

**BEFORE A HEARINGS PANEL OF THE GREATER WELLINGTON REGIONAL COUNCIL
AND MASTERTON DISTRICT COUNCIL**

[GWRC Ref: WAR 070077]

IN THE MATTER of resource consent applications to Greater Wellington Regional Council pursuant to section 88 of the Resource Management Act 1991

AND

IN THE MATTER of a Notice of Requirement to Masterton District Council pursuant to section 168, 168A and 181 of the Resource Management Act 1991

BY Masterton District Council

FOR the proposed upgrade of the Masterton Wastewater Treatment Plant

**SUPPLEMENTARY STATEMENT OF EVIDENCE OF MALCOLM FRANKLIN
ON BEHALF OF MASTERTON DISTRICT COUNCIL**

Subject Area: Infiltration and Inflow

1. OTHER SUBMITTERS ISSUES

1.1 Responding to submitters Andrew Stewart section 8.4 and various other sections 8.8-8.49, and Andrew Duncan section 4.2.1 and various other sections 4.2.2-4.4.7

Mr Stewart and Mr Duncan suggest that the consent application documentation indicates that the MDC is not seeking to reduce I/I. The correct position is that reducing I/I is a key imperative of MDC and MDC has been undertaking work, and plans to undertake more work, to reduce I/I. While the MWTP upgrade design has been based on the current influent flow continuing, the MDC is aiming to reduce that. However, it is not considered prudent to design for an optimistic reduction in influent flow due to the uncertainties in reducing I/I. As set out in my evidence, I/I reduction in some areas will be required just to maintain the current influent flow as the remainder of the system continues to age and I/I increases.

1.2 Responding to submitters Andrew Stewart 8.8, and various other sections to 8.11-8.30 and Andrew Duncan 4.2.10 and various other sections 4.2.11-4.4.7

Mr Stewart notes various inconsistencies between the various documents submitted by the applicant for example, the replacement value of the sewer system as a whole and the estimated cost of reduction of I/I. These documents were compiled at different times by different authors based on various information sources and it would have been impractical to revise all these and bring them into line. The correct, current values are:

- replacement value estimate for the sewer system is \$80 m for the mains and lower laterals plus \$35m for the upper laterals
- volume of typical wastewater discharge per person 250 litres/person/day and
- estimated cost of I/I reduction is \$2,000-\$15,000 per m³/day reduction in daily influent flow to the plant – tending to the higher end of that band as large amounts of I/I are to be removed as this requires expenditure in better-performing parts of the network with a corresponding lesser I/I reduction per dollar of investment

All these values are subject to considerable uncertainty.

1.3 Responding to submitters Andrew Stewart 8.6 and various other sections to 8.11-8.33 and Andrew Duncan 4.2.10 and various other sections 4.2.11-4.4.7

Mr Stewart and Mr Duncan consider that the cost of I/I reduction would be at the low end of the range, or below the low end of the range, given in my evidence. This is based on various considerations including the degree of I/I reduction that can be achieved by targeting the worst-performing areas of the system and the degree to which groundwater migration may or may not actually have a significant impact. MDC will target the worst-performing areas in its I/I reduction works. The real effects of groundwater migration on I/I reduction in Masterton are uncertain. Should the scenarios considered likely by Stewart and Duncan be achieved, a corresponding reduction in flows to the river will be realised. However, while I believe the low end may be achieved (and disagree that substantial I/I reductions can be achieved for less than the low end of the range given by myself), my response is that there is considerable uncertainty in this and constraining the community to an optimistic target may result in significant affordability problems if difficulties that are commonly encountered with I/I reduction work (in Masterton, elsewhere in New Zealand and overseas), arise.

Malcolm Franklin
Manager – Wellington Water, Beca Infrastructure Ltd
11 March 2009