Adopted July 14th, 2021 by the Board of Trustees for the Orick Community Services District

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Section 1 Authority and Intent

(a)This program is adopted pursuant to Title 17, division 1, chapter V, sections 7583 through 7605, inclusive, of the California Code of Administrative Regulations, entitled "Regulations Relating to Cross-Connections," which sets forth rules and regulations governing cross-connections. In addition, this Program is adopted pursuant to Public Law 93-523 of the Safe Drinking Water Act of 1974, and O.C.S.D. Ordinance 4 section 146, amended by Ordinance 88-1 Section 3 and Ordinance 2015-1.

(b) The O.C.S.D. Board of Directors declares that this Program is adopted for the following purposes:

(1) To protect the public potable water supply of Orick Community Services District (District) from the possibility of contamination or pollution by isolating within the water users internal distribution system or the water users private water system contaminants or pollutants which could backflow o back –siphon into the public water supply system;

(2) To promote the elimination or control of existing cross-connections, actual or potential, between a customer's potable water system and that customer's non-potable water system, plumbing fixtures and/or industrial piping systems; and

(3) To provide for a continuing program of cross-connection control which systematically and effectively prevents the contamination or pollution of all potable water systems.

Section 2 Definitions

"**Air Gap Separation (AG)"** 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, and must be at least double the diameter of the supply pipe measured vertically above the flood level rim of the vessel In no case may the gap be less the one (1) inch.

"Approved" As used on reference to a type of backflow prevention assembly or methods will mean approval by the District.

"Approved Backflow Assembly" A backflow prevention assembly tested and approved by the Foundation for Cross-Connection Control and Hydraulic Research of the University Of Southern California.

"Atmospheric Vacuum Breaker (AVB)" Consists of an air inlet valve, a check seat and an air inlet port(s). May only be used to prevent back-siphon-age. Must be installed at least six inches above all downstream piping and outlets. Additionally, may not be subjected to continuous pressure. It may only be in use for twelve out of any twenty-four hour period and may have no shutoff valves or control valves downstream. AVB is a non-testable device.

"Auxiliary Water Supply" Any water supply on or available to the premises other than District's water system. These auxiliary waters may include water from another purveyor's potable water system or any natural source such as a well, spring, river, stream, ponds, etc., or "used water" or "industrial fluids."

"AWWA" American Water Works Association

"Backflow" The reversal of the flow of water or other liquids, mixtures, gases, or other substances into or toward District's water system from any source or sources.

"Back Pressure" Any elevation of pressure in the downstream piping system (by pump, elevation of piping, or steam 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 flow through the backflow prevention assembly.

"Backflow Prevention Assembly" An assembly used to prevent backflow into a potable water system.

"Back Siphonage" A form of backflow due to a reduction in system pressure which causes a negative or sub-atmospheric pressure to exist at a site in the water system.

"Certified Backflow Prevention Assembly Tester" A person who has proven his or her competency in testing, repair, and making test reports on approved backflow prevention assemblies to the satisfaction of District's General Manager or his/her designee. They will be currently certified by an organization recognized by the California Department of Health Services (D.H.S.)

"Consumers", Customers" or 'User" The owner or operator of a private water system served from District's water system.

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

"Cross-Connection" Any unprotected actual or potential connection or structural arrangement between "District's" 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 sections, swivel or change over devices and other temporary or permanent devices through which or because of which "backflow" can or may occur are considered to be cross-connections.

"Cross-Connection Control Specialist" As defined and certified by the Cal-Nevada Section of AWWA who meets all other requirements set forth in Title 17. This employee will administer the policy.

"Degree of Hazard" Will be derived from the evaluation of conditions within a system which can be classified as either a pollution (non-health) or a contamination (health) hazard.

"Double Check Valve Assembly (DC)" An assembly composed of two independently acting approved check valves, including tightly closing shutoff valves attached on each end of the assembly and fitted with properly located test cocks available for testing the water tightness of each check valve.

"Point of Service" The terminal ends of District's water system, where District loses jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system.

"Pressure Vacuum Breaker (PVB)" Consists of an internally loaded check valve, a loaded air inlet valve, two resilient seated shutoff valves and two resilient seated test cocks for field-testing and maintenance. PVB's may only be used to prevent back siphon-age, Must be installed at twelve inches above all downstream piping and outlets; it may be used under continuous pressure.

"Reduced Pressure Principal Backflow Prevention Assembly (RP)" 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, two shutoff valves, and equipped with the necessary appurtenances for testing. The device must operate to maintain the pressure in the zone between the two check valves, less than the pressure on the public water system side of the device. At cessation of normal

Flow, the pressure between the check valves must be less than the supply pressure. In the case of leakage of either check valve the differential relief valve must operate to maintain the reduced pressure by discharging to the atmosphere. When the inlet pressure drops below two pounds per square inch, the relief valve must open to the atmosphere thereby providing an atmospheric zone between the two check valves. A three pound buffer must exist between the first check valve reading and the opening point of the relief valve during testing procedures to pass inspection.

"Thermal Expansion" The resulting effect when water in a closed system, such as a piping system downstream of a backflow preventer heats up. In effect, the heat causes the water volume to expand, but since the system is closed, the pressure increases.

"Title 17" The State of California Administrative Code, Title 17-Public Health

"Unapproved Water Supply" A water supply which has not been approved for human consumption by the California Department of Health Services.

"U.S.C. Foundation" Will mean the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.

"Used Water" Any water supplied by a water purveyor from a public potable water system to a consumer's water system after is has passed through the service connection and is no longer under the control of the water purveyor.

"Water, non-potable" Water which is not safe for human consumption or which is of questionable portability.

"Water, potable" Any water which, according to recognized standards, is safe for human consumption.

"Water Purveyor" Will mean District

"Water Service Connection" Will mean District's water pipe and appurtenances from District's water main to the point of service.

"Water Service Line Protection" Protection of the public water system achieved through the installation of an approved backflow prevention assembly at, or as near as is practical, at the "point of service" as defined in this section.

"Water User" Any person obtaining water from the public water supply District.

Section 3 District Responsibility

Under the rules of Title 17-relating to cross-connection, the District has the primary responsibility to prevent water from unapproved sources or any other substances, from entering District's water system.

District is primarily responsible for the prevention of contamination and pollution of District's water system. Such responsibility begins at the point of origin of District's water supply and includes water mains, and ends at the point of service to the consumer's water system. District will insure adequate backflow and back-siphonage protection is maintained on consumer water systems directly or indirectly connected to District's system.

Periodically, as per Title 17, the District will conduct surveys to identify water user premises where cross-connections are likely occur throughout the District.

District will not be responsible for any loss or damage directly or indirectly resulting from or caused by any improper or negligent installation, operation, use, repair, or maintenance of, or interfering with, any approved backflow prevention assembly, required by this policy, by any consumer or any other person.

District will not be held responsible for any losses or damages incurred by the consumer as a result of upgrading existing backflow prevention assemblies or the installation of approved backflow prevention assemblies.

The District may, at their discretion, require an industrial water user to designate a user supervisor when the water user's premises has a multi-piping system that convey various types of fluids, some of which may be hazardous and where changes in the piping system are frequently made. The user supervisor shall be responsible for the avoidance of cross-connections during the installation, operation and maintenance of the water user's pipeline and equipment.

The District shall maintain all reports of testing and maintenance for a minimum of three years.

Section 4 Customer Responsibilities

The customer has the prime responsibility of preventing contaminants and pollutants from their water system from entering District's water system as required by this policy, California law, and Title 17

The customer shall furnish and install all approved air gap separation or approved backflow prevention assemblies in accordance with this policy, Title 17 and as directed by the General

Manager or his/her designee. All air gap separation and approved backflow prevention assemblies shall be kept in good working order and in safe condition.

Annually, or upon notification by the District the customer shall test, repair or replace existing air gap separation and backflow prevention assemblies determined to be unapproved, defective or not providing the level of protection specified in this policy. The length of time allotted for the correction of the deficiency shall be two weeks after notification. All work shall be arranged by the owner. In the event water service is to be maintained during the repair or removal of an existing backflow prevention assembly, the customer shall provide that an approved backflow prevention assembly be temporarily installed. The temporary approved backflow prevention assembly shall be tested at the time of its installation.

The customer shall bear all costs of testing and inspections provided by the certified backflow prevention assembly tester. The customer shall bear all costs for the installation of approved air gap separation, approved backflow prevention assemblies, and if necessary thermal expansion tank. The customer shall bear all costs for the installation of pumps or renovation of existing consumer piping, as a result of any decreases in line pressure attributed to the upgrading of existing backflow prevention assemblies or the installation of approved backflow prevention assemblies.

The customer's premises shall be available for inspection at all reasonable times to the District to determine if protection of District's water system is required. When a hazardous condition becomes known, the District may deny or immediately discontinue service to the premises by providing for a physical break in the services line until the customer has corrected the condition(s). Hazardous conditions which may require immediate disconnection are: those situations which would require an approved air-gap or an approved reduced pressure principle assembly.

Should a customer wish the removal of an existing backflow prevention device, said customer may submit a written request to the District for re-evaluation of potential hazards and/or recommendations for in-lieu of water service line protection. Within thirty (30) days from receipt of the written request, the District will have scheduled an on-site inspection of the premises with a written report of findings to the customer issued shortly thereafter.

Section 5 Certification of Backflow Prevention Assembly Testers

Backflow prevention assembly testers are limited to those individuals with a current certificate of competence from an organization recognized by the California Department of Health Services. Have the proper testing equipment that has been calibrated to the manufacturer's specifications within the last 12 months. In addition, their name must appear on the list of

District approved testers. A current list of certified backflow prevention assembly testers shall be kept on file in the office of District and will be made available upon request. A person may be added to the approved tester list by the submission of a certificated of completion from an approved backflow device tester's course and performance examination, along with a copy of the calibration report for the test gauge that will be used in field testing procedures. The report shall demonstrate that the testing equipment has been calibrated to the manufacturer's specifications within the last 12 months. Should a question arise about the competency of any individual tester, the final determination of certified tester's ability to perform backflow prevention assembly testing within the District's boundaries rests with the General Manager.

Section 6 Testing and Reports

Testing of backflow prevention assemblies shall be performed by certified backflow prevention assembly testers. Approved backflow prevention assemblies shall be tested immediately after they are installed relocated or repaired and not placed in service unless they are functioning as required. The General Manager or his/her designee will ensure that as minimum, each approved backflow prevention assembly is tested at the time of installation and annually thereafter to assure proper operation. In instances where a hazard is deemed great enough, testing may be required at more frequent intervals. Test procedures shall be those currently recommended by the USC Foundation or the AWWA.

The General Manager or his/her designee shall notify the customer when tests are required. Necessary test forms shall be provided and completed by the certified backflow prevention assembly tester and returned to the District.

Reports of test of backflow prevention assemblies that have passed shall be filed with District within 20 calendar days.

Reports of tests of backflow prevention assemblies that have failed shall be filed with District within 5 calendar days.

Section 7 Existing Backflow Prevention Assemblies

Backflow assemblies in service at the time of adoption of this Program, which do not comply with the provisions of this policy, may continue in use until the assembly is no longer able to pass the required testing.

Any such assembly that is determined to be defective shall be replaced by an assembly that complies with the provisions of this Program.

Section 8 Installation Requirement for Backflow Prevention Assemblies

A. Air-gap separation (AG)

1. An air-gap separation shall be located on the Owner and/or Operator's side of, and as close to, the service connection, as is practicable.

2. All piping from the service connection to the receiving tank shall be above grade and should be accessible for visual inspections unless otherwise approved by the District.

3. Required air-gap is at least twice the diameter of the supply pipe measured vertically above the overflow rim of the receiving vessel; in no case less than 1 inch.

B. Reduced Pressure Principle Assembly (RP)

1. RP to be installed in an outdoors location, above ground, in a horizontal and level position, on the Owner and/or Operator's side of, and as close to, the service connection as is practicable, unless otherwise approved by the District.

2. RP to be installed a minimum of 12 inches above finished grade and not more than 36 inches above finished grade as measured from the bottom of the assembly, and shall be readily accessible for maintenance and testing.

3. There shall be no outlet, tee, tap, take-off, or connection of any sort to or from the supply pipe line, between the service connection and the backflow prevention assembly.

4. RP shall be installed in such a way that no part of the assembly will be submerged during normal operating and weather conditions.

c. Double Check Valve Assembly (DC)

1. DC to be installed in an outdoors location above ground in a horizontal and level position on the Owner and/or Operator's side of, and as close to the service connection as is practicable, unless otherwise approved by the District.

2. DC to be installed a minimum of 12 inches above finished grade and not more than 36 inches above finished grade as measured from the bottom of the assembly, and shall be readily accessible for maintenance and testing.

3. There shall be no outlets, tee, tap, take-off or connection of any sort to or from the supply pipe line, between the service connection and the backflow prevention assembly.

D. Pressure Vacuum Breaker (PVB)-Landscape installation only

1. PVB to be installed at least twelve inches above all downstream piping and outlets; it may be used under continuous pressure.

2. May only be used to prevent against back-siphon-age.

E. Atmospheric Vacuum Breaker (AVB)-Landscape installation only

1. AVB to be installed at least six inches above all downstream piping an outlets; it may not be subjected to continuous pressure.

2. It may only be in use for twelve hours out of any twenty-four hour period and may have no shutoff valves or control valves downstream.

3. May only be used to prevent against back-siphon-age.

Section 9 Backflow Protection Requirement

A. Where protection is required:

1. Protection shall be required at each service connection from a public water system supplies water to premises having an auxiliary water system.

2. Protection shall be required at each service connection from a public water system that supplies water to premises on which any substance is or may be handled in such a manner as to permit entry into a public water system, including water originating from a public water system which is or may be subjected to deterioration in sanitary quality.

3. Protection shall be required at each service connection to any premises that has cross-connection unless such cross-connections are abated to the satisfaction of the District.

The type of protection that shall be provided to prevent backflow into a public water system or a small water system shall be commensurate with the degree of hazard that exists on the Owner and/or Operator's premises. The type of backflow prevention devices that may be required (listed in an increasing level of protection) include: Atmospheric Vacuum Breaker (AVB), Pressure Vacuum Breaker (PVB), Double Check Valve Assembly (DC). Reduced Pressure Principle Assembly (RP) or an Air-Gap Separation (AG). The Owner and/or Operator may choose a higher level of protection than required by this Section. Premises or situations which are not listed in this Section

Shall be evaluated on a case by case basis and the appropriate type of protection shall be determined by the General Manager or his/her designee.

The minimum level of required service connection protection at specific Owner and/or Operator's premises and facilities shall include the following, unless otherwise specified by a cross-connection control hazard assessment performed by the District:

1. Aircraft and Missile Plants—RP

2. Automotive Plants—RP

3. Autopsy Facilities—RP

4. Auxiliary Water Systems—defined as any water supply on, or available to, an Owner and/or Operator's premises other than an approved public water system:

a. Auxiliary water systems with no know cross-connection –DC

b. Auxiliary water systems where cross-connections are known to exist—RP

5. Beauty Salons—RP

6. Beverage Bottling Plants—RP

7. Breweries—RP

8. Building.

a. Hotels, apartment houses, public and private building, or other structures where sewage pumps and/or sewage ejectors have been installed—RP

b. Any commercial structure in which the specific business activity cannot be ascertained—RP

c. Multi-storied buildings that use booster pumps or elevated storage tanks to distribute potable water within the premises—DC

d. Any building that exceeds forty (40) feet in height, as measured from the service connection to the highest water outlet—DC

9. Canneries, Packing Houses and Reduction Plants—RP

10. Chemical Plants—Any premises, served from a public water supply, where There is a facility requiring the use of water in the Industrial process of manufacturing, storing, compounding or processing chemicals. This will also Include facilities where chemicals are used as additives to the water supply or in the processing of products—RP

11. Chemically Contaminated Water Systems—Any premises, served from a public water supply, where chemicals are used as used as additives to the water supply, or where the water supply is used for transmission or distribution of chemicals, or where chemicals are used with water in the compounding or processing of products—RP

12. Cold Storage plants—RP

13. Convalescent Homes—RP

14. Dairy Processing Plants—RP

15. Dental Clinics—RP

16. Dry Cleaning Facilities—RP

17. Dye Works—RP

18. Film Processing Facilities or Film Manufacturing plants—RP

19. Fire Protection Systems that are supplies from a public water system:

A. Low-Hazard Fire Protection Systems:

1. Fire protection system is directly supplies from a public water system and where there is an auxiliary water supply on or to the premises (not interconnected.)—DC

2. Fire protection system is supplied from a public water system and where either elevated storage tanks or fire pumps which take suction from a private reservoirs and tanks are used—DC

3. Fire protection system is directly supplied from a public water system and interconnection with another public water service—DC

4. Fire protection system is directly supplies from a public water system—DC

5. A residential fire sprinkler system that is not a multipurpose wet-pipe sprinkler system (fire sprinkler system is connected to two

domestic plumbing fixtures in separate rooms.) No device needed

6. Stand-alone sprinkler system; shall be separate and independent from the domestic potable water distribution system -DC

B. High-Hazard Fire Protection Systems:

1. Fire protection system is directly supplied from a public water system and interconnected with an auxiliary water supply—RP

2. Fire protection system is supplied from a public water system and contains any hazardous substance—RP

20. Hazardous or potentially *hazardous treatment processes, handling and/or pumping equipment interconnected to a piping system that can be connected to the public water system—AG

21. Hospitals—RP

22. Ice Manufacturing Plants—RP

23. Irrigation Systems:

a. Premises or locations where facilities have been installed for pumping, injecting or spreading fertilizers, pesticides or other hazardous substances—RP

b. Premises or locations having a separate service connection for irrigation purposes--RP

c. Premises or locations with no booster pumps or other conditions listed in part a. or b. of this section—AVB, or PVB

24. Laboratories-including, but not limited to, teaching institutions, biological and analytical facilities—RP

25. Laundries (Commercial)—RP

26. Medical Building and Clinics—RP

27. Metal Manufacturing, Cleaning Processing or Fabricating Plants—RP

28. Morgues—RP

29. Mortuaries-RP

30. Multi-Storied Building (see "Building" above)

31. Multiple Services: Includes two or more interconnected services provided by one or more water suppliers to a single Owner and/or Operator complex—RP

32. Nursing Homes—RP

33. Oil/Gas Production, Storage or Transmission premises—RP

34. Paper and Paper Products Manufacturing Plants—RP

35. Plastic Manufacturing, Extruding and injection Molding—RP (see "Chemical Plants" above)

36. Plating Plants—RP

37. Potable Spry or Cleaning Equipment which can be connected to a public water system—AG

38. Radioactive Materials or Substances—Plants or Facilities that process, handle or store radioactive material or substances—RP

39. Recycled Water Distribution Systems:

a. Premises where the public water system is used to supplement the recycled water system-- AG

b. Premises where recycled water is use and there is no interconnection with the potable water system—RP

40. Restricted, Classified or Other Closed Facilities—RP

41. Rubber Manufacturing Plants—Natural or Synthetic—RP

42. Sand and Gravel Plants—RP

43. Sanitariums—RP

44. Schools, Colleges and Universities—RP

45. Sewage treatment processes, handling and/or pumping equipment interconnected to a piing system that be connected to the public water system—AG

46. **Solar Heating Systems:**

a. Solar collector system which contains any hazardous substance and where there is a direct makeup connection to the public system (RP)

b. Service connection protection is not required for once through" solar heating systems including, but not limited to, domestic hot water systems.

47. Swimming Pools—RP or DC

48. Tank Trucks—AG (see "Potable Spray" and "Cleaning Equipment" above)

49. Vehicle Washing Facilities—RP

50. Veterinary Clinics—RP

51. Waterfront Facilities and industries—including, but not limited to, docks, fisheries, fish hatcheries and marinas—RP

52. Water Storage Tanks—AG (at service connection). RP, or DC

53. Water Troughs—AG, or DC

Section 10 Notice of Violation

The General Manager or his/her designee may issue of Violation to any customer found to be in violation of a provision of this Program, including, but not limited to, any regulation, information request, order, variance, condition, or other requirement that the District is authorized to enforce or implement pursuant to this Program.

Section 11 Notice of Violation—Content

A. In addition to any other content, a Notice of Violation shall contain the following elements:

1. A statement of the District's finding that indicate a violation has occurred.

2. A citation of the provision of this policy including any regulation, permit, information request, order, variance, condition, or other requirement that has been violated.

3. A date by which any customer must be in compliance with this policy including any regulation, permit, information request, order, variance, condition, or other requirement, or a date by which an action plan must be submitted by the customer to propose a means and time frame by which to correct violations. The General

Manager or his/her designee may extend the compliance date when good cause exists for such an extension.

4. Notification that continued non-compliance may result in additional enforcement action being taken against the business, facility, or any responsible persons.

B. In addition to any other content, a Notice of Violation may establish required corrective actions, including but not limited to the following:

1. Terms, conditions, and requirements reasonably related to the provisions of this policy, including the following:

a. Cessation of prohibited actions

b. Correction of prohibited conditions

c. A requirement for submittal of a written action plan for achieving and maintaining compliance with this policy.

d. Inspection and/or reporting requirements to demonstrate ongoing compliance.

2. A requirement that the customer receiving same shall submit written certification to the District that the necessary corrective actions have been completed. As appropriated for the type of correction action taken, the Notice of Violation may require documentation that substantiates the certification including, but not limited to, receipts, inspection reports, contracts, or photographs.

3. Any other terms or conditions reasonably calculated to prevent additional or on-going violations of this policy.

Section 12 District's Ability to Protect Water System

1. If the District has not received the required backflow prevention assembly test results within 30 days of the date of test notification, the District will perform the test on the device(s) and bill the owner for such service. The fee for testing will be $100 in addition to administrative costs.

2. The District has the right and responsibility to shut off water or disconnect service as a final corrective action.

Section 13 Rules and Regulations

District is authorized to make all necessary and reasonable rules and regulations with respect to the enforcement of this Program. All such rules and regulations shall be consistent with the provisions of this Program and shall be effective 30 days after being adopted by the District's Board of Directors.