

# BEST PRACTICE WATER FAULT MANAGEMENT



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# BEST PRACTICE WATER FAULT MANAGEMENT

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## ABSTRACT

In the summer of 2006/07 Yarra Valley Water (YVW) was faced with increased water fault volumes and a shift in customer perception as a result of drought conditions combined with tough water restrictions. A review was undertaken to optimise the fault call resolution process before December 2007 in order to minimise negative media and negative customer feedback.

Actions implemented were:

- Increased Resources & Equipment
- Programmed Works (Leak detection & Valve insertions)
- Central Management of Bursts & Leak Backlog
- Scripting & Prioritisation
- Customer Call Back & Feed back Calls
- Proactive media program.

The summer of 2007/08 showed a huge improvement due to a combination of the above combined with lower volumes. The customer callback program in particular proved to be a resounding success, greatly reducing negative media and customer feedback.

The process was finetuned and reapplied when the summer of 2008/09 hit. Unprecedented hot weather resulting in extremely high fault volumes and the bushfires put all the changes to the test. The result was positive, enabling the Backlog of jobs to be reduced in half the time of the 2006/07 summer. Again negative media and customer feedback was noticeably less.

## 1.0 INTRODUCTION

In the summer of 2006/07 Yarra Valley Water found itself in the midst of media frenzy. Images of wheelie bins overflowing with water from burst mains and customers filling up buckets from leaking hydrants were plastered all over the news.



**Figure 1:** *Burst in St Georges Road, Northcote*



**Figure 2:** *Burst in St Georges Road, Northcote*

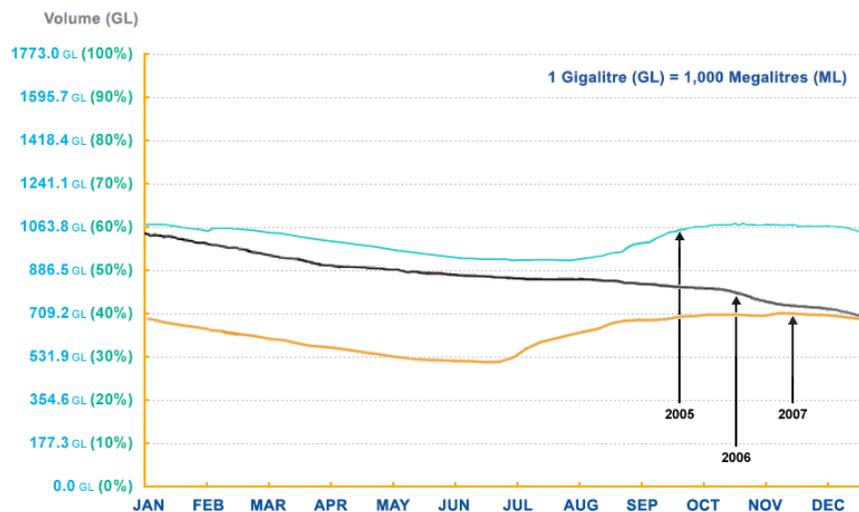
Negative customer feedback around the handling of water fault calls and water fault resolution skyrocketed.

## 2.0 DISCUSSION

### 2.1 Background

Many factors contributed to this including:

- Implementation of tough water restrictions just before Christmas 2006 as a result of plummeting dam levels;



**Figure 3:** *Melbourne Water Dam Storage Level's 2005-2007*

- An unprecedented increase in faults due to drought conditions.

These external forces combined to shift customer perception and highlight some weaknesses in the existing water fault resolution process.

## 2.2 Review

A review was undertaken to optimise the water fault resolution process before December 2007 to address the weaknesses that had been identified before the summer.

The following flaws were identified:

- Generic fault commitments to customers that didn't take into account current performance were being provided.
- Field resources were based on 5 year averages, but the fault volumes had significantly increased over the 3 years preceding the review.
- There was no single point of control for field crews, with control spread between the Control Room, North and South Depots, and 8 Area Managers, all with differing priorities.
- While the core business system that Yarra Valley Water (YVW) used to manage fault resolution had the ability to capture all relevant detail, the shortcomings were that the data was:
  - Not entered in a timely manner from the field;
  - Not entered in enough detail; and
  - Not made available to users of other business systems that used the same data.

While resourcing appropriately and efficiently in the field is important, it needs to be combined with effective process management and customer communications.

Two key areas for the successful management of service faults are:

- Setting and managing customer expectations during the event; and
- Closing the loop with customers including information on the fault resolution.

## 2.3 Improvements

A suite of improvement initiatives were implemented by:

- Providing context to customers of drought;
- Improving information flow within the business and from the field;
- Ensuring field resources are available to meet demand levels;
- Ensuring centralised management of all water related faults; and
- Managing customers who contact Yarra Valley Water about a service fault.

A highlight of these initiatives was the introduction of outbound calls for customers (customer call backs) who have reported a service fault to keep customers informed of where:

- There is a delay in response compared to the initial commitment
- There is reset in commitment if required;
- The fault does not match the customer description; and
- The resolution is completed to obtain customer feedback.

## 3.0 CONCLUSIONS

Implementation of the new Water Fault Management improvement initiatives proved to be a success.

The summer of 2007/08 showed a significant improvement due to a combination of the actions implemented above combined with lower volumes:

- Backlog of jobs reduced significantly;

**Table 2: Backlog Reduction at 23 Jan 2008**

<b>Measures (Includes all Priority Bursts and Leaks. Excludes all rejected jobs, stop taps and customer service)</b>	<b>Current Month Average</b>			<b>Previous Average</b>		
	<b>Jan 08 MTD</b>	<b>Jan 07</b>	<b>Variance</b>	<b>Dec 07</b>	<b>Dec 06</b>	<b>Variance</b>
Daily Backlog Volumes	80	105	-24%	71	85	-16%
Backlog - Jobs > 1 day old	18	124	-85%	16	53	-70%
Backlog - Jobs > 3 days old	7	90	-92%	7	31	-62%
Fault calls (Combined Water and Sewer)	387	569	-32%	348	484	-28%

- Internal callback results showed 99% of customers agreed that YVW met or exceeded expectations;
- Repeat calls from customers reduced;
- There was a strong sense of ownership and commitment to manage all faults in a timely manner.

The process was finetuned and reapplied when the summer of 2008/09 hit. Unprecedented hot weather resulting in extremely high fault volumes and the bushfires put all the changes to the test. The result was positive, enabling the Backlog of jobs to be reduced in half the time of the previous 2006/07 summer.

While water fault volumes have been lower on average for the two subsequent summer periods after 2006/07 they are still relatively high due to the drought period and customer expectations remain high. The water fault resolution initiatives have improved negative customer feedback, media attention and Yarra Valley Water's service response.

#### 4.0 ACKNOWLEDGEMENTS

Valuable contributions were made by the management and staff of Yarra Valley Water. In particular I would like to thank David Errey in Field Maintenance for providing an overview of everything that happened before I moved into Field Maintenance and Tammy Hughes for her efforts driving the initial review and improvements.

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