# Advancing Water Efficiency through Leak Detection for Low-Income Housing in Southern California

Southern California faces worsening water scarcity as climate change impacts intensify; greater efficiency is needed to make the most of limited supplies.

Leaky toilets are a major source of water waste in multi-family buildings. These leaks are easy to fix, but hard to detect. By making it easier to find and fix leaks, we are saving water and money for low-income communities.
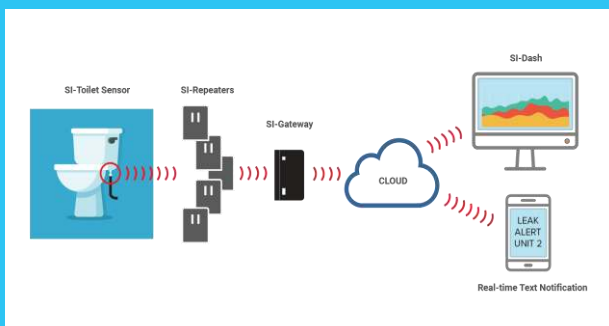

Pacific Institute, BEF, and Sensor Industries have partnered with corporate members of the California Water Action Collaborative and Southern California water agencies on an innovative water efficiency project.

We are deploying remote leak detection technology in low-income apartments to catch toilet leaks and send alerts in real time, reducing building water use and costs by an average of 20%.

BEFORE
47% of toilet water lost to leaks
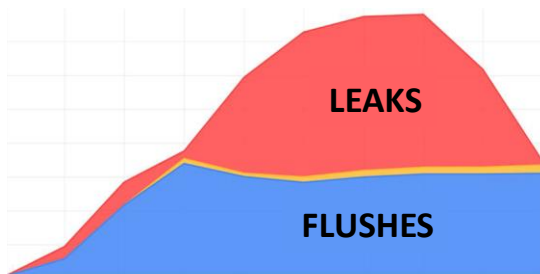
AFTER
4.4% of toilet water lost to leaks
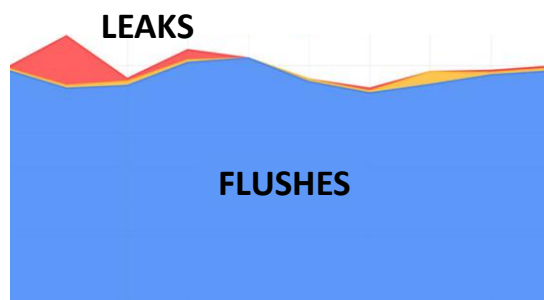
Pilot Results

Three pilot projects have been deployed in Southern California. Over the course of their 10-year lifetimes, the 1,200 sensors installed will save an estimated 64 million gallons (242 million liters, 196 acre-feet) of water.

MacArthur Park Tower, Los Angeles

Housing for low-income seniors

183 toilet leak sensors installed

Estimated annual water savings: 980,000 gallons

Grand & Venice, Los Angeles

Housing for low-income residents

124 toilet leak sensors installed

Estimated annual water savings: 664,000 gallons

Vista Del Campo Norte, Irvine

Housing for UC Irvine students

893 toilet leak sensors installed

Estimated annual water savings: 4,800,000 gallons

Plans for Scaling

An additional set of 1,200 sensors will be installed at affordable housing sites across Los Angeles in 2023. In addition, the project team has plans to deploy more pilots in California, Texas, and New York.

We are also pursuing scaling opportunities through new partnerships with water agencies, corporate funders, affordable housing groups, and others.

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