

Innovative Wastewater Infrastructure Planning to Meet Unprecedented Growth at Ruakaka

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Abstract

The Ruakaka area of Whangarei District Council is undergoing unprecedented residential and industrial growth, probably unparalleled elsewhere in New Zealand. This growth results from both the desirability of the area for coastal lifestyle and living and the proximity to the Marsden Point Port and Refinery for industrial development. Populating projections show an increase in the peak holiday period from a high of around 3,000 people at present through to around 70,000 in 50 years time with average daily wastewater volumes rising from around 600m³/day now to 23,000m³/day in the same timeframe.

This growth requires innovative funding and fast track procurement procedures to be adopted by Council and the developers in order that key wastewater infrastructural facilities are available to enable the development to proceed.

The paper will traverse the challenges faced by Council, the developers, the existing community and other stakeholders in planning for this growth so that it takes place in a planned and coordinated way. It will highlight how this extensive and rapid growth is able to proceed, at the same time as planning for compatible and integrated sustainable longer term approaches to allow for full growth over the next 50 years and beyond.

Bios

Simon Weston

BSc MSc MIPENZ CP Eng Int PE

Works and Services Manager for the Whangarei District Council since 2003.

Water Services Manager for the Whangarei District Council between 1996 and 2003

Sn Engineer Auckland City between 1995 and 1996.

Prior to 1996 involved in the construction industry in the UK mainly in design and build projects for the water and waste water industry.

Fraser Owen Campbell

Fraser is a sole practitioner consulting engineer with in excess of 25 years of experience in central government, local government and consultancy work. He has an agricultural engineering degree, is a fellow of IPENZ, a member of INGENIUM since 1991 and a Chartered Professional Engineer. Over the last ten years he has specialised in project management, asset management and flood hazard assessment activities. He has been involved in the Ruakaka Wastewater Project since 2006 with a particular emphasis on the provision of additional capacity to meet short to medium term demands.

Mike Fletcher

BSc (Eng); MICE

Project Manager for the Whangarei District Council since November 2006.

Prior to 2006 28 years experience with Consultants in UK and overseas mainly in the evaluation and design of wastewater and civil engineering projects. Presented paper on Ruakaka Wastewater scheme to Ingenium Northern Branch Meeting in 2007 in Whangarei. Also presented papers to CIWEM on the Hydraulic Modelling of Sewerage Systems (Southwest England branch) and the Design of Sewerage Systems to the Institution of Civil Engineers (Northern England branch) in UK.