

# case study: water

## RESIDENTIAL OVER-IRRIGATION

### background

The San Diego County Watershed Protection Program is tasked with preventing contaminants from entering local waterways through the storm drain system. In the spring of 2013, Action Research collaborated with the County on a pilot project to encourage positive behaviors related to residential outdoor irrigation in unincorporated areas of the County. The neighborhoods selected for the pilot project were located in Lakeside, California.

### purpose

The goal of this project was to reduce residential over-irrigation in order to prevent the pollution of local waterways.

### approach

CBSM is based upon research which demonstrates that behavior change is often most effectively achieved through initiatives delivered at the community level that focus on removing barriers to a target behavior while simultaneously enhancing the behavior's benefits. The approach incorporates behavior change tools drawn from the social sciences. In this project, observational and survey research were used to determine target actions, barriers and benefits. This research provided the foundation for the program strategies.

### 1: Select the Target Behavior

The target communities were chosen for their proximity to an area of the San Diego River where high levels of contaminants, such as bacteria, had been found. We conducted behavioral observations in order to identify the target behaviors. Researchers observed evidence of standing water, and sprinklers that were broken or misaligned.

⇒ **Fixing broken or misaligned sprinklers** was selected as the target behavior.

### 2: Identify Barriers and Benefits

We conducted a focus group and a mail survey of residents in order to identify the barriers and benefits of repairing broken or misaligned sprinklers on private property.

⇒ **Barriers:** low overall barriers, did not see sprinklers running on to streets or sidewalks.

⇒ **Benefits:** conserving water, saving money, improving lawn health, and following local ordinances regarding runoff.

### 3: Develop Strategies

The strategy leveraged in-person communication (at the door), a flyer, and a hangtag placed on the lawnmower.

⇒ **Behavior change tools** included vivid information, social norms, a prompt (placed on the lawnmower handle), and convenience (linking the target behavior to a routine activity).

⇒ **Program messages** asked residents to check broken and misaligned sprinklers when mowing the lawn and highlighted money savings, water conservation, and lawn health benefits.

### 4: Pilot Test

The strategy was pilot tested using an experimental design: one neighborhood received the strategy and the other (control) did not. Two weeks after the strategy was delivered we conducted follow-up behavioral observations.

⇒ **Results:** Standing water, algae, and plant material in the street or gutter were observed less often in the treatment neighborhood. Additionally, resident response to the program and materials was extremely positive.

### 5: Implement Broadly and Evaluate

Program effects were difficult to detect through observation alone. We recommended implementation in similar neighborhoods and ongoing evaluation at regular intervals throughout the year.

