



OLYMPIC VALLEY PUBLIC SERVICE DISTRICT



EXHIBIT F-2
4 Pages

BACKFLOW PREVENTION SOFTWARE

DATE: February 25, 2025
TO: District Board Members
FROM: Samuel Donahue, Operations Superintendent
SUBJECT: Backflow Prevention Software

BACKGROUND: The District is mandated by the State to maintain a cross-connection control program. Owners of water service connections with a high degree of hazard (e.g. irrigation, fire sprinkler, heating, and cooling systems) must install, maintain, and annually test a backflow device to protect the public drinking water distribution system. More information about backflow prevention is available on the District's website (<https://ovpsd.org/utilities/water/backflow-prevention/>).

District staff administers the Backflow Prevention Program, which includes generating and issuing notifications to homeowners, tracking compliance of device test results, maintaining the database of records, and retaining all records for at least three years. Operations, Engineering, and Administrative staff currently spend a minimum of 250 personnel hours annually on the program, which is an approximate cost of at least \$16,400.

DISCUSSION: Backflow tracking software such as Syncta and BSI Online are web-based services that are successfully used by neighboring Districts to decrease in-house administration significantly. Using a Software-as-a-service method will allow staff to focus on other responsibilities- which is particularly important as the heavy administrative load occurs during the busy summer season when construction projects, meter installations, annual billing, inspections, and other projects compete for personnel's time.

Estimated subscription costs range between \$8,000 and \$11,000 annually, with some providers offering a decrease in price after the first year.

ALTERNATIVES: 1. Authorize the General Manager to execute a contract not to exceed \$12,000 annually with a backflow tracking software company such as Syncta or BSI Online.


2. Do not authorize staff to execute the contract.

FISCAL/RESOURCE IMPACTS: The operational budget currently supports approximately \$16,400 for staff labor to administer the backflow prevention program.

RECOMMENDATION: Authorize the General Manager to execute a contract not to exceed \$12,000 annually with a Backflow tracking software company such as Syncta or BSI Online

ATTACHMENTS: Slideshow presentation


DATE PREPARED: February 14, 2025



Introduction to Cross Connection Control



By Nic Massetani
February 25, 2025



1



What is a Cross-Connection?


- Any physical connection to a public water supply through which a contaminant (non-potable liquid, solid or gas) could enter the system by backflow
- Contaminants can enter the potable water system in either of two ways:
 - Back siphonage
 - Backpressure

February 20, 2025 Olympic Valley Public Service District 2

2




Why You Need A Cross Connection Control (CCC) Program

- **Protect the health of your consumers! It is required by law.**
- Microbiological contaminants that cause cholera, typhoid, giardiasis or cryptosporidiosis
- Chemical contaminants that cause effects based on type, amount and duration of exposure
- Physical hazards (compressed air, gas, hot water and steam) cause injuries or death


February 20, 2025 Olympic Valley Public Service District 3

3




World's Fair Incident

- Occurred during the **1933-1934 Chicago World's Fair**, where a **backflow contamination** event contaminated the potable water supply at the fairgrounds.
- 1,409 people infected with amoebic dysentery resulting in 98 deaths.




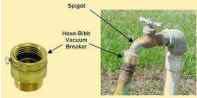
February 20, 2025 Olympic Valley Public Service District 4

4




Backflow Prevention

- Backflow can be prevented thru:
 - Air Gap
 - Mechanical device or assembly
- Selection is based on:
 - Application and design
 - Degree of hazard
 - Approval requirements




February 20, 2025 Olympic Valley Public Service District 5

5



Types of Mechanical Devices

- Reduced Pressure Principle Backflow Prevention Assembly
- Double Check Valve Backflow Prevention Assembly
- Pressure Vacuum Breaker Assembly
- Spill-Resistant Pressure Vacuum Breaker Assembly
- Atmospheric Vacuum Breaker

February 20, 2025 Olympic Valley Public Service District 6

6

Location of Assemblies

- Meter Protection- Installed at the property line, typically at the water meter or the point where the water supply enters a building. (Preferred)
- Internal Protection- Installed inside the building, typically at the point of use where water could be contaminated. This could include connections for irrigation systems, fire sprinklers, boiler make up, or pools etc.





February 20, 2025 Olympic Valley Public Service District 7

7

Testing is Required

- Required to be tested annually by a certified backflow prevention assembly tester.




February 20, 2025 Olympic Valley Public Service District 8

8

District's Current Program



- To stay in compliance the District maintains a data base of all the devices being tested annually.
- This information is collected on a paper test form that is filled out by the tester for each of the ~620 Devices.
- District staff then manually input this information.
- Operations, Engineering and Administration staff work together: entering data, preparing compliance letters, fielding customer/tester questions, etc.
- Staff spends a lot of time during the busy summer season managing the program.

February 20, 2025 Olympic Valley Public Service District 9

9

Syncta or BSI Online

- Software platform designed to help water utilities manage their cross-connection control and backflow prevention programs more effectively. It simplifies and automates processes related to monitoring, inspection, and compliance of backflow prevention systems.
- Neighboring Districts(TCPUD, TDPUD) have implemented it into their programs and report significant time savings.





February 20, 2025 Olympic Valley Public Service District 10

10

Future

- The Cross-Connection Control Policy Handbook (CCCPH) took effect July 1, 2024.
- Water purveyors will be required to submit a Cross-Connection Control Plan to SWRCB by July 1, 2025.
- The District is currently working to update its plan to make that deadline.
- District is looking to introduce software program to automate and simplify the process.



State Water Resources Control Board

February 20, 2025 Olympic Valley Public Service District 11

11