

NEW CONSTRUCTION WATER USAGE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedures for coordinating and reporting water usage for filling, pressure testing, disinfection and flushing.

1.2 RELATED SECTIONS

- A. Section 02665 – Potable Water Mains
- B. Section 02670 – Water Main Testing
- C. Section 02675 – Disinfection of Potable Water Mains

PART 2 EXECUTION

2.1 BACKFLOW PREVENTION AND METERING DURING CONSTRUCTION

Any extension to the BCWS water system must be constructed in a manner that eliminates the possibility of back-flow of water from the non-approved system into the active BCWS system and provides the ability to meter water use. To achieve this, the following method shall be used:

1. At the beginning of construction, a temporary backflow preventer and meter (both approved by BCWS) shall be supplied and installed by the Contractor in-line between the tapping valve, or stub-out, and the water extension. BCWS must be present at initial installation to verify connection and take initial construction meter information. Contractor to provide at least 72hr notice prior to installation. The backflow preventer shall be tested and certified by a SCDES licensed tester and the test results provided to BCWS prior to being placed into operation. The engineer shall determine the meter and back flow preventer size necessary to achieve 2.5 feet/sec flushing velocity for a given size pipe.
2. Any other connection points to the BCWS system shall be provided with an air gap of (3) feet between the new pipe and the existing stub out, wet tap, or existing valve. All temporary backflow installations shall be inspected and approved by a BCWS inspector prior to being placed into operation. The temporary backflow device must be certified within one week of initial installation and passing certification letter

from 3rd party inspector/tester sent to BCWS Engineering. Should the project last longer than one year before line is permitted the backflow is required to be retested and passing certification filed with BCWS Engineering. Any filling or flushing through construction backflow must be coordinated with BCWS and scheduled with BCWS Inspector. Filling only authorized after backflow certification received and official filling request coordinated. Flushing only authorized after full project closeout procedures are complete.

3. Once the SCDES permit to operate has been issued for the new section, the backflow assembly removal can be scheduled with BCWS as well as all remaining air gap connections shall be made at this time. Please provide BCWS at least 72 hour notice to schedule.
4. Connection of construction backflows to unpermitted water sources is approved on a case by case basis. General policy is not to allow these connections unless the developer and utility contractor are the same for both unpermitted projects.
5. Installation of construction meters is required where permanent backflows such as for apartment complexes, certain townhome projects as well as commercial building sites where construction water is needed and a permit to operate is required either on public or private water or sewer prior to permanent meter installation. The engineer shall determine meter size necessary to achieve 2.5 feet/sec flushing velocity for a given size pipe.
6. BCWS does not guarantee construction backflows are rated for adequate fire protection and builders/developers/engineers should coordinate prior to project construction for fire protection if required for vertical construction or for any fire line/pump testing needed.

In the case of a water project that has multiple connection points with the BCWS system, the BCWS Engineering Department will determine the optimum location for a single water-supply connection. Final tie-in to all other connection points shall only be made after the Permit to Operate has been issued by SCDES.

2.2 FILLING

- A. After a new line is installed and prior to filling, the Engineer will calculate the volume of water needed to fill the line. This information will be forwarded to the BCWS Engineering Department along with a request to fill the line. This information will be required 7 days in advance of filling any new lines.

2.3 FLUSHING

- A. Once the Contractor is ready to flush in preparation for bacteriological testing, the Contractor will coordinate with the BCWS Engineering

Department, providing a 72 hour minimum notice in advance. Flushing will not be scheduled before the release of the legal transfer package to the owner/developer. Design Engineer is responsible for providing BCWS flushing calculations and sample point information when requesting to flush a project.

END OF SECTION