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Cross-Connection Control Program

North Beach Water District

Requirement for Program

North Beach Water District (District) pursuant to chapter 246-290-490 WAC shall protect their public water system from contamination due to cross connections. A cross connection is defined, for the purpose of this program, as "any actual or potential physical connection between a potable water line and any pipe, vessel, or machine that contains or has a probability of containing a non-potable gas or liquid, such that it is possible for a non-potable gas or liquid to enter the potable water system by backflow."

All public water systems are required to develop and implement cross-connection control (CCC) programs. The CCC program requirements are contained in chapter 246-290-490 WAC. The minimum required elements of a CCC program are:

1. Establishment of legal authority and program policies;
2. Evaluation of premises for cross-connection hazards;
3. Elimination and/or control of cross connections;
4. Provision of qualified personnel;
5. Inspection and testing of backflow preventers;
6. Quality control of testing process;
7. Response to backflow incidents;
8. Public education for consumers;
9. Record keeping for CCC program; and
10. Special requirements for reclaimed water use.

Other CCC program requirements include:

1. Coordination with the Local Administrative Authority (LAA), i.e., the local building or plumbing official regarding CCC activities;
2. Prohibition of the return of used water into the public water system (PWS) distribution system; and
3. Inclusion of a written CCC program in a Water System Plan (WSP) or a Small Water System Management Program (SWSMP).

Note: Throughout this CCC program the term customer is used. Customer as used herein means the property owner and/or occupant of the premises served by the District (i.e., whoever interfaces with the District regarding water service). Also, unless otherwise defined, all CCC-related terms used in this program have the same definitions as those contained in chapter 246-290-010 WAC.

Program Objectives

The objectives of the CCC program are to:

1. Reasonably reduce the risk of contamination of the public water distribution system; and
2. Reasonably reduce the District's exposure to legal liability arising from the contaminant of the public water distribution system originating from a customer's premise's plumbing system; and
3. Reasonably reduce the onerous application of the law on District customers by working to mitigate the need for isolation through education and the elimination of actual or

existing cross connections hazards and reducing practices that create hazards.

Summary of Program Decisions

The following table summarizes the major policy and program decisions adopted by the Board of Commissioners of North Beach Water District. The items in the table represent CCC program areas that have more than one acceptable approach or option.

CCC Program Decision Summary Table for the North Beach Water District

Decision Item	Decision
1. Type of Program [General, WAC 246-290-490(2)(e)]	
a. Premises isolation only	YES
b. Premises isolation and in-premises protection (combination program)	NO
2. Extent of Coordination with LAA [WAC 246-290-490(2)(d)]	
a. Information exchange	YES
b. Interaction	NO
c. Joint program	NO
3. Relationship with Customer [Element 1]	
a. Signed service agreement or contract	NO
b. Ordinance/resolution; implied service agreement	YES
4. Enforcement of Corrective Action [Element 1]	
a. Rely upon shut-off of water service	YES
b. Rely upon District installed/owned/maintained premises isolation	YES
5. Assessment and Re-assessment of Hazard [Element 2]	
a. By District's staff or equivalent	YES
b. By cross-connection control specialist (CCS) employed by customer; report reviewed by District's CCS	YES
6. Location and Ownership of Premises Isolation Assembly [Element 3]	
a. On District's service line	YES
b. On customer's service line	YES
7. CCS Option – District's Program Management [Element 4]	
a. District's staff member certified	YES
b. Inter-agency agreement or use other agency's CCS	NO
c. Contract with consultant CCS	NO
8. Testing of Assemblies [Element 5]	
a. By District's staff or District-employed backflow assembly tester (BAT)	YES
b. By customer-employed (contractor) BAT	YES
9. Cost Recovery [WAC 246-290-100(4)(h) and –105(4)(p)]	
a. Borne by all customers (general water rates)	NO
b. Assessed to specific class (commercial meters)	NO
c. Each customer directly bears cost	YES

Required Elements of Program

This section describes how North Beach Water District intends to comply with each of the required program elements. Elements are numbered the same as they appear in WAC 246-290-490.

Element 1: Authorizing of a CCC Program.

The District adopted Resolution No. (*******), which authorizes the District to implement this CCC program. The resolution also authorizes the system to terminate water service to consumers who do not comply with the resolution. However, the primary method for protection of the distribution system will be the installation of a backflow preventer by the customer, at the customer's expense. The District, at its discretion, may install a backflow preventer if the customer fails to or refuses to install a required backflow preventer within the time allowed.

Element 2: Evaluating the Degree of Hazard.

Initial Cross-Connection Hazard Surveys

The procedures for evaluating the backflow prevention requirements for new and existing customers are as follows:

1. For all **new non-residential services**, the District will require that the customer submit with the application for water service an evaluation (performed at customer's expense) by a DOH-certified cross-connection control specialist (CCS) of the hazard posed, if any, by the proposed plumbing system, with recommendations for the installation at the meter of a double-check valve assembly (DCVA) or a reduced-pressure principle backflow assembly (RPBA) if needed. The District may accept the recommendations or submit the recommendations to a CCS employed by the District for peer review and concurrence, before acceptance.

As an alternative to the above requirement for a survey by a CCS, the customer may agree to install an approved air gap (AG) or RPBA for premises isolation as a condition of service.

2. For all **new residential services**, the District will require that the customer submit with the application for water service a completed "Water Use Questionnaire" reproduced as Exhibit "A-2". If the customer's questionnaire indicates special plumbing, such as a lawn sprinkler system, or hazardous water use on the premises, the customer shall submit to the District an evaluation by a DOH-certified CCS of the hazard posed by the proposed special plumbing system, with recommendations for the installation at the meter of either a DCVA or an RPBA.

As an alternative to the above requirement for a survey by a DOH-certified CCS the District's CCS may specify the backflow preventer required to be installed as a condition of service.

3. For all **existing non-residential services**, the District will require the customer to submit to the District, within nine months of notification, an evaluation by a DOH-certified CCS, of the hazard, if any, posed by the plumbing system, with recommendations for the installation at the meter of e a DCVA or an RPBA if needed. The District may accept the recommendations or submit the recommendations

to a CCS employed by the District for peer review and concurrence, before acceptance.

As an alternative to the above requirement for a survey by a DOH-certified CCS, the customer may agree to install an AG or RPBA for premises isolation within 90 days of notification by the District or an alternate time period acceptable to the District.

4. For all **existing residential services**, the District will require the customer to submit to the District, within four months of notification, a completed "Water Use Questionnaire." If the customer's reply indicates special plumbing or water use on the premises, the customer shall submit an evaluation by a DOH-certified CCS of the hazard posed to the water system by the customer's plumbing system, with recommendations for the installation at the meter of either a DCVA or an RPBA.

As an alternative to the above requirement for a survey by a CCS, the District may specify the backflow preventer required to be installed as a condition of service. The District's CCS will provide guidance on the type of backflow preventer to be installed.

5. For all existing services, should the customer fail to supply the required information for a hazard assessment or fail to submit a completed "Water Use Questionnaire," the District may, require the installation of an RPBA for premises isolation, or take other such actions consistent with the previously stated policies and bill the customer for the associated costs.

Cross-Connection Hazard Survey Schedule for Initial Hazard Assessments

The schedule for initial hazard assessment is outlined in the following table. The schedule starts from the date the CCC program is established.

Initial Assessment Task	**Schedule**
Assessment of all new connections	At time of application for water service
Identification and assessment of high-hazard premises which are listed on Table 9 of Washington Administrative Code (WAC) 246-290-490	Within nine months
Identification and assessment of hazardous premises supplemental to Table 9 of WAC 246-290-490	Within 12 months
Identification of residential connections with special plumbing facilities and/or water use on the premises	Within 15 months

Cross-Connection Survey Schedule for Hazard Re-Assessments

For subsequent cross-connection hazard surveys, procedures for evaluating the backflow prevention requirements are:

1. For **residential services,** the District will require the customer to submit to the District, within two months of District notification, a completed "Water Use Questionnaire." The procedure used for evaluating the hazard re-assessment and the potential change in the required backflow prevention will be the same as used for the initial hazard assessment.
2. For all **non-residential services**, the District will require the customer to submit to the District, within two months of District

notification, a hazard re-assessment (at the customer's expense) by a DOH-certified CCS.

The District's CCS will, for a fee and upon request, perform the hazard re-assessment on the premises.

The frequency of hazard re-assessments will be as shown in the table below:

Type of Service	**Frequency of Re-Evaluation**
Any services with an Air Gap or RPBA installed for premises isolation	None required as long as the Air Gap and/or RPBA passes annual tests and/or annual inspections
Commercial services with DCVA installed for premises isolation	Every two years and upon change in use or ownership
Residential services with RPBA or DCVA installed for premises isolation	Every 5 years and upon change in use, ownership, or plumbing system (questionnaire)
Residential services with no known special plumbing or water use on the premises	Every 3 years and upon change in use, ownership, or plumbing system (questionnaire)

The District will inform the customer that the District's survey of a customer's premises (whether by a representative of the District or through the evaluation of a questionnaire completed by the customer) is for the sole purpose of establishing the District's minimum requirements for the protection of the public water supply system, and that the required backflow protection will be commensurate with the District's assessment of the degree of hazard.

The District will also inform the customer or any regulatory agencies that the District's survey, requirements for the installation of backflow prevention assemblies, lack of requirements for the installation of backflow prevention assemblies, or other actions by the District's personnel or agent do not constitute an approval of the customer's plumbing system or an assurance to the customer or any regulatory agency of the absence of cross connections.

Element 3: Elimination or Control of Cross-connections.

Backflow Preventer Requirements

The following service policy shall apply to all new and existing customers:

1. The District will require that water service to all **non-residential customers** where actual or potential cross connection hazards exist be isolated at the meter by an air gap or a DOH-approved RPBA or DCVA commensurate with the level of hazard and acceptable to the District. All high-hazard connections of the type described in Table 9 of WAC 246-290-490, reproduced as Exhibit "B", shall be isolated with an air gap or a RPBA.
2. The District will require all **residential customers** with facilities of the type described in Table 9 of WAC 246-290-490, reproduced as Exhibit "B", to be isolated with an air gap or a RPBA. All other residential customers with special plumbing or water use on the premises that

create an actual or potential cross connection hazard will be isolated with a RPBA or a DCVA, as determined by the District's Cross Connection Specialist. "Special plumbing" includes, but is not limited to, the following:

a. A lawn irrigation system;

b. A solar heating system (some models are exempt);

c. Piping for livestock watering, hobby farming, etc.;

d. Hot tubes and swimming pools;

e. Ornamental Fountains (some models are exempt);

f. Residential fire sprinkler system;

g. Boilers of hydronic heating systems;

h. Property containing a small boat moorage;

i. Repeat history of cross-connections.

3. All remaining residential customers will be isolated at the meter by a District owned and installed ASSE standard #1024-2004 dual check valve. These check valves provide a measure of practical protection but no regulatory protection from backflow hazards.

Customers are considered to have an implied contract with the District that requires the customer to bear all reasonable costs of service. In the event a customer is required to isolate their premises by RPBA or DCVA the cost will include, but not be limited to:

- Purchase and install immediately approved RPBA or DCVA downstream of the water meter in accordance with the District's standards described hereinafter; and
- Maintain, test, and inspect the RPBA or DCVA in accordance with the District's standards described hereinafter.

For new customers, the District will not turn on water (except for testing purposes) at the meter until the customer complies with the above requirements.

Refusal or failure on the part of the customer to comply with the District's installation, testing, and maintenance requirements shall constitute a breach of contract by the customer and will result in the following action:

1. Install the RPBA or DCVA, at the customers expense, immediately upstream of the water meter in accordance with the Districts standards described hereinafter; and
2. Maintain, test and inspect, at the customers expense, the RPBA or DCVA in accordance with the Districts standards described hereinafter; or
3. Discontinue water service until the customer complies with the installation, testing, or maintenance requirements to the Districts satisfaction.

The District will only install a RPBA or DCVA to isolate a customer's premises after providing ninety (90) days advance notice and a detailed estimate of the initial cost and annual cost of maintenance and testing

of the RPBA or DCVA by certified mail. During the ninety (90) days the customer will be encouraged to:

1. Eliminate the actual or potential cross connection, or
2. Install a DOH approved RPBA or DCVA based on the level of hazard, or
3. Enter into the District's Backflow Preventer Assistance Program described hereinafter.

The customer will pay the District all of their reasonable costs associated with the above actions.

Backflow Preventer Assistance Program

The Backflow Preventer Assistance Program (BPAP) is designed to provide District owned, maintained, and tested backflow preventers installed in public Right-of Ways and easements granted to the District for the purpose of operating and maintaining water mains to isolate customer premises that require isolation due to the existence of actual or potential backflow hazards at a fee set by the Board of Commissioners. The fee will be established based on the principle that the BPAP must be self-supporting and that no money from water rates will subsidize the BPAP.

Customers desirous of entering the BPAP will execute a Backflow Preventer Agreement reproduced as Exhibit J, whereby they will agree to pay the monthly fee identified in the District's Rules and Regulations for the Backflow Preventer installed appurtenant to their premises.

Approved Backflow Preventers and Installation

All backflow preventers relied upon by the District to protect the public water system shall meet the definition of "approved backflow preventer" as contained in WAC 246-290-010. The District will obtain and maintain a current list of assemblies approved for installation in Washington State from the DOH Office of Drinking Water.

All backflow preventers will be installed in:

1. The orientation for which they are approved;
2. A manner and location that facilitates their proper operation, maintenance, and testing or inspection;
3. A manner that will protect them from weather-related conditions such as flooding and freezing; and
4. Compliance with applicable safety regulations.

Installation standards contained in the most recently published edition of the Pacific Northwest Section, American Water Works Association (PNWS-AWWA) CCC Manual or the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USCFCCCHR) CCC Manual shall be followed unless the manufacturer's requirements are more stringent.

The District has no regulatory responsibility or authority over the installation and operation of the customer's plumbing system. The customer is solely responsible for compliance with all applicable regulations and for prevention of contamination of his plumbing system from sources within his/her premises. Any action taken by the District to survey plumbing, inspect or test backflow prevention assemblies, or to require premises

isolation (installation of DCVA or RPBA on service) is solely for the purposes of reducing the risk of contamination of the District's distribution system.

The District will inform the customer that any action taken by the District shall not be construed by the customer as guidance on the safety or reliability of the customer's plumbing system. The District will not provide advice to the customer on the design and installation of plumbing other than through the general public education program discussed in Element 8.

Except for easements containing the District's distribution system, the District will not undertake work on the customer's premises. In the event the exiting water meter is located within the boundaries of the customers property, the District, when it becomes aware of the condition, will remove the meter back to the within the road easement or right of way.

Schedule for Installation of Backflow Preventers

The following table shows the schedule that the District will follow for installation of backflow preventers when they are required (based on the hazard evaluation).

Type of Service	Schedule
New connections with cross-connection hazards	Before service is initiated
Existing connections with Table 9-type hazards and other high cross-connection hazards	Within 90 days after notification
Existing connections with other than Table 9 of WAC 246-290-490 or high cross-connection hazards	Within 180 days after notification (suggested)
Existing fire protection systems using chemicals or supplied by unapproved auxiliary water source	Within 90 days after notification
Existing fire protection systems not using chemicals and supplied by District's water	Within 1 year after notification (suggested)

The District may consider granting an extension of time for installation of backflow preventer for an existing connection if requested by the premises owner.

Element 4: Qualified Person to Develop and Implement CCC program.

Program Administration

The responsibility for administration of the CCC Program rests with the District. General policy direction and risk management decisions are established by the Board of Commissioners of North Beach Water District.

The District's General Manager and at least one other employee will be certified by DOH as a Cross Connection Specialist (CCS) to develop and implement the CCC program. As an alternative, or when no staff or employees are properly qualified, the District may retain a DOH-certified CCS on contract to provide the necessary expertise and services.

The following cross-connection related tasks will be performed by or under the direction of the District's General Manager or other CCS either on staff or under contract:

- Preparation of and recommendations regarding changes to the CCC program;
- Performance of and/or reviews of CCC hazard evaluations;

- Recommendations on the type of backflow preventer to be installed;
- Recommendations on schedules for retrofitting of backflow preventers;
- Inspections of backflow preventers for proper application and installation;
- Reviews of backflow preventer inspection and test reports;
- Reviews of backflow testing quality control information;
- Recommendations and/or the granting of exceptions to mandatory premises isolation;
- Participation in or cooperation with other water utility staff in the investigation of backflow incidents and other water quality problems;
- Completion of Backflow Incident Reports; and
- Completion of CCC Activity and Program Summary Reports.

The District may delegate other CCC program activities to other personnel who are not certified CCSs, including clerical support staff. These activities include:

- Administration of paperwork associated with service agreements;
- Mailing, collecting, and initial screening of hazard evaluation/water use questionnaires;
- Mailing of assembly testing notices;
- Receiving and screening of assembly testing reports;
- CCC program database administration and record keeping;
- Dissemination of public education material; and
- Assisting tasks associated with coordination with Pacific County Community Development Division.

Element 5: Backflow Preventers Inspection and Testing.

Inspection and Testing of Backflow Preventers

All backflow preventers that the District relies upon for protection of the water system will be subject to inspection and, if applicable, testing.

Inspection and testing of backflow preventers will be as follows:

- The District's DOH-certified CCS will inspect backflow preventers for proper application (i.e., to ensure that the preventer installed is commensurate with the assessed degree of hazard).
- Either a DOH-certified CCS or backflow assembly tester (BAT) will perform inspections of backflow preventers for correct installation.
- A DOH-certified backflow assembly tester will test all assemblies relied upon by the District to protect the public water system.

Frequency of Inspection and Testing

Inspection and testing of backflow preventers will be conducted:

- At the time of installation;
- Annually after installation;
- After a backflow incident; and
- After repair, reinstallation, relocation, or re-plumbing.

The District may require a backflow preventer to be inspected and/or tested more frequently than once a year, when it protects against a high-health hazard or when it repeatedly fails tests or inspections.

Responsibility for Inspection and Testing

The District will be responsible for inspection, testing, maintenance, and replacement of all District-owned backflow preventers. The customer whose premises is being isolated by the District's backflow preventer will pay the District for all cost associated with inspection, testing, maintenance, and replacement of the District-owned backflow preventer.

The District will require the customer to be responsible for inspection and testing of backflow preventers owned by the customer. The customer shall employ, at customer expense, a DOH-certified BAT, pre-approved by the District, to conduct the inspection and test within the time period specified in the testing notice sent by the District. The test report shall be completed and signed by the BAT, then countersigned and returned by the customer to the District, before the due date specified by the District. The customer may request an extension of the due date for returning a test report by submitting a written request to the District. The District may grant one extension up to 90 days.

Approved Test Procedures

The District will require that all assemblies relied upon to protect the public water system be tested in accordance with DOH-approved test procedures as specified in WAC 246-290-490(7)(d).

Notification of Inspection and/or Testing

The District will notify in writing all customers who own backflow preventers to have their backflow preventer(s) inspected and/or tested. Notices will be sent out not less than 30 days before the due date of the inspection and/or test. The notice will also specify the date (up to 30 days after the due date of the inspection and/or test date) by which the inspection/test report must be received by the District.

Enforcement

When a customer fails to send in the inspection/test report within 15 days after the due date specified, and the District has not approved an extension to the due date, the District will take the following enforcement action:

- The District will send a second notice giving the customer an additional 15 days to send in the inspection/test report.
- If the customer has not sent in the inspection/test report within 10 days of the due date given in the second notice, the District will send a third notice, by certified mail, giving the customer an

additional 15 days to send in the report. The notice will also inform the customer that failure to satisfactorily respond to this notice will result in water service shut-off.

- The District will send copies of the third notice to the owner and occupants of the premises (if different from the customer).
- If the owner and/or occupants have not responded satisfactorily to the District within 10 days of the due date specified in the third notice, the District will implement water service shut-off procedures.
- At any time prior to shut-off, the District may, if requested by customer, arrange for the inspection and/or testing of the customer-owned backflow preventers by a certified BAT and will bill the customer the actual cost of inspection and/or testing plus reasonable administrative costs. Collection and enforcement procedures for such charges will be the same as for other water utility charges.

Element 6: Backflow Assembly Testing Quality Assurance Program.

List of Pre-Approved BATs

The District will maintain a list of local, DOH-certified BATs that are pre-approved by the District to perform the following activities:

- Backflow preventer inspection for proper installation; and
- Backflow assembly testing.

The list will be revised annually or more frequently if necessary.

Pre-Approval Qualifications

BATs who wish to be included on the District's pre-approved list and/or provide testing in the District's service area must apply to the District and furnish the following information:

- Evidence of current DOH certification in good standing;
- Make and model of testing equipment (BAT listing only);
- Evidence of test equipment verification of accuracy and/or calibration within the past 12 months (BAT listing only);
- Evidence showing possession of a license to operate a business in Washington State along with a valid bond and insurance.

Quality Assurance

The District's CCS will review within 30 days of receipt the backflow preventer inspection/test report forms submitted by the customer. The District's CCS may accept reports that are signed by a BAT not on the pre-approved BAT list provided that the same information as listed in "Pre-Approval Qualifications" is also submitted to the District along with the backflow preventer inspection/test report.

The District's CCS will provide follow up on test reports that are deficient in any way.

The District's CCS will report incidences of fraud or gross incompetence on the part of any BAT or CCS to DOH Operator Certification program staff.

Element 7: Responding to Backflow Incidents.

Backflow Incident Response Plan

The District has developed a backflow incident response plan, reproduced and attached as Exhibit "H", that will be part of the water system's emergency response program as required by WAC 246-290-415(2). The incident response plan will include, but will not be limited to:

- Notification of affected population;
- Notification and coordination with other agencies, such as DOH and Pacific County Environmental Health Division;
- Identification of the source of contamination;
- Isolation of the source of contamination and the affected area(s);
- Cleaning, flushing, and other measures to mitigate and correct the problem; and
- Apply corrective action to prevent future backflow occurrences.

Technical Resources

The District will use the most recently published edition of the manual, Backflow Incident Investigation Procedures, published by the PNWS-AWWA as a supplement to the Backflow Incident Response Plan for North Beach Water District.

Element 8: Cross-connection Control Public Education Program.

Customer Education

The District will distribute with water bills or some other means, at regular intervals, public education brochures to system customers. For residential customers, such brochures will describe the cross-connection hazards in homes and the recommended assemblies or devices that should be installed by the homeowner to reduce the hazard to the public water system. The education program will emphasize the responsibility of the customer in preventing the contamination of the public water supply. The District's staff will produce the public education brochures or the District will obtain brochures from:

- PNWS-AWWA;
- Spokane Regional Cross-Connection Control Committee (SRC4);
- Western Washington Cross-Connection Prevention Professionals Group (The Group);
- USC FCCCHR;
- Other national backflow prevention associations, such as the American Backflow Prevention Association (ABPA); and/or
- Other water utilities (with prior approval).

The information distributed by the District will include, but not be limited to, the following subjects:

- Cross-connection hazards in general;
- Irrigation system hazards and corrective actions;

- Fire sprinkler cross-connection hazards;
- Importance of annual inspection and/or testing of backflow preventers; and
- Thermal expansion in hot water systems when backflow preventers are installed for premises isolation.

The District will distribute information brochures to all customers every two to three years, and to every new customer.

Element 9: Cross-connection Control Records.

Types of Records and Data to be Maintained

The District will maintain records of the following types of information required by WAC 246-290-490:

- Service connections/customer premises information including:
  - Assessed degree of hazard; and
  - Required backflow preventer to protect the public water system.
- Backflow preventer inventory and information including:
  - Air gap (AG) location, installation and inspection dates, inspection results and person conducting inspection;
  - Backflow assembly location, assembly description (type, manufacturer, make, model, size, and serial number), installation, inspection and test dates, test results and data, and person performing test; and
  - Information on atmospheric vacuum breakers used for irrigation system applications, including manufacturer, make, model, size, dates of installation and inspections, and person performing inspections.

The District will maintain records on all assemblies that protect the public water system from contamination. At a minimum, the District will maintain records on all premises isolation assemblies required to protect the public water system.

Reports to be Prepared and Submitted to DOH

The District will prepare the following reports required by WAC 246-290-490 including:

- Cross-connection control program activities report for the calendar year, to be sent to DOH when requested;
- Cross-connection control program summary information, when required, or when there are significant policy changes;
- Backflow incident reports to DOH (and voluntarily to the PNWS-AWWA CCC Committee); and
- Documentation when exceptions to mandatory premises isolation are granted.

The District's CCS will prepare and sign all CCC-related reports required by WAC 246-290-490.

The General Manager of North Beach Water District shall sign all CCC reports before submission to DOH.

Element 10: Cross-connection Control for Reclaimed Water.

At this time the District does not receive or distribute reclaimed water. In the event that reclaimed water use is proposed within the District's service area, the Board of Commissioners of North Beach Water District will make all cross-connection control requirements mandated by the Permitting Authority in accordance with Chapter 90.46 RCW part of the written CCC program plan and comply with such additional requirements.

Coordination with Local Administrative Authority

Both WAC 246-290-490 and the Uniform Plumbing Code amended for Washington require coordination between the water District and the Local Administrative Authority (LAA) in all matters pertaining to cross-connection control.

The District will provide a copy of this CCC program to Pacific County Department of Community Development via a copy of the District's water system plan or in a separate document. The District will inform the LAA of any changes in policy or procedure that may impact the LAA.

The District will provide information to the LAA in a timely manner regarding any:

- Requirement imposed on a residential customer for the installation of a DCVA or an RPBA on the service, with a description of the cross-connection hazard identified;
- Upgrade of the premises isolation backflow preventer, i.e., from a DCVA to an RPBA;
- Action taken to discontinue water service to a customer; and
- Backflow incident known by the District to have contaminated the public water system or a customer's plumbing system.

Prohibition of Return of Used Water

The District must prohibit the intentional return of used water to the District's distribution system per WAC 246-290-490 (2)(l).

Used water is defined as water that has left the control of the District. This includes water used for heating and cooling purposes and water that may flow back into the distribution system from customers with multiple connections.

It is the policy of the District to:

- Prohibit the intentional return of used water to the distribution system by any customer served by the public water system; and
- Require that all customers with multiple connections, where the hydraulics permit the potential return of used water, to install a backflow preventer (DCVA or RPBA) commensurate with the degree of hazard at <u>each</u> point of connection.

Unapproved Auxiliary Supplies (potable water or irrigation wells)

All water supplies other than those owned by the District are considered unapproved auxiliary supplies as defined in chapter 246-290-010 WAC. The

District will require backflow protection for customers with auxiliary supplies on their premises as follows:

- Per Table 9 of WAC 246-290-490, the District will require the installation of an RPBA for premises isolation at the service connection to any customer having an unapproved auxiliary supply on the premises that is connected with or has the potential to be connected with the District's water system.
- The District may require the installation of a DCVA for premises isolation at the service connection to any customer with an unapproved auxiliary water supply not interconnected with the District's water system where the customer's plumbing is complicated or the District's Cross Connection Specialist determines the potential for cross connection exists.

Tanker Trucks

The District may allow tanker trucks to obtain water from the District's water system under the following conditions:

- The tanker truck is equipped with an approved AG or an approved RPBA with a current satisfactory inspection or test report.
- The tanker truck will obtain water from District-designated watering points only and under the direct supervision of a District employee.

Temporary Connections

The District will not supply water through temporary connections, such as those used for construction projects or main disinfection, except through a backflow preventer arrangement approved by the District. The applicant for the temporary connection shall document that the backflow preventer is a DOH-approved model and has passed an inspection and/or test within the past 12 months and/or upon relocation, whichever is more recent.

The District will require that interties with other public water systems or wholesale customers be isolated at the point of delivery by:

- A minimum of a DCVA; and
- A minimum of an RPBA if the District considers the purchasing system or wholesale customer to pose a high-health hazard to the District's system.
- The District may waive or reduce the level of protection at the intertie, if the purchasing public water system or wholesale customer:
- Is a Group A public water system **not** exempt from DOH regulation as per WAC 246-290-020(2);
- Has a CCC program that complies with WAC 246-290-490 and which has been approved by DOH; and
- Implements the CCC program at a level satisfactory to the District.

Relationship to Other Planning and Operations Program Requirements

The District will consider the requirements and consequences of the CCC program on the utility's planning and operations requirements. Such considerations include, but are not limited to ensuring:

- And promoting adequate communication between CCC program personnel and other water utility staff;
- That adequate training is provided to all staff to recognize potential cross-connection control problems;
- That cross-connection issues be considered in water quality investigations;
- That the design of the water distribution system makes adequate provisions for expected head losses incurred through the installation of or experienced by backflow assemblies;
- That CCC program personnel be consulted in the design of water and wastewater treatment facilities and when proposals are made to receive or distribute reclaimed water;
- That operations under normal and abnormal conditions do not result in excessive pressure losses; and
- That adequate financial and administrative resources are available to carry out the CCC program.

Exhibit A-1 Water Use Questionnaire for Exiting Residential Customers

Water Use Questionnaire - For Existing Residential Customers

(1) NBWD Account Number: _____-_____-_____-_____-_____.

(you will find your NBWD account number on your water bill)

Please provide your Pacific County Tax Parcel Number(s):(attach list if needed)

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____.

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____.

(you will find your tax parcel number on your Pacific County property tax statement)

(2) Is your Property an Undeveloped lot? Yes ☐ No ☐

(If you checked yes skip section 3 through 5 below)

(3) Please tell us how many of the following you have on your property:

Residences ☐ RV Sites ☐ Apartments ☐ Barns ☐

Enter the nunber of each you have on your property or zero if you do not have any. Please **do not leave any box blank**.

(4) Do you have a home based business? Yes ☐ No ☐

If you checked yes please tell us about your business. Pleasse provide a brief descripion of the business. You may use a separate sheet if you needed.

_____

_____

_____

(5) Please check yes if you have any of the special plumbing or activates listed below or No if you do not. Please do not leave any of the boxes blank.

Yes	No	Special Plumbing or Activity Present on Your Property
		Underground lawn sprinkler or irrigation system (automatic or manual)
		Drip irrigation system (automatic or manual)
		Green house
		Water well or irrigation well
		Utility sink (with hose bib threaded faucet)
		Boiler or hydronic heating system
		Ornamental outdoor fountain
		Fire suppression sprinkler system (residential NFPA 13D)
		Livestock or horses (farm or hobby farm chickens, rabbits, etc.)
		Swimming pool or hot tub

Continued on Back

Yes	No	Special Plumbing or Activity Present on Your Property
		Solar thermal collector (solar panels)
		Darkroom (photography
		Home dialysis machine
		Unidentified water pipes (old pipes that you do not know where they go)
		Water softener or water treatment equipment that automatically backwashes to a drain.
		Do you currently have a testable backflow preventer installed on your property? (Please call us if you are not sure what this is 360.665.4144)

(6) Please provide your current mailing address:	(7) Please provide the address of NBWD property:
_____	_____
_____	_____
_____	_____

(8) Please provide your:	(9) Please provide your:
Phone#: _____	Emergency Phone#: _____
Cell#: _____	Email Address: _____

(10) Comments (Optional)

_____

_____

_____

_____

_____

_____

_____

_____

(11) I certify that the above information is true, correct, and complete to the best of my knowledge and belief.

_____ _____

Signature Date

_____

Print Name of Signer

Exhibit A-2 Water Use Questionnaire for New Residential Construction

Water Use Questionnaire - For New Construction Residential Customers

(1) NBWD Account Number: _____-_____-_____-_____-_____.

(**LEAVE BLANK** NBWD will issue you an account number when your application for water service is approved)

Please provide your Pacific County Tax Parcel Number(s):(attach list if needed)

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____.

_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____.

(you will find your tax parcel number on your Pacific County property tax statement)

(3) Please tell us how many of the following you plan to have on your property:

Residences ☐ RV Sites ☐ Apartments ☐ Barns ☐

Enter the nunber of each you have on your property or zero if you do not have any. Please **do not leave any box blank**.

(4) Will you operate a home based business? Yes ☐ No ☐

If you checked yes please tell us about your business. Pleasse provide a brief descripion of the business. You may use a separate sheet if you needed.

_____

_____

_____

(5) Please check yes if you will have any of the special plumbing or activates listed below or No if you do not. Please do not leave any of the boxes blank.

Yes	No	Special Plumbing or Activity Present on Your Property
		Underground lawn sprinkler or irrigation system (automatic or manual)
		Drip irrigation system (automatic or manual)
		Green house
		Water well or irrigation well
		Utility sink (with hose bib threaded faucet)
		Boiler or hydronic heating system
		Ornamental outdoor fountain
		Fire suppression sprinkler system (residential NFPA 13D)
		Livestock or horses (farm or hobby farm chickens, rabbits, etc.)
		Swimming pool or hot tub
		Solar thermal collector (solar panels)

Continued on Back

Yes	No	Special Plumbing or Activity Present on Your Property
		Darkroom (photography
		Home dialysis machine
		Unidentified water pipes (old pipes that you do not know where they go)
		Water softener or water treatment equipment that automatically backwashes to a drain.
		Do you currently have a testable backflow preventer installed on your property? (Please call us if you are not sure what this is 360.665.4144)

(6) Please provide your current mailing address:	(7) Please provide the address of NBWD property:
_____	_____
_____	_____
_____	_____

(8) Please provide your:	(9) Please provide your:
Phone#: _____	Emergency Phone#: _____
Cell#: _____	Email Address: _____

(10) Comments (Optional)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(11) I certify that the above information is true, correct, and complete to the best of my knowledge and belief.

_____ _____

Signature Date

_____

Print Name of Signer

Exhibit B Table 9 (WAC 246.290.490)

WAC 246.290.490

Table 9

Agricultural. (farms and dairies)	Laboratories.
Beverage bottling plants.	Metal plating industries.
Car washes.	Mortuaries.
Chemical plants.	Petroleum processing or storage plants.
Commercial laundries and dry cleaners.	Piers and docks.
Premises where both reclaimed and potable water are provided.	Radioactive material processing plants or nuclear reactors.*
Film processing plants.	Survey access denied or restricted.
Food processing plants.	Wastewater lift stations and pumping stations.
Hospitals, medical centers, nursing homes, veterinary, medical and dental clinics, and blood plasma centers.	Wastewater treatment plants.*
Premises with separate irrigation systems using the purveyor's water supply and with chemical addition.+	Premises with an unapproved auxiliary water supply interconnected with the potable water supply.

+ For example, parks, playgrounds, golf courses, cemeteries, estates, etc.
* RPBA's for connections service these premises are acceptable only when used in combination with an in-plant approved air-gap, otherwise the purveyor shall require an approved air gap at the service connection.

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Exhibit C Application for New Water Service

Application for New Water Service

Applicants Name: _____

Co-Applicants Name: _____

Billing Address: _____ City: _____

State._____ Zip: _____

Service Address: _____ Ocean Park, WA 98640

Legal description of property to receive water service (may attach): _____

_____

_____

_____

_____

_____

Pacific County Tax Parcel#: _____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____-_____

Primary Phone 1: _____

Alternate Phone 2: _____

Emergency Phone: _____ (How would you like the District to contact you in the unlikely event there is a property damaging leak affecting your premises?)

Email Address: _____

Type of Service:

☐ Residential Single

☐ Residential Multi-Family - Units: _____

☐ Commercial – _____ Gallons per Day (estimated)

☐ Industrial - _____ Gallons per Day (estimated)

Will you be installing fire sprinklers? Yes ☐ No ☐

(If yes, you will need to provide a CCS risk assessment and install an approved backflow prevention assembly prior to connection.)

Continued on Back

Based on the information provided above North Beach Water District provided the following estimate for water service:

General Facilities Charge (Sec. 1.01.350) $ _____

Local Facilities Charge (Sec. 1.01.270) $ _____

Meter Installation Charge (Sec. 1.01.190) $ _____

Other: _____ $ _____

This estimate is valid for thirty (30) days after the date signed by NBWD representative.

By: _____ Date _____

Print Name: _____

The undersigned applicant hereby applies for a water connection to the above described real property. The applicant represents that they are the owner(s) of the above described real property.

As a condition of North Beach Water District providing and continuing to provide water service to the above described property, the applicant, by signing this application, agrees to comply with all provisions of the rules and regulations (Resolution 12-2008), or latest revision thereof.

Applicant's Signature _____ Date _____

Co-Applicant's Signature _____ Date _____

For Purveyor Use Only

_____ / _____ / _____ Date connection fee received

_____ / _____ / _____ Date Water Use Survey questionnaire received

_____ / _____ / _____ Date risk assessment completed by: _____ (Name of CCS)

_____ / _____ / _____ Date customer notified of requirement to install Backflow Preventer

_____ / _____ / _____ Date Backflow Preventer installation approved

_____ / _____ / _____ Date Backflow Preventer test report accepted

Exhibit D Cross Connection Site Survey Form

Cross Connection Site Survey Form

This form is intended to identify any actual or potential physical connections between a public water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow. Washington State requires all community water systems to implement a cross connection control program in harmony with **WAC 246.290.490**. The purpose of the District's cross-connection control program is to protect our customers and the public water system from contamination via cross-connections. Information collected during the investigation is confidential and will not be voluntarily shared with any other persons or entities. Your cooperation with this investigation is required. Failure to cooperate with this investigation may result in the discontinuance of your water service.

Property Owner:
Name:
Address:
Account #:
Type of Service: ☐Domestic ☐ Industrial ☐ Recreational ☐Commercial ☐ Other _____
Owner or Representative Attending Investigation:
Name:
District CCS Performing Investigation:
Name: CCS#
Others Attending Investigation:
Name:
Name:
Name:
Reason for Investigation:
Is the premises being rented or leased? ☐ Yes ☐ No
Does the premises have an auxiliary water source? (well of surface water) ☐ Yes ☐ No
If Yes, Is the auxiliary water source connected to the drinking water pipe? ☐ Yes ☐ No
Does the premises have a booster pumps or water storage systems? ☐ Yes ☐ No

Does the premises have a heat exchanger or solar heating system? ☐ Yes ☐ No
Does the premises have an automatic yard or garden watering system? ☐ Yes ☐ No
Does the premises have a dark room or X-ray equipment? ☐ Yes ☐ No
Does the premises have a chemical injector system? ☐ Yes ☐ No
Does the premises have any pools, ponds or hot tubs? ☐ Yes ☐ No
Does the premises have a water softener of filtration equipment? ☐ Yes ☐ No
Does the premises have a fire sprinkler system? ☐ Yes ☐ No
Does the premises have a commercial kitchen or laundry ☐ Yes ☐ No
Are all areas available for inspection? ☐ Yes ☐ No
Did the District investigator observe any actual or potential cross connections during the investigation: ☐ Yes ☐ No
List actual of potential cross connections:
Are there any backflow prevention assemblies installed on premises? ☐ Yes ☐ No
Have the assemblies been installed in accordance with State Rules? ☐ Yes ☐ No
Are copies of annual tests available? ☐ Yes ☐ No
Recommendations or Remarks:
Signature of Investigator: _____ Date: _____
Signature of Property Owner: _____ Date: _____

Exhibit E – Backflow Assembly Tester Pre-Approved List

Backflow Assembly Tester Pre-Approved List

The following table lists Backflow Assembly Testers (BATs) that are pre-approved to test backflow assemblies in our water system's service area. We compiled the list by identifying individual testers who requested to work in this area or who previously submitted properly completed test reports to our system.

Note: listing does not constitute an endorsement of these BATs by our system or a certification of the quality of services they provide.

To appear on our pre-approved BAT list, the tester must:

- Show proof of current BAT certification from DOH;
- Submit documentation that his/her assembly test equipment has been verified for accuracy within the last 12 months and calibrated if needed; and

As an alternative to the above, pre-approved testers must document that they appear on the approved BAT list of another nearby water system that has a testing QA/QC program acceptable to our system.

WAC 246-290-490 requires a DOH-certified BAT to test all assemblies (RPBA, RPDA, DCVA, etc.) that protect the distribution system. Assemblies that protect the public water system must be tested in accordance with DOH-approved field test procedures:

- Upon installation, and annually thereafter;
- After repair, reinstallation, or relocation; and
- After a backflow incident.

Note: the DOH BAT certification is a special certification separate from other waterworks operator certification categories, plumbing licenses, contractor registration, etc. Other licenses, certifications and/or registrations may be required to install backflow prevention assemblies and/or perform maintenance work on assemblies within buildings. **However, only a currently DOH-certified BAT may test the assemblies that protect the public water system from contamination.**

Name of Tester	Phone Number	BAT Certificate Number

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Exhibit F – Backflow Assembly Test Inspection Report

Backflow Assembly Test Report

☐ Exiting ☐ Replaced
☐ New ☐ Removed

NAME OF PREMISES: _____ ☐Commercial ☐Residential

MAILING ADDRESS: _____

CITY: _____ **ZIP:** _____

CONTACT PERSON: _____

PHONE: _____

ADDRESS OF ASSEMBLY: _____

	Double Check Valve	Reduced Pressure. Assembly	PVBA	SVBA
Initial Test Results PASS ☐ FAILED ☐	Check Valve #1 Leaked ☐ Tight ☐ _____ PSI Check Valve #2 Leaked ☐ Tight ☐ _____ PSI	#1 Check Pressure Drop _____ (A) Relief Valve Opened _____ (B) Buffer A-B= _____ (Min 3 PSI	Pressure Drop _____ PSID	Pressure Drop: _____ PSID
Comments/ Repairs/ Parts: _____ _____ _____				
Final Test Results PASS ☐ FAILED ☐	Check Valve #1 Leaked ☐ Tight ☐ _____ PSI Check Valve #2 Leaked ☐ Tight ☐ _____ PSI	#1 Check Pressure Drop _____ (A) Relief Valve Opened _____ (B) Buffer A-B= _____ (Min 3 PSI	Opened At: _____ PSID #1 Check _____ PSID	Opened At: _____ PSID #1 Check Valve: _____ PSID

☐NEW INSTALLATION ☐EXISTING ☐REPLACEMENT

SIZE: ___ ___.___ ___. **MAKE:** _____ **MODEL:** _____

SERIAL NUMBER: _____ **ASSEMBLY LOCATION:** _____

In completing and submitting this test report, the tester certifies that the assembly has been tested and maintained in accordance with all applicable rules and regulations or the water system and Washington State.

Gauge Calibration Date ____/____/____ Detector Meter Reading _____

Tester Signature _____ Certification Number _____

Tester Name Printed _____ Gauge Number _____

Tester Address _____ Phone Number _____

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Exhibit G-1 – Backflow Assembly Typical Installation Detail

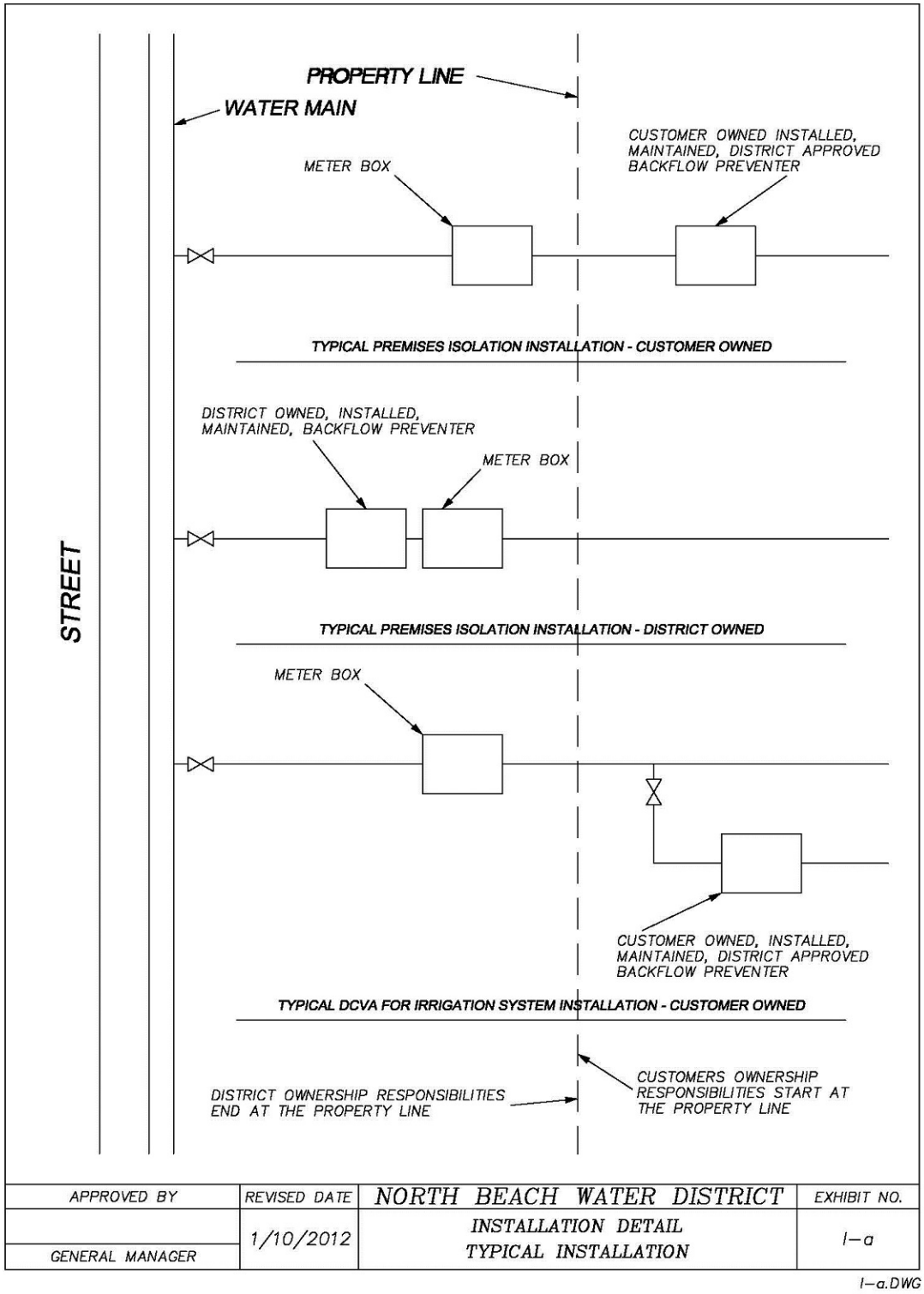

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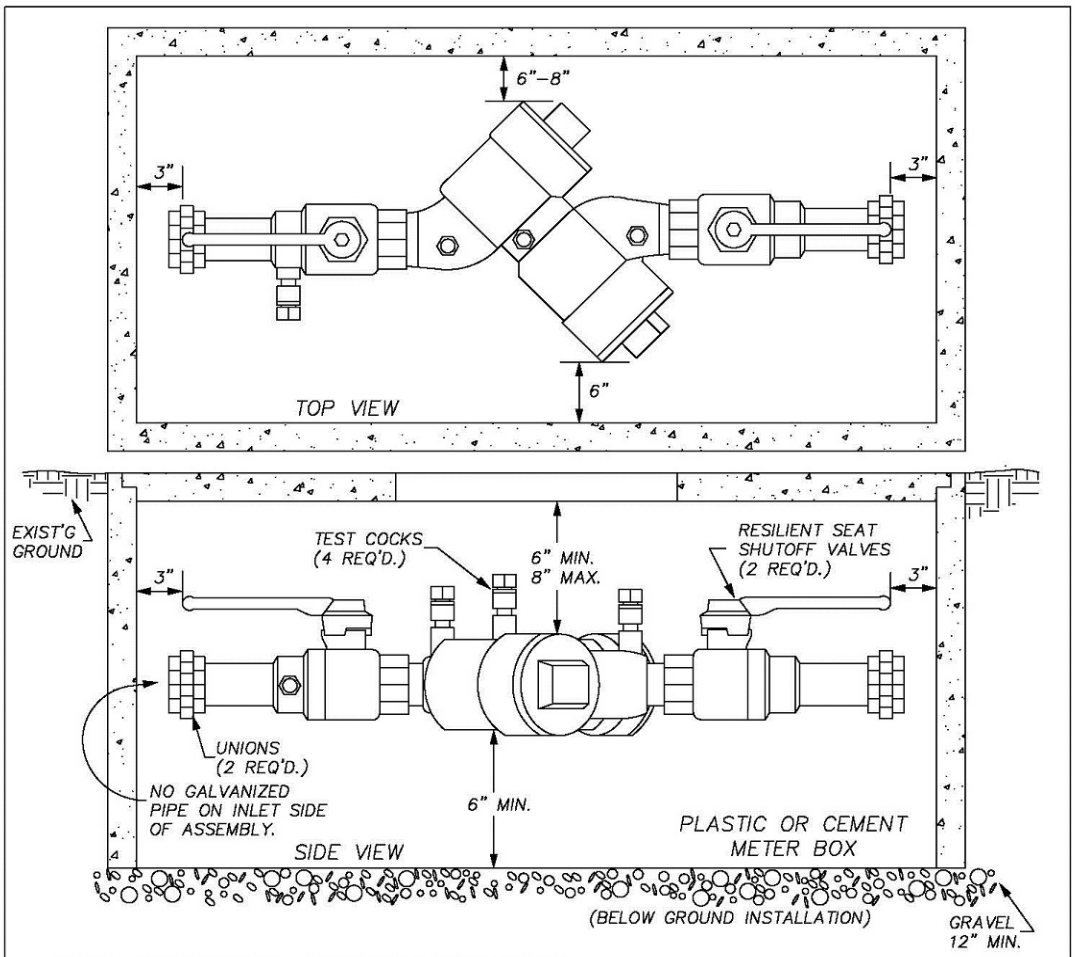
Exhibit G-2 –Installation Detail - DCVA



NOTE: ALL ITEMS SHALL COMPLY WITH THE FOLLOWING.

- APPROVED DOUBLE CHECK VALVE ASSEMBLY SHALL LAY HORIZONTAL WITH GROUND.
- DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
- THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACK FLOW PREVENTER
- NO GALVANIZED PIPE BEFORE ASSEMBLY
- THE DCVA MAY BE INSTALLED ABOVE OR BELOW THE GROUND PROVIDED ALL CLEARANCES ARE MET.
- DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING OR HIGH GROUND WATER.
- VALVE SHALL BE PROTECTED FROM FREEZING CONDITIONS, AND PROVIDE ELECTRICAL CONNECTION.
- THE BACK FLOW ASSEMBLY SHALL BE A MODEL CURRENTLY APPROVED BY THE WASHINGTON STATE DEPARTMENT OF HEALTH
- INSTALLATIONS LARGER THAN 2 INCH SHALL BE APPROVED ON DESIGN SUBMITAL.

APPROVED BY	REVISED DATE	NORTH BEACH WATER DISTRICT	EXHIBIT NO.
DISTRICT MANAGER	1/9/2012	DOUBLE CHECK VALVE ASSEMBLY 2" & SMALLER	I–b

I–b.DWG

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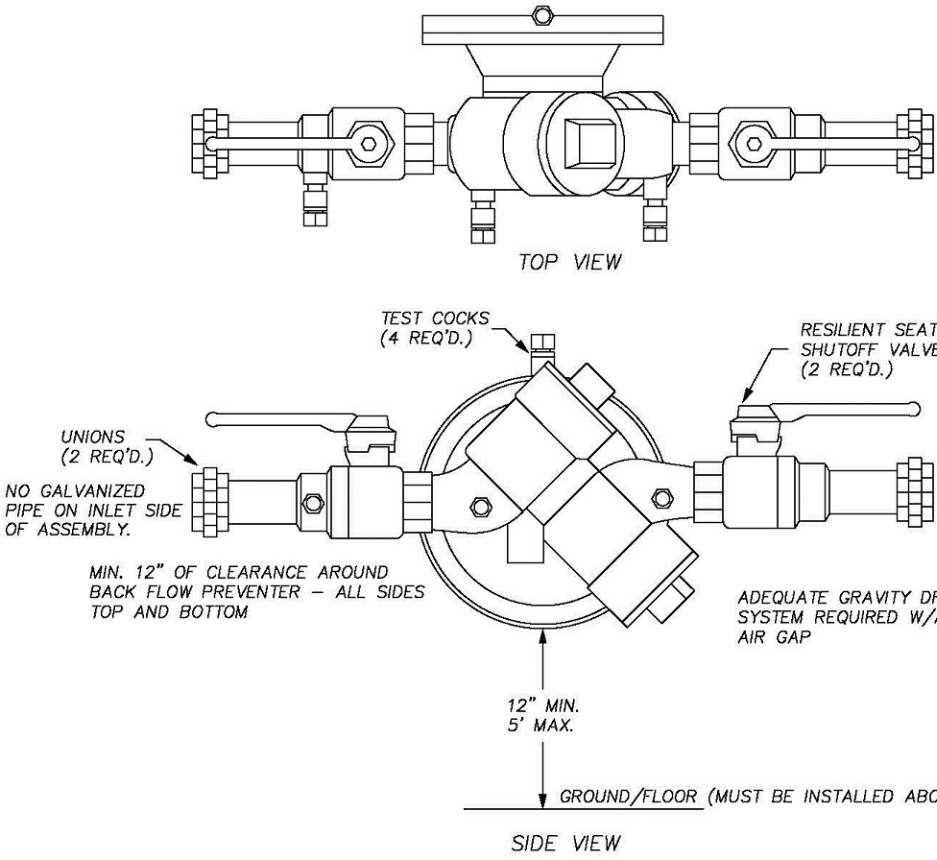
Exhibit G-3 –Installation Detail - RPBA



NOTE: ALL ITEMS SHALL COMPLY WITH THE FOLLOWING.

- APPROVED REDUCED PRESSURE BACK FLOW ASSEMBLY SHALL LAY HORIZONTAL ONLY.
- DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
- THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACK FLOW PREVENTER.
- DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING OR HIGH GROUND WATER.
- NO GALVANIZED PIPE BEFORE ASSEMBLY
- VALVE SHALL BE PROTECTED FROM FREEZING CONDITIONS, AND PROVIDE ELECTRICAL CONNECTION.
- THE BACK FLOW ASSEMBLY SHALL BE A CURRENT WASHINGTON STATE DEPARTMENT OF HEALTH APPROVED MODEL.
- INSTALLATIONS LARGER THAN 2 INCH AND BELOW GRADE WILL BE APPROVED ON DESIGN SUBMITTAL.

(ABOVE GROUND INSTALLATION)

APPROVED BY	REVISED DATE	NORTH BEACH WATER DISTRICT	EXHIBIT NO.
GENERAL MANAGER	1/10/2012	REDUCED PRESSURE BACK FLOW ASSEMBLY– 2" & SMALLER	I–c

I–c.DWG

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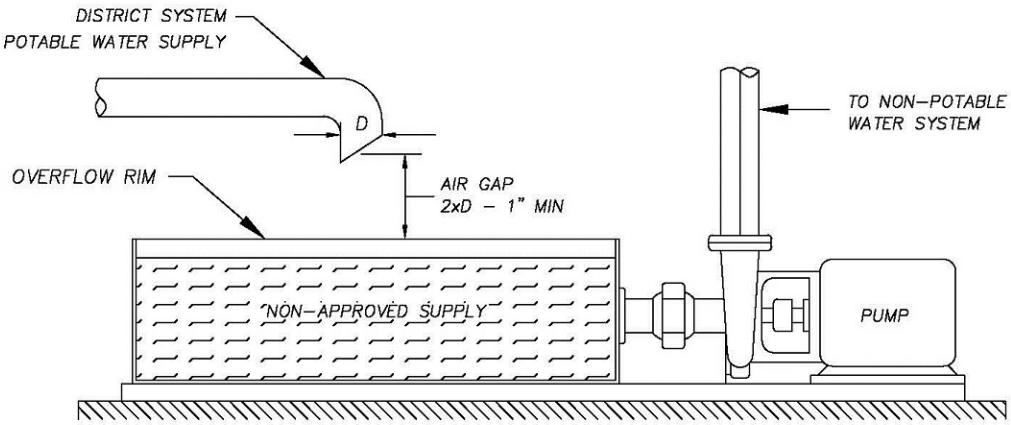
Exhibit G-4 –Installation Detail – Air Gap

APPROVED AIR GAP SEPARATION

AN APPROVED AIR GAP IS A PHYSICAL SEPARATION BETWEEN THE FREE FLOWING DISCHARGE END OF A POTABLE WATER SUPPLY PIPELINE AND THE OVERFLOW RIM OF AN OPEN OR NON–PRESSURE RECEIVING VESSEL. THESE VERTICAL, PHYSICAL SEPARATIONS MUST BE AT LEAST TWICE THE DIAMETER OF THE INLET PIPE BUT NEVER LESS THAN ONE INCH. IF SPLASHING IS A PROBLEM, TUBULAR SCREENS MAY BE ATTACHED OR THE SUPPLY LINE OUTLET MAY BE CUT AT A 45 DEGREE ANGLE. IF SUPPLY LINE IS CUT AT A 45 DEGREE ANGLE THE AIR GAP DISTANCE IS MEASURED FROM THE CENTER OF THE ANGLE. HOSES ARE NOT ALLOWED. BYPASSES ARE NOT ALLOWED. THE INSPECTION OF AIR GAPS SHALL BE INCLUDED IN THE YEARLY TESTING PROGRAM FOR BACKFLOW DEVICES.



APPROVED BY	REVISED DATE	NORTH BEACH WATER DISTRICT	EXHIBIT NO.
DISTRICT MANAGER	1/9/2012	AIR GAP SEPARATION	I–d

I–d.DWG

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Exhibit G-5 –Installation Detail – PVBA/SVBA

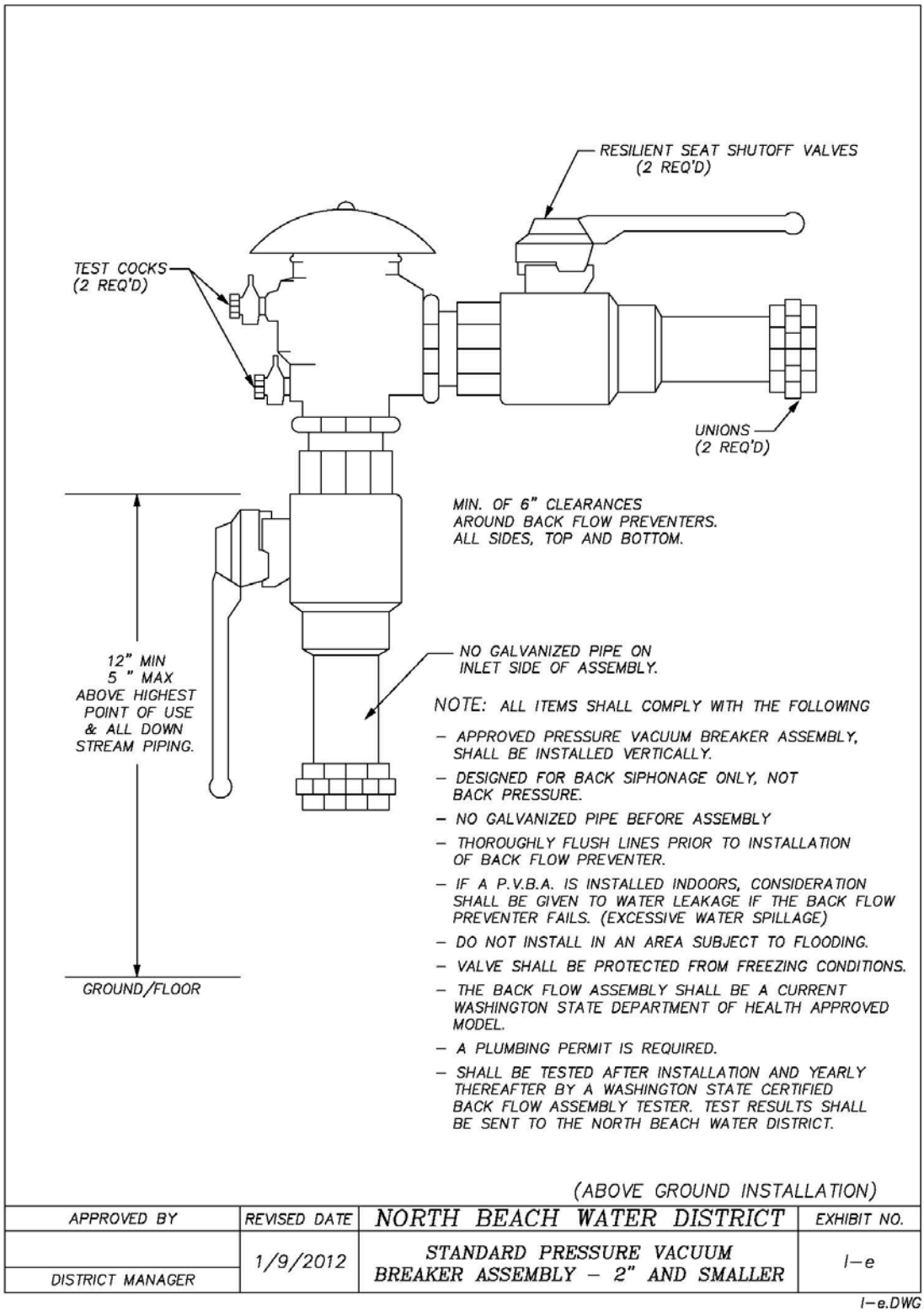

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Exhibit H –Backflow Incident Response Plan

North Beach Water District
Backflow Incident Response Plan

A. General

This Backflow Incident Response Plan should be considered a supplement to the North Beach Water District's Emergency Plan.

The Districts responsible operator in charge should immediately begin a backflow incident investigation whenever the initial evaluation of a water quality complaint indicates that:

1. A backflow incident has occurred (i.e., drinking water supply has been contaminated) or may have occurred; or
2. The complaint can't be explained as a "normal" aesthetic problem.

Also, whenever a water main break (or power outage for pumped systems) causes a widespread loss of water pressure in the system (creating backsiphonage conditions), purveyors should initiate a check of distribution system water quality as a precursor to the need for a backflow incident investigation.

WAC 246-290-490 requires purveyors to notify DOH, the Local Administrative Authority and local health jurisdiction as soon as possible, but no later than the end of the next business day when a backflow incident contaminates the potable water supply (in the distribution system and/or in the customer's plumbing system). Purveyors should include a list of emergency contact telephone numbers at the beginning of the water system's O & M Manual, so that the information is readily available when an incident occurs.

The backflow incident investigation will be a team effort. The investigation will be made by or initially led by the General Manager and the DOH-certified Cross-Connection Control Specialist employed by the District. The investigation team may include DOH ODW (regional) staff and Pacific County Community Development personnel.

The District will rely on the Backflow Incident Investigation Procedures manual, published by the Pacific Northwest Section, American Water Works Association (PNWS-AWWA) for guidance on how to respond to a backflow incident.

B. Short List of Tasks

The District will use the following short list of tasks as initial guidance for dealing with backflow incidents. The District's investigation team will consult the most recently published edition of the PNWS-AWWA Backflow Incident Investigation Procedures Manual referenced above for greater detail as soon as possible after learning of a possible or confirmed backflow incident. Note: the District is referred to as the Purveyor in the short task list.

1. Customer Notification

   a. As soon as possible, the Purveyor will notify customers not to consume or use water.

b. The Purveyor will start the notification with the customers nearest in location to the assumed source of contamination (usually the customer(s) making the water quality complaint).

c. The Purveyor will inform the customer about the reason for the backflow incident investigation and the Purveyor's efforts to restore water quality as soon as possible. The Purveyor will let the customer know that customers will be informed when they may use water, the need to boil water used for consumption until a satisfactory bacteriological test result is obtained from the lab, etc.

d. Where a customer cannot be contacted immediately, the Purveyor will place a written notice on the front door handle, and a follow-up visit will be made to confirm that the customer received notice about the possible contamination of the water supply.

e. When dealing with a backflow incident, the Purveyor will let customers know that it could take several days to identify the source and type of contaminant(s) and to clean and disinfect the distribution system.

2. Identification of Source of Contamination

a. The Purveyor will give consideration to the distribution system as a potential source of the contaminant (e.g., air valve inlet below ground).

b. The Purveyor will not start flushing the distribution system until the source of contamination is identified (flushing may aggravate the backflow situation, and will likely remove the contaminant before a water sample can be collected to fully identify the contaminant).

c. The Purveyor will conduct a house-to-house survey to search for the source of contamination and the extent that the contaminant has spread through the distribution system. The Purveyor will check water meters that show a return of water (meter running backward) to the distribution system.

d. When the cross connection responsible for the system contamination is located, the Purveyor should discontinue water service to that customer, until the customer completes the corrective action ordered by the Purveyor.

3. Isolation of Contaminated Portion of System

a. The Purveyor will isolate the portions of the system that are suspected of being contaminated by closing isolating valves; leave one valve open to ensure that positive water pressure is maintained throughout the isolated system.

b. The Purveyor will be sure to notify all affected customers in the isolated area first and then notify other customers served by the system.

4. Public Health Impacts

a. The Purveyor will seek immediate input from and work with state and local health agencies to accurately communicate and properly

mitigate potential health effects resulting from the backflow incident.

b. If appropriate, the Purveyor will refer customers that may have consumed the contaminant or had their household (or commercial) plumbing systems contaminated to public health personnel and Local Administrative Authorities (plumbing inspectors).

5. Cleaning/Disinfecting the Distribution System

a. The Purveyor will develop and implement a program for cleaning the contaminated distribution system consistent with the contaminant(s) identified.

b. Where both chemical and bacteriological contamination has occurred, the Purveyor will disinfect the system after the removal of the chemical contaminant.

c. Where any bacteriological contamination is suspected, the Purveyor will provide field disinfection.

C. Additional Information on Cleaning/Disinfecting the Distribution System

Most chemical or physical contaminants can be flushed from the water distribution system or customer's plumbing system with adequate flushing velocity. However, this may not be the case in systems where scale and corrosion deposits (e.g., tuberculation on old cast iron mains) provide a restriction to obtaining adequate flushing velocity, or where chemical deposits or bacteriological slimes (biofilm) are present (on which the chemical contaminant may adhere).

To remove a chemical or physical contaminant from the distribution system, purveyors may need to:

1. Physically clean the affected area using foam swabs (pigs); and/or

2. Alter the form of the chemical contaminant (e.g., through oxidation using chlorination or addition of detergents).

When adding any chemical (including chlorine) to remove a contaminant from the distribution system, it is essential that the District’s Operator’s fully understand the chemistry of the contaminant. **Adding the wrong chemical could make the contaminant more toxic to customers and/or more difficult to remove from the distribution system.**

To disinfect water mains using the "slug" or "continuous flow" method, a field unit should be used for chlorine injection, such as a chemical feed - metering or proportioning pump for sodium hypochlorite. The District will contact the DOH regional ODW to discuss proposed approaches to contaminant removal and disinfection prior to taking corrective action.

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Exhibit I –Backflow Incident Report

Backflow Incident Report Form

Report Date:		
Reported By:	Title:	
Date of Incident:	Time of Incident	
Location of Incident (General):		
Backflow Originated From (Name of Premises):		
Street Address (Originating Premises):		
Contact Person (Originating Premises):	Phone#:	
Type of Business (Originating Premises):		
Describe Contaminates (Attach Chemical Analysis or MSDS Sheets):		
First:		
Second:		
Third:		
Was Contaminants Contained within Customers Premises? Yes: ☐ No ☐		
Effect of Contamination:	Illness Reported:	Physical Irritations Reported:
Fatalities:	Number of People Affected by the Incident:	
Cross-Connection Source of Contaminant (boiler, chemical pump, irrigation system, etc.):		
Cause of Backflow (main break, fire flow, etc.):		
Corrective Action Taken to Restore Water Quality (main flushing, disinfection, etc.):		

Continued on Back

Corrective Action Ordered by DOH (main flushing, disinfection, etc.):	
Previous Cross Connection Survey of Premises:	Date:
By:	CCS Cert. Number:
Types of Backflow Preventer Isolating Premises:	
RPBA:☐ RPDA:☐ DCVA:☐ DCDA:☐ PVBA:☐ SVBA:☐ AVB:☐ Air Gap:☐ None:☐	
Other:☐ Describe:	
Date Backflow Preventer was Last Tested: (most recent):	
Notification to the Washington State Department of Health:	
Date:	Time:
Name of DOH Representative Notified:	
Method of Notification:	
Name of Person who Notified the DOH Representative:	
Name of the Person Completing this Report:	
Title of the Person Completing this Report:	
Signature of the Person Completing this report:	_____
Date:	_____

Notes/Sketches:

Attach sheets with additional information, sketches, and/or media information.

Exhibit J –Backflow Preventer Agreement

Agreement

This agreement between North Beach Water District (District), a special purpose district, and _____ (Owner)

Whereas, the Owner owns real property legally described on Exhibit "A" attached hereto and incorporated herein by this reference (Property), and

Whereas, the District supplies water for; domestic☐, commercial☐, or both domestic and commercial☐ purposes (check the one that applies) to the Property, and

Whereas, the an actual or potential cross connection exists on the Property that requires the Property be isolated from the water system by a Washington State Department of Health approved backflow preventer, and

Whereas, the District, as a service to its ratepayers and according to an established fee schedule, installs, maintains, tests, repairs, and replaces as needed, District owned backflow preventers in accordance with the District's rules and regulations and all applicable federal, state, and local laws, codes, and ordinances.

Whereas, the Owner desires to have the District install, maintain, test, repair, and replace as needed, a District owned backflow preventer that is approved by the Washington State Department of Health and installed in accordance with District rules and regulations and applicable laws, codes, and ordinances;

NOW THEREFORE, in consideration of the terms and conditions herein stated, the District and the Owner agree as follows:

1. District agrees to install a _____ -inch backflow preventer along with all appearances and to have the backflow preventer tested by a Washington State Department of Health certified Backflow Assembly Tester within 30 days of the execution of this agreement.
2. The District agrees to have the backflow preventer tested annually by a Washington State Department of Health certified Backflow Assembly Tester and report the results of the test to the Owner within 30 days of the completion of the test.
3. In the event the backflow preventer fails the test, the District agrees it will, at its discretion, repair or replace the backflow preventer and retest the backflow preventer within 30 days of the failed test and repeat this procedure until the backflow preventer passes the test.
4. The Owner agrees to pay the BPAP service fee of $_____ per month to the District for as long as the Owner owns the Property and the backflow preventer is providing premises isolation for the Property.

5. The Owner agrees that the current BPAP service fee is established in a rate schedule approved by the District's Board of Commissioners (Board) and that the Board may amend the rate schedule at any time without notice.

6. The Owner agrees to release, waive, discharge and hold harmless the District, its officers, commissioners, agents, servants, representatives and employees from any and all liability, claims, demands, actions, and causes of action whatsoever arising out of or related to any loss, damage, or injury, including death, that may be sustained by Owner or any of the property owned by Owner as a result of Owner's participation in the backflow prevention program and the installation of a backflow prevention device. Owner further understands that by entering into this Agreement in no way implies liability by the District for any injury or property damage sustained by Owner as a result of any prior or future sanitary sewer backup.

7. This agreement shall be binding upon the undersigned and their respective heirs, executors, administrators, successors, transferees, assigns, agents, and attorneys.

8. Owner and District may terminate this agreement with 30 days' written notice. Upon termination of this Agreement the District will remove the backflow preventer and all appurtenances isolating the Property from the water system. If the actual or potential cross connection still exists on the Property the Owner will isolate the Property by installing, maintaining, and testing a Washington State Department of Health approved backflow preventer in accordance with North Beach Water District rules and regulations.

9. Upon execution, this Agreement shall be returned to North Beach Water District and the District shall cause the executed original of this agreement to be recorded with the Pacific County Auditor against the real property described in Exhibit "A" referred to above.

DATED this _____ day of _____, 20____.

North Beach Water District:

By: _____
William Neal, General Manager

Owner:

By: _____

Name: _____

By: _____

Name: _____