WEST BEACH ROAD ASSOCIATION

CROSS-CONNECTION CONTROL PROGRAM

Step FOUR: Administrative and Technical Procedures

The Washington Administrative Code (WAC), #246-290-490, mandates a nine step Cross-connection Control Program. Step #4 establishes administrative and technical procedures. These procedures must provide for:

1. **Coordination with local building officials.**
2. **Hazard evaluation.**
3. **Requirements for backflow protection.**
4. **Priorities for evaluating facilities.**
5. **Backflow incident response procedures.**
6. **Assembly installation and testing standards.**
7. **Enforcement action for failure to comply with plan requirements.**

The following paragraphs describe each of these procedures in detail. References are to paragraphs in the Guidance Document provided by the Washington State Department of Health, "Cross-Connection Control for Small Water Systems" DOH PUB. #331-234, Revised March 2004.

1. **Coordination with local building officials.** The WAC requires purveyors of potable water to coordinate with the Local Administrative Authority (LAA) on cross-connection control matters. The LAA for the West Beach Road Association is the Island County Government – specifically the Department of Planning and Community Development (building permits, plumbing inspections, etc.). Although the State Government Department of Health, Office of Drinking Water, has the principal responsibility for enforcing compliance with the WAC by Group A water systems like ours, day to day inspections and enforcement activities are delegated to the counties. The Island County Health Department regularly conducts

inspections of local water systems such as ours. We have established a close working relationship with county officials, amounting to an Exchange of Information Program (DOH PUB. 6.2.2) Under this program we: a. Notify the LAA of our cross-connection control program type and policies; b. Request notification of all permits for new premises and permits for plumbing changes to existing premises; and c. Notify the LAA of any enforcement action in which water service is discontinued and of any backflow incidents known to have contaminated the association's water system or a member's plumbing system**. Note: The WAC does not require purveyors to enter into written agreements with the LAA and we have not done so.**

2. Hazard evaluation. The WAC requires that purveyors assess the degree of hazard posed by consumers' (our members') personal water systems to the purveyor's water distribution system. The initial hazard assessment is either conducted prior to water service being initiated for a new connection, or for the first time on an existing connection. (DOH PUB. 6.2.5). The initial assessment is a two-stage evolution: First, individual consumers are asked to respond to a survey that identifies all of the property features that could be the source of backflow into the distribution system (e.g. in-ground sprinkler systems, etc.). Second, the purveyor's state certified cross-connection specialist (CCS) examines the completed surveys and identifies the degree of hazard for each one. **The Guidance Document indicates that these two stages should be completed within 15 months of the start of the cross-connection control program. Our program began on October 2, 2004 when our members voted to include the appropriate language in our bylaws. The last survey was returned on May 10, 2005 and King Water Company, our contract CCS, is determining the degree of hazard (if any) posed by any of our members.** [For the future, the association will provide a survey form to the owners of unimproved properties before they begin construction.] The WAC requires purveyors to notify consumers of the results of the initial hazard assessment as soon as possible but within six months of completion of the assessment. **Assuming that King Water completes their stage of the assessment no later than January 2, 2006 (15 months), notification must be made by July 2, 2006.** The WAC requires periodic re-assessments of all service connections by "water use questionnaires" within two years of the completion of the initial assessment – January 2, 2008 in our case – and whenever there is a

change in the use of any residence that could result in the change in the degree of hazard for that residence.

3. **Requirements for backflow protection.** Backflow can be prevented in two ways; either through installation of: 1. an approved air gap that provides a physical separation between the contaminant and the drinking water supply; or, 2. mechanical devices or assemblies that prevent backflow from occurring. The Uniform Plumbing Code (UPC), 1997, requires that all household sinks and bathtubs sold in the United States have physical separations between faucets and rims and these are examples of "approved air gaps." Mechanical devices or assemblies are called "backflow preventers" and their design must be commensurate with the degree of health hazard posed to our water system by members' property features (hot tubs, sprinkler systems, etc.). Preventers that are not testable are called "devices" and those that are designed for in-line testing and repair are called "assemblies." Only backflow preventers that are listed in the Washington State Department of Health publication "Backflow Prevention Assemblies Approved for Installation in Washington" may be installed. The King Water Company maintains this publication. Backflow preventers can be installed either at a member's water meter (called "premises isolation") or at a particular property feature, such as a boiler (called "fixture protection**"). Fixture protection is allowed in cases where the hazard posed has been evaluated to be low, however, the WAC requires water purveyors to keep records of periodic resurveys of both types of preventers (DOH PUB. 4.2) and this means that the purveyor must have access to the member's premises if fixture protection is used in lieu of premises isolation. A backflow preventer installed at the water meter which is within the roadway easement can be tested and resurveyed without intruding into the member's privacy.**

4. **Priorities for evaluating facilities.** For the initial evaluation, all members were asked to complete the Residential Survey according to no special priority. The King Water Company was requested to evaluate those responses that identified potential backflow hazards (e.g. in-ground sprinkler systems) first so that appropriate follow-on action, such as the required notification, could be taken early.

5. **Backflow incident response procedures.** The WAC requires purveyors to notify the state and county health departments and the LAA no

later than the end of the next business day when a backflow incident contaminates the potable water supply, either in the main distribution system of in a member's plumbing system. Detailed guidance for responding to a backflow incident is provided in the American Water Works Association CCC Manual "Backflow Incident Investigation Procedures" which is held by the King water Company as our contract CCS. The CCS will lead an investigation to determine the source of the contamination. The purveyor must (DOH PUB. Appendix C) notify all members not to consume water from the association's water system, unless it is boiled, until a satisfactory bacteriological test result has been obtained from a laboratory. The purveyor must not flush the distribution lines until the source of contamination has been determined because that could aggravate the backflow situation. Water meters must be checked to see if any are running backwards, showing a return of water to the distribution system and any suspected sources should be isolated. The purveyor will, if appropriate, refer members who may have consumed contaminated water to local health officials and also to the county plumbing inspectors. The purveyor must also disinfect the water system after the source of contamination has been identified and removed.

6. **Assembly installation and testing standards. As the purveyor, the association has no regulatory responsibility or authority over the installation and operation of any member's plumbing system and will not undertake work on the member's premises (DOH PUB. Appendix A, page 167).** Any action taken by the purveyor to survey plumbing, inspect or test backflow prevention assemblies, or to require premises isolation is solely for the purpose of reducing the risk of contamination of the association's potable water system. The WAC provides a definition of "approved backflow preventer" (WAC 246-290-010) and preventers must be installed according to the standards contained in the American Water Works Association CCC Manual. Preventers will be installed in new water hookups where cross-connections hazards are anticipated before service is initiated. Preventers will be installed in existing residential water systems within 90 days after notification of the existence of a high cross-connection hazard, and within 180 days after notification of the existence of a low cross-connection hazard (DOH PUB. Appendix A, page 167). All installed backflow preventers must be inspected for correct installation by the DOH-certified CCS (King Water

Company), then annually, after a backflow incident, and after repair, reinstallation, relocation, or re-plumbing. The purveyor will require members to be responsible for the inspection and testing of their preventers in accordance with DOH-approved test procedures as specified in WAC 246-290-490(7)(d).

7. Enforcement action for failure to comply with plan requirements. The purveyor will notify in writing all members who own backflow preventers of required inspections and tests not less than 30 days before the due date. The notice will also specify the date (up to 30 days after the due date for the inspection/test) by which the inspection/test report must be received by the purveyor. When a member fails to provide a report of inspection and/or test of a backflow preventer within 15 days after the due date the purveyor must take the following enforcement action (DOH PUB. Appendix A, pages 170-171):

- Send a second notice giving the member an additional 15 days to provide the inspection/test report;
- Send a third notice by certified mail if the member has not complied within 10 days after the due date;
- Send copies of the third notice to the LAA;
- Implement water service shut-off procedures if the member has not complied within 10 days of the due date specified in the third notice.