



BLACK MOUNTAIN IRRIGATION DISTRICT WATER MAIN TESTING AND TIE-IN PROCEDURE

File 407
Rev. 05/21

Prior to the completion of a tie-in of a newly constructed water main to the Black Mountain Irrigation District Water System, the following procedures and tests must be performed, recorded, and presented for acceptance:

Note: New water main and all appurtenances connected to it must remain physically separated from existing water system during testing and flushing, and remain separated until all test results have been reviewed and accepted by BMID. Testing against a valve is not permitted.

1. Pipe must be clean of any residual debris, foreign material, silt, etc. by means of flushing. For flushing procedures, refer to MMCD 31 11 01, 3.18 and AWWA C651.
2. Leakage and pressure testing to be performed in accordance with MMCD 31 11 01, 3.19 as well as AWWA C600 & M41 for ductile iron pipe, and C605 & M23 for PVC pipe.
3. Disinfection of water main to be in accordance with AWWA C651, MMCD 31 11 01 3.21. Results from this procedure must include actual concentration levels at 0 & 24 hours and must be from both ends of the pipe.
4. Flush water main to tanker truck or holding facility and dechlorinate the disinfection solution using sodium thiosulfate. Confirm that the solution has been neutralized prior to disposing to an appropriate location.
5. Test water main in accordance with AWWA C651 to confirm that no bacteria exists. Testing to include two consecutive sets of samples at least 24 hours apart, taken at both ends of the pipe, including all branches and at intervals in between as specified in AWWA 651. Tests required for the samples are: Total Coliform, Fecal Coliform, Background Bacteria, and a Chlorine Residual.

The Consultant or Contract Administrator is to include the following results to BMID with the “Request for Water Main Tie-in” form, available at www.bmid.ca :

6. Copies of all test results including those from other companies that performed any of the tests.
7. A sketch or copy of a drawing showing the sections tested and the location of the tie-in(s).

Please note that water used for flushing and filling to be from an approved hydrant or from a City of Kelowna filling station. Ensure that adequate flushing of hydrant and hydrant lead takes place prior to using water. All water drawn from the BMID Water System must be done with approved backflow protection.

If the pipe is left idle/inactive for a period of more than 14 days, the line is to be flushed. Zero hour and 24 hour bacteria samples are to be taken. Repeat flushing and testing until water quality is satisfactory.

Additional Requirements for Tie-in:

- Must have 12% sodium hypochlorite on site to swab all parts being installed
- Must have a submersible pump onsite to remove standing water
- Must have torque wrench on site to meet manufacturers recommend torque specifications
- All A/C main lines 12” or above in diameter must have O.D. measured before ordering parts
- Whenever possible, tying into mainlines will be done with a hot tap

Notice to Developer, Owner or Agent: Under no circumstances may anyone other than a BMID employee access any of the District’s works, including but not limited to valves, hydrants or other fixtures, in accordance with BMID’s Bylaws.



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For information on procedures and testing, refer to the appropriate documents applicable as described above, or as listed below:

- ◆ Contract Documents
- ◆ Master Municipal Specifications (MMCD)
- ◆ AWWA standards
- ◆ Guidelines for Canadian Drinking Water Quality

For additional regulatory information, refer to the following:

- ◆ BMID Subdivision & Servicing Bylaw
- ◆ BMID Water Regulation Bylaw
- ◆ City of Kelowna Subdivision & Servicing Bylaw