

BRIEFING I

FLUSHMATE®

A DIVISION OF SLOAN VALVE COMPANY

San Simeon had a water problem



Half way between Los Angeles and San Francisco you'll find the town of San Simeon, California and its featured attraction: Hearst Castle. The Castle - a 165-room mansion on 127 acres of gardens - draws thousands of people every year and serves as the lifeblood of the community. A typical weekend brings around 2,000 people to its 12 motels.

But San Simeon, like all towns in California, faced a change of operating procedure starting in 1986 due to the great Western drought. And when a city depends on tourism, the effects of drought can be particularly devastating.

For example, as water supplies grow more severe, well levels start reaching critical levels. New sources of water must be found. As usage continues to increase, water levels continue dropping, stressing the capacity of a waste water treatment plant itself, and forcing the examination of expanding the plant. Because of the drought, in fact, a town can face both insufficient water supply AND sewer disposal capacity problems simultaneously.

San Simeon reacted immediately like most other towns react to the problems of drought: They put a moratorium on new system hookups and

created a public awareness program on water conservation. People were asked to voluntarily ration water. Showerheads were changed to low-flow types. Additional alternatives were examined closely, including:

- new, supplemental water sources (would take several years)
- additional waste treatment capacity (construction would take over a year)
- additional water rationing, **including closing 10% of all motel rooms**
- replacing all toilets with low consumption types.

Only the last alternative seemed practical as an immediate solution, especially since authorities knew what most authorities know: **the toilet is the largest consumer of water within any structure.**

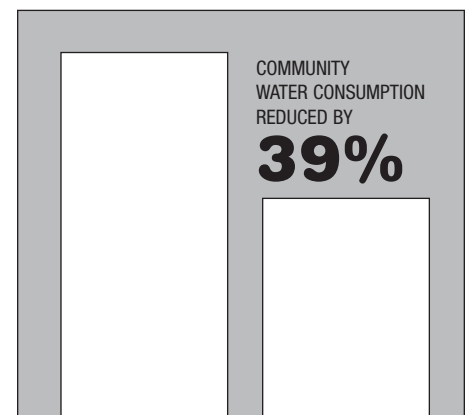
So, a decision was made to replace all toilets with 1.6 gpf (gallons per flush) types - but not just ANY 1.6 gpf type. They selected toilets equipped with Sloan's *FLUSHMATE®* Operating System because of the results of an experiment that took place in the town's Holiday Inn.

The Holiday Inn Study

Steve Crimmel headed maintenance at the San Simeon Holiday Inn in the early 1980s, where all the toilets were 5.5 gpf types. Crimmel was an avid conservationist, in touch with the effects of the 1970s drought. He convinced management to convert to the then "water saver" types - the gravity-activated 3.5 gpf. While the conversion resulted in reduced water consumption, the smaller diameter trapways brought about a significant increase of in-room clogs, "about one per day," according to Crimmel.

In the fall of 1986, Crimmel accepted a promotional offer and installed a *FLUSHMATE* activated water closet as a "test." Several months later, Crimmel proposed the entire Holiday Inn be converted, and during the first full year after retrofit, the results were readily apparent:

- consumption per occupied room per day reduced by 23%
- stoppages reduced by 95%



Along with other conservation measures Sloan's *FLUSHMATE®* system helped reduce the community's water consumption by a significant 39%.

Based on the success of the Holiday Inn experience in the town, the City Fathers of San Simeon recommended all 1,198 water closets be converted to Sloan's *FLUSHMATE* system.

The fixtures were purchased and supplied by American Standard (Cadet™ Aquameter™) and Mansfield Plumbing Products (Quantum™). The conversion of San Simeon's toilets was complete by December 1989. The results of the program far exceeded the original objective, which was a 20% overall reduction in water usage. The chart below shows these results from the conversion to Sloan's *FLUSHMATE* system, along with other conservation measures (i.e., irrigation). Sloan's system uses pressure – not gravity – to deliver superior 1.6 gpf

- eliminated excessive leaking from traditional ballcocks and flappers in gravity activated water closets.

In addition, the use of Sloan's *FLUSHMATE* system helped the city:

- push back the expansion of its waste treatment plant for at least seven years – saving more than \$750,000
- increase the operating efficiency of the water treatment plant itself
- defer obtaining additional water supplies.

Thanks to Sloan's *FLUSHMATE* systems, the entire San Simeon community was able to achieve water savings. The system works in both stopping clogs and leaks, as well as carrying waste efficiently through the system. San Simeon proves it is

Gallons Used	6/89	12/92	% Water Saved
Residential*	8,129	5,235	35.6%
Commercial	935	170	81.8%
Restaurant	2,833	3,311	13.6%
Lodging*	26,648	15,925	40.2%
Irrigation	821	2	99.7%
Total	40,365	24,644	39.0%

* Sloan's *FLUSHMATE* installed here.

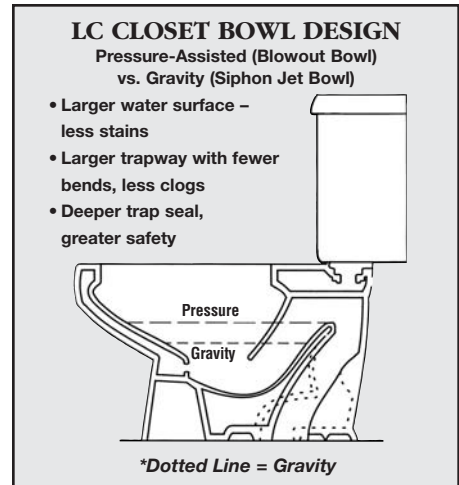
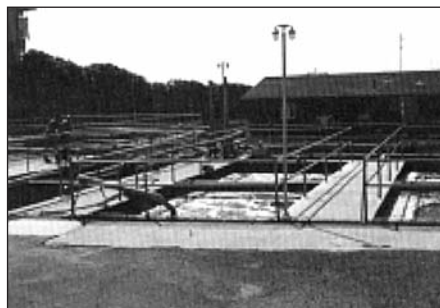
performance. It offers high-performance drainline carry to save water and improve efficiency. In addition, *FLUSHMATE* reduces stoppages to save on maintenance costs, and provides a larger water spot to reduce housekeeping costs. Plus, because it's pressure technology and not gravity, there's no double-flushing or leakage.

In the case of San Simeon, these advantages translated directly into results they could measure:

- reduced total community water consumption by 39%
- virtually eliminated all in-room stoppages (confirmed by almost every motel maintenance engineer in the district)
- salt water incursion stopped
- preserved the economic vitality of the community; by not having to shut 10% of the available rental rooms, they retained more than \$500,000 of revenue per year

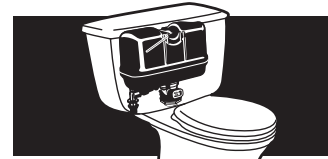
economically practical to convert old, high consumption toilets. Each *FLUSHMATE* activated toilet will reduce the average water bill by \$102 per year. And, the conversion saved taxpayers thousands of dollars and avoided a real crisis that would have damaged the economic base of the community.

You can find out more about San Simeon and how *FLUSHMATE* can work for you. We have prepared a 50-page report on San Simeon, including charts, graphs and diagrams of how



FLUSHMATE systems delivered these documented savings. In addition, we'll send you our brochure on how the system works. Just call or write to the address below. See for yourself how *FLUSHMATE* can mean the difference between just talking about low consumption, and doing something about it!

FLUSHMATE systems are available in 1.6 gpf (6.0 Lpf), 1.28 gpf (4.8 Lpf) and 1.0 gpf (3.8 Lpf) models from leading fixture manufacturers worldwide in a variety of styles and colors. For more information on these systems, including *FLUSHMATE*'s automatic sensor flushing systems, please contact us or visit our website: www.flushmate.com.



FLUSHMATE®

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