BLACK MOUNTAIN IRRIGATION DISTRICT
285 Gray Road
Kelowna, B.C.
V1X 1W8

HYDRANT NO._____
BMID File No. _____

HYDRANT FLOW TESTING FORM

Project Name _____

Date and Time of Test _____

Testing Company and/or Engineering Firm _____

Parameter	**TEST HYDRANT**	**MONITORING HYDRANT**
Location (Street)		
Static Pressure (psi)		
Residual Pressure (psi)		
FLOW RATE (L/s)		Not applicable

Map of TEST Hydrant and MONITORING hydrant

Length between TEST and MONITORING hydrants _____m	FORMULA to calculate "C" $C = (3.59195 \times Q/(D^{2.63} \times S^{0.54})$
Watermain Diameter _____ mm	S = HGL slope in metres/metre
Watermain Pressure Class _____ psi	D = Diameter in metres
Watermain date of installation (year) _____ yr	Q = Flow (m3/s)
	Calculated C = _____

KWC Kelowna Joint Water Committee

BMID fax - 765-0277
Kelowna Fire Department fax 862-3371
Attention - Jason Brolund

CAP COLOUR		
	0-30 L/s	Red
	0-60 L/s	Orange
	60 – 110 L/s	Green
	> 110 L/s	Blue

BLACK MOUNTAIN IRRIGATION DISTRICT
285 Gray Road
Kelowna, B.C.
V1X 1W8

HYDRANT NO._____
BMID File No. _____

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 area.
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.

BMID fax - 765-0277
Kelowna Fire Department fax 862-3371
Attention - Jason Brolund

CAP COLOUR		
	0-30 L/s	Red
	0-60 L/s	Orange
	60 – 110 L/s	Green
	> 110 L/s	Blue