7-09.3(24) Disinfection of Water Mains, Add the following sentence to the last paragraph:

Following a successful test, those water pipes which will not immediately be connected to the existing system shall be relieved of excess pressure and shall be left full of the chlorinated water. Contractor shall be responsible for disposal of super chlorinated water after testing.

7-09.3(24)A Flushing and Pigging, delete the last paragraph and replace with the following paragraph:

The Contractor shall not do any flushing of the pipeline without supervision of OWNER. Prior to flushing, the Contractor shall submit to the Owner and Engineer a flushing plan that includes dechlorination of the super chlorinated waste water. Holding of water until the verification that it is safe to be released to drainage channel or sewer system will be required. If discharging chlorinated water to a local sewer system is planned, written permission from the sewer agency shall be obtained. Best management practices shall be utilized when disposing of the higher chlorinated water. The District shall hold the Contractor liable for any ESA salmon "takes" that occur as a result of improperly disposing of the flushing water. The Contractor shall make arrangements with the OWNER for the necessary flushing of the pipeline. Flushing procedure shall be approved and observed by OWNER.

Sections of pipe to be disinfected shall first be cleaned. This shall include pigging at the discretion of the District in accordance with these Construction Standards and AWWA Standard C651-922, Section 4.5 to remove any solids or contaminated material that may have become lodged in the pipe. Flushing velocities should be a minimum of 2.5 ft/sec in the new water main when practical to assure the all debris is removed during the flushing process. Table shown below may be used as a guideline, but does not relieve the Contractor from assuring a clean line.

Table 3.8.6 AWWA C651-92 suggested flow and openings to flush pipelines (40 psi residual pressure in water main*:

Pipe (in inches)	***To produce 2.5 ft/sec (approx) Velocity in Main***	***Size of Tap, 2 inches/ # of taps on Pipe****	***Number of 2-1/2 inch Hydrant Outlets***
4	100 gpm	--	1
6	200 gpm	--	1
8	400 gpm	1	1
10	600 gpm	2	1
12	900 gpm	2	2
16	1600 gpm	4	2

**With a 40 psi pressure in the main and the hydrant flowing to atmosphere, a 2-1/2 inch hydrant outlet will discharge approximately*

1000 gpm and 4-1/2 inch hydrant outlet will discharge approximately 2500 gpm.

***Number of taps on pipe based on discharge through 50 feet of galvanized iron pipe with one 90 degree elbow*.

The Contractor shall be responsible for flushing all new mains under the supervision of the District and their personnel. The storm drainage system shall be the preferred option for disposal of the flush water. The governing public entity of said storm drainage system shall approve of any disposal into available storm systems, provided that the rate of disposal will not overload the storm system or flow turbid water into waterways.

7-09.3(24)H Point of Application, add the following:

The Contractor shall provide all taps, fittings, connections, blow offs, etc. required to complete all necessary purity tests.