

September 14, 2020

The Honorable City Council
Office of the City Clerk
Room 395, City Hall
STOP 160

Attention: Council President Nury Martinez
Chairperson, Energy, Climate Change and Environmental Justice Committee

Honorable Members:

Subject: Council File No. 20-1076 – Sunset Boulevard / UCLA / Water Main Break /
August 23, 2020

This is in response to the subject referenced motion (Koretz-O'Farrell) that requests the Los Angeles Department of Water and Power (LADWP) report, as soon as possible, to the Los Angeles City Council (Council) regarding the Sunset Boulevard/UCLA water main break.

On August 23, the LADWP responded to a pipe break in the vicinity of 10600 West Sunset Boulevard. LADWP crews isolated the affected section of 30-inch diameter steel pipe, which was located in a parkway. Before crews could safely access the affected pipe, large trees and a masonry wall had to be removed.

Pipe repair required replacement of 28 feet of the 30-inch riveted steel pipe. LADWP is working with the Los Angeles City (LA City) Bureaus of Contract Administration, Street Services, Engineering (BOE), and Sanitation for restoration of damages in the public right-of-way, and addressing damages caused to the University of California, Los Angeles (UCLA) campus, and a residential property immediately adjacent to the pipe break.

There were no water-service interruptions to customers during this pipe break.

Current Status and Cause Water Main Break

The pipe repair has been completed. All traffic lanes on Sunset Boulevard were fully reopened on September 2. Work to repair the damaged culvert is underway (pending design and permit).

External pipe corrosion was the primary factor that caused the failure. The pipe break occurred where LADWP's pipe intersected a concrete storm drain culvert. The culvert was designed and constructed around the pipe, leaving the bottom exterior surface of the affected pipe segment continuously exposed to the moist environment in the culvert. The long-term exposure to moisture caused the corrosion that led to weakening of the pipe wall.

Prior to August 23, this 900-foot cement lined segment of pipe had reliably operated with no prior leak history.

LADWP's Water Infrastructure

With no prior leaks, this particular pipe segment was and is not scheduled for replacement. However, LADWP is working on two trunk line projects in the area of the break. The first is the replacement of 600 feet of 36-inch steel pipe along Sunset Boulevard from Udine Way to 600 feet southwest of Udine Way. This segment has had several leaks, including the leak in July 2014 that impacted the UCLA campus. This project is currently in BOE permitting, and construction is scheduled to start in the winter of 2020. The second project is an assessment of trunk lines along Stone Canyon Road from the Lower Stone Canyon Outlet to Sunset Boulevard, and along Sunset Boulevard from Stone Canyon Road to Marymount Place. Action will be taken based on the assessment's findings.

LADWP has a number of programs designed to minimize water main breaks and their impact on the public and property:

- Trunk Line Replacement Program (pipes 20 inches or larger) and Mainline Replacement Programs (pipes less than 20 inches): LADWP is accelerating the design and construction of pipe replacement projects. During the last five years, LADWP replaced a total of approximately 175 miles of pipe in the Los Angeles basin. Over the next 10 years, LADWP plans to replace 530 miles of pipes. To accomplish this goal, LADWP is working on contracts and is increasing its hiring of pipe construction crews.
- Corrosion Protection Anode Replacement Program: The Corrosion Protection Anode Replacement Program helps ensure infrastructure-system-wide reliability by protecting the water pipe network system from external corrosion. There are approximately 20,000 corrosion protection anodes in LADWP's service area. Goals have been set to continually replace anodes as they complete their life cycle.

- **Technology - Pressure Monitoring and Leak Detection:** While LADWP's average leak rate is 20 percent lower than the nation's average rate, LADWP is using pressure monitoring and leak-detection devices to assist in optimally operating the water distribution system. Over time, and as technology continues to evolve, these devices can assist with identifying potential problem spots in the system, decrease response times to leaks, reduce pipe breaks and loss of water, and reduce customer impacts.
- **Seismic Resilient Pipe Network (SRPN):** In early 2019, LADWP committed to plan for, design, construct, and maintain a SRPN, a resilient arterial pipe network capable of withstanding most damage from an earthquake. LADWP achieved, fourteen months ahead of schedule, the LA City Mayor's goal of installing 14 miles of earthquake resistant pipe (ERP). As of July 2020, LADWP installed 18 miles of ERP. The newly installed ERP will minimize water pipe breaks/leaks during seismic events. LADWP is also piloting variations of ERP to help reduce costs. To effectively manage the LA City's infrastructure and reduce costs, the SRPN will be developed as new/deteriorated pipe is installed/replaced. LADWP is the first utility in the United States. to commit to developing this resilient arterial pipe network.
- **Asset Management (AM) Program, Condition Assessment:** Components of the Los Angeles water system infrastructure are evaluated as part of the ongoing AM Program. The program systematically evaluates and prioritizes critical infrastructure for replacement, including the over 7,300 miles of the LA City's water pipes. Pipe is assessed based on various factors including, but not limited to, leak history, age of pipe, soil corrosivity, material type, pressure, risk of service interruption and community disruptions, and coordination with other projects. Pipe with the highest risk of failure is prioritized for replacement.

LADWP's water infrastructure program is outlined in the Water System's Capital Improvement Program, a 10-year plan focused on maintaining or replacing existing components of the Water System, and constructing new facilities to fulfill LADWP's mission of providing reliable and high quality water to the residents of Los Angeles.

The LADWP's water infrastructure program includes an aggressive plan to replace 530 miles of pipe by 2030. Goals have been set to achieve replacement and/or rehabilitation of pipes, valves, pumps stations, meters, tanks, and other appurtenances necessary to transmit and distribute water to LA City. Prioritization is critical, and the Water System uses the AM Program for prioritization and replacement of the water pipe network serving the LA City.

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If you have any questions or if further information is required, please call me at (213) 367-1338, or have your staff contact Ms. Winifred Yancy, Director, Legislative and Intergovernmental Affairs, at (213) 367-0025.

Sincerely,



Martin L. Adams
General Manager and Chief Engineer

WY:nsh

- c: Councilmember Paul Koretz, Vice-Chair Energy, Climate Change and Environmental Justice Committee
- Councilmember Gilbert A. Cedillo, Member Energy, Climate Change and Environmental Justice Committee
- Councilmember Paul Krekorian, Member Energy, Climate Change and Environmental Justice Committee
- Councilmember Mitch O'Farrell, Member Energy, Climate Change and Environmental Justice Committee
- Sharon Tso, Chief Legislative Analyst
- Ms. Winifred J. Yancy