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"To Enrich Lives Through Effective and Caring Service"

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TO: Each Supervisor

FROM: Mark Pestrella, PE 
Director of Public Works

BOARD MOTION OF JANUARY 28, 2025, AGENDA ITEM 13-B WATER SUPPLY AND RESILIENCY OF WATERWORKS DISTRICT NO. 29, MALIBU INFRASTRUCTURE, FINAL REPORT

On January 28, 2025, the Board directed Public Works to retain a consultant to conduct an independent after-action review of the Los Angeles County Waterworks District No. 29, Malibu's (District) facilities and operations during the Palisades Fire. The review is intended to identify any performance issues, system improvements related to the District's capital plan, funding streams and gaps, and administrative, regulatory, or other challenges. Public Works retained Woodard & Curran to conduct this independent review. In addition, Public Works assessed the District's capital improvement program to enhance water supply reliability and fire resilience. The attached report provides a summary of the findings.

If you have any questions, please contact me or your staff may contact Deputy Director Adam Ariki at (626) 458-4012 or aariki@pw.lacounty.gov.

CH: jc

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Attach.

cc: Chief Executive Office
Executive Office, Board of Supervisors

**BOARD MOTION OF JANUARY 28, 2025, AGENDA ITEM 13-B
WATER SUPPLY AND RESILIENCY OF WATERWORKS DISTRICT NO. 29, MALIBU
INFRASTRUCTURE, FINAL REPORT**

Introduction

Waterworks District No. 29, Malibu (District) was established in 1959 by the Board of Supervisors through a public election that authorized the formation of the District. The water systems in the Topanga and East Malibu Mesa areas were installed between 1962 to 1967. The water systems in the East Malibu Coastal region and areas west of Las Flores Canyon Road were installed between 1928 to 1970. After the construction of the major transmission line along the Pacific Coast Highway that delivers water from the Metropolitan Water District of Southern California to Malibu, Topanga, and Marina del Rey, the District was petitioned to purchase several nearby mutual and privately owned water companies. The District purchased Hillside Water Company in 1967 and Malibu Water Company in 1971. Over the years, multiple County Improvement Districts were proposed; some were formed and approved by local property owners to upgrade infrastructure and meet modern standards. However, some areas remain served by the originally installed water systems.

Public water systems serve two primary purposes, (1) domestic water service for drinking, cooking, bathing, irrigation, and sanitation; and (2) fire protection. To accomplish these purposes, public water systems are designed with storage and pipeline carrying capacities sufficient to simultaneously meet the highest domestic water demand and the fire-flow requirements for a single-structure fire, as specified by the Los Angeles County Fire Code adopted at the time that the water system was built. Water distribution systems are not, and cannot be, practically designed to fight wildfire due to multiple design considerations, including the water quality degradation that could occur in a significantly oversized water system.

This final report is in response to the January 28, 2025, motion requesting:

- a) A report back on the progress of retaining a consultant to review and prepare an independent after-action report on performance issues, if any, that have arisen in connection with District facilities and operations during the Palisades Fire.
- b) Identification of any system improvements (capital projects, system hardening, interconnections, and protocols) referenced in the Waterworks District 29 capital plan, Woolsey Fire After Action report, and the 2013 Waterworks District 29 "master plan." For each item referenced in the master plan, include the project rationale, prioritization, relation to fire suppression, approval status for each government entity, originally planned project timeline, and specify whether the

implementation of the project was delayed and, if so, the reasons for delays in project delivery.

- c) A description of the District's funding streams, funding allocated for ongoing projects, future upgrades, maintenance and operations, and future funding needs.
- d) Identification of any administrative, environmental, and permitting challenges that may have delayed or inhibited project delivery, as well as recommendations for local, State, or Federal reforms or regulatory streamlining to accelerate these resiliency investments.

After-Action Review

Public Works retained Woodard & Curran to conduct an independent review and issued the Notice to Proceed on February 10, 2025. Public Works' Emergency Management Group coordinated the review. Woodard & Curran's independent analysis was primarily informed by interviews with District staff involved in the fire response, review of the District's Supervisory Control and Data Acquisition information covering the fire period, review of interagency communications and mutual aid, and documentation of the fire published by the California Department of Forestry and Fire Protection.

Woodard & Curran's overall conclusion found the District's response to be a success. District staff responded rapidly and maintained service in areas not directly impacted by the Palisades Fire due to the District's proactive planning, training, and experience with responding to recent incidents such as the Franklin Fire. The District successfully maintained pressure in areas with active firefighting through timely valve operations and generator deployment at pump stations. Equipment and supply levels were adequate, and mutual aid was timely and effective. During the fire event, the District's water system provided over 65 million gallons of water to support the firefighting efforts.

Woodard & Curran also determined that additional supply or storage within the District's water system would not have materially changed the unfortunate outcome of the Fire.

Assessment of Capital Improvement Program

In 2013, the District developed a Water System Master Plan and Program Environmental Impact Report (EIR), outlining potential capital improvement projects with schedules, costs, and financing strategies to support water supply and distribution with a focus on regional resilience. The capital improvement project list was refined and substantially reduced based on public input and concerns that water system improvements would lead to increased development. A final EIR for the capital improvement project list with a reduced scope of projects was adopted on May 4, 2021. Waterworks has since added

additional projects to the list based on maintenance priorities and the need to repair existing infrastructure to enhance water supply reliability. The District coordinated with Woodard & Curran to compile and review a listing of 126 capital projects contained within the District's 2013 Water System Master Plan, subsequent EIR, and the most recent District Capital Improvement Program (CIP) Priority Projects Listing.

Projects were categorized by current implementation status and relevance to fire recovery and resilience. Out of the total 126 projects reevaluated in this assessment, the District has completed 8 capital projects and is implementing 16 more. There are 44 projects delayed or deferred for implementation. There are also 57 projects that have not been recommended for prioritization because they were conceptualized to meet future needs or address conservative design criteria. Several of the CIP projects were delayed from their original schedules due to a variety of challenges including financial, environmental documentation, and permitting requirements.

It should also be noted that in the consultant's assessment, no individual project nor suite of projects currently slated for implementation would have been able to reduce the destructive scale of the fire. The high wind conditions during the fire resulted in a rapid spread and prevented larger-scale wildfire fighting methods, and the fire could not have been mitigated through any municipal water system designed to meet customer demands and to extinguish individual structure fires. Wildfire prevention and suppression measures such as fuel management, increased defensible space, helicopter water dip sites, and offline water storage are beyond the scope of a municipal water system.

Implementation and Funding

In order to implement the recommended 126 projects, two scenarios were used to forecast expedited and baseline capital spending and to model funding and financing pathways. An analysis of past administrative, environmental, and permitting implementation challenges was conducted along with the identification of potential strategies to leverage near-term funding and regulatory allowances and improve overall future implementation conditions. Both scenarios prioritize the ongoing CIP projects and the top priority fire recovery projects to be implemented as quickly as possible.

The first scenario considers an aggressive spending plan to initiate all priority projects within the next 5 years and complete all 126 potential projects by 2040. Based on current cost estimates, this would require an expenditure rate nearly four times greater than the District's annual revenue allocated to the capital outlay fund. It is unlikely that sufficient external funding nor loans could cover this gap.

The second scenario outlines a baseline spending plan aimed at completing the highest-priority fire recovery projects within 3 years, finalizing the current CIP list within

10 years, and advancing the remaining recommended projects over the next 20 years. Lower-priority projects may be deferred until 2050. However, there remains an annual funding shortfall of approximately \$4 million. Potential grants and loan programs could help mitigate these deficits.

Going forward, the District will continue to prioritize projects that support rebuild and recovery efforts in the burn area, including the construction of select projects on an emergency basis under applicable Governor Executive Orders and Board Motion authorities, which promote expedited implementation. The District will continue to regularly review and update the CIP to address evolving needs, using insights from this assessment to inform, but not replace, ongoing planning efforts. In parallel, the District will actively pursue funding opportunities, including grants, loans, and potential rate increases to support long-term CIP investments.

The District will also collaborate with Board offices to explore and advocate for legislative measures that expand exemptions or streamline permitting requirements for critical water infrastructure projects, outside of emergency scenarios. This would include further exemptions under the California Environmental Quality Act, the California Coastal Act, and other regulatory frameworks. These efforts could minimize delays and enable the timely delivery of essential improvements.