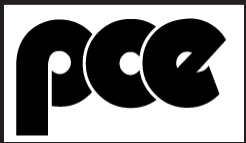


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## PRESENTATION Minnesota Rural Water Association



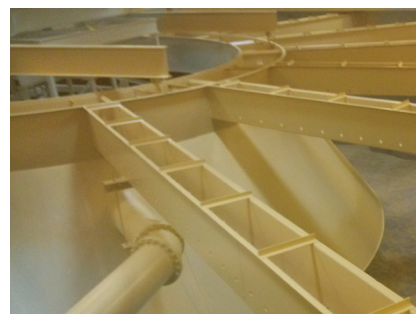
Naeem Qureshi presented *Funding Crumbling Infrastructure*, at the 29th Annual Minnesota Rural Water Association, Water and Wastewater Conference on Wednesday, March 9, 2013 in St. Cloud, Minnesota.

The presentation discussed the need to replace deteriorating infrastructure, which is expected to cost over \$1.7 billion over the next 20 years, while facing decreasing revenue streams caused by lower demands. The lower demands are primarily caused by water conservation and smaller households.

Although it is expected that most utility revenue will be generated by water rates, the presentation revealed how communication and public involvement can garner support for rate increases. The tools used by Brooklyn Park to support expenditures of over \$25 million on water supply projects over the last 10 years were presented as an example.

Mr. Qureshi made a similar presentation at the September 2012 AWWA Minnesota Section conference in Duluth, MN.

## EDEN PRAIRIE Minnesota Water Treatment Plant Side 3 Clarifier Recoating



The City of Eden Prairie Side 3 Primary and Secondary Clarifiers were constructed in the late 1980's and were in need of rehabilitation.

PCE was contracted by the City to: write the specifications and perform associated services; provide inspection and construction management services; and provide overall project management.

The project included; surface preparation and recoating of the primary and secondary clarifiers units and equipment; surface preparation and painting of walls, columns, ceilings and walkways in the project area; painting of miscellaneous equipment, piping and structural elements in the project area; and, structural repair as needed. Several areas on the clarifier cones and trough attachment points required welding.

The secondary clarifier was painted a color that is close to the stains caused by the chemicals added for coagulation. This was done to mute the effect of any future stains and provide a more aesthetically pleasing clarifier. The project will be completed before the upcoming high rate season.

## Yoko Nomura

Yoko recently joined the professional staff at PCE. Yoko graduated from the University of Minnesota with a Master's degree in Civil Engineering in 2006. Presently she is working on the water distribution system modeling for East Grant Forks Public Utilities, a booster

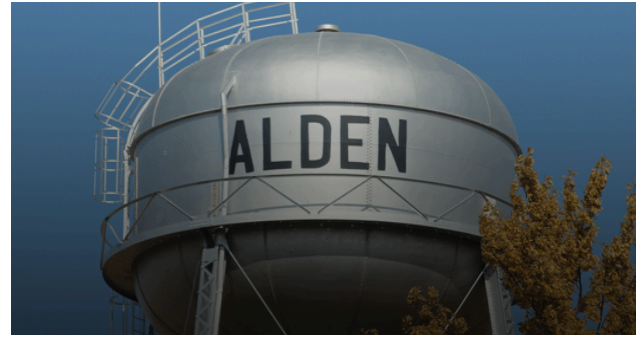
station for Shoreview, and the new 250,000 gallon Nehls Park Water Tower project for New Ulm Public Utilities.



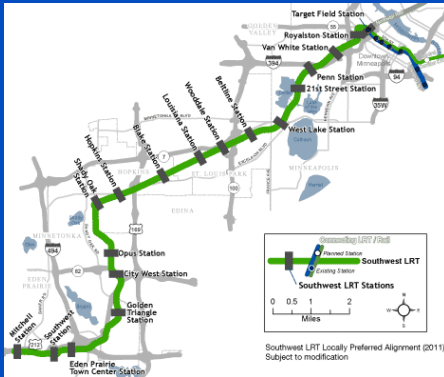
## ALDEN Minnesota Water Treatment Plant Feasibility Study

The City of Alden Water Treatment Plant is almost 60 years old. PCE is part of a team selected to conduct a feasibility study for the new plant.

The work will involve laying out the new equipment, filter tanks, chemical feed system, the filter media, and the filter under drains. The study will help the City Council determine whether to rehabilitate the existing plant or construct a new plant.



## Southwest Corridor Light Rail Transit



The Southwest LRT will connect Minneapolis with Eden Prairie and other western suburbs. PCE is part of both the teams selected for the design of the project. The fee for both sections of the project is anticipated to be \$1.2 million.

PCE will be involved in the design of utility relocations needed to accommodate the LRT. This will involve working with City Staff from Minneapolis, St. Louis Park, Hopkins, and Eden Prairie.

## EAST GRAND FORKS Minnesota Water Distribution System Modeling

East Grand Forks Utilities' water system has experienced depletion of chlorine residuals and water stagnation in the southern part of the system. The utility feeds chloramines to water leaving the softening plant.

PCE is part of a team selected to conduct a modeling study of the Water Distribution System to determine means of improving water quality within the system model. PCE staff will be involved in identifying the location of hydrant testing to obtain data for calibrating the system. The calibration model will then be used to determine 'what-if' scenarios. A total of 25 runs will be made to evaluate all the options available that can improve chlorine residuals. These options may include partially closing selected valves to force flow in pipes that have very low velocities.

At the conclusion of the study, a report containing short and long-term recommendations will be provided to the utility staff. A communication plan which involves the utility staff will be implemented during the course of the study. The report is expected to be completed by July 15, 2013.



### Progressive Consulting Engineers, Inc.

6120 Earle Brown Drive, Suite 629

Minneapolis, MN 55430

(763) 560-9133 • [www.pce.com](http://www.pce.com)

Contacts: Naeem Qureshi • Nuzhat Qureshi • Adam Kramer • Lance Newman • Yoko Nomura