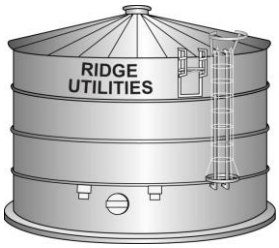

Please fill out Appendix A-D of the Waterworks Questionnaire and send back to us via email or regular mail. We really appreciate your help in this matter!

APPENDIX A
WATERWORKS QUESTIONNAIRE

Name _____ Date_____
Address _____
Home Telephone _____

Property Owner if not current resident
Name _____
Address _____
City, State, Zip _____
Telephone _____

Please check √ any item that may apply to your premises:

Outside Spigot without Vacuum Breaker		Swimming Pool	
Frost-proof Spigot without Vacuum Breaker		Jacuzzi / Hot Tub	
Yard Hydrant, Yard Spigot, Standpipe		Solar Heating System	
Shampoo Bowl/Sink		Steam or Hot Water Heating System	
Private Well, Spring or Cistern		Lawn Irrigation Sprinkler System	
Darkroom / Photo Development		Fire Protection Sprinkler System	
Mop Sink, Laundry Sink, Utility Sink with Hose Bibb Threads		Hose End Sprayer for Fertilizer or Other Chemicals	
Baptismal Pool		Pressure Booster Pump	
Dye Vat		Water Storage Tank	
Carbonated Drink Machine		Dialysis Equipment	

Please offer a brief description of any other items or treatment units connected to the water system on your property:

_____
_____
_____

Please list any existing cross connection control devices you have installed and if they appear to be working properly:

_____
_____
_____

Any additional comments:

_____
_____

APPENDIX B
BACKFLOW PREVENTION DEVICE STANDARDS AND INSTALLATION

A. Backflow prevention devices shall be of the approved type and shall comply with the most recent American Water Works Association (AWWA) Standards and shall be approved for containment by the University of Southern California, Foundation for Cross-Connection Control and Hydraulic Research (USC).

B. The required device shall be installed or constructed in accordance with the Uniform Statewide Building Code, the *Waterworks Regulation*s, manufacturers' recommendations and the USC as appropriate. Vertical or horizontal positioning shall be as approved by the USC.

C. A device shall be installed where the plumbing fixture connects to the premises water supply system (Point of Use), or the waterworks, as appropriate. Point-of-use isolation devices shall bear an appropriate American Society of Sanitary Engineering (ASSE) Standard Number.

D. Devices with openings, outlets, or vents that are designed to operate or open during backflow prevention shall not be installed in pits or areas subject to flooding.

E. The minimum air gap shall be twice the effective opening of a potable water outlet. If the outlet is a distance less than three times the effective opening away from a wall or similar vertical surface, the minimum air gap shall be three times the effective opening of the outlet. In no case shall the minimum air gap be less than one inch.

APPENDIX C
BACKFLOW PREVENTION DEVICE APPLICATIONS

Degree of Hazard	Method of Backflow	Pressure or Flow Conditions	Device	ASSE #
High	Backpressure or Backsiphonage	Continuous	RPZ	1013 & 1047
High	Backsiphonage only	Non-continuous Non-continuous Non-continuous Continuous	Pipe-Applied AVB Hose Bibb AVB Wall Hydrant with AVB PVB	1001 & 1035 1011 & 1052 1019 1020 & 1056
Moderate	Backpressure or Backsiphonage	Continuous	DG-DC	1015 & 1048
Low	Backsiphonage only	Continuous	Dual Check w/o vent Dual Check with vent	1024 & 1032 1012

Degree of Hazard - See Table 2.10: Determination of Degree of Hazard in the Waterworks Regulations.
Continuous means operating under continuous flow or pressure. This condition usually applies to devices installed inline and may have valves downstream of the device.
Non-continuous means operating intermittently not to exceed 12 hours under continuous pressure or flow in a 24-hour period. This condition usually applies to devices, which are connected to hose bibs, hydrants, or faucets, which are open to the atmosphere. Valves should not be located downstream of the device.

DEVICES
RPZ means a reduced pressure principal backflow prevention assembly.
Pipe applied AVB means an atmospheric vacuum breaker permanently installed in the plumbing or on faucets.
Hose bib AVB means a hose bib type atmospheric vacuum breaker with a single or with dual checks and a vent.
Wall hydrant w/AVB means a through the wall, frostproof self-draining type wall hydrant with AVB attached or built in.
PVB means a pressure vacuum breaker.
Spill resistant AVB have the same ASSE # as standard, pipe applied AVB.
Spill resistant PVB have ASSE # 1056.
DG-DC means a double gate-double check valve assembly.
Dual Check without a vent means a device composed of two independently acting check valves ("residential dual check" and "beverage dispenser dual check").
Double check with a vent means a device composed of two independently acting check valves with an intermediate atmospheric vent ("boiler dual check").

Yard hydrants, which are frostproof and drain the water in the barrel through an underground weephole are subject to contamination and are prohibited.
Some wall hydrants will not drain if a hose is connected.

APPENDIX D
COMMON BACKFLOW PREVENTION DEVICE APPLICATIONS

CONDITION	DEVICE
Fire Protection System Connections[1]	RPZ
Booster Pump Connections	Low Pressure Regulating or Cut-off Device[2]
Boiler System Connections, no additives	DCVA, RPZ
Boiler System Connections, with chemical additives	RPZ, Air gap
Irrigation System Connections	
• Without chemical additives	AVB[3], PVB[4]
• With chemical additives	RPZ
Ornamental Fountains	DCVA, RPZ, AVB, PVB
Threaded hose bibbs	Hose Bibb Vacuum Breaker, Frostproof Automatic draining wall hydrant
Laboratory Faucets, Bench Equipment	AVB, PVB
Shampoo Basins	AVB
Sinks, Vats, Tanks, Receptacles	Air gap
Swimming Pool, Hot Tub, Sauna	RPZ, Air gap
Washing Machines	AVB, PVB
Steam Tables, Kitchen Equipment	AVB
Cooling Systems, Towers	PRZ
Trap Primers	Air Gap
Steam Generator	RPZ
Degreasing Equipment	DCVA
Industrial Fluid Systems Connection	RPZ
Sewage Pump, Ejector, Sewer Connection	Air gap
Medical/Dental Equipment	
• Aspirator	AVB, PVB
• Bedpan Washer	AVB, PVB
• Autoclave	RPZ
• Specimen Tanks	AVB, PVB
• Sterilizers	RPZ
• Cuspidors	AVB, PVB
Autopsy & Mortuary Equipment	AVB, PVB
Vending Machines	RPZ, PVB
Carbonated Beverage Dispensers, Post Mix	RPZ

NOTES:

1. A backflow prevention device is not required for a fire protection system if:
   - water flows freely through the fire protection system,
   - the potable water is not allowed to stagnate or deteriorate in water quality,
   - the fire protection system is constructed of piping, joints and connections approved for water distribution systems (NSF pw) and
   - no chemical additives are used.
2. When the suction pressure drops to a minimum pressure as determined by hydraulic analysis and not to be less than 10 psi.
3. Shall be installed and located at least 12 inches above the highest outlet or flood elevation but no more than 30 inches above the ground.
4. Shall be installed and located at least 6 inches above the highest outlet or flood elevation but not more than 30 inches above the ground.