ORDINANCE NO. 2003-1
AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE ARMONA COMMUNITY SERVICES DISTRICT ESTABLISHING RULES AND REGULATIONS FOR BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL

The Board of Directors of the Armona Community Services District does hereby find:

WHEREAS, the Armona Community Services District ("District") is a California community services district formed and existing under and by virtue of the provisions of the Community Services District Law, codified at Government Code §§ 61000-61800, inclusive; and

WHEREAS, the District is not a public utility subject to the Public Utilities Code, is not subject to the jurisdiction of the Public Utilities Commission, and is not a "municipal corporation," as that term is used in Public Utilities Code § 10009.6; and

WHEREAS, the Community Services District Law provides, at Government Code § 61621, that the District may provide for the collection of charges; and

WHEREAS, Health and Safety Code § 116555 provides that any person who owns a public water system shall ensure that the system will not be subject to backflow under normal operating conditions.

NOW, THEREFORE, the Board of Directors of the Armona Community Services District does hereby enact as follows:

Section 1. Cross-connection Control – General policy. The purpose(s) of this Ordinance are: (i) to protect the public potable water supply of the Armona Community Services District (ACSD) from contamination or pollution by isolating within its customers' internal distribution system(s) or its customers' private water system(s) such contaminants or pollutants which could backflow or back-siphon into the public water supply system; (ii) to promote the elimination or control of existing cross-connections, actual or potential, between its customers' potable and non-potable water system(s), plumbing fixtures and industrial piping systems; and (iii) to provide for the maintenance of a continuing program of cross-connection control which will systematically and effectively prevent the contamination or pollution of the potable water system.

Section 2. Responsibility. The General Manager is responsible for protection of the public potable water distribution system from contamination or pollution due to backflow or backsiphonage of contaminants or pollutants through water service connections. If, in the judgment of said Manager or his designated agent, an approved backflow prevention device is required at the service connection to any customer's premises, for the safety of the water system, the Manager or his designated agent shall give notice in writing to the customer to install such an approved backflow prevention device at each service connection to his/her premises. The customer shall immediately

install such approved device or devices at his/her own expense; and failure, refusal or inability on the part of the customer to install said device or devices immediately shall constitute grounds for discontinuing water service to the premises until such device or devices have been properly installed and tested.

Section 3. Definitions. As used herein, the following terms shall have the following meanings:

Air-Gap. 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 said vessel. An approved air-gap shall be at least double the diameter of the supply pipe, measured vertically, above the top of the rim of the vessel; and, in no case less than one inch. When an air-gap is used at the service connection to prevent contamination or pollution of the District's potable water system, an emergency by-pass shall not be installed around the air-gap unless an approved reduced pressure principle device is installed and maintained on the by-pass.

Approved. Accepted by the Manager as meeting an applicable specification stated or cited in this Ordinance.

Atmospheric Vacuum Breaker Backsiphonage Prevention Assembly (AVB). An assembly containing an air inlet valve, check seat and an air inlet port(s). The flow of water into the body causes the air inlet valve to close the air inlet port(s). When the flow of water stops the air inlet valve falls and forms a check valve against backsiphonage. At the same time it opens the air inlet port(s) allowing air to enter and satisfy the vacuum. A shutoff valve immediately upstream may be an integral part of the assembly, but the assembly shall not be subjected to operating pressure for more than twelve (12) hours in any twenty-four (24) hour period. An atmospheric vacuum breaker is designed to protect against a non-health hazard or a health hazard under backsiphonage condition only.

Auxiliary Water Supply. Any water supply on or available to a customer's premises other than the District's approved public potable water supply. An auxiliary water supply may include water from another public potable water supply or any natural source(s) such as a well, spring, river, stream, lake, "used water" or "industrial fluids." These waters may be polluted, contaminated or they may be objectionable and constitute an unacceptable water source over which the District does not have sanitary control.

Backflow. Any undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the distribution system of the potable water supply from any source or sources.

Backpressure. Any elevation of pressure in the downstream piping system (by pump, elevation of piping, or stream and/or air pressure) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.

Backsiphonage. A form of backflow due to a reduction in system pressure which causes a subatmospheric pressure to exist at a site in the water system.

Backflow Prevention Device. Any approved assembly used to prevent backflow into a potable water system. The type of assembly used shall be based on the existing or potential degree of hazard and backflow condition. The types of backflow prevention devices are:

1. Atmospheric Vacuum Breaker Backsiphonage Prevention Assembly.
2. Double Check Valve Backflow Prevention Assembly.
3. Double Check-Detector Backflow Prevention Assembly.
4. Pressure Vacuum Breaker Backsiphonage Prevention Assembly.
5. Reduced Pressure Principle Backflow Prevention Assembly.
6. Reduced Pressure Principle-Detector Backflow Prevention Assembly.
7. Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly.

Contamination. An impairment of the quality of water which creates an actual hazard to public health and safety through poisoning or through the spread of disease by sewage, industrial fluids, waste, etc.

Cross-connection. Any unprotected actual or potential connection or structural arrangement between a public or a consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas, or substance other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices and other temporary or permanent devices through which or because of which backflow can occur are considered to be cross-connections.

Direct cross-connection. A cross-connection which is subject to both backsiphonage and backpressure.

Indirect cross-connection. A cross-connection which is subject to backsiphonage only.

Double Check Valve Assembly. An assembly of two independently operating approved check valves with tightly closing shut-off valves on each side of the check valves, with properly located resilient seated test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

General Manager. The General Manager in charge of the ACSD water system is authorized and responsible for the implementation of an effective cross-connection control program and for enforcement of the provisions of this Ordinance.

Hazard, Degree of. Either a pollutional (non-health) or contamination (health) hazard and derived from the evaluation of conditions within a system.

Hazard, Health. An impairment of the quality of water which creates an actual hazard to public health and safety through poisoning or through the spread of disease by sewage, industrial fluids, waste, etc.

Hazard, Plumbing. An internal or plumbing type cross-connection in a consumer's potable water system that may be either a pollutional or a contamination type hazard. Plumbing type cross-connections can be located in many types of structures including homes, apartment houses, hotels and commercial or industrial establishments. Such a connection, if permitted to exist, must be properly protected by an appropriate type of backflow prevention assembly.

Hazard, Non-Health. An impairment of the quality of water to a degree which does not create a hazard to public health and safety but which does adversely and unseasonably affect the aesthetic qualities of such waters for domestic use.

Hazard, System. An actual or potential threat of severe danger to the physical properties of the public or a customer's potable water system or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.

Industrial Fluids. Any fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or concentration which would constitute a health, system, pollutional or plumbing hazard if introduced into an approved water supply. This may include, but not be limited to: polluted or contaminated used waters; all types of process waters and used waters originating from the public potable water system which may deteriorate in sanitary quality; chemicals in fluid form; plating acids and alkalies; circulated cooling waters connected to an open cooling tower and/or cooling waters that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, bays, harbors, seas, irrigation canals or systems, etc.; oils, gases, glycerin, paraffins, caustic and acid solutions and other liquid and gaseous fluids used industrially, for other processes, or for fire fighting purposes.

Pressure Vacuum Breaker Backsiphonage Prevention Assembly (PVB). An assembly containing an independently operating loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. The assembly is to be equipped with properly located resilient seated test cocks and tightly closing resilient seated shutoff valves attached at each end of the assembly. This assembly is designed to protect against a non-health (i.e., pollutant) or a health (i.e., contaminant) hazard under a backsiphonage condition only.

Pollution. The presence of any foreign substance (organic, inorganic, or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to public health and safety but which does adversely and unreasonably affect such waters for domestic use.

Reduced Pressure Principle Backflow Prevention Assembly. An assembly containing two independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located resilient seated test cocks and tightly closing resilient seated shutoff valves at each end of the assembly. This assembly is designed to protect against a non-health or a health hazard. This assembly shall not be used for backflow protection of sewage or reclaimed water.

Water, Potable. Any water which is safe for human consumption.

Water, Nonpotable. Water which is not safe for human consumption.

Water, Service Connections. The terminal end of a service connection from the District's potable water system; i.e., where the District loses jurisdiction and sanitary control over the water at its point of delivery to the customer's water system. If a meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the meter. There should be no unprotected takeoffs from the service line ahead of any meter or backflow prevention device located at the point of delivery to the customer's water system. Service connections shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the public potable water system.

Water, Used. Any water supplied by the District from the potable water system to a consumer's water system after it has passed through the point of delivery and is no longer under the sanitary control of the District.

Section 4. Water System Requirements. The water system shall be considered as made up of two parts, the District System and the Customer System. The District System shall consist of the source facilities and the distribution system; and shall include all those facilities of the water system under the complete control of the District up to the point where the customer's system begins. The source shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system. The distribution system shall include the network of conduits used for the delivery of water from the source to the customer's system. The Customer System shall include those parts of the facilities beyond the termination of the District distribution system which are utilized in conveying District delivered domestic water to points of use.

Section 5. Installation of Water Service Connection-Maintenance. No water service connection to any premises shall be installed or maintained unless the water supply is protected as required by State laws and this Ordinance. Service of water to any premises shall be discontinued if a prevention device required by this Ordinance is not installed, tested and maintained, or if it is found that a backflow prevention device has been removed, by-passed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

Section 6. Inspection of Customer System. The Customer System shall be open for inspection at all reasonable times to authorized representatives of the Manager to determine whether cross-connections or other structural or sanitary hazards, including violations of these regulations, exist. When such a condition becomes known, the Manager shall deny or immediately discontinue service to the premises by providing for a physical break in the service line until the customer has corrected the condition(s) in conformance with State and District statutes relating to plumbing and water supplies and the regulations adopted pursuant thereto.

Section 7. Backflow Devices. An approved backflow prevention device shall also be installed on each service line to a customer's water system at or near the property line or immediately inside the building being served; but in all cases, before the first branch line leading off the service line wherever the following conditions exist.

(a) In the case of premises having an auxiliary water supply which is not or may not be of safe bacteriological or chemical quality and which is not acceptable as an additional source by the Manager, the District's water system shall be protected against backflow from the premises by installing a backflow prevention device in the service line appropriate to the degree of hazard.

(b) In the case of premises on which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential hazard to the District's water system, the District's system shall be protected against backflow from the premises by installing a backflow prevention device in the service line appropriate to the degree of hazard. This shall include the handling of process waters and waters originating from the District's system which have been subject to deterioration in quality.

(c) In the case of premises having (1) internal cross-connections that cannot be permanently corrected and controlled, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross-connections exist, the District's water system shall be protected against backflow from the premises by installing a backflow prevention device in the service line.

Section 8. Protective Devices – Degree of Hazard. The type of protective device required under subsections 7(a), 7(b) and 7(c) shall depend upon the degree of hazard which exists. In the case of any premises where there is an auxiliary water supply as stated in subsection 7 (a) of this Ordinance and it is not subject to any of the following rules, the District's water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention device. In the case of any premises where there is water or substance that would be objectionable but not hazardous to health, if introduced into the District's water system, the District's water system shall be protected by an approved double check valve assembly. In the case of any premises where there is any material dangerous to health which is handled in such a fashion as to create an actual or potential hazard to the District's water system, the District's water system shall be protected by an approved air-gap separation or an approved reduced pressure principle

backflow prevention device. Examples of premises where these conditions will exist include sewage treatment plants, hospitals, mortuaries and plating plants. In the case of any premises where there are "uncontrolled" cross-connections, either actual or potential, the District's water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention device at the service connection. In the case of any premises where, because of security requirements or other prohibitions or restrictions it is impossible or impractical to make a complete in-plant cross-connection survey, the District's water system shall be protected against backflow or backsiphonage from the premises by the installation of a backflow prevention device in the service line. In this case, maximum protection will be required; that is, an approved air-gap separation or an approved reduced pressure principle backflow prevention device shall be installed in each service to the premises.

Section 9. Approval of Manager. Any backflow prevention device required herein shall be of a model, size and type approved by the Manager. The term "Approved Backflow Prevention Device" means a device manufactured in full conformance with the standards established by the American Water Works Association entitled: (i) AWWA/ANSI C510-92 Standards for Double Check Valve Backflow Prevention Assemblies; or (ii) AWWA/ANSI C511-92 Standards for Reduced Pressure Principle Backflow Prevention Assemblies; and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research (FCCC&HR) of the University of Southern California established by the Specifications of Backflow Prevention Assemblies – Section 10 of the most current Manual of Cross-Connection Control.

Said AWWA/ANSI and FCCC&HR standards and specifications have been adopted by the District. Final approval shall be evidenced by a "Certificate of Approval" issued by an approved testing laboratory certifying full compliance with said AWWA/ANSI standards and FCCC&HR specifications. The following testing laboratory has been qualified by the Manager to test and certify backflow preventers.

Foundation for Cross-Connection Control & Hydraulic Research
University of Southern California
KAP-200 University Park MC-2531
Los Angeles, CA 90089-2531

Testing laboratories other than the laboratory listed above will be added to an approved list as they are qualified by the Manager. Backflow preventers which may be subjected to back pressure or backsiphonage that have been fully tested and have been granted a Certificate of Approval by said qualified laboratory and are listed on the laboratory's current list of "Approved Devices" may be used without further test or qualifications.

Section 10. Inspection and Tests. The customer-user at any premises where backflow prevention devices are installed, is required to have certified inspections and operational tests made at least once per year. In instances where the Manager deems the hazard to be great enough, he may

require certified inspections at more frequent intervals. These inspections and tests shall be at the expense of the water user and shall be performed by a certified tester approved by the Manager. It shall be the duty of the Manager to see that these timely tests are made. The customer-user shall notify the Manager in advance when the tests are to be undertaken so that he or his representative may witness the tests if desired. These devices shall be required, overhauled or replaced at the expense of the customer-user whenever said devices are found to be defective. Records of such tests, repairs and overhauls shall be sent to the District and made available to the Manager.

Section 11. Presently Installed Devices. All backflow prevention devices installed as of the date of enactment hereof which do not meet the requirements of this Ordinance, but were approved devices for the purposes described herein at the time of installation and which have been properly maintained shall, except for the inspection, testing and maintenance requirements under Section 8 hereof, be excepted from the requirements hereof so long as the Manager is assured that they will satisfactorily protect the District system. Whenever the existing device is moved from its present location or requires more than minimum maintenance or when the Manager finds that the maintenance constitutes a hazard to public health or safety, the unit shall be replaced by a backflow prevention device meeting the requirements of this Ordinance.

Section 12. Fees and Charges. Every premises where a backflow prevention device is required or a backflow prevention device has been installed shall be charged an annual fee of thirty dollars for the administration of the District's Cross-Connection Control Program.

Section 13. Rules and Policies. The General Manager is authorized to make reasonable rules and policies with respect to the enforcement and administration of this Ordinance. All rules and policies shall be consistent with the provisions of this Ordinance and approved by the Board.

WHEREFORE, this Ordinance was passed and adopted by the Board of Directors of the Armona Community Services District on January 8, 2003, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

ED BITTNER, PRESIDENT

ATTEST:

JAMES MACIEL, SECRETARY

CERTIFICATE OF SECRETARY

I, JAMES MACIEL, the duly appointed and acting Secretary of the Board of Directors of the Arrnona Community Services District, do hereby certify that the foregoing Ordinance was passed and adopted at a Regular Meeting of the Board of Directors of the Arrnona Community Services District, duly held at Arrnona, California, on January 8, 2003.

[DISTRICT SEAL]

JAMES MACIEL, SECRETARY

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