

## **BACKFLOW PREVENTION**

Backflow, or cross-connection, is the term used to describe the "backward flow" of water into the water supply system. Backflow can be caused by either back pressure or back-siphonage of the property-side plumbing or fire sprinkler system and can lead to a dangerous situation, as in this example: A driver loses control of his car and hits a fire hydrant. Water sprays onto the street, and water pressure drops in the entire neighborhood. In one yard, a man is refilling his pond and has left the hose in the pond. Because of the drop in water pressure, the hose sucks in the pond water. In another home two blocks away, a child turns on the kitchen faucet to get a glass of water. The glass fills with pond water.

Federal law requires water suppliers to protect their water systems from contamination or pollution. The City of Santa Cruz Water Department (SCWD) has a comprehensive program to provide drinking water protection, including cross-connection control surveys of various facilities on their systems. These surveys and detailed plan review of new construction enable a determination of the backflow prevention necessary to protect the water system.

Normally, water flows "forward" from the water distribution system to the consumer. A backflow preventer acts as a physical barrier to water flowing in the wrong direction. Since the late 1970's, the SCWD has required backflow preventers be installed at the meter of water lines serving industrial and certain commercial users as well as some residential customers, because their equipment or processes pose the greatest backflow risk to the water supply. These backflow preventers are required to be tested at least once each year to ensure they are performing properly. When necessary, they must be repaired in order to assure proper operation.

With cooperation from customers, a comprehensive cross-connection control program helps to keep the water distribution system free from objectionable impurities and health hazards. The SCWD has gone to great lengths to minimize health and safety risks in the commitment to delivering the safest water possible.

*For more information regarding our Cross-Connection Control Program, go online at [www.ci.santa-cruz.ca.us/wt/wten/Backflow](http://www.ci.santa-cruz.ca.us/wt/wten/Backflow) or call the Water Engineering Office at 420-5210.*