



Water Efficiency Research Committee Projects - 2009

Project No. 4

Project Name: High Efficiency Toilets (HETs) – Water Use and Savings

Description:

Currently, the only HETs that have been field measured to establish "real world" water savings are dual-flush fixtures. Programs currently encouraging the installation of the pressure-assist (1.0-gpf) and gravity-fed single-flush (1.28-gpf) fixtures in residential and commercial applications have no authoritative data available on water savings achieved through replacement of 5.0-, 3.5, and 1.6-gpf fixtures. Instead, "engineered calculations" are used to estimate water use. These calculations do not reflect any changes in user habits as a result of replacing a gravity-fed with a pressure-assist fixture (changing flush frequency, double-flushing, etc.).

This study would be implemented in multiple locations in order to obtain data for a variety of applications (residential and commercial of varying types) with a variety of fixture types. Estimate that at least 3 residential locations (single and multi-family) and 6 different commercial applications would be needed in order to provide data of value.

The proposed multi-faceted study would be one of the first to yield some important data for the water providers implementing HET programs.

Type of Research: Field

Expected Term to Complete the Research: Approximately 15 months

Estimated Cost Threshold: Medium

Current Status: Some work underway or about to commence in residential and commercial locations. Overall, the study is only partially funded and further work cannot commence until added funding is secured.