TOWN OF ST. JOHN, LAKE COUNTY, INDIANA

ORDINANCE NO. 1510

AN ORDINANCE ESTABLISHING A WATER CROSS-CONNECTION CONTROL PROGRAM AND REGULATIONS TO SAFEGUARD THE TOWN OF ST. JOHN PUBLIC WATER SUPPLY, PROVIDING PROVISIONS FOR ENFORCEMENT HEREOF, AND ALL MATTERS RELATED HERETO.

WHEREAS, the Town Council of the Town of St. John, Lake County, Indiana, (hereafter "Town Council"), has been informed and advised by the Board of Commissioners of the Town of St. John Waterworks District that precautions are required to be taken against cross-connections between the public water supply and the private utilization of that water supply where there is a hazard of contaminating the public water supply by backflow conditions; and

WHEREAS, the Town Council has been informed and advised that regulations for the implementation of a Cross-Connection Control Program is set forth in 327 IAC 8-10-1, et seq.; further the Town Council has been also informed and advised that the regulations set forth in 327 IAC 8-10-1, et seq., promulgated by the Indiana Water Pollution Control Board permit municipalities such as the Town of St. John to establish Cross-Connection Control Program Regulations for the protection purposes indicated; and

WHEREAS, the Town Council has been informed and advised that the Board of Commissioners of the St. John Waterworks District adopted its Resolution No. WD-10-01-18 recommending the establishment of a Water Cross-Connection Control Program with regulations as set forth in 327 IAC 8-10-1, et seq., for the protection of the public water supply of the Town of St. John under the administration of the St. John Department of Waterworks; and

WHEREAS, the Town Council, having reviewed the advisory recommendation and Resolution of the Town Board of Commissioners for the Department of Waterworks, and being duly advised, concurs and agrees that it is in the best interests of the residents and water utility ratepayers of the Town of St. John to establish Cross-Connection Control Regulations to take appropriate precautions and establish regulations against cross-connections between the public water supply and the private utilization of the water supply of the Town where there is a hazard of contaminating the public water supply by backflow, as such regulations are in the best interests of the Town, its residents, and ratepayers.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF ST. JOHN, LAKE COUNTY, INDIANA:

SECTION ONE: DEFINITIONS.

For the purpose of this Ordinance and these Regulations, the following definitions shall apply unless the context clearly indicates or requires a different meaning, namely.

(1) "Air gap" means an unobstructed vertical distance through atmosphere between the discharge end of a pipeline supplied from a public water supply and the overflow rim of the receiving portion of the customer water system.
(2) "Backflow" means the flow of water or contaminants into the public water supply distribution system from a source other than the public water supply.
(3) "Booster pump" means a pump installed on a pipeline to increase water pressure or flow.
(4) "Commissioner" means the Commissioner of the Indiana Department of Environmental Management ("IDEM"), or the Commissioner's authorized representative.
(5) "Cross connection" means any physical arrangement, including cross connection control devices not in working order, whereby a public water supply distribution system is directly connected, either continuously or intermittently, with any secondary source of supply, sewer, drain, conduit, pool, piping, storage reservoir, plumbing fixture, or other device which contains, or may contain, and is capable of imparting to the public water supply, contaminants, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality.
(6) "Cross connection control device" means any device or assembly, approved by the Commissioner for construction on or installation in water supply piping, which is capable of preventing contaminants from entering the public water supply distribution system.
(7) "Cross connection control device Inspector" means a person who has:

(A) successfully completed training in testing and inspection of cross connection control devices from a training provider approved by the Commissioner;
(B) received a registration number from the Commissioner; and
(C) not been notified by the Commissioner that the registration number has been revoked.

(8) "Cross connection hazard" means any customer facility which, because of the nature and extent of activities on the premises or the materials used in connection with the activities or stored on the premises, would present an immediate or potential danger or health hazard to customers of the public water supply should backflow occur.
(9) "Customer" means any person who receives water from the Town of St. John Waterworks District public water supply.
(10) "Customer service line" means the pipeline from the public water supply to the:

(A) first tap, fixture, receptacle, or other point of customer water use; or
(B) secondary source of supply or pipeline branch in a building.

(11) "Customer water system" means all piping, fixtures, and appurtenances, including secondary sources of supply, used by a customer to convey water on his premises.
(12) "Double check valve assembly" means a device or assembly composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting check valves, with four (4) test cocks, one (1) upstream of the four (4) valves and one (1) between each of the four (4) check and shut-off valves.
(13) "Downstream" means the direction of flow when only the public water supply is supplying water through the customer water system and backflow is not occurring.
(14) "Pressure vacuum breaker" means a device or assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet

valve located on the downstream side of the check valve for relieving a vacuum or partial vacuum in a pipeline.

(15) "Private water supply system" means the lateral fire and service line to the customer's premises starting at the roundway (buffalo box) on the service line and terminating at the point of usage, whether for fire suppression, irrigation or domestic usage.

(16) "Public water supply system" means a public water supply for the provision to the public of water for human consumption through pipes or other constructed conveyances and shall consist of the water mains and appurtenances such as fire hydrants and main valves used to distribute the potable water supply to the public, and shall terminate at the roundway (buffalo box) for lateral service to the user. The St. John Waterworks District and Department of Waterworks is the owner of the Public Water System.

(17) "Reduced pressure principle backflow preventer" means a device composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting pressure reducing check valves that, in turn, surround an automatic pressure differential relief valve, and four (4) test cocks, one (1) upstream of the five (5) valves and one (1) between each of the four (4) check and shut-off valves. The check valves effectively divide the structure into three (3) chambers; pressure is reduced in each downstream chamber allowing the pressure differential relief valve to vent the center chamber to atmosphere should either or both check valves malfunction.

(18) "Secondary source of supply" means any well, spring, cistern, lake, stream, or other water source, intake structure, pumps, piping, treatment units, tanks, and appurtenances used, either continuously or intermittently, to supply water other than from the public water supply to the customer, including tanks used to store water to be used only for firefighting, even though the water contained therein is supplied from the public water supply.

(19) "Upstream" means the direction of flow opposite to downstream.

(20) "Utility" means the Town of St. John Waterworks District, a municipally owned utility, governed by the Board of Commissioners of the St. John Waterworks District/Department of Waterworks

SECTION TWO: AUTHORITY, RESPONSIBILITY AND ENFORCEMENT.

(1). Utility Authorized. This Ordinance authorizes the Utility to require certain backflow prevention devices in private water supply systems to prevent backflow into the public water supply system. It shall be the responsibility of the customer to install and maintain such devices in conformance with this Ordinance and other rules and regulations established by the State of Indiana.

(2). Utility Sole Interpreter. The Board of Commissioners of the St. John Waterworks District and Department of Waterworks shall be the sole interpreter of this Ordinance and the judge as to whether such a backflow prevention device is required. In the event that such a backflow prevention device is required, the Utility may order installation of said device by written notice to the customer.

(3). Jurisdiction/Geographic Location. This Ordinance, as amended from time to time, shall apply to all customers and users of the Town of St. John Waterworks District.

(4). State Plumbing Code. This Ordinance, and all provisions herein, as same may be amended from time to time, supplements the Uniform Plumbing Code for the State of Indiana.

SECTION THREE: CROSS CONNECTIONS PROHIBITED.

No Customer shall cause or allow the construction or maintenance of a cross connection. Piping installed to bypass a cross connection control device constitutes a cross connection unless the bypass piping is also fitted with a similar cross connection control device.

SECTION FOUR: BOOSTER PUMP CONNECTIONS.

No Customer shall cause or allow the installation or maintenance of a booster pump in a public water system unless a device is installed to control operation of the booster pump when pressure to pump suction drops as follows:

(1) Wherever a fire suppression system has a booster pump installed only for fire suppression, it shall have an audible or visual alarm to provide warning when flow occurs and a control valve shall be installed on the booster pump discharge to automatically throttle the flow as necessary to maintain a minimum of ten (10) pounds per square inch, gauge, pump suction pressure.

(2) For all booster pumps other than those described in subsection (1) hereinabove, a control device shall be installed to either prevent operation of the booster pump, or else to automatically throttle flow to or from the booster pump as necessary to maintain a minimum of twenty (20) pounds per square inch, gauge, pump suction pressure. The supplier of water may require that the control device be calibrated to maintain a higher than twenty (20) pounds per square inch, gauge, pump suction pressure, where necessary to provide a minimum pressure of twenty (20) pounds per square inch, gauge, throughout the pressure zone of the public water system distribution system to which the customer is connected.

SECTION FIVE: CROSS CONNECTION HAZARDS; NOTICE; EXEMPTIONS.

(a) Wherever a cross connection hazard as specified by subsection (c) hereinafter is designated:

(1) an air gap shall be constructed or a reduced pressure principle backflow preventer shall be installed, in accordance with SECTION EIGHT of this Ordinance, on the Customer service line for:

(A) any new facility;

(B) any modified customer service line; or

(C) any existing facility where a higher capacity meter is installed; and

(2) neither an air gap nor a reduced pressure principle backflow preventer shall be required to be incorporated into customer service lines that both are utilized solely for fire suppression and are fitted with an audible alarm that will activate when water is detected to be flowing in the Customer service line.

(b) Customers who have a cross connection that has resulted in a contaminant being introduced into a public water system or a customer water system:

(1) shall immediately construct an air gap or install a reduced pressure principle backflow preventer on the Customer service line in accordance with SECTION EIGHT of this Ordinance; or

(2) is exempt from the requirements of subsection (1) hereinabove, because the affected customer service line is both utilized solely for fire suppression and is fitted with an audible alarm that will activate when water is detected to be flowing in the line.

(c) The following Customer facilities are designated cross connection hazards:
(1) Aircraft and missile manufacturing plants.
(2) Automotive plants, including those plants that manufacture motorcycles, automobiles, trucks, recreational vehicles, and construction and agricultural equipment.
(3) Beverage bottling plants, including dairies and breweries.
(4) Canneries, packing houses, and reduction plants.
(5) Car washes, laundries, dry cleaners and similar facilities.
(6) Chemical, biological, and radiological laboratories, including those in high schools, trade schools, colleges, universities, and research institutions.
(7) Hospitals, clinics, medical buildings, autopsy facilities, morgues, other medical facilities, and mortuaries.
(8) Metal and plastic manufacturing, fabricating, cleaning, plating, and processing facilities.
(9) Plants manufacturing paper and paper products.
(10) Plants manufacturing, refining, compounding, or processing fertilizer, film, herbicides, natural or synthetic rubber, pesticides, petroleum or petroleum products, pharmaceuticals, radiological materials, or any chemical that could be a contaminant to the public water supply.
(11) Commercial facilities that use herbicides, pesticides, fertilizers, or any chemical that could be a contaminant to the public water supply.
(12) Plants processing, blending, or refining animal, vegetable, or mineral oils.
(13) Commercial laundries and dye works, excluding coin-operated laundromats.
(14) Sewage, storm water, and industrial waste treatment plants and pumping stations.
(15) Waterfront facilities, including piers, docks, marinas, and shipyards.
(16) Industrial facilities that recycle water.
(17) Restricted or classified facilities (federal government defense or military installations), or other facilities closed to the supplier of water or to the commissioner.
(18) Swimming pools, saunas, and solar heat systems.
(19) Schools.
(20) Any other commercial or industrial facility that is deemed by the Utility to pose a contamination hazard.

(d) Customer facilities not designated as a cross connection hazard by subsection (c) herein may be designated a cross connection hazard by written notification from the Utility to the Customer. The notice shall specify the nature of the Customer activity that necessitates designation of the Customer's facility as a cross connection hazard, and the date by which the Customer shall install a cross connection control device in accordance with the provisions of **SECTION EIGHT** of this Ordinance.

(e) The Utility may issue a letter exempting a customer from the requirements of subsection (a) if the Customer can show to the satisfaction of the Utility that the activities taking

place at the Customer's facility, and the materials used in connection with these activities or stored on the premises, cannot endanger the health of customers of the public water system should backflow occur. An exemption shall remain valid for no more than two (2) years from the date of issuance. In the event that the Utility finds that the Customer facility has become a cross connection hazard, the Utility will void the exemption and so notify the Customer.

SECTION SIX: SECONDARY SOURCES OF SUPPLY; INSTALLATION OF AIR GAPS OR OTHER DEVISES.

(a) Customers shall construct an air gap or install a reduced pressure principle backflow preventer or a double check valve assembly in accordance with the provisions of **SECTION EIGHT** of this Ordinance on the customer service line to:

(1) tanks used only to store water from the public water supply for fire suppression that are constructed to maintain the bacteriological quality of the water, in compliance with 327 IAC 8-2; or

(2) secondary sources of supply that:

(A) use well water as the only private source of supply;

(B) are constructed to maintain the bacteriological quality of the water, in compliance with 327 IAC 8-2; and

(C) produce, without treatment, water meeting the drinking water quality standards enumerated in 327 IAC 8-2.

(b) Customers shall construct an air gap or install a reduced pressure principle backflow preventer in accordance with the provisions of **SECTION EIGHT** of this Ordinance on the Customer service line to or into a facility having a secondary source of supply of a type other than those enumerated in subsection (a) hereinabove, that is used only for fire suppression.

(c) No secondary source of supply of a type other than those enumerated in subsections (a) and (b) herein shall be physically connected on the customer service line to or into the facility.

SECTION SEVEN: LAND IRRIGATION SYSTEMS BURIED BELOW GROUND; INSTALLATION OF AIR GAPS OR OTHER DEVISES; RESIDENTIAL HAZARDS.

Customers shall construct an air gap, or install a reduced pressure principle backflow preventer or pressure type vacuum breaker in accordance with **SECTION EIGHT** of this Ordinance on the water line connecting the public water supply to any land irrigation system buried below ground that has a sprinkler outlet located less than six (6") inches above grade and is constructed after July 19, 1985, or for any similar lawn-care systems or garden hose spigots placed below lawn grade. Residential Customers who have: a) any hot water heat (boilers) (such boilers should have an expansion tank and/or safety valves to prevent expansion issues) and/or b) have a private auxiliary water supply connected to the public water supply shall construct an air gap, or install a reduced pressure principle backflow preventer or pressure type vacuum breaker in accordance with the provisions of **SECTION EIGHT** of this Ordinance.

SECTION EIGHT: CONSTRUCTION AND INSTALLATION REQUIREMENTS FOR AIR GAPS OR OTHER DEVISES.

(a) The discharge pipe of an air gap shall terminate:

(1) a minimum of two (2) pipe diameters of the discharge pipe or six (6") inches, whichever is the lesser, above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever is higher; or

(2) a minimum of three (3) pipe diameters of the discharge pipe or six (6") inches, whichever is the lesser, above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever is higher where:

(A) a side wall, rib, or similar obstruction is spaced closer than three (3) diameters from the piping affecting the air gap; or

(B) two (2) intersecting walls are located closer than four (4) pipe diameters from the piping affecting the air gap.

(b) Only those models of double check valve assemblies, reduced pressure principle backflow preventers, and pressure vacuum breakers acceptable under the Indiana Plumbing Code pursuant to the Fire Prevention and Building Safety Commission rules at 675 IAC 16-1.3 shall be installed.

(c) Reduced pressure principle backflow preventers shall be installed horizontally with:

(1) no plug or additional piping affixed to the pressure differential relief valve port; and

(2) the pressure differential relief valve port a minimum of twelve (12") inches above floor level.

Additionally, the device must be installed at a location where any leakage from the pressure differential relief valve port will be noticed, and that allows access to the valve for maintenance and testing from floor level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing.

(d) All double check valve assemblies shall be installed at a location that allows access to the device for maintenance and testing from floor level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing.

(e) Pressure vacuum breakers shall be installed as near as possible to the irrigation facility, at a location that allows access to the device for maintenance and testing from floor or ground level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing. Additionally, the device must be installed between two (2) tightly closing shut-off valves, with its center line or datum point a minimum of twelve (12") inches above:

(1) floor level;

(2) the highest downstream piping or shut-off valve; and

(3) the highest downstream overflow rim or discharge point.

SECTION NINE: INSPECTION OF DEVISES: TIME LIMITS.

(a) The Customer, at the Customer's sole expense, shall install and maintain in working order at all times any cross connection control device or booster pump control device required by this Ordinance, as amended from time to time.

(b) To ensure that each cross connection control device required by this Ordinance is in working order, the Customer shall, at the Customer's sole expense, have each device inspected or tested by a cross connection control device inspector at the time of construction or installation, and at the following intervals, in the following manner:

(1) Air gaps shall be inspected at intervals not exceeding one (1) year to ensure that they continue to meet the requirements of **SECTION EIGHT** of this Ordinance.

(2) Reduced pressure principle backflow preventers shall be tested at intervals not exceeding six (6) months to ensure that:

(A) both check valves are drip-tight under all pressure differentials; and

(B) the pressure differential relief valve will maintain pressure in the center chamber at least two (2) pounds per square inch below that of the inlet chamber.

(3) Double check valve assemblies shall be tested at intervals not exceeding one (1) year to ensure that both check valves are drip-tight under all pressure differentials.

(4) Pressure vacuum breakers shall be tested at intervals not exceeding one (1) year to ensure that the air inlet opens fully when water pressure is at or below atmospheric pressure.

(c) The Customer shall permit access to the Customer's premises by the Utility and/or its inspector, the Customer's public water system, at reasonable times, and upon presentation of identification, for inspection of the Customer's water system or testing of cross connection control devices installed in accordance with the provisions of this Ordinance.

(d) Those Customers granted an exemption in accordance with subsection (e) of **SECTION FIVE** of this Ordinance shall report to the Utility any proposed change in process, plumbing, or materials used or stored at the exempted facility at least fourteen (14) days prior to making the change. Failure to do so shall void the exemption.

SECTION TEN: INSPECTORS; REPORTS OF INSPECTION OR TEST.

(a) All Cross Connection Control Device Inspectors shall:

(1) be registered with the Commissioner in accordance with the Indiana Plumbing Code; and

(2) submit reports of all inspections as required by Subsection (b) of this **SECTION TEN.**

(b) The Inspector shall report to the Customer and the Utility, on a form provided by the Utility and/or Commissioner, the results of inspections or tests conducted pursuant to Subsection (b) of this **SECTION NINE** of this Ordinance on air gaps, reduced pressure principle back-flow preventers, double check valve assemblies, and pressure vacuum breakers. Reports shall be submitted to the Utility and to the Customer within thirty (30) days of the inspection or test.

SECTION ELEVEN: NONCOMPLIANCE; RETENTION OF REPORTS.

(a) Because cross connections may cause disease through transmission of contaminants via the public water system, the Utility shall order the public water system to remove the Customer service meter or otherwise sever the public water system connection to any Customer which the Utility finds, or has reason to believe, is in violation of any provision of this Ordinance.

(b) The Utility shall retain the three (3) most recent reports of tests conducted on air gaps, reduced pressure principle backflow preventers, double check valve assemblies, and pressure vacuum breakers installed in accordance with this Ordinance.

SECTION TWELVE: LIST OF REGISTERED INSPECTORS.

(a) The Utility shall keep a list of inspectors certified by the State of Indiana and/or Commissioner who are qualified to inspect Customers' private water supply systems.

(b) The Utility and/or the Commissioner shall maintain a list entitled "Indiana Registered Cross Connection Control Device Inspectors, All Inspectors", that is comprised of Cross Connection Control Device Inspectors registered in Indiana.

SECTION THIRTEEN: PRE-EXISTING FACILITIES.

Municipal approvals of facilities existing prior to the establishment of this Ordinance remain subject to the terms and restrictions of this Ordinance.

SECTION FOURTEEN: ENFORCEMENT.

Non-compliance as to any terms or restrictions of this Ordinance shall result in the following escalating enforcement procedures:

(1). A thirty (30) day written notice by regular and/or certified mail shall be mailed to the Customer outlining the specific violation, the recommended action required to be taken, the time frame for such remedial action, and the penalty for failing to cure such violation, which may include termination of water service to the customer.

(2). A ten (10) day final written notice by certified mail shall be mailed to the Customer outlining the specific violation, the recommended action required to be taken, the time frame for such remedial action and the penalty for failing to cure such violation, which may include termination of water service to the Customer.

(3). Failure to comply with the written notices outlined shall subject the Customer to immediate discontinuance of water service to the Customer's premises.

(4). Discontinued service shall consist of closing the control valve to the Customer's private water supply system, and whereby the Customer shall incur the standard monetary fine and costs for delinquent shut off. The Utility will not restore water service to the Customer until the Utility has determined that the Customer is in compliance with the provisions of this Ordinance.

(5). In the event that an inspection of the Customer's premises and/or private water supply system, or other compelling evidence indicates that an immediate hazard of contamination to the public water supply system exists, the Utility is authorized to declare an emergency and immediately discontinue water service to the Customer without prior notice. In the event of such an emergency, written notice shall be filed with the St. John Clerk-Treasurer's Office and Lake County Health Department with a coyp issued to the Customer within three (3) days of such emergency action.

SECTION FIFTEEN: That all Town Code Sections, or Ordinances as amended, or parts thereof, in conflict with the provisions and regulations of this Ordinance, are hereby deemed null, void, and of no legal effect, and are specifically repealed.

SECTION SIXTEEN: If any section, clause, provision or portion of this Ordinance shall be held to be invalid or unconstitutional by any Court of competent jurisdiction, such decision shall not affect any other section, clause, provision or portion of this Ordinance.

SECTION SEVENTEEN: That this Ordinance shall take effect, and be in full force and effect, from and after its passage and adoption by the Town Council of the Town of St. John, Lake County, Indiana.

ALL OF WHICH IS PASSED AND ADOPTED THIS 11th DAY OF February, 2010, BY THE TOWN COUNCIL OF THE TOWN OF ST. JOHN, LAKE COUNTY, INDIANA.

TOWN OF ST. JOHN, LAKE COUNTY, INDIANA, TOWN COUNCIL

Mark Barenie

Mark Barenie, President

Michael S. Forbes

Michael S. Forbes, Vice-President

Michael S. Fryzel, Member

Jerri A. Teibel, Member

Gregory J. Volk

Gregory J. Volk, Member

ATTEST:

Sherry P. Sury

Sherry P. Sury, IAMC, CMC,
Clerk-Treasurer

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Office of the
Clerk-Treasurer

St. John Municipal Building
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ST. JOHN
Founded 1837
INDIANA

Sherry P. Sury, IAMC
Clerk-Treasurer

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PROOF OF POSTING

I, Sherry P. Sury, Clerk-Treasurer of the Town of St. John, Lake County, Indiana, hereby certify that on February 23, 2010, I did post in three (3) public places located in the Municipal Corporation a Copy of Ordinance #1510, an Ordinance Establishing a Water Cross Connection Control Program and Regulations to Safeguard the Town of St. John Public Water Supply

I further certify that the ordinance was posted in each of the following places:

St. John Municipal Building, 10955 West 93rd Avenue, St. John, Indiana

St. John Public Library, 9450 Wicker Avenue, St. John, Indiana

St. John Post Office, 9200 Thiel Street, St. John, Indiana

February 23, 2010

SHERRY P. SURY, IAMC/CMC
Clerk-Treasurer