Appendix 31 - Summary of Fire Hydrant Inspection, Maintenance and Replacement Program

There are approximately 9,350 public fire hydrants within the District of Columbia, all inspected annually and repaired and maintained by DC Water.

While DC Water strives to ensure all public fire hydrants are operable for fire suppression needs, unforeseen circumstances can cause a fire hydrant to be rendered out of service. Recognizing these circumstances, DC Water has set goals to ensure the number of out of service hydrants do not exceed 1% of the inventory of public fire hydrants. Currently, there are 81 fire hydrants out of service in the District for an unrepairable defect awaiting replacement.

In addition to inspecting, repairing and maintaining the existing inventory of public fire hydrants, DC Water is responsible for the fire hydrant replacement, upgrades and flow testing fire hydrants for flow test capacity. The replacement and upgrade program standardizes public fire hydrant models and requires upgrading the pumper nozzle size of the hydrant to 4.5 inch nozzles with 4 threads per inch, which is the National Standard Thread (NST) set by the NFPA. In FY12, DC Water replaced 350 public fire hydrants in the District and in FY13 45 public fire hydrants thus far.

Fire flow testing is conducted to determine the pressure and flow producing capabilities at any point within the distribution system. The amount of flow available (as determined by the fire flow test) is utilized for fire suppression activities, project development and determining the general condition of the distribution system in the District of Columbia. DC Water has conducted fire flow tests on a vast majority of the public fire hydrants in the District of Columbia. Fire flow testing in the District of Columbia is performed in accordance with the AWWA M17 standards for fire flow testing and NFPA 291.

The American Water Works Association (AWWA) recommends that fire hydrant flow testing be performed every 10 years or after significant changes in the distribution system. However, DC Water strives to exceed this recommendation.