



UTILI



GRAM

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

July/August 2009

American Water Works Association (AWWA) Honors Wisconsin Section and KWU Employees with Education Award

Each year during its Annual Conference and Exposition, the American Water Works Association (AWWA) awards up to seven Section Education Awards. The purpose of the award is to recognize AWWA sections for initiatives taken to educate water industry personnel, the general public, students or other groups about drinking water, and to disseminate guidelines that will enable other AWWA sections to conduct comparable educational activities. During this year's conference and exposition held in San Diego, California from June 14-18, 2009, the Wisconsin Water Association (WWA) was the proud recipient of one of these awards for the innovative educational outreach "Adventure Kids Learning Expedition".

The Adventure Kids Learning Expedition team consisted of employees from KWU, along with members of the WWA Education and Water for the World Committees and the Kenosha Unified School District. In April of 2008 and again in March of 2009 members of the team travelled to the country of Guatemala in Central America to install a water distribution system. By means of an interactive connection between classrooms back in the United States and the Adventure Kids Learning Expedition team on location in Guatemala, students were able to interact with the team and track the team's progress on a daily basis.

The team completed a total of eleven 45-minute live feeds in 2008 and a total of seventeen feeds in 2009, utilizing state-of-the-art equipment. It is estimated that these connections reached over 800 students back in Wisconsin, New York, Texas, and Illinois, giving the students a unique opportunity to experience the culture in Guatemala, learn about water and water projects and ask questions. John also created an interactive website, where students could go on-line and get information about the team's progress as well as ask questions of the team members.

In June of this year, representatives from KWU and the Board of Water Commissioners travelled together to San Diego, California to attend the 2009 Annual Conference and Exposition sponsored by AWWA. In an awards ceremony held during the exposition, the 2009 Section Education Award was presented to the WWA and the Kenosha Water Utility. Additionally, the Common Council of the City of Kenosha, recognized the KWU team members on August 3, 2009 for their part in this effort by passing a special resolution. The Adventure Kids Learning Expedition team should be very proud of their accomplishments.



Making Incremental Improvements at the Wastewater Treatment Plant

Installing new press feed pumps for the plate and frame filter presses at the Wastewater Treatment Plant is one among many incremental improvements that have been made in recent months. In the past, 100 horsepower motors were required to drive the old progressive-cavity pumps feeding the filter presses. Additionally, these pumps took up a considerable amount of floor space within the building. In contrast, it only takes 40 horsepower to power the new rotary-lobe pumps. Less horsepower means an overall savings in electricity costs. These pumps also take up a much smaller footprint within the building.

When repairs to the old progressive-cavity pumps were required, in most instances they could not be repaired by in-house mechanics; therefore they had to be sent away to machine shops that specialized in making these kind of repairs. Over time, this proved to be very costly to the Utility. The new rotary-lobe pumps can be easily maintained and repaired by the mechanics at the Wastewater Treatment Plant. To make matters even simpler, the manufacturer of these pumps offers a free service school to mechanics to teach them the “ins and outs” of maintaining and repairing these pumps. All of the mechanics at the Wastewater Treatment Plant have been able attend this training and are now fully qualified to service these

pumps when needed.

These new pumps have worked so well that the Wastewater Treatment Division has decided to install similar pumps in the thickener building. Only time will tell if these pumps are as dependable and durable as they are currently thought to be. So far, the staff at the Wastewater Treatment Plant has been extremely impressed by their performance.

In addition to changing out pumps, the Wastewater Treatment Division has been pilot testing a number of pieces of equipment at the plant. Most notably was the pilot testing of the two large centrifuges used to thicken and dewater activated sludge. Pilot tests are a win-win situation for both the manufacturers of equipment and for the treatment plants that will eventually use the equipment. This process affords equipment manufacturers an opportunity to test out and fine tune their equipment in a true -to-life scenario. It also affords the operators and managers at wastewater treatment plants an opportunity to familiarize themselves with the latest technologies available for the industry. Lessons learned during the pilot testing process are used by manufacturers to make improvements to their products. These improvements not only make the manufacturers more competitive with other manufacturers of similar equipment, but ultimately the end-user of the equipment benefits from the lessons learned.



New Rotary-lobe Pumps Installed by the Mechanics at the Wastewater Treatment Plant with New Valves and Piping



Fireworks Explode Behind the Wash Water Storage Tank During the Fourth of July Celebration

Rain Garden Installed at Water Centre

At the Water Utility, we understand that water is a vitally precious resource. With increasing emphasis on stormwater management, the Utility decided to get into the fray by installing a rain garden at the Water Centre. So just what is a rain garden anyway? A rain garden is a depression in the ground that is filled with special plants that can tolerate both saturated and dry soil. This depression is designed in such a way that it can absorb rainwater runoff from impervious areas like roofs, parking lots, driveways, walkways and compacted lawn areas. This reduces the amount of rainwater runoff by allowing the stormwater to soak into the ground instead of flowing into storm drains. Excessive water flowing into storm drains can often lead to erosion, water pollution, flooding, and diminished groundwater. It has been estimated that rain gardens can reduce the amount of pollution entering creeks and streams by up to 30 percent.

Rain gardens are beneficial for a number of reasons: they improve water quality by filtering stormwater run-off; they can provide localized flood control; and they can provide for interesting planting opportunities, which makes them aesthetically pleasing in addition to being functional. In certain settings, rain gardens can encourage wildlife and biodiversity,

blend buildings with their surrounding environments in attractive and environmentally advantageous ways, and provide significant partial solutions to important environmental problems that effect all of us.

For these reasons and others, several KWU employees along with some of their family members decided to volunteer their time and talents towards installing the rain garden at the Water Centre.

To begin the process of installing the rain garden, a large depression had to be excavated into the ground. The area selected for this excavation is known to collect and hold water throughout the summer months, thereby making it an excellent choice for a rain garden. Next, a one-foot by one-foot grid was laid out on the ground to mark the planting locations for the plants. A total of 600 plants were planted inside the garden. 300 of these plants were donated by the Root-Pike Watershed Initiative Network as part of their Rain Garden Initiative. The remainder of the plants were purchased by the Water Utility. For those of you who are experts in the subject of botany, the amount planted and species name of each plant is as follows:

34 Sweet Flag; 42 New England Aster; 126 Bottle Brush Sedge; 126 Fox Sedge; 42 Wild Blue Flag Iris; 42 Gayfeather; 34 Torrey's Rush; 22 Great Blue Lobelia; 42 Winged Loosestrife; 42 Ohio Spiderwort and 48 Golden Alexander for a total of 600 plants. All that remains to do is to install mulch around the plants and the Utility will have a fully-functioning rain garden. Our thanks go out to all who helped to install the rain garden!



1. Sweet Flag 2. New England Aster 3. Bottle Brush Sedge
4. Fox Sedge 5. Wild Blue Flag Iris 6. Gayfeather
7. Torrey's Rush 8. Great Blue Lobelia 9. Winged
Loosestrife 10. Ohio Spiderwort 11. Golden Alexander



Nearly Completed Rain Garden