sew´·ẽr 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.*

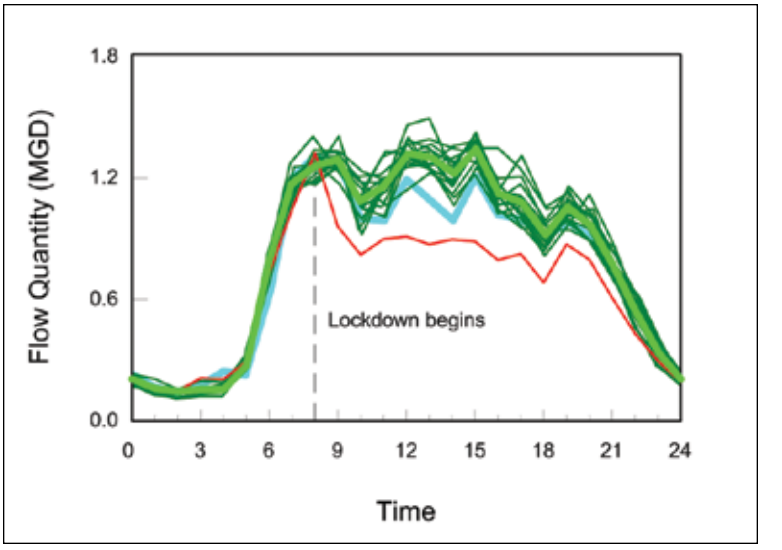
The Big Flush in the Big House

Kevin L. Enfinger and Patrick L. Stevens

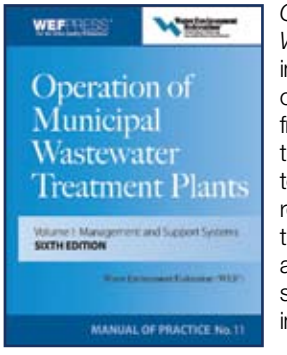
Most sewer flows are characterized by repeatable diurnal patterns that vary across weekdays, weekends, and holidays. Differences in land use also are apparent, and distractions and disruptions of daily life often can be observed. During our Mystery Flow series last year, we presented the diurnal pattern of a prison in Southern California, which provided a telling account of life behind bars. This month, we take another look at the same prison and observe the impact of a lockdown on sewer flows.

A composite hydrograph of flow monitor data from the prison is provided in the figure to the right. Weekdays are shown in green, and weekends are shown in light blue. Note

Lockdown at State Prison



Operation of Municipal Wastewater Treatment Plants
MOP 11, 6th Edition



Operation of Municipal Wastewater Treatment Plants integrates the experiences, current practices, and innovations from thousands of wastewater treatment plants. Updated to reflect the latest trends, regulations and technologies, this three-volume, hard-cover manual aims to be the principal reference source for beginners or veterans in the wastewater field.

WEF gratefully acknowledges the efforts of Technical Practice Committee's Operation of Municipal Wastewater Treatment Plants Task Force, led by Michael D. Nelson, *Chair*.

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that the wastewater flow on weekdays is about the same as the flow on weekends. One day last summer, a convicted murderer serving a life sentence attacked a prison guard at about 8 a.m., and the prison was placed on immediate lockdown. The day of the lockdown is shown in red.

The typical average daily flow from this facility is about 3050 m^3/d (805,000 gal/d), and a 10% decrease was observed during the lockdown as discretionary activities were cancelled. The average prison population during this period was about 4600 inmates, with a sewer flow of 660 L/d (175 gal/d) per inmate. The prison population is more than 200% of the design inmate capacity for this facility, a reminder to always assume some level of overcrowding when designing sewers for such a facility.

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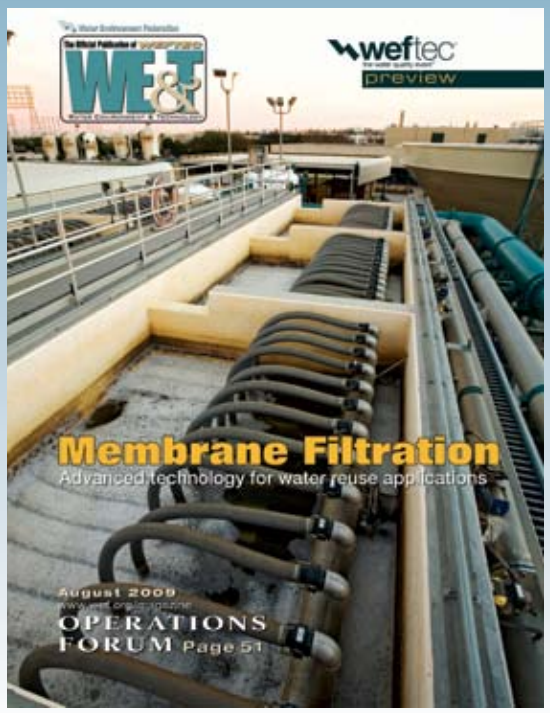
Looking Ahead

Coming up in the August issue …

Water Reuse: A Growing Need. Water reuse continues to expand worldwide, driven by ever-increasing global water demand and a mounting need to safeguard communities and industries from the threat of diminishing water supplies. Learn more about the technologies used for water reuse applications, then read how various municipalities — from California to Australia — are getting the most from them.

Also in the August issue:

- Take a tour of Singapore's award-winning wastewater tunnel.
- Learn how to remove siloxanes from digester gas.
- Hear one region's tale of its ongoing efforts for biosolids acceptance.