

Backflow Prevention Assembly Installation, Testing, and Maintenance Requirements

Any action taken by MPWD shall not be construed by the customer as guidance on the safety or reliability of the customer's plumbing system.

Installation

1. MPWD will ensure that backflow prevention assemblies protect the district's water distribution system from contamination. The district requires that all backflow prevention assemblies are approved by University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USCFCCCHR). A list of USCFCCCHR approved backflow prevention assemblies can be found [here](#).

2. Backflow prevention assemblies must be installed:
 - In the orientation for which they are approved;
 - Reduced pressure principle backflow prevention assemblies must be installed such that the lowest point of the assembly is a minimum of 12 inches above grade, and a maximum of 24 inches above the finished grade.
 - In a manner that will protect them from weather-related conditions such as flooding and freezing;
 - In a manner and location that facilitates their proper operation, maintenance, and testing or inspection, and in compliance with safety regulations;
 - In accordance with the installation standards outlined in the most recently published edition of the California Cross-Connection Control Policy Handbook, or USCFCCCHR Manual of Cross-Connection Control, unless the manufacturer's requirements are more stringent;
 - Outside of the public right of way if possible;
 - If installation outside of the public right of way is not possible, permits must be acquired for permanent encroachment;
 - MPWD approval of backflow prevention assembly installation plans shall not be construed as approval that the backflow prevention assembly is out of the public right of way. It is up to the property owner to verify lot lines and ensure the backflow prevention assembly is installed outside of the public right of way.
 - General lot line information can be found on San Mateo County's [GIS Property Parcel Map](#)
 - As close to the point of connection to MPWD water supply as is practical;

- In no case shall a cut, tee, or tap be made between the Customer's Service Connection and the backflow prevention assembly;
 - Installation of a backflow prevention assembly greater than 12-inches away from the water meter must be approved in advance by District. The service line between the water meter and the backflow prevention assembly shall be sleeved by schedule 80 PVC pipe to prevent future interconnections.
 - With a minimum side clearance of 24 inches. District may approve alternate clearances providing that there is adequate clearance for field testing and maintenance.
3. All backflow prevention assembly installations shall be inspected by MPWD prior to backfill, to ensure compliance with these requirements.
 4. No post-manufacture modifications to backflow prevention assemblies shall be accepted.
 5. Installations shall conform to standard construction drawings and specifications of MPWD.
 6. Prior to being put into service, all backflow prevention assemblies shall be tested and passed by a California-Nevada Section American Water Works Association certified backflow prevention assembly tester, authorized to test by San Mateo County.
 7. All backflow prevention assembly installations and repairs must be made by a licensed plumber with a C-36 license.
 8. Each backflow prevention assembly must be accessible for field testing, inspection, and maintenance.

Testing

1. Prior to providing continual water service, MPWD will require initial testing of backflow prevention assemblies with results submitted to San Mateo County Environmental Health Services to allow the backflow prevention assembly to be inventoried in their database.

2. San Mateo County Environmental Health Service will ensure each backflow prevention assembly is field tested at least once per calendar year by a backflow prevention assembly tester certified by The California Nevada Section American Water Works Association and authorized to test within San Mateo County by San Mateo County Environmental Health Services.

Maintenance

1. All presently installed backflow prevention assemblies which do not meet the requirements of this section but were approved assemblies for the purposes described herein at the time of installation and which have been properly maintained shall, except for the testing and maintenance requirements, be excluded from the requirements of these rules so long as MPWD is assured they will satisfactorily protect the district's water system. Whenever the existing backflow prevention assembly is moved from the present location or requires more than annual testing, or when the district finds that the maintenance constitutes a hazard to health, the unit shall be replaced by a backflow prevention assembly meeting the requirements of the district.
2. Double check valve backflow prevention assemblies installed to mitigate a health hazard shall be replaced with an approved reduced pressure principle backflow prevention assembly at the discretion of, and within the period specified by MPWD.
3. Improper installations such as installation in a confined space, with unapproved modifications, or in an unapproved configuration or orientation will be retrofitted with an approved method of backflow prevention, installed in accordance with MPWD's installation requirements at the expense of the customer, when repair of the backflow prevention assembly is required to pass a functional test.
4. Notwithstanding anything contained herein, installations that create a risk to public health will require retrofit with an approved backflow prevention assembly.