Royal flush

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sew´·ẽr sō·ci·ol´ō·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.*

Most 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 often can be observed.

This month we take a look at a wedding through the eyes of a sewer.

April 29, 2011, was a big day for the British: the much-anticipated royal wedding of Prince William and Kate Middleton. A royal wedding is the type of event that captivates a nation – meaning that a sewer sociologist smells a good story. How might these nuptials affect residential sewer flows in the United Kingdom?

We decided to take a look, so while folks in the UK tuned in to watch the spectacle unfold on national television, we settled in to watch the data.

A composite hydrograph of sewer use in a residential area near London is shown in the figure. Weekdays are shown in green. Weekends are shown in blue. The wedding day is shown in red.

The wedding took place on a Friday that had been designated as a bank holiday in the United Kingdom. To a sewer sociologist, a holiday looks much like a weekend, so the effect of the royal wedding on sewer use is determined by comparing the wedding day (red curve) to a typical weekend (blue curve).

The sewer flows began to depart from normal soon after the first guests arrived at Westminster Abbey as many viewers discontinued their normal routine and tuned to the television coverage. The observed flow rate decreased more rapidly at 10 a.m. when the royal family arrived for the wedding. It reached its largest departure from normal at 11 a.m., when the bride arrived. Residential flows returned to normal by 2 p.m. – about 30 minutes after the official royal kiss on the balcony at Buckingham Palace.

Congratulations and best wishes to the Duke and Duchess of Cambridge.

Residential sewer use during royal wedding

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