

## DETERMINATION OF SPS DESIGN FLOWS

Estimating pumping station design flows requires developing a hydraulic model for the pumping station in consultation with Sydney Water. Specific project requirements will be advised by Sydney Water and will generally involve the designer undertaking the following preliminary investigations:

- For developed catchments:
  - Identifying existing sewers and pumping stations that will connect to the new pumping station
  - Obtaining from Sydney Water details of flows to the new pumping station from existing gravity sewers (EGS) and existing pumping stations (EPS)
  
- For undeveloped catchments:
  - Determining the proposed development land use zonings
  - Defining proposed gravity sewerage systems and pumping stations
  - Quantifying the gross development area draining to a gravity sewer that will connect to the pumping station
  - Allocating flow allowances for proposed land uses
  - Estimating proposed gravity and pumped inflows to the pumping station
  
- Converting all inflows to project-specific\* design flows

**\*Note:**

*Design flows reflect operational, environment and other factors.*

When designing pumping stations for undeveloped areas, early involvement with relevant planning and approval bodies is critical.

Appendices A, B, C, D and E of the Sewerage Code of Australia, WSA 02–2002-2.2 (Sydney Water Edition) should be referenced when estimating flows.

The Microsoft Excel spreadsheet “Schedule of SPS Design Inflows” adopts the model described in Appendix B and provides for incorporating flows from connected existing gravity sewers and pumping stations. The spreadsheet incorporates default values for ADWF, factor containment, C,  $I_{1,2}$  and portion wet. This document is available at [www.sydneywater.com.au](http://www.sydneywater.com.au) / Supplier Information / Supplier Forms.

Liaison with Sydney Water is required for determining actual design flows used to size pressure mains and specify pump rates. The Sydney Water contact is:

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