

**sew´·ēr sō·ci·ōl´o·gy**, the science of society, social institutions, and social relationships viewed through the eyes of a sewer; specifically the systematic study of the development, structure, interaction, and collective sewer use of organized groups of human beings.

# **Flow of Education**

Kevin L. Enfinger and Patrick L. Stevens

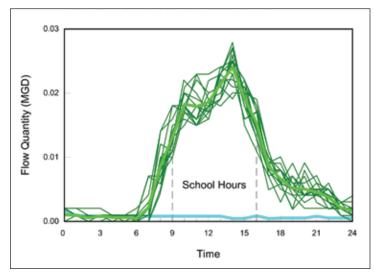
ost sewer flows are characterized by repeatable diurnal patterns that vary across weekdays, weekends, and holidays. Differences in land use are also apparent, and distractions and disruptions of daily life can often be observed. This month, we take a look at daily life at a public school through the eyes of a sewer.

A composite hydrograph from a flow monitor located downstream from a public school in Texas is provided in Figure 1 (right). Weekdays are shown in green, and weekends are shown in blue.

This is an intermediate school that opened in 2005 and serves nearly 1250 students in grades 6 through 8. School hours extend from 9 a.m. to 4 p.m.

Flow picks up in the morning at about 6 a.m. and reaches a maximum at 2 p.m. Several variations to

Figure 1. Sewer Use at a Public School

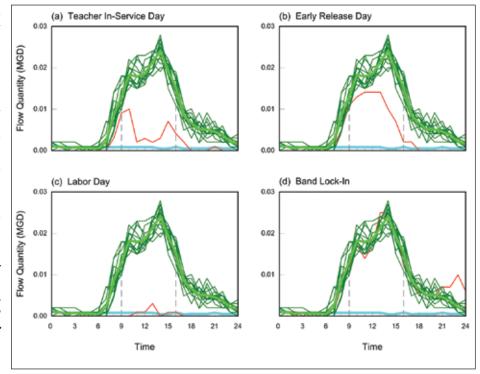


the typical day are shown in red in Figure 2 (right), including a teacher in-service day, an early release day, a holiday, and even a band lock-in one Friday night.

Per capita flow at this school is approximately 25 L (6.5 gal) per student per day with a peaking factor of about 3.0. The observed per capita flow is much less than the 38 to 57 L (10 to 15 gal) per student per day often stipulated in design requirements and likely results from the use of low-flow water fixtures at this school.

Kevin L. Enfinger is senior project engineer, and Patrick L. Stevens is vice president of engineering at ADS Environmental Services, a division of ADS LLC (Huntsville, Ala.).

Figure 2. Variations in Sewer Use Patterns at a Public School



# **Looking Ahead**

# Coming up in the September issue ...

### A major overhaul

You might not recognize the next issue of *WE&T*. September marks the debut of our completely redesigned look. Don't worry, the interesting, informative, and educational content isn't going anywhere — it will just come to you in a more accessible and modern design.

## **Growing and adapting**

Our efforts to streamline things as we prepare for the future are similar in concept to how utilities nationwide are reinventing their approaches to succession planning and training. As one article states, "the status quo is that there is no status quo."

In this issue you'll find articles about what utilities, regions, and industry groups are doing to prepare. Their activities include constructing plans to recruit new talent in the face of increasing retirement numbers, joining forces to offer low-cost educational opportunities to their employees, and building courses to prepare today's front-line operators to become tomorrow's superintendents.

# Preserving natural resources Nutrient recovery technologies

### **Practical matters**

The September issue also contains the solid technical articles that share the solutions engineers and operators have found. The articles range from the straightforward — a do-it-yourself device to collect mercury samples — to the complex — determining if tire chips can replace gravel in a constructed wetland.