

## **Water Loss Training Days**

The Water Loss Training Days were held on 23 & 24 February 2017 in Auckland. The event was organised by Thomas Consultants Ltd, Auckland, and was similar to the previous event run in February 2015.

The purpose of the training was to upskill local authority water supply staff and others (consultants, suppliers, contractors etc.) in the area of water loss assessment and management. The aim was also to cover the latest technologies being used to manage water losses.

We were privileged to have Dr Ronnie Mckenzie (WRP Pty Ltd, Pretoria SA) attend as the Chair of the International Water Association's Water Loss Specialist Group (WLSG). Ronnie contributed to the event with a number of excellent presentations on pressure management and network sectorization as well as providing an update of the activities of the WLSG.

The event was attended by 48 - 50 people each day. Attendees included water supply staff from 19 NZ councils (including Watercare Services Limited), staff from Pacific Island water utilities (Solomon Water, WaterPNG and Department of Utilities - Niue Island), consultants, maintenance contractor staff and sponsor staff, which provided a great mix of people for the event.

The training was mostly carried out by Richard Taylor (Thomas Consultants Ltd), with assistance from Ronnie Mckenzie and Charles Chapman (Detection Services Ltd). Presentations were also made by Nish Dogra (Watercare Services Limited), Eric Skowron (Jacobs Consultants), Simon Charles (Whangarei City Council) and Albert Hoffman (Horowhenua District Council).

The event was supported by six sponsors (ABB Ltd, Arthur D Riley & Co. Ltd, Cla-Val Pacific Ltd, Deeco Services Limited, Detection Services Ltd, and Jeff Booth Consulting Ltd) who each had a booth to display their products, and who also gave a 20 minute presentation on their products and services.

The main principles of water loss management were covered at the training; the water balance, water loss performance indicators, uncertainties in water loss calculations, the four main components of managing water losses, pressure management, design of district metered areas, bulk metering, apparent losses and metering and strategies for partially metered and small systems. An interactive session was used to look at the drivers for water loss management and how a target level for real water losses could be set. An overview of the NZ Water Loss Guidelines was also provided.

In terms of the latest technologies available, Charles Chapman once again provided a very practical and informative session on active leak detection equipment and methods. Nish Dogra, Eric Skowron and some of the sponsors covered several exciting new technologies, with some very impressive results. These technologies included very high rate pressure logging (250 recordings per second, time stamped data, processed every minute) and the use of sophisticated data analysis (utilising flow and pressure data collected by a utility) to provide network operators with real time alerts to network events, and asset response and condition information. These technologies are considered to be the way of the future along with smart /automatic water metering.

Feedback from attendees indicated a high level of satisfaction, and that overall it was a very worthwhile, interesting and informative event. There were suggestions of including practical outdoor activities such as leak detection/site visits, more case studies, and more

interactive/discussion/team work sessions. This feedback will be considered for the next event proposed in February 2019.

The writer would like to thank Ronnie Mckenzie, Charles Chapman and the other presenters for their contribution to the training. The writer would also like to thank the six sponsors for their support and involvement with the event.

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