

WASTE AND WASTE WATER

10.45am Wise Use of Water in the Garden City – Russell Beatty & Simon Collin

Abstract

Christchurch city has one of the highest quality natural water supplies of any city in the world. This deep aquifer is recognised as a finite resource and with demand and population growth, there is a need for wise use of water. In stark contrast to the city supply, Christchurch City Council (CCC) also provides small water supplies on the Banks Peninsula. These rural areas typically rely on surface water sources restricted by seasonal low flows coinciding with high demands.

In recent years, CCC has implemented a "Waterwise" public education campaign along with a leak detection programme. CCC is developing a Water Supply Strategy with the key objective of sustainable drinking water management now and into the future.

CCC recognised the need to develop their water demand forecasting capability to improve accuracy and assess water demand management measures. The modelling solution selected is based on Integrated Water Resources Planning (IWRP). IWRP assesses a range of supply and demand management measures to plan for future water supply security. Key elements of IWRP include understanding the demand drivers and a Benefit Cost assessment of demand management options using End-Use modelling. The output of the modelling process is the creation of a number of supply and demand management scenarios and the assessment of the trade-offs between the four well-beings inherent in each scenario.

Russell Beatty

Russell has a Water Resources Engineering background with a Masters Degree in Economics. He has extensive experience in the strategic planning of urban water cycle infrastructure throughout Australia, New Zealand, South East Asia and North America. Russell has over 20 years of experience in the planning and implementation of cost-effective demand management programs. He has pioneered the development of detailed demand analysis approaches for water utilities and private sector clients throughout Australia, New Zealand and South East Asia. He is an industry leader in Integrated Water Cycle Management planning and implementation. Russell was one of the architects of the NSW IWCM program with a key role in the development of planning and financial modelling frameworks and the design of software and the links between various models and the integration of the results.

Over the past 5 years Russell has been the technical leader in the continued implementation of Integrated Water Resources Planning and Economics in the Australian Market, with a number of significant projects in Queensland, New South Wales, Victoria and North America.

Simon Collin

Network Planning Team Leader (Water & Waste), Christchurch City Council. Simon has a background in a broad range of municipal engineering, ranging from civil design and construction through to Solid Waste Management. He is currently the Christchurch City Council Network Planning Team Leader for water, wastewater and solid waste activities.

11.25am The Heat is On – Securing Hamilton City's Water Supply – Emily Botje

Abstract

The mighty Waikato River is no longer The Mighty. Climate changes, population growth, and land use transformations are putting pressure on a limited resource. The heat is now on for all users to secure their future water supply needs. Proposed Variation 6 to the Waikato Regional Plan introduces a new approach to the allocation and use of the region's freshwater. Whilst municipal water supplies are given the highest priority, there is a requirement for suppliers to demonstrate that the water is used efficiently. Suppliers are required to prepare and implement a Water Conservation and Demand Management Plan.

MWH has been commissioned by HCC to assist in obtaining a new resource consent to secure a municipal water supply for Hamilton until 2044. To support HCC's water permit application, MWH has assisted the Council in preparing a Water Conservation and Demand Management Plan which incorporates New Zealand and international best practice in the sustainable management of municipal water.

This paper will describe HCC's journey towards more sustainable municipal water management. It will discuss the requirements of proposed Variation 6, the resource consent process, and the challenges facing all water users in securing their current and future water needs.

Emily Botje

Emily is the Water and Waste Group Manager of MWH New Zealand Ltd's industry both here and in Scotland for 13 years. Emily holds a Bachelor of Technology in Hamilton office. Emily has been with the company since 2005 and has worked in the water environmental Engineering and an MBA from Canterbury University.

12.05pm Success with Public Health Risk Management Plans and the new Drinking Water Legislation – Jim Graham

Abstract

New legislation and an emphasis on demonstrating a quality assurance framework has changed the approach water suppliers need to take to providing safe drinking water. The Health (Drinking Water) Amendment Act came into effect in July 2008 and large water supplies need to demonstrate compliance with the Act from July 2009. Progressively all water supplies will be affected by 2013. The Act places a number of duties on water suppliers including the requirement to prepare and implement a public health risk management plan. The Act also outlines a framework for assessment of water suppliers' performance of their duties and the functions and powers of drinking water assessors. This presentation outlines the duties the Act places on water suppliers with particular consideration given to the preparation of public health risk management plans, the information which is required to be included in those plans and the steps water suppliers can take to ensure their plans meet those requirements.

Jim Graham

Jim Graham is a Principal Environmental Scientist with Opus International Consultants Ltd. Jim has 15 years experience in environmental science and environmental health science specialising in recreational and drinking-water quality. Prior to joining Opus Jim was employed by the Ministry of Health where he worked on the development and implementation of the New Zealand drinking-water strategy including the preparation of drinking-water standards, the legislative framework and leading the drinking water supplies funding assistance programme. Jim has also worked on water aid projects for the World Health Organisation in Asia and the Pacific Islands.