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29 June 2017

Ref: 2017-899

McCallum PFCA  
PO Box 96  
Charlestown NSW 2290

Attention: Dearne Jupp

**RE: APPLICATION FOR AVAILABLE PRESSURE  
Lot 412, DP 1063902, 507, Medowie Rd, Medowie.**

I refer to your application requesting that 'Available Pressure' be calculated under various fire flow demand scenarios.

To obtain available pressures Hunter Water uses a computer model of the water supply network which is calibrated from time to time with actual results from field testing. Based on this model Hunter Water has undertaken a number of theoretical computer modelling scenarios. This advice is only valid at the time of issue and you should take the necessary action to review the advice at least every five years or more frequently if pressures are critical for your development. This is to ensure that you can take into consideration changes in system performance that occur over time.

The modelling is based on the data supplied on your application form and the following key assumptions: -

- Ground level of site: 11.5 m AHD
- Watermain utilised: DN150 mm CICL located in Medowie Road
- Additional demand: 0 ET

Based on the above information the results are as follows: -

Description	Pressure (kPa)
Maximum pressure at property under average day demand conditions	510
Residual pressure at the following flow rates under peak day demand conditions:	
I. 0 L/s Minimum	390
II. 0.66 L/s (fire hose reel)	390

Residual pressure at the following flow rates under 95 <sup>th</sup> percentile peak day demand conditions:		
III.	10.0 L/s	390
IV.	20.0 L/s	380

Hunter Water makes every effort to ensure the accuracy of our theoretical models; however during the simulation of large flows, additional factors not accounted for in the modelling may be present and as such, it is possible that the results provided may not be achievable in practice. If higher fire flows are required these may be determined by site testing.

Nominated pressures at the higher firefighting flows are indicative only due to model limitations and assumptions. Over time pressures do change due to a variety of reasons. Statements of Available Pressures (SAPs) are only valid for a 12 month period, after which it is advised that a new SAP be requested.

Whilst Hunter Water makes every reasonable effort to ensure the information provided is correct as at the date of this letter, it does not guarantee the accuracy of the information over time.

There are a number of reasons that available pressures may vary over time. For instance growth occurs that diminishes available pressures or Hunter Water may vary the operation of its water distribution system. Hunter Water will use its best endeavours to maintain a supply pressure greater than 20m, however, pressures greater than this value can not be guaranteed into the future. The design of the plumbing and fire systems should therefore make due provision for this.

Should you require further clarification or advice please contact the enquiries officer below.

Yours faithfully



Greg Heaney  
Trade Waste & Plumbing Services Team Leader.  
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