RESOLUTION NO. 2021-1

RESOLUTION REGARDING CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION PROGRAM FOR THE NAPOLEON COMMUNITY RURAL WATER CORPORATION

WHEREAS, the Board of Directors ("Board") of The Napoleon Community Rural Water Corporation ("Napoleon Water") has determined that it is important for the public, health, safety, and welfare of its users to establish a program for protecting Napoleon Water's public water system from contamination due to the backflow of contaminants through the water service connection into Napoleon Water's public water system.

WHEREAS, 675 Indiana Administrative Code, Article 16, Rule 1.4, of the Indiana Plumbing Code as adopted by the Indiana Fire Prevention and Building Safety Commission (as well as 327 IAC 8-10-1 et. seq.), requires protection of a public water supply from contaminants due to backflow through connections to fire protection and standpipe systems; and, the Indiana Department of Environmental Management authorizes the maintenance of a continuing program of cross-connection control which will systematically and effectively prevent the contamination of all potable water systems;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of The Napoleon Community Rural Water Corporation:

SECTION 1. That a "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 that 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.

SECTION 2. That no person, firm, or corporation shall establish or permit to be established or maintain or permit to be maintained any cross connection. No interconnection shall be established whereby water from a private, auxiliary, or emergency water supply other than the regular public water supply of Napoleon Water may enter the supply or distribution system of Napoleon Water, unless such private, auxiliary, or emergency water supply and the method of connection and use of such supply shall have been approved by Napoleon Water and by the Indiana Department of Environmental Management in accordance with 327 IAC 8-10.

SECTION 3. That it shall be the duty of Napoleon Water to cause inspections to be made of all properties served by the public water system where cross connections with Napoleon Water's system are deemed possible. The frequency of inspections and re-inspections based on potential health hazards involved shall be established by Napoleon Water.

SECTION 4. That upon presentation of credentials, a representative of Napoleon Water shall have the right to request entry at any reasonable time to examine the property served by a connection to the public water system for cross connections. On request, the owner, lessee, or occupant of any property so served shall furnish to the inspection agency any pertinent information regarding the piping system or systems on such property. The refusal of access or refusal of requested pertinent information shall be deemed evidence of the presence of a cross connection(s).

SECTION 5. That Napoleon Water is hereby authorized and directed to discontinue water service to any property with any connection in violation of this Resolution, and to take such other precautionary measures deemed necessary to eliminate any damage to or contamination of the public water system. Water service shall be discontinued only after reasonable notice is served on the owner, lessee, or occupants of the property or premises where a violation is found or suspected to exist. Water service to such property shall not be restored until the cross connection(s) has been eliminated in compliance with the provisions of this Resolution.

SECTION 6. That, if it is deemed by Napoleon Water that a cross connection or an emergency endangers public health, safety, or welfare and requires immediate action, and a written finding to that effect is delivered to the to the consumer's premises, service may be immediately discontinued. The consumer shall have an opportunity for hearing within 10 days of such emergency discontinuance.

SECTION 7. That all consumers using toxic or hazardous liquids, all hospitals, mortuaries, wastewater treatment plants, laboratories, and all other hazardous users install and maintain a reduced pressure principal backflow preventer in the main water line serving such building on the premises. The backflow preventer must be installed in an easily accessible location not subject to flooding or freezing.

SECTION 8. The reduced pressure principle backflow preventers shall not be installed below ground level.

SECTION 9. That this Resolution does not supersede the Indiana Plumbing Code, IDEM Rule 327 IAC 8-10, or the Napoleon Water plumbing resolution/ordinance, but is supplementary to them.

SECTION 10. In addition to IDEM Rule 327 IAC 8-10-4(c), the following customer facilities need a backflow prevention device:

See attached

SECTION 11. That if, in the judgment of the Superintendent of Water, an approved backflow prevention device is necessary for the safety of the public water system, the Superintendent of Water will give notice to the water consumer to install the approved device immediately. The water consumer shall, at his own expenses,

install such an approved device at a location and in a manner approved by the Superintendent of Water and shall have inspections and tests made of such approved devices as required by the Superintendent of Water and in accordance with the IDEM Rule 327 IAC 8-10.

SECTION 12. This ordinance shall become effective immediately after adoption, the welfare of Napoleon Water customers requiring it.

Board President

Vice-President

Secretary

Additional and Expanded Definitions

These definitions only apply for purposes of 327 IAC 8-10.

Air-gap separation – the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture or other device and the flood level rim of the receptacle. An "approved air-gap separation" shall be at least double the inside diameter of the supply pipe or six inches, whichever is less as measured vertically above the top rim of the vessel; in no case shall the gap be less than one inch. In cases where: (A) a side wall, rib or similar obstruction is spaced closer than three diameters from the piping affecting the air gap or (B) two intersecting walls are located closer than four pipe diameters from the piping affecting the air gap; a minimum of three times the diameter of the discharge pipe or six inches, whichever is less, is required above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever higher.

Approved – the term "approved: is used I reference to a water supply system or backflow prevention device or method. It shall mean a prevention strategy that is considered acceptable by the appropriate regulatory agency.

Auxiliary supply – any water source or system other than the public water supply that may be available in the building or premises.

Backflow – the flow of any foreign liquid, gas or substance into the distributing pipelines of a potable supply of water. Backflow may occur under two conditions: pressure greater than atmospheric (see **Backpressure**), and pressure that is subatmospheric (see **Backsiphonage**).

Backflow prevention device, approved – a device that has been investigated and approved by IDEM and the water purveyor having jurisdiction. Approval of the device may be left solely to the water purveyor at the discretion of the regulatory agencies.

Backflow prevention device tester, certified – a person in good standing who is qualified to test backflow prevention devices and has proven their competency to the satisfaction of the appropriate regulatory agencies.

Backpressure – backflow caused by a pump, elevated tank, boiler or other means that could create pressure within the system greater than the supply pressure.

Backsiphonage – a form of backflow due to a negative or subatmospheric pressure within a water system.

Consumer – the owner or operator of a private potable water system served by a public water supply.

Containment – installation of a backflow assembly that directly protects contamination from entering the public water system's distribution installed at the point of service connection on the downstream side of the water meter and before any branching.

Contamination – an impairment of a public water supply's quality caused by the presence of any foreign substance (organic, inorganic, radiological or biological) to a degree which creates a hazard to public health through poisoning or through the spread

of disease or creates a nuisance condition such as discoloration, staining, tastes or odors (see **Pollution/Pollutant**).

Cross connection, point of – a specific point or location in a public or a consumer's potable water system where a cross connection exists.

Hazard, degree of – expresses the results of an evaluation of a health, system or plumbing hazard.

Hazard, health – any condition, device or practice in a water supply system and its operation that creates, or may create, a danger to the health and well-being of a consumer.

Hazard, high (contamination) – any condition, device or practice in a water supply system and its operation that creates, or may create a danger to the health and well-being of a consumer.

Hazard, low (pollution) – a hazard which could cause aesthetic problems or have a detrimental effect on the quality of water in a potable water system.

Hazard, plumbing – a cross connection in a consumer's potable water system that may permit Backsiphonage in the event of a negative pressure in the supply line or due to backpressure in which the downstream piping pressure is greater that the supply line pressure. Unprotected plumbing-type cross-connections are considered to be health hazards. They include, but are not limited to, faulty connections to fixtures such as toilets, sinks, water softeners, tubs, lavatories, wash trays and domestic washing machines.

Hazard, system – a threat to the physical quality of the public water or the consumer's potable water system. Also included is the introduction of a material not dangerous to health but aesthetically objectionable that would be a degrading effect on the quality of the potable water in the system.

Industrial fluid – any fluid or solution that may chemically, biologically or physically degrade the approved water supply.

Industrial line – a separate water piping system serving water-using devices, with a backflow preventer or air-gap separation on the line where the water is taken from the potable water line, also known as the point of takeoff.

Industrial piping system, consumers – a system used by a consumer for the transmission or storage of anything other than a water supply intended or used for human consumption or food processing. Such a system would include all pipes, conduits, tanks, receptacles, mixtures, equipment and appurtenances used to produce, convey or store substances that are or may be polluted.

Isolation – installation of a backflow prevention device for protection of a specific area within the customer's internal plumbing system.

Nonpotable water – water not safe for drinking, personal or culinary use.

Operator – the person in direct or responsible charge and supervision the operation of a wastewater or water treatment plant or a water distribution system.

Person – any person, firm, organization, partnership, trust or association of person, joint venture, corporation or company. The United States, the State of Indiana and any officer or agent thereof are also included in this definition.

Points of delivery – See **Service connection.**

Pollution/Pollutant – an impartment of the public water supply's quality caused by the presence of any foreign substance I water that is considered to be a substance which is aesthetically objectionable and is considered a non-health hazard.

Potable water – water that is safe for drinking, personal or culinary use.

Premises – an integrated land area, including improvements, undivided by public thoroughfares or water distribution mains where all parts of the land area are operated under the same management and for the same purpose.

Backflow protection device – any of the following devices: 1) air-gap separation; 2) approved double check valve assembly; 3) approved reduced pressure principle backflow prevention assembly, or 4) approved atmospheric, pressure or spill resistant vacuum breaker.

Service connection – the terminal end of a service from the public water supply where the water purveyor surrenders jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system. If a meter is installed at the end of the service connection then the service connection would be the downstream terminus of the meter.

Water delivered (or delivered water) – any water supplied by a water purveyor from a public water supply to a consumer's water system after it has passed the point of delivery and is no longer under the sanitary control of the water purveyor.

Water purveyor – the owner or operator of a public water supply.

Water supply, approved – any public or consumer's potable water supply that has been investigated and approved by IDEM. IDEM shall have the final judgement as to safety and potability, in determining what constitutes an approved water supply.

Water system, consumer's – any potable or Nonpotable water system located on a consumer's premises, whether supplied by a public water supply or an auxiliary water system.

Examples of Cross Connections and Recommended Types of Backflow Protection

Any fixture with a submerged inlet could be a cross connection hazard. Potential cross connections exist between the consumer's water system and the following fixtures. The devices listed are only **recommendations.** Many of these fixtures fall under the Plumbing Code purview. For any fixture that fall into the Plumbing Code purview, please contact the IPC directly for a complete list of acceptable backflow devices for those fixtures.

AG – Air Gap
AVB – Atmospheric Vacuum Breaker
DCV – Double Check Valve
PVB – Pressure Vacuum Breaker
RP – Reduced Pressure
SVB – Spill Resistant Vacuum Breaker

Fixture	Device
Air-conditioning equipment with dual safe and unsafe water supplies or with direct sewer connection for wastewater	RP
Aquariums with a below-the rim water inlet	AG/RP
Aspirator on surgical, dental or industrial equipment operated by water ejector	AVB
Aspirators on chemical sprayers	AVB
Automatic device for filling tanks, boilers and vats which have overflow connections to a sewer	AG/AVB
Automatic soap dispenser (no downstream shutoff)	AG/AVB
Any direct connection between water pipes and sewers, even though gate valves are used	RP
Any individual vat, tank, etc., which has an inverted water supply connection or a water supply connection below the top of the spill rim	RP
Baptistery with below-the-rim water connection	AG/AVB
Bath with below-the-rim water connection	not allowed
Bedpan washer and sterilizer with below-the-rim water connection, or with inverted water supply subject to direct contamination	AVB
Bidet with submerged inlet	AVB
Boilers	AG/RP
Bird bath with submerged inlet	AG/RP
Cellar drains of the water ejector type	AG
Cistern supply in private home, cross connected with the city supply	RP
Coffee urn with direct water supply and sewer connections	AVB
Combination faucet with one safe and one unsafe supply	AVB
Condenser on medical and industrial equipment	AG/RP
Cuspidor with water supply connection	RP
Commercial dishwashing machines	AVB
Dual water supplies, such as hot water supply from an unsafe source	AG/RP
Dental cuspidor and saliva ejector with unprotected water supply connection	RP

Drinking fountain with submerged water inlet or with the water supply line passing through the drain	not allowed
Dishwater with water inlet below the rim	AVB
Dual water supplies cross connected in factories, etc.	RP
Egg boiler having direct water supply and sewer connections	AVB
Ejector actuated by direct water connection	RP
Filter with waste connected direct to sewer	AG
Fish pond with submerged water inlet	AG/RP
Floor drain with flushing connection, often used in operating rooms	AVB
Flushometer valve not protected with siphon breaker	AVB
Foot tub with submerged water inlet	not allowed
Floor drain having automatic device for sealing	AG
Frost-proof hydrant, whether or not the valve drains to the sewer or to the ground surrounding the sewer	AVB
Fire hydrant with drain connection to sewer or weep hole to the sewer or to the ground surrounding the sewer	RP
Garbage can washers	AVB/PVB
Gas-type chlorinator with dual feed to mixing basin and clear well	AG/RP
Grease trap with water supply connection for flushing	AG
Hose for sink, laundry tray, soap kettles, etc.	AVB
Hose outlets for washing down industrial, commercial or other equipment	AVB
Hydraulic elevator with waste connection direct to sewer	AG
Hospital equipment such as autoclave, instrument sterilizer, utensil sterilizer, etc., with submerged inlets and with direct connections to the sewer	RP
Industrial processes requiring direct water connections	RP
Industrial water supplies process appliances with direct water supply connections not having adequate air gaps	RP
Kitchen fixtures with common waste and supply lines	not allowed
Kitchen sink garbage disposal or grinder	AG/AVB
Lawn sprinkling systems	SVB/PVB/RP
Lawn sprinkling systems with automatic chemical dispenser	SVB/PVB/RP
Leaky water main or service near sewer	RP
Make-up water tank at swimming pool with below-water inlet	AG
Ordinary home and store-type evaporative air cooling units, with a float valve to maintain water at a constant level	RP
Pump used for dual purposes, with one safe and one unsafe supply	AG/RP
Pump used for unsafe material having a direct water connection for priming	AG/RP
Pump pit with drain connection to sump or sewer line	AG
Rubber hose with hand control or self-closing faucets attached, as used in connection with baths, industrial vats, containers, etc.	AVB
Refrigeration equipment with water cooling	AG/RP
Rubber hose connection extending water line to below the overflow rim of sinks, lavatories, tanks, tubs, laboratory apparatus, etc.	AVB
Sealing ring on sewage pump with direct water connection	AG/RP

Sewage lift with direct water connection	AG/RP
Sinks with below-the-rim water inlets	not allowed
Sludge line with direct water connection for flushing	AG/RP
Sterilizers of all kinds, both medical and dental, with submerged inlets	RP
Still with direct water connection	RP
Steam table with water supply connection entering the bottom of the table	AVB
Seat-action water closet with pressure tank having a flush valve in or attached to the bowl	AVB
Swimming pool with direct water connection	AG/RP
Siphon flush tank with water connection below the overflow rim	AG
Therapeutic bath with submerged inlet	AG
Toilet equipped with flushometer valve attached to the bowl	AVB
Tumbler washer in beverage sink having submerged inlet	AG/AVB
Tank with inverted supply or below-the-rim supply	AG
Urinal having direct flushing device	AG
Vat with inverted supply or below-the-rim supply	AG/RP
Water softener waste discharge or overflow pipe	AG
Water cooler improperly designed and using toxic refrigerant which may pollute the water supply	RP
Watering troughs (dairies, hog farms and horse stables)	AG/AVB
Water-operated aspirator on a suction flask in laboratories, etc.	AVB
Water-operated aspirator in undertaking establishments, hospitals, etc.	AVB
Water closet of the hopper type with pressure tank having a flush valve in or attached to the bowl	AVB
X-ray developing tank with submerged water supply inlet	RP
Yard hydrant having drip-openings below ground surface that may allow polluted ground water to drain into the water supply pipes	RP