TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER

DEPARTMENT: UTILITIES

DATE: MARCH 17, 2008

CMR: 168:08

SUBJECT: PALO ALTO WATER MAIN DISTRIBUTION SYSTEM FLUSHING PROGRAM - STATUS REPORT

This is an information report and no Council action is required.

BACKGROUND

Historically, the City of Palo Alto and approximately 85 percent of water utilities in the United States use main flushing to improve water quality for water customers. Water utilities may flush distribution mains for a variety of reasons: corrosion control, sediment removal, taste and odor control, control of color, to reduce turbidity, to reduce chlorine residuals, to reduce bacteriological growths, or as a response to customer complaints. The main objectives of Palo Alto's flushing program are to improve water quality, control bacterial growth and remove built-up sediment.

Between 1990 and 1993, the Palo Alto Water Utility did not perform an annual main flushing program because of the drought. During this period, customer water consumption was also reduced, thereby accelerating sediment build-up in the mains. During 1992, numerous complaints were received about water quality. At that time, staff took water samples in response to these calls and found that the reduced water quality was due to the build-up of sediment in the mains. Also, Fire Department personnel found more sediment in their equipment from the City's water system during 1992. Water Operations staff flushed mains every year between 1993 and 2003. Staff did not receive water quality complaints due to sediment build-up in the distribution mains during that period because of the success of the annual water distribution system flushing program. Between 2004 and 2006, the water distribution system was not flushed on an annual basis due to limited staff availability during that period. The water system was flushed in 2007. The City has reallocated staffing to allow for re-initiation of the annual water flushing program.
**DISCUSSION**
Beginning April 20, 2008, and continuing through April 26, 2008, the City's Water Utility Operations Section will open fire hydrants to flush out sediment that has collected in the mains during the past year. Flushing of the mains may cause some slight, but temporary, reduction in water pressure and possible water discoloration.

Residents will see fire hydrants and blow-off valves opened by staff and used as points to flush-out the distribution system mains. Water flushed from hydrants and blow-off valves is dechlorinated and discharged to street surfaces and storm drains, or is used to clean sanitary sewers. It is not practical to attempt to recapture this water for re-use as irrigation, filling residential swimming pools or other purposes. The water system main flushing map and schedule will be displayed in the Palo Alto Weekly, Palo Alto Daily News, City website, and scrolling messages on the Midpeninsula Community Media Center (MCMC) community public access channels prior to and during the 2008 main flushing program.

**ATTACHMENT**

A. 2008 Water System Flushing Schedule and Map

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