

Utility Gram



"Providing and Protecting Kenosha's Greatest Natural Resource . . . Water"

Utility Hosts Visitors from Sister City

On May 31, the Water Utility played host to several visitors from Wolfenbüttel, Germany. Wolfenbüttel is a town in Lower Saxony, Germany. It is located on the Oker river approximately 8 miles south of Brunswick. There are 172 towns in northern Germany whose names end in *büttel*, meaning "residence" or "settlement." Wolfenbüttel is the southernmost of these towns. Wolfenbüttel and Kenosha have been sister cities since 1970.



Wolfenbüttel, Germany

This is where Wolfenbüttel Park in Kenosha derives its name, and in the Town of Wolfenbüttel there resides a bridge named "Kenosha." Kenosha's other sister cities are Cosenza, Italy (since 1979), Douai, France (since 1981) and Quezon City, Philippines (since 1986).

It is not known for certain when Wolfenbüttel was founded; however in 1432 it became the residence of the dukes of Brunswick. During the three centuries that followed, it would grow to become a center for the arts. In 1753, the residence of the dukes of Brunswick returned to Braunschweig, and Wolfenbüttel subsequently lost some of its importance. Wolfenbüttel has been able to retain its historical character. Being largely undamaged by the war, its downtown area is rich with half-timber buildings, many of them dating back several centuries. Today, more than 53,000 people call Wolfenbüttel home. The herb liqueur Jägermeister is distilled there, and the Jägermeister headquarters is located there as well.

Unlike past envoys to Kenosha, this particular group was comprised of the mayor and several aldermen from the Town of Wolfenbüttel. This explains their interest in touring both the Wastewater Treatment Plant and the Water Production Plant. One of the visitors explained that he has been travelling to Kenosha

since 1973. For most of the group, this was their first visit made to the United States. In addition to these two sites, the group planned to tour UW Parkside and Carthage College.

The group showed up at the Wastewater Treatment Plant at about half past 8 in the morning. Prior to the plant tour, the group was treated to coffee, pastries and other tasty refreshments. The tour at the Wastewater Treatment Plant was guided by the Laboratory Supervisor. The tour lasted for a little more than an hour and took in most of the plant site. The group then travelled by bus to the Water Production Plant, making one quick stop at Wolfenbüttel Park along the way. At the Water Production Plant the group received a plant tour guided by the Director of Water Production. Throughout both tours, the group asked many difficult and thought-provoking questions through interpreters, thus challenging the knowledge and expertise of our tour guides to the fullest. Even though the two cities are separated geographically by thousands of miles and don't share a common language, it was amazing how much the two cities really do have in common. Both cities own their own treatment plants, but operate them financially independent from their respective cities. Oddly enough, the wastewater treatment plant in Wolfenbüttel utilizes the exact same process to treat its sewage as does our own Wastewater Treatment Plant—even down to the way in which phosphorous is removed from the wastewater stream.

This event proved to be a great experience for both parties. It is hoped that the group gleaned a little bit from us and the way we go about our business, as also we were touched by our encounter with them. Given that the majority of tours of the plants are given to school-age children, it was a pleasure to take a group of well-educated adults through the plants—especially politicians who truly understand the intricacies and inner workings of operating a medium-sized or larger city.

Relay Projects Get Underway

Each year at budget time, the Water Utility sets aside a certain amount of money in its Capital Improvements Program (CIP) to make badly needed repairs to the water distribution system and the sanitary sewer collection system. These repair projects are normally referred to as "relay" projects, since they involve relaying several hundred feet of existing water and sanitary sewer mains.

The criteria for determining when a water main gets replaced is based on the number of main breaks that have occurred in a given segment of pipe. The Utility maintains a visual database of all the water main breaks that have occurred throughout the city. Sections of pipe where a large number of breaks have occurred in

the past are added to a list of future relay projects. This list is then prioritized on the basis of severity, so that the Utility can concentrate its repair efforts on the very worst sections of pipe. Unlike water mains, sanitary sewer mains must be meticulously televised from the inside of the sewer using specialized video equipment. The video footage is then studied to determine if the condition of the pipe has deteriorated to the point where a relay project is warranted. The Utility also overlays these condition assessments for both water and sanitary sewer mains against the city's planned street repair program. In certain instances, repair projects are moved up to coincide with a street repair project to ensure that the water and sanitary sewer mains lying beneath the new street are in satisfactory condition. This is done in an effort to prevent the Utility from having to dig and patch a hole in a brand new street.

In the spring of this year, the Utility awarded two separate contracts for water and sanitary relay projects. The first contract was awarded to A. W. Oakes & Sons, Inc. in the amount of \$258,103 to relay the 12-inch sanitary sewer and 8-inch water main in 81st Street from 22nd to 25th Avenue. The second contract was awarded to The Wanasek Corporation in the amount of \$332,711 to relay 8-inch water mains in various locations. These two projects help the Utility make a small dent in the overall backlog of needed repairs. The Utility is committed to making a yearly investment in the repair of its infrastructure. However, when you consider the fact that the water distribution system contains over 350 miles of pipe, some of it dating back to the 1890's, and the sanitary sewer collection system contains an equal amount of piping, one can never really be confident that the investments made are enough to keep pace with aging infrastructure. Most every city in the United States is faced with this same dilemma. It will always be the challenge of the Utility to ensure that an adequate investment is being made in infrastructure improvements, while at the same time doing everything possible to keep water and sewer rates at a reasonable level.

Grit Removal Tanks at Wastewater Get New Conveyors

After being in service for nearly 30 years, two of the three grit removal tanks at the Wastewater Treatment Plant received new conveyors. Inside each of these tanks is corkscrew-type conveyor, which conveys grit that has settled at the bottom of the tank into a dumpster where it is collected until it can be hauled away to a landfill. Due to the apparent inefficiency of these two tanks, the Water Utility was considering replacing them with a much more sophisticated and expensive grit removal system. Prior to moving ahead with this project, the Utility decided to get a second opinion and employed the services of Process Equipment & Repair, Inc. (Process Equipment) who performed a thorough inspection of the equipment. The owner of Process Equipment advised the Utility that the technology currently being employed to remove the grit was sound technology; however the equipment itself was just plain worn out. One might expect that to be the case after nearly 30 years of use. Therefore the decision was made to forego replacing the grit removal equipment with newer and more modern equipment. Instead, the Utility opted to repair the existing equipment at a much reduced cost. Process Equipment fabricated all of the replacement parts off-site out of stainless steel. In addition, the motor drive units for the conveyors were tuned up and given a fresh coat of paint. The entire repair project took just three weeks to complete once Process Equipment arrived on site to make the repairs. Presently, plant operators have noticed a marked improvement in the grit removal process since the repairs were completed.

