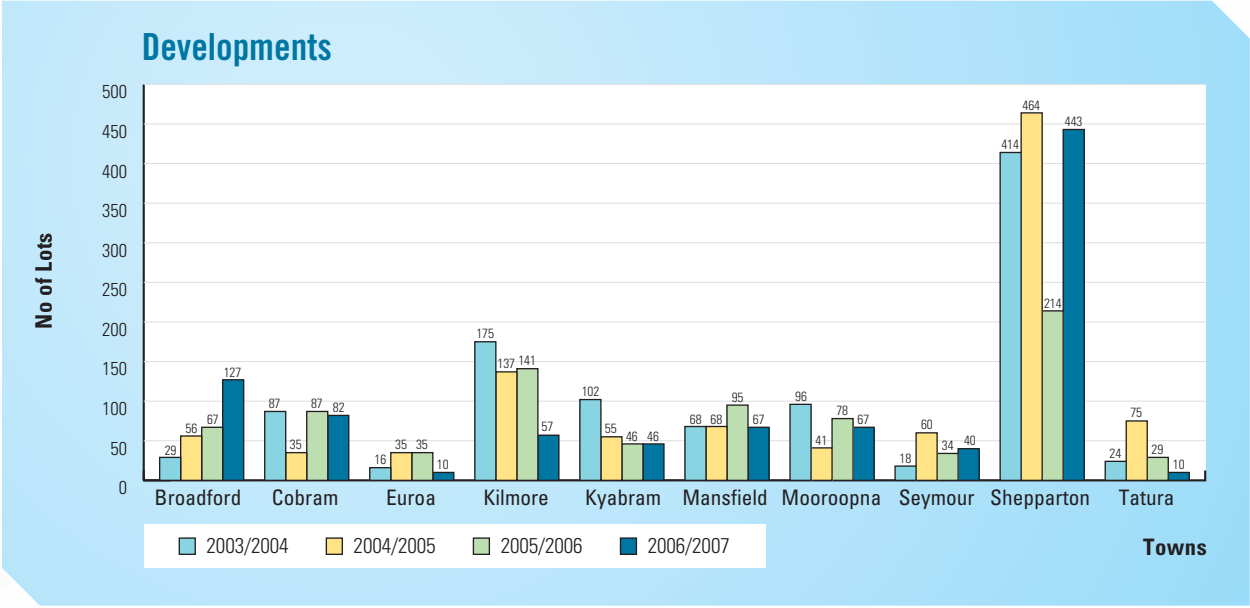
Water Main Replacements

Goulburn Valley Water identifies water mains for replacement by their failure history and consequences of failure. During 2006/2007 the Authority replaced 2,093 metres of water mains. Several innovative construction techniques were utilised to deliver the replacement program which reduced construction costs and minimised the impact on the environment and customers. Examples include:

- Reynolds Street Mansfield, where a new water main was installed using directional boring on a new alignment within the nature strip, rather than using open cut trenching for construction;
- North West Shepparton, where water mains were replaced by pipe bursting the existing main and inserting a new polyethylene pipeline. Temporary water supply systems were installed to ensure that supply to customers was not interrupted. The alternative option was open cut construction of a new pipeline within the road pavement, which would have impacted on access to properties and traffic flow; and
- Pipe bursting and temporary water supply arrangements were also utilised successfully to replace an internally corroded unlined cast iron water main in Union Street, Kilmore.
- Internally corroded unlined cast iron fittings within the reticulated water supply system in Girgarre were replaced. These replacements significantly improve the water quality, pressure and flow provided to customers within the township.

A corroded unlined cast iron fitting from Girgarre, beside a new fitting





Sewer Main Inspection and Rehabilitation

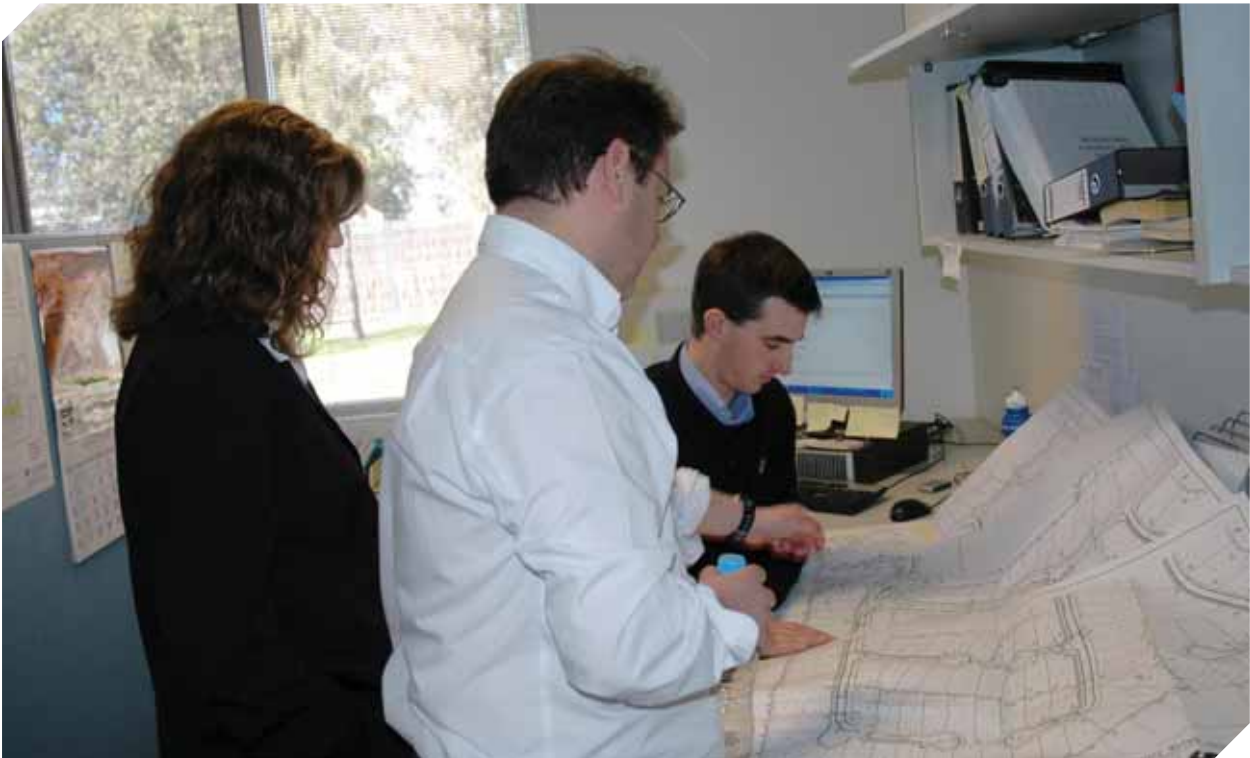
During 2006/2007 1,300 metres of sewer mains were relined using trenchless methods. In addition 5,200 metres of sewer mains were cleaned and inspected by Closed Circuit Television (CCTV). The inspection program will continue into 2007/2008 where additional mains will be assessed to determine the 2007/2008 rehabilitation program.

During 2006/2007 repairs to sewer main collapses identified from both the CCTV inspection program and by Operational staff were completed in Tulloh Street and Oswald Street, Kyabram and Watson Street, Shepparton. The works included the repair of the sewer main and filling of the voids around the failed sewer.

Development

In accordance with Goulburn Valley Water’s statutory obligations and policies new development in the region is provided with reticulated water and sewerage services at the time of development wherever it is possible to do so.

During 2006/2007 a total of 1,150 new lots were created within the Authority’s region. The chart below indicates the distribution of lots in the major growth areas and compares this year’s results with those for the previous three. As shown in the chart the dominant growth area continues to be Shepparton which accounted for almost 40% of all new lots.



Ignatius Alampi, Michelle Webber and Nick Pearce reviewing a new development plan



Adrian Voogt and Mark Putman at the Sunday Creek Spillway

Dam Safety

Goulburn Valley Water is the owner of a large number of water and wastewater storages. 10 of these storages are classified as significant and have been subject to detailed risk and dam safety assessments.

These dams are managed proactively by a combination of operational and preventative maintenance programs and annual surveillance inspections by an external specialist consultant.



The Water Regulatory Audit Report commissioned by the Essential Services Commission recognised Goulburn Valley Water's dam safety management practises as being fully compliant with regulatory and statutory requirements, stating the Authority's dam safety management was operating with "Full Compliance – Achieving Best Practice" standard.

Dam portfolio risk assessments and other reviews undertaken since 1998 determined that several dams did not comply fully with current Australian National Committee on Large Dams Guidelines. Actions on the issues identified are detailed below.

Broadford No. 3 Reservoir

This 100 megalitre reservoir provides a balancing storage upstream of the Broadford water treatment plant. Engineering investigations had not detected any critical defects, but determined that the storage had a relatively high probability of a piping failure due to the nature of its embankment. Construction of a downstream filter zone on the dam embankment was completed in August 2006 at a cost of \$700,000.

Kilmore No. 3 Reservoir

Increasing residential development downstream of this 66 megalitre off stream balancing storage has increased the hazard rating of this dam. Rather than upgrade the dam embankment by the provision of a downstream filter, a decision was made to construct a new 16 megalitre water storage tank adjacent to the reservoir. This will allow both Kilmore No. 3 and the smaller Kilmore No. 1 reservoirs to be decommissioned and provide major water quality benefits for Kilmore residents.

Construction of the new tank is proceeding well, and the reservoirs are planned to be decommissioned in 2008.



Sunday Creek Reservoir

Sunday Creek reservoir is the Authority's largest storage with a capacity of 1,650 megalitres. Changes to ANCOLD guidelines meant that the dam no longer complied fully with current design criteria. Provision of a downstream chimney filter and some other minor works were recommended by dam design specialists to meet the increased engineering standards.

Construction of these works commenced in October 2006 and is now substantially complete. The cost of this upgrade is estimated at \$4.3 million.

Nine Mile Creek Reservoir

The 27 megalitre Nine Mile Creek reservoir supplies Longwood. The reservoir has been identified as being in a poor condition with a relatively high risk of failure. Detailed engineering investigations have determined that the most appropriate remedial option is the construction of a new concrete dam immediately downstream of the existing earthen embankment.

While investigations into alternative supply options for Longwood are being reviewed, funding has been provided in the Authority's 2008/2009 works program for the replacement of this dam.

Abbinga Reservoir

Detailed investigations have also occurred on the Abbinga Reservoir. These have determined that while the probability of a dam failure is relatively high, the hazard created by any failure would be low and not result in loss of life or major property damage.

Investigations into identifying suitable sites for a new storage and its required capacity have continued during 2006/2007, and are expected to be finalised in 2007/2008.



Adrian Vooght at Sunday Creek Reservoir

Hollowback Reservoir

Hollowback Reservoir is a 117 megalitre off-stream storage that is used to supply the Kilmore system. Investigations have determined that the storage has design deficiencies, but a low hazard rating. Given this low hazard rating, no upgrading works are proposed to be undertaken at this time.



Abbinga Reservoir