



# Water Bulletin



Civil • Water Supply • Municipal

May 2005

## Water Distribution System Analysis Shoreview, MN

The City of Shoreview is planning water supply maintenance projects over the summer of 2005 that include repainting of the north tower and relocation of a 16" watermain along Lexington Avenue. The north tower and 16" watermain will both be taken out of service for the duration of the projects and water demands will be met by the south tower and central water supply complex.

PCE was retained by the City to complete a Water Distribution System Analysis to determine the ability of the system to meet the high demands of the summer months. Utilizing WaterCAD software, the water distribution model was analyzed for varying demand conditions to provide a quantitative comparison of system performance with and without the north tower and 16" main in service.

PCE determined that the City could complete both water system improvements simultaneously with only slight negative impacts on water service. PCE recommended that the City proceed with both projects and implement the odd/even sprinkling ban that was already being considered.

## Water Treatment Plant Feasibility Study Goodview, MN

Wells 1, 2, and 4 that serve the Goodview distribution system have radium levels that exceed the 5 pCi/L standard for combined radium 226 and 228. The City of Goodview retained Zenk, Read, Trygstad & Associates, Inc. (ZRT) in association with PCE to prepare a feasibility study for determining the most cost-effective means of meeting the radium standard. The best available technology (BAT) for the removal of radium includes lime softening, reverse osmosis, and ion exchange. More recent approaches include using hydrous manganese oxide (HMO) in combination with iron and manganese removal or a proprietary package treatment process.

The location of the existing wells will require two treatment facilities as Well 4 is far away from Wells 1 and 2. One facility will serve Wells 1 and 2 and the other will serve Well 4.

## Well No. 39 Rochester, MN

The City of Rochester is a fast-growing City in the central part of Olmsted County in southeastern Minnesota. Growth of approximately 2,500 people per year requires the City to add an additional well every other year in order to maintain adequate water service to the community.

Rochester Public Utilities (RPU) retained PCE for engineering services for preparation of plans and specifications for the proposed Well No. 39 near Marion Rd. and 20<sup>th</sup> St. in the southeastern portion of the City. PCE has a long and successful relationship with the RPU staff, having completed Well Nos. 35, 36, 37, and, most recently, Well No. 38 in 2003.

PCE will work closely with the Utility staff and the Minnesota Department of Health to ensure that all Wellhead Protection requirements are met. It is expected that construction of the 1,000 gpm well will be completed by late 2005.

## Aquifer Contamination Study Oakdale, MN

The City of Oakdale recently discovered that some of their municipal wells are contaminated with per-fluorochemicals (PFCs). The PFCs were traced to landfill in the area used for dumping industrial chemicals.

PCE has been retained by the City to assist in evaluating the operational changes needed to add a granulated activated carbon filtration system for removal of PFCs in Wells 5 and 9. PCE will also be responsible for the review of the proposed treatment system.

## Presentation

Jeff Yeschick will be giving a presentation on the Staples Water Lime Softening Treatment Plant to the AWWA Central District School in Deerwood, Minnesota on June 10, 2005.



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