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Drinking Water Engineering and Science Discussions

Interactive comment on "Negative pressures in full-scale distribution system: field investigation, modelling, estimation of intrusion volumes and risk for public health" by M. C. Besner et al.

**Anonymous Referee #2** 

Received and published: 10 May 2010

This paper is an interesting and informative synopsis of a recent, five year programme of work examining sources and extent of ingress into water distribution systems. It would appear that much of the detail of the work has been published elsewhere, but nevertheless this paper provides a good general overview. The manuscript is clear, well-written and easy to read. It is likely to be of interest to a broad range of the readership. I have just a few, relatively minor points, which I would like the authors to address:

1. P136, L19-22: Can the authors confirm that the frequency of data collection was adequate to ensure that all peak values were recorded?

2. P137, L16: The decision to base skeletisation on elevation difference below 2 m requires justification.

3. P137, L24: The decision to set simulation time at 300 s requires justification.

4. P139, L2-5:

C45

The authors should discuss the (potential) causes of the higher frequency of faecal indicator microorganisms in air valves than groundwater. 5. P140, L22-P141, L6: The authors should provide additional detail and discussion on model adjustments. I accept completely that transient model calibration is challenging, I am concerned that the authors have addressed this by simply reducing wave speed by 50%. The authors should provide additional discussion on the basis for this decision and its likely implications. 6. P141, L23-26: Section 3.4 adds no value and should be deleted.

Interactive comment on Drink. Water Eng. Sci. Discuss., 3, 133, 2010.