

# Protecting Water Quality through Cross-Connection Control & Hazard Assessments

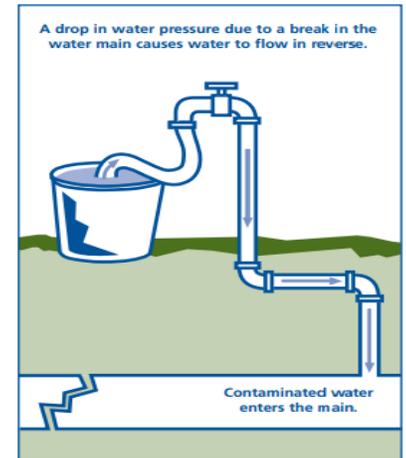
## What is Cross-Connection and Backflow?

A cross-connection is any actual or potential connection between the public water supply and a source of contamination. Backflow is the unwanted reversal of flow of non-potable substances into the clean water supply.

## The Role of Hazard Assessments

Hazard assessments help identify where potential cross-connections may occur and determine the degree of hazard presented. They ensure water quality and protect public health.

Hazards are classified as either low hazard (non-health risks like color, taste, or odor) or high hazard (poses a health risk). The assessment determines whether a backflow prevention assembly or device is required and the correct type.



## Hazard Assessment Requirements in California

According to the State of California Cross-Connection Control Policy Handbook (CCCCH):

- Every water service connection must undergo an initial hazard assessment to determine if it poses a low hazard, high hazard, or no hazard.
- Hazard assessments must be repeated when there is:
  - A change in the account holder (except for single-family homes)
  - A service reconnection
  - A change in site activities, equipment, or configuration
  - A backflow incident or water quality concern
  - A request from the State Water Board or per the water supplier's CCC Plan

## Required Backflow Protection

Backflow protection must match the highest degree of hazard identified during the hazard assessment. If a connection is deemed a high hazard, isolation protection using approved devices such as Reduced Pressure Principle Assemblies (RP) or Air Gaps (AG) is required unless otherwise approved.

## Who Performs Hazard Assessments?

Water suppliers are responsible for ensuring hazard assessments are conducted for all service connections.

Certified Cross-Connection Control Specialists perform these assessments according to California regulations.



## Examples of High Hazard Connections

- Commercial Properties
- Medical facilities
- Agriculture and Irrigation systems
- Auxiliary Water such as a well, pump, tank, or onsite pond

## How Can Property Owners Comply?

- Allow access for periodic hazard assessments
- Install and maintain required backflow prevention devices
- Submit backflow test reports when required
- Respond promptly to notices of identified hazards

Please ask the Nuevo Water Company Cross-Connection Specialist for more information about hazard assessments and cross-connection control.

## Mechanisms of Backflow

- Back-siphonage occurs when water pressure drops in the public system (e.g., fire hydrant use or main break), creating a vacuum that draws contaminants backward.
- Back-pressure happens when private system pressure exceeds public main pressure, like from pumps or boilers, forcing pollutants back into the potable water line.

**Why it matters:** Without proper backflow prevention, such as vacuum breakers, reduced-pressure assemblies, or air gaps, cross-connections may allow chemicals, bacteria, or other hazards into the public water supply, threatening community health.

**Cross-connection example:** When a hose or pipe connects potable water and a non-potable source (such as a bucket, pool, or irrigation system), especially if submerged, it creates a backflow hazard. If pressure conditions change in the system, contaminated water can flow back into the clean supply.