

HYDRANT NO. _	
BMID File No.	

HYDRANT FLOW TESTING FORM					
Project Name					
Date and Time of Test					
	Engineering F	irm		 	
Testing Company and/or Engineering Firm					
Parameter	TEST	HYDRAN	NT	MONITORING HYDRANT	
Location (Street)					
Static Pressure (psi)					
Residual Pressure (psi)					
FLOW RATE (L/s)				Not applicable	
Map of TEST Hydrant and MON	ITORING hydrant				
Length between TEST and MONITORIN	IG hvdrants	_m	FORMULA to calculate "C"	$C = (3.59195 \times Q/(D^{2.63} \times S^{0.54})$	
Watermain Diameter			S = HGL slope in metres/m		
Watermain Pressure Class		_ psi	D = Diameter in metres		
Watermain date of installation (year)		_ yr	Q = Flow (m3/s)		
			Calculated C =		



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Hydrant Flow Testing Procedure

- 1. Notify BMID of hydrants that are to be tested and monitored. Provide 48 hours notice prior to testing to allow coordination of staffing by BMID.
- 2. Determine from water distribution mapping the direction for the supply of majority of water. Check with BMID staff if this is in question.
- 3. MONITORING hydrant to be set in location closer to source supply in relation to the TEST hydrant.
- 4. Flow and pressure measurement is required at the TEST hydrant.
- 5. Pressure measurement only is required at the MONITORING hydrant.
- 6. Record date and time of test sequence so flows can be correlated with District SCADA information.
- 7. Record static pressures at both the TEST and the MONITORING hydrants
- 8. Flow test the hydrant and release of water to a safe location.
- 9. Flow until flow measurement is stable and residual pressure measurements are stable.
- 10. Record hydraulic data on pressures and flow on the form.
- 11. Notify BMID when the test is complete and the hydrants are ready to be checked by BMID staff and put into service.
- 12. Fax form to Kelowna Fire Department and Black Mountain Irrigation District

Background Information

- 1. BMID requires that hydrants be flow tested within new development areas for the following reasons:
 - To verify that sufficient fire protection can be provided by the water distribution system;
 - To verify that there are no closed valves or obstructions within the water distribution system;
 - To verify that our computer model provides accurate estimates of available flow and residual pressure.
- 2. For new development areas, the most remote hydrant must be tested along with a sufficient number of hydrants to determine the flow range expected for the hydrants within the development.
- 3. Check with BMID Engineering staff on number of hydrant tests recommended for new development
- 4. When flow testing, a minimum residual pressure of 20 psi must be maintained at all times throughout the water distribution system. This includes the TEST hydrant, the MONITORING hydrant, and the higher elevation hydrants and serviced lots within the same service pressure zone. This must be checked in hillside areas.
- 5. Flows must be measured with a flow meter. Proof of meter calibration may be required.

Kelowna Fire Department fax 862-3371

BMID fax - 765-0277

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