



Request for Quotation

Assets Branch – Water & Sewer

**Project Specification
For
*Sewer Modelling Services***

RFQ ID: 7606-2016

DECEMBER

2015

1. INVITATION FOR QUOTATION

Quotations are invited and will be received by Wingecarribee Shire Council, Elizabeth Street, Moss Vale, up to 12.00pm Wednesday 23rd December 2015, for undertaking the project of sewer modelling services as described in this project specification and in accordance with Council's Sewer Network Modelling specification. Quotations are to be submitted by email, quoting the reference number 7606-2016, to tim.bell@wsc.nsw.gov.au attention Mr Tim Bell. Please include with your submission a completed quotation form (Appendix A) and pricing schedule (Appendix B).

The contact officers for all enquiries are:

Mr Tim Bell, Modelling & Systems Engineer, Phone 02 4868 0816, tim.bell@wsc.nsw.gov.au

Mr Stace Lewer, Asset Coordinator – Roads & Water, Phone 02 4868 0823, stace.lewer@wsc.nsw.gov.au

2. BACKGROUND

Wingecarribee Shire Council (WSC) provides sewerage services to seven towns throughout the Southern Highlands of New South Wales. Understanding the hydraulic condition of these sewerage systems is required for the Council to adequately plan future system augmentations and hydraulic improvements. Wingecarribee Shire Council wishes to have sewer system hydraulic models for all of its towns that possess reticulated sewer networks.

Council has completed a number of model builds, calibrations and flow containment assessments to date. The purpose of this project is to expedite the remaining model builds, flow surveys, model calibrations and flow containment assessments as depicted in the table below.

Catchment	Model Build	Flow Survey Analysis	Model Calibration	System performance assessment & flow containment options
Berrima	X	X	X	X
Bowral		X		
Moss Vale				X
Mittagong		X	X	X

Table 1: Modelling tasks included in this project

Council is seeking to appoint a consultant for the provision of these sewer modelling services. The consultant as engaged with WSC will be in accordance with a Services Agreement based upon a schedule of fees (see Appendix B) for sewer modelling services. Working in conjunction with Council's Modelling & Systems Engineer the consultant will be responsible for the following tasks:

- Undertake model builds for the remaining schemes outlined in the scope (Clause 3) to the standard as specified in the WSC Sewer Modelling specification.

- Provide input and assistance in managing contractors undertaking sewer flow monitoring and rain gauging services including the following tasks:
 - Data checking for completeness and anomalies
 - Comparison of captured flows against modelled flows using Infoworks ICM
 - DWF quantity and quality analysis
 - Storm event quantity and quality analysis
 - Rain gauge spatial analysis
- Complete detailed model calibrations using the captured flow and rain gauge data from the flow survey contract. This will involve DWF and WWF calibrations and Model Verification in accordance with the WSC Sewer Modelling specification.
- Undertake flow containment assessment using the calibrated models and development containment options to Council's agreed level of service. The containment options will test a range of options to determine the most cost effective solution such as source control by reducing I/I, increased conveyance capacity or a combination of both.
- Complete an Inflow/Infiltration Reduction Effectiveness Assessment of the Bowral catchments identified in the scope (clause 3).

3. SCOPE

Council are seeking a suitable consultant to undertake the following sewer modelling works, in order of priority:

Bowral Sewer Scheme

- Flow survey input and contract assistance & Inflow/Infiltration Reduction Effectiveness assessment.

Council had consultants build and calibrate a sewer model for Bowral in 2013. Following the calibration, an I/I assessment was completed which revealed high levels of I/I in 5 of the 14 flow monitor catchments. These 5 catchments were targeted for CCTV inspections and subsequent rehabilitation works. The I/I Reduction Effectiveness assessment will quantify the level of I/I reduction achieved through the pipe rehabilitation works by analysing the differences in I/I levels from pre and post rehabilitation.

Berrima Sewer Scheme

- Model Build, flow survey input and contract assistance, detailed calibration, flow containment assessment

Moss Vale Sewer Scheme

- Flow Containment assessment

Mittagong Sewer Scheme

- Flow survey input and contract assistance, detailed calibration, flow containment assessment

The consultant is to submit a methodology outlining each of the tasks and how they propose to complete all tasks by the due date. A table showing the number of assets in each scheme, and number of proposed flow & rain monitors is provided in Appendix C.