Spring Lake BREEZE

Florida... the way it should be!

District Proceeds with Water Safety Initiatives

Working together to keep our drinking water safe!

Florida Utilities are required to meet the Cross Connection Control and Backflow Prevention rules set forth by the Florida Department of Environmental Protection (FDEP) under Chapter 62-555 of the Florida Administrative Code. These rules are an unfunded mandate imposed on all public water systems in the State of Florida.

Currently, the FDEP is in the process of amending the backflow prevention (BFP) regulations with which we must comply. The SLID is taking a proactive stance to these proposed regulation changes. We have expanded our existing program to include all residential customers. The program components are: development of a Plan (which has been completed), public education, external site inspections, documentation, corrective action, and on-going maintenance. Some homes will require the installation of a BFP device. The on-site inspections will determine the necessity and type of BFP device to be installed. The SLID is currently investigating multiple options with contractors to minimize the installation expense for those locations found to require a device. At this time the SLID is proceeding with site inspections and it is anticipated that any corrective action would begin later this year.

The primary purpose of the SLID backflow prevention program is to protect the drinking water from contamination. Contamination can occur from secondary water supplies, i.e., wells or canals. Many homes use well or canal water for lawn irrigation. These types of irrigation systems are called "secondary water systems". The FDEP mandates that those homes with secondary water systems be equipped with an appropriate backflow prevention device. Our on-going inspections will identify those home sites that will require backflow prevention devices. It is very important that all homeowners that have secondary water systems do not connect this system to the SLID drinking water system; for example: using a garden hose to prime the pump of the secondary water system.

The SLID has contracted with the firm of Hydro Designs, Inc (HDI) to assist the District in meeting the requirements from the FDEP. HDI will provide and assist with program administration, site inspections, reinspections as needed, public education, data management, reporting, and tracking of annual testable backflow prevention assemblies within the SLID water system. Utilizing the services of HDI has enabled the SLID water department to forego hiring additional staff to run the BFP program thus saving our customers added cost. The cost for HDI's services amounts to less than one dollar per month per customer.

The SLID water department is committed to providing safe, pure drinking water to all of our customers. Please read the remainder of The Breeze to learn more about backflow prevention.

Questions? Cross Connection Control Program questions can be directed to Paul or Bethany Patterson at Hydro Designs, Inc. at (800) 690-6651

The New Program

The new Cross Connection Control Program consists of the following:

- Develop a community wide education and awareness program
- Develop an updated BFP Plan and resolution(policy)
- Conduct site inspections at all properties served by the Spring Lake Improvement District. (Inspections would be external only).
- Document any plumbing corrections required
- Assure plumbing corrections are implemented
- Implement an on-going testing program for backflow prevention valves

We are taking a proactive approach to protect you

One of our most precious natural resources is our drinking water. We can survive for up to a month without food but only around a week without water. Our water departments across the nation have, for many years, consistently provided high quality drinking water. Because of this we often take safe drinking water for granted. Unfortunately, at the point of use the high quality water that was sent from the water department may have been compromised by a cross connection with a non-drinking water source. This cross connection can cause sickness or worse.

In 1974 our federal government enacted the Safe Drinking Water Act (SDWA). This law established drinking water standards through the Environmental Protection Agency (EPA), which mandates that individual states are responsible for the enforcement of these standards as well as the supervision of the public water supply and the sources of drinking water.

In response to the SDWA individual states have developed their own rules and regulations that are required to be equal to or more stringent than the SDWA. The State of Florida requires water systems to develop a comprehensive CCC program per FAC 62-550.

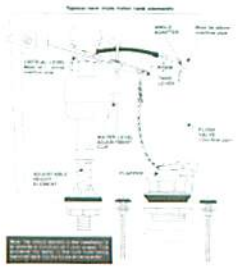
The need for an active CCC program goes beyond keeping people safe – as guardians of the drinking water system the water utility is responsible for the health and safety of all consumers with respect to the elimination and prevention of all cross connections. Further, the utility is mandated by this same law to implement a CCC plan and program that provides administration, site inspections, re-inspections as needed, public education, data management, reporting, and annual testing of testable backflow prevention assemblies.

"Cross Connection Control Rules Manual", US EPA – Office of Water, EPA 570/9-89-007, June 1989. FDEP FAC 62-550

Utilization of outside Professional Services

The Spring Lake Improvement District has contracted with Hydro Designs, Inc. (HDI), of Melbourne, FL and Troy, MI to manage our Cross Connection Control program. HDI is an environmental services firm that has been in business for over 27 years and specializes in backflow prevention and cross-connection control. The firm currently manages program services for over 150 municipalities and water utilities in Michigan, Wisconsin, Florida and Illinois.

Who would have an idea that this is a Cross-Connection?



Older toilets are often equipped with fill valves that are submerged below the water level. Installing a new Anti-Siphon Ball Cock Assembly will fix the problem. These valves are inexpensive and are available at Home Depot, Lowes, or your local hardware store.

Keeping people Safe from potential contamination

Until the SDWA, data was not maintained regarding water quality. However, during the past thirty years there have been several documented backflow incidents reported by the EPA, FDEP, TREEO, and other government agencies regarding contaminants such as paraquat, propane gas, chlordane, heptachlor, pesticides, washer water, bilge water, boiler water, irrigation & reclaim water, hexavalent chromium, ethylene glycol, creosote, untreated surface water and many other contaminants that have entered our drinking water system. In all of these examples unsuspecting people have become ill or in some cases have died.

Don't Panic... we will do this over time

Over the next 5 years, representatives from HDI will survey commercial and residential sites throughout the SLID to detect unprotected cross-connections. For residential customers an external inspection of the home will be conducted to determine the existence of any secondary water systems on the property (wells or surface water) which could possibly be connected to the public water supply. In accordance with FDEP requirements, when this situation is encountered the SLID Water Department will install a backflow preventer immediately downstream of the water meter in order to protect the public water supply. For commercial customers a complete survey of the internal plumbing system will be completed to determine the degree of hazard that the facility represents and if appropriate backflow preventers are in place throughout the facility. When an unprotected cross connection is identified an appropriate device for the application will be recommended for installation. This will ensure that contaminated or polluted water cannot re-enter the drinking water supply.

Cross-Connection Control Program Adopted

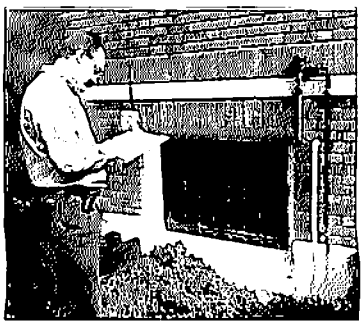
The Spring Lake Improvement District delivers safe, high-quality drinking water to over 1500 customers every day. Water quality is required to be protected as drinking water travels through the distribution system to our consumers. Rules enacted by the Florida Department of Environmental Protection (FDEP) and the SLID Resolution 2010-02 establish requirements for operation of the distribution system. A key component of these regulations is to maintain a cross-connection control program to prevent any substance from entering the drinking water distribution system.

What is a Cross-Connection?

Every time any connection (piping, equipment, hoses, etc.) is made to the drinking water system, a cross-connection occurs. The connection can be permanent, (example- lawn sprinkler system or chemical process system), or temporary (garden hose attached to a faucet). When cross-connections are not properly protected with a special mechanical device or some other means, used water can be pulled or pushed back into the drinking water supply. That water can be dirty, or can contain bacteria or chemicals that are harmful to human health. Other common cross-connections include dishwashers, toilets, pressure washers, boilers, swimming pools, streams, wells, lakes, solar heaters, fountains, and many others.

What is a Cross-Connection Survey?

The cross-connection survey is the first step in our program. FDEP requires that a Cross Connection Control survey of the distribution system is conducted to determine the degree of hazard present at all properties connected to the distribution system. The survey will determine if any type of backflow prevention device will be required at a property



Inspector, at left, is recording an installed Pressure Vacuum Breaker. This device is testable and is typically installed on underground irrigation systems that are connected directly to the city water supply.

What is a Cross-Connection Control Program?

This program is a cooperative effort between plumbing and health officials, local governmental officials, and property owners to make sure that all connections to drinking water piping are installed safely, and to install protection on any existing connections that do not meet safe standards. To accomplish these goals, officials establish written procedures and guidelines for controlling cross-connections and ensure their enforcement so that the public drinking water supply is protected both in the city main and within buildings.

The SLID program consists of the following components:

Public Education Program -
The SLID utility department will inform our water customers with newsletters, brochures, public awareness meetings, and access to informational videos. Visit the website of Hydro Designs, Inc. at www.hydrodesignsinc.com and browse the "Links" page for various educational topics for more information and resources.

Cross-Connection Survey -
All commercial and residential properties' plumbing systems will be surveyed to determine if cross-connections exist. Residential surveys will be external to the home. Inspectors will not enter the home.

Installation of Protective Devices -
Backflow prevention assemblies will be required to be installed where known unprotected cross-connections are identified.

Annual Testing -
All testable backflow prevention assemblies must be tested at the time of installation and once a year by certified inspectors, and written proof of testing must be submitted. The cost for annual testing will be the responsibility of the owner of the property. Note: It is anticipated that most devices used for homes will be non-testable.

How Does Contamination Occur?

Water normally flows in one direction, from the SLID water system through the customer's cold or hot water plumbing system to a faucet or other plumbing fixture. Under certain conditions, water can flow in the reverse direction. This is known as **backflow**, and it occurs when backsiphonage or backpressure is created in a water line.

Backsiponage can occur when there is a drop in the supply pressure of the water distribution system. Contaminated water in piping or vessels connected to the water distribution system can flow backwards because atmospheric pressure is greater than the water system pressure. This condition is caused when distribution pressure is lowered due to a water line break, fire flow, or during a rapid withdrawal of a large amount of water from the system. The vacuum created may pull or siphon contaminants or pollutants into the drinking water system. An example of this would be if a garden hose connected to the home was left submerged in a bucket of soapy water or a bath tub, when a water main break occurred. The soapy water could be drawn back into the home due to backsiphonage.

Backpressure can be created when a source of pressure, such as a pump or boiler, creates a pressure greater than that supplied from the water distribution system, pushing used water back into the drinking water system. An example of this is when a pump used for irrigation of your lawn is connected to your home system via a garden hose to prime the pump. If this hose is not immediately removed after the pump is primed the irrigation pump could overcome the SLID water system pressure and contaminated surface water would be pumped into your home and into the distribution system. (Water used for irrigation purposes that comes from a canal or a well is often contaminated with bacteria.)

More Common Than We Think!

SPRING LAKE
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What is Thermal Expansion?

If it is determined that a Dual Check or Reduced Pressure Backflow Prevention Assembly is required to be installed at your home or place of business, you must be aware of the potential problems that could arise due to the effects of thermal expansion. As your water heater raises the temperature of the water inside its tank, the water in the tank will expand and create pressure. For example, in a 40-gallon water heater, the water being heated during recovery will expand to about 40.60 gallons of water. When there is no backflow prevention device installed this added pressure can easily escape back through the water meter and no harm is done. Once a backflow preventer is installed your plumbing system will become a "closed" system. In other words, the check valves will not allow this pressure to escape. This added pressure can potentially cause damage to your plumbing system and in a worst case scenario could burst a pipe or even the tank on your water heater.

The best way for you to solve this problem is by installing a thermal expansion tank immediately upstream (prior) to your water heater. This device provides a "cushion" that will absorb the extra pressure. Not only will this protect your plumbing system, but an added benefit is that it will help prolong the life of your water heater. Thermal expansion tanks come in various sizes. **Spring Lake Improvement District highly recommends that if your home or business requires a backflow prevention device that you contact a certified plumber in order to have your internal system checked, and if needed install a properly sized thermal expansion tank.**

All homes could have a potential Cross Connection.

Some homes have underground lawn irrigation, swimming pools or hot tubs. The availability of secondary water supply from a well or drainage canal is most likely the highest hazard that we will see here. "Our main goal is to educate the water customers and protect the public health of the citizens in our community here at Spring lake Improvement District" said Clay Shrum, Water Superintendent /Operations Director

← Does this look familiar?

Garden hoses can be hazardous. Be sure to install a backflow prevention device!

Ever used an applicator on your hose?

Chemical from lawn fertilizers (or insecticides) can back up through your garden hose if it is not protected.

Do you have a Water Softener?

Water Softeners can be a bacteria hazard if the drain line is not properly air gapped. Note the picture on the left. The copper drain pipe is elevated above black drain line. This is a proper air gap.

Take Advatage of the ACH Program

SLID offers the ACH program in which we will debit your bank account on the 15th of the month. You will still receive your bill, but it will show payment received from your bank. This program is FREE to our customers and will assure you that you will never have late charges or water disconnection for not meeting the payment deadline. It is simple, just stop by the office or give us a call to see if you are eligible for this very helpful program. If you sign up, you may be entitled to have your account deposit applied to water account.

Emergency Contact Number
The SLID office is reviewing and updating telephone contact numbers. We have found that several customers have changed their numbers. Please contact our office at 863-655-1715 to confirm the contact information. This is very important in the event of an emergency. Thank you in advance.

DID YOU KNOW

IRRIGATION WELLS: All installations of water wells shall require application to the District on the form prescribed and may be permitted as long as no interconnection shall exist between the well system and any part of the District's potable water system as verified by the Water Superintendent. An application fee as determined in Schedule A ($35.00) as may be amended shall be paid upon submission of the application. The applicant shall be responsible for obtaining any other permits as may be required. The District reserves the right to discontinue service should a customer install a well without having obtained the approval of the District in writing.

DRAINAGE CANALS OR LAKES: All installations of pumps and pipes shall require an application to withdraw water from the water source from the District on form prescribed and may be permitted as long as no interconnection shall exist between the secondary water supply system and any part of the District's potable water system as verified by the Water Superintendent. An application fee as determined in permit application ($35.00) as may be amended shall be paid upon submission of the application. The applicant shall be responsible for obtaining any other permits as may be required. The District reserves the right to discontinue service should a customer install a pumping system without having obtained the approval of the District in writing.

Potable Water: If you use potable drinking water to supply your irrigation system, you are responsible to notify the District office prior to connection. You MUST have an approved backflow prevention assembly devise as required by DEP and SLID Cross Connection Control Plan installed to protect you and the other customers against backflow.