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MARK PESTRELLA, Director

# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

*"To Enrich Lives Through Effective and Caring Service"*

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IN REPLY PLEASE

REFER TO FILE: WW-0

10564-1-1-F

March 8, 2024

TO: Each Supervisor

FROM: Mark Pestrella, PE  
Director of Public Works

### **BOARD MOTION OF JANUARY 9, 2024, AGENDA ITEM NO. 56-A ESTABLISHING THE ANTELOPE VALLEY WATER PLAN: WATER SUPPLY RELIABILITY FOR SUSTAINABLE GROWTH**

On January 9, 2024, the Board approved a motion directing Public Works to develop the Antelope Valley Water Plan in collaboration with relevant County departments, water districts, and the Cities of Palmdale and Lancaster. The Board also directed Public Works to pursue cooperative agreements with various agencies and water districts in the region, including the Antelope Valley-East Kern Water Agency (AVEK), Palmdale and Quartz Hill Water Districts, and the Cities of Lancaster and Palmdale, and report back to the Board within 60 days. Additionally, the Board directed Public Health, in coordination with Public Works and the Chief Sustainability Office, to develop a strategy for the coordination and support for small water systems and report back to the Board within 60 days.

Public Works assembled a team with expertise in water management and infrastructure development to begin development of the Antelope Valley Water Plan with a detailed schedule and budget for these activities. The Antelope Valley Water Plan will provide a comprehensive framework for sustainable water management in the region and establish the Los Angeles County Waterworks District No. 40 Water System Master Plan (Master Plan), Capital Investment Plan, and a Capital Improvement Program. The Master Plan and Capital Investment Plan will ultimately address water supply reliability, necessary infrastructure improvements, water quality impacts, infrastructure hardening, and necessary climate resilience investments needed to support continued regional growth. The Capital Improvement Program will address the financial requirements to build out the Master Plan.

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To ensure the Antelope Valley Water Plan effectively encompasses multifaceted solutions to meet the region's water management challenges, Public Works has formed a working group to collaborate closely with the Departments of Regional Planning and Public Health, and the Chief Sustainability Office; AVEK, Palmdale, and Quartz Hill water districts; and the Cities of Palmdale and Lancaster. Initial collaboration meetings have discussed substantial development projections for the Cities of Palmdale and Lancaster as well as the unincorporated areas over the next 3-5 years that include housing units and commercial space. The key takeaways thus far have emphasized the need for improved agency collaboration, predictability in planning, and addressing fire safety and building code challenges. Ongoing priorities include identifying critical projects and enhancing communication between agencies with future meetings set to focus on consolidating project information.

Public Works is also working to create cooperative agreements with key stakeholders including AVEK, Palmdale and Quartz Hill Water Districts, and the Cities of Lancaster and Palmdale. These agreements will facilitate the implementation of necessary infrastructure projects aimed at ensuring long-term water supply reliability for the region's current and future growth needs. Additionally, Public Works is coordinating with Public Health and the Chief Sustainability Office to develop a strategy to best support small water systems, including exploring potential grant funding opportunities outlined in the County Water Plan. A comprehensive schedule and budget for these activities are being formulated and will be reported once completed.

These activities are in alignment with the Board-directed priority of Sustainability and support Public Works' dedication to advancing resiliency and sustainability and improving the quality of life for Los Angeles County residents. These activities will help ensure all Los Angeles County residents have access to safe, clean, and reliable water resources.

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

DB:sb

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cc: Chief Executive Office  
Chief Sustainability Office  
County Counsel  
Executive Office  
Department of Public Health  
Department of Regional Planning

MOTION BY SUPERVISOR KATHRYN BARGER

JANUARY 9, 2024

**ESTABLISHING THE ANTELOPE VALLEY WATER PLAN: WATER SUPPLY RELIABILITY FOR SUSTAINABLE GROWTH**

The State and County have both recognized the significance of equity and environmental justice in our communities. A lack of action in decades past has led to disparities among communities within the County, which have long faced underinvestment, and led to infrastructure that is less robust and less resilient. Coupled with climate volatility and the ongoing impacts of climate change, there is a potential for communities in North County to be disproportionately impacted by the lack of infrastructure, especially when compared to other areas in the County that benefit from being within the County’s Flood Control District.

The Antelope Valley is vast, and many areas are sparsely populated. Over time, small communities have formed throughout the region and developed their own individual water systems. The result is a patchwork of infrastructure that, in some places, lacks reliability and cost effectiveness. These isolated systems often lack access to the technical and financial resources to respond to new water quality regulations, aged infrastructure, and climate change.

The Los Angeles County Waterworks District 40 (District 40) is a special district that underwent consolidation into its present form on November 2, 1993. Currently, the District spans eight regions, serving customers in the cities of Lancaster and Palmdale, as well as the unincorporated communities of Pearblossom, Littlerock, Sun Village, Big Rock Creek, and other areas in Northern Los Angeles County and Lake Los Angeles. This expansive coverage underscores the District's pivotal role in ensuring the provision of safe, clean water for the residents of the entire Antelope Valley.

District 40, like other water retailers in the adjudicated groundwater basin, face the challenge of providing safe, clean, water as they must address the prominence of Arsenic, Chrome 6, and other pollutants that require significant treatment before water can be delivered to customers.

At present, District 40 serves approximately 215,000 people through 57,000 metered connections. A majority of the District 40 water supply is procured from the Antelope Valley East Kern Water Agency (AVEK) and is supplemented by groundwater extracted from the Antelope Valley Groundwater Basin.

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MOTION

SOLIS \_\_\_\_\_

MITCHELL \_\_\_\_\_

HAHN \_\_\_\_\_

BARGER \_\_\_\_\_

HORVATH \_\_\_\_\_

While the recent adjudication of the Antelope Valley's underlying groundwater basin and the development of water banking projects in the Antelope Valley has done much to further water supply reliability, more development will require greater supply and additional water utility infrastructure. According to the 2019 Antelope Valley Integrated Regional Water Management Plan, nearly half of the region's water is imported from outside the valley, which costs two to three times as much as utilizing local groundwater resources. Reliance on imported water presents other challenges, notably the environmental impact associated with conveyance, as well as the frequency of drought conditions that restrict State Water Project allocations.

Utilizing existing groundwater resources can also protect rate payers from increases in costs with the escalating cost of importing water. While the Antelope Valley is seeing increased development, there are a number of disadvantaged communities that would benefit from a stabilization in utility rates in the face of rising gas and electric utility costs.

On April 29, 1999, the Los Angeles County Department of Public Works (DPW) released a draft Water System Master Plan, serving as a guide for system improvements over the next two decades. The draft highlights changes experienced by District 40 since its release, noting uncertainties in full deliveries from the State Water Project (SWP) and restrictions limiting imported water to 60% of District 40's demand due to infrastructure limitations.

Initial District 40 projections for population growth could not factor in the potential influx of new residents, driven largely by a growing need for affordable housing. The Antelope Valley stands out as one of last bastions of affordable housing in the County. Concurrent growth in the defense sector, including aerospace manufacturing, along with a greater demand for warehousing, logistics and transportation services will serve as a catalyst that will generate sustained growth in the region. The cities of Palmdale and Lancaster have noted significant applications for new housing and development that will transform the region.

On December 5, 2023, the LA County Board of Supervisors adopted the Los Angeles County Water Plan (CWP), a first-of-its kind plan that articulates a shared, inclusive, regional path forward to achieve safe, clean, and reliable water resources sustainably and equitably for Los Angeles County. While the CWP is countywide, not all areas of the County are alike. The Antelope Valley has additional and unique challenges that require focused attention. Prolonged droughts have heightened the need for legislative and regulatory measures to ensure water reliability. The County's commitment to initiatives such as the County's Safe Clean Water Program, the Climate Action Plan, and the County Water Plan underscores its dedication to sustainable and climate-resilient initiatives.

To effectively plan for regional growth, increased water demand, and long term water supply reliability, District 40 should develop a comprehensive Master Plan. This endeavor should also explore opportunities to advocate for and support small water system operators in North County as well as the other stakeholders in the region such as the Antelope Valley East Kern Agency, the Los Angeles County Sanitation Districts, Palmdale Water District, and the cities of Lancaster and Palmdale.

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**I, THEREFORE, MOVE** that the Los Angeles County Board of Supervisors direct the Department of Public Works, in coordination with relevant County Departments, Water Districts, and the cities of Palmdale and Lancaster to develop an Antelope Valley Water Plan as an expansion of the recently adopted Los Angeles County Water Plan, building upon the efforts of the Antelope Valley Integrated Regional Water Management Plan, which should include the following:

1. Establishment of a Los Angeles County Waterworks District No. 40 Water System Master Plan that addresses water supply reliability, necessary infrastructure improvements, water quality impacts, infrastructure hardening, and climate resilience investments needed to support the continued growth of the region and include a Capital Investment Plan for Los Angeles County Waterworks District No. 40.
2. Establishment of a Capital Improvement Program that addresses the financial requirements for the build out of the Water System Master Plan.

**I, FURTHER MOVE** that the Board of Supervisors direct the Department of Public Works to pursue cooperative agreements with the Antelope Valley-East Kern Water Agency (AVEK), Palmdale Water District, Quartz Hill Water District, and other agencies, water districts in the region, as well as the Cities of Lancaster and Palmdale to create necessary infrastructure to ensure long term reliability of water supply for Los Angeles County Waterworks District No. 40 and to provide greater water supply availability for existing and projected future growth, and report back to the Board in writing in 60 days;

**I, FURTHER MOVE** that the Board of Supervisors direct the Department of Public Health, in coordination with the Department of Public Works, and the Chief Sustainability Office, to develop a strategy for coordination of and support for small water systems, including potential grant funding opportunities to support these efforts, as identified in the County Water Plan, and report back in writing in 60 days.

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KB:aso



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March 13, 2024

TO: Each Supervisor

FROM: Barbara Ferrer, Ph.D., M.P.H., M.Ed.  
Director of Public Health

SUBJECT: **ESTABLISHING THE ANTELOPE VALLEY WATER PLAN: WATER SUPPLY RELIABILITY FOR SUSTAINABLE GROWTH (ITEM NO. 56-A, BOARD AGENDA OF JANUARY 9, 2024)**

On December 5, 2023, the Board adopted the Los Angeles County Water Plan (CWP) – a plan that articulates a shared, inclusive, regional path forward to achieve sustainably and equitably safe, clean, and reliable water resources for Los Angeles County. The Board directed the Department of Public Health (Public Health), in coordination with the Department of Public Works, and the Chief Sustainability Office, to develop a strategy for coordination of and support for small water systems, including potential grant funding opportunities to support these efforts, as identified in the County Water Plan, and report back in writing in 60 days.

The State Water Resources Control Board (SWRCB) delegated to Public Health the authority to act as a Local Primacy Agency (LPA) with all authority granted to it under the California Safe Drinking Water Act (HSC §116270 et. seq.) for the regulation of small public water systems. This delegation includes the regulation of public water systems serving 199 or fewer service connections.

The public water systems are divided into the following categories as defined in California Health & Safety Code §116275:

- **Community Water System (CWS):** A public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

- **Non-Community Non-Transient Water System (NTNC):** A public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year. Examples of NTNCs are schools, factories, office buildings, and hospitals which have their own water systems.
- **Transient Non-Community Water System (TNC):** A noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year. Examples of TNC are rural gas stations, restaurants, campgrounds, winery tasting, and meditation retreats.

There are currently 116 small public water systems delegated to the LPA. Of the 116 small public water systems, 67 are in the Antelope Valley area:

- Community Water Systems - 36 in the Antelope Valley area,
- Non-Transient, Non-Community Water Systems - 10 in the Antelope Valley area,
- Transient, Non-Community Water Systems - 21 in the Antelope Valley area.

These water systems require regular monitoring for water quality (microbiological and chemical) based on State requirements and are primarily located in isolated areas of the county without access to larger public water systems that they could consolidate with or establish emergency connections. In addition, many of these water systems have aging infrastructure (e.g., complex distribution networks with wells, pumps, treatment plants, storage facilities, and pipes) that were built decades ago and are now reaching the end of their operational life leading to the following concerns:

- **Deteriorating Pipes and Leakage:** Many of the pipelines used to transport water are made of materials that degrade over time, such as cast iron or concrete. As these pipes age, they become more susceptible to corrosion, cracks, and leaks. Leaky pipes not only result in the loss of precious water resources but can also lead to contamination when groundwater or pollutants seep into the system. Regular inspections and repairs are required to keep the system functioning correctly. However, limited funding for maintenance and limited resources for the workforce with specialized skills can hinder efforts to perform the necessary upkeep.
- **Water Quality, Supply, and Safety Concerns:** Water systems struggle to maintain the same level of water quality that was once achieved due in part to their reliance on a single groundwater well and/or water quality issues. Additionally, older treatment plants are not equipped to handle newer contaminants or emerging pollutants. This leads to safety concerns, as outdated treatment methods are not effectively removing harmful industrial chemicals from the water supply.
- **Energy Inefficiency:** Older water treatment and distribution systems lack energy-efficient technologies, leading to higher operating costs and unnecessary environmental impact. Upgrading to more efficient systems can be a challenging and costly process.
- **Limited Funding and Budget Constraints:** Replacing or upgrading water system components requires substantial financial investment. The LPA water systems struggle to allocate sufficient funds to address the infrastructure, source capacity, and



installation/repair of treatment systems. These systems typically rely on grants from the State to correct these serious issues.

**Strategies for coordination of and support for small water systems to achieve safe, clean, and reliable water resources, sustainably and equitably within the Antelope Valley area.**

- Assist small water systems to seek financial assistance from the State. Identify and refer the most susceptible water systems to the Safe and Affordable Funding for Equity and Resilience (SAFER) program. Assist water systems with the completion of applications for grant funding. Collaborate with the SAFER program to provide all necessary information to prioritize the application process. Refer small water systems to the U.S. Department of Agriculture's Rural Development Water and Environmental Programs, which provides loans, grants, and technical assistance for small rural drinking water systems. Also, encourage small water systems to participate in Integrated Regional Water Management (IRWM) and seek out opportunities for partnering and cost-sharing.
- Develop a comprehensive strategy to address funding and administrative challenges associated with the consolidation of small water systems, ensuring awareness of potential financial implications for larger water agencies, including the necessity for additional funding or rate adjustments to meet new regulatory requirements. Outline a detailed plan for the consolidation process, encompassing valuation, negotiations, and infrastructure assessments, coupled with a roadmap for navigating the Local Agency Formation Commission (LAFCO) procedures. This plan will ensure a structured approach to consolidation and annexation, recognizing the complexity and time required to achieve these objectives effectively.
- Develop an advocacy strategy to ensure that the SAFER program is equitably supporting water systems in the Antelope Valley. This could include an analysis of the level of need and current funding allocations, relative to water systems in other areas; direct, regular communication with State leaders and the SAFER Advisory Group; and sharing of detailed information about the challenges facing specific water systems as observed through inspection.
- Assist SWRCB in identifying the small water systems with Safe Drinking Water Act violations, such as water quality failures or unreliable supply of potable water. Request the State to mandate their consolidation with other public water systems where available. In addition, collaborate with SWRCB in identifying several small at-risk water systems in the same area and request managerial consolidation only, without requiring the systems to become interconnected. This way they could share management costs, possibly reducing overall costs for management of the systems or increasing efficiency by providing professional management to all of the systems.
- Explore opportunities through the CWP to strategically partner with other agencies and organizations to establish a Countywide Small Water Systems Support and Assistance Program. Conduct outreach programs to raise awareness among small water system operators and the community about available resources and support. Encourage

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community involvement in decision-making processes related to water systems. Explore options to assist and encourage small water systems to increase the resiliency of their systems including developing water supply plans and asset management programs.

Pursuant to the recommendation made by the Department of Public Health in the report back to the Board for the Motion of March 7, 2023, Agenda Item No. 21 - *Assisting Small Water Systems in Los Angeles County*, Public Health notified the SWRCB of our intention to return the Local Primacy Agency Program to the State, with the transition being completed no later than July 5, 2024.

This transition back to the SWRCB would afford small water systems with the ability to gain additional resources and support available through the SWRCB. LPA water systems will benefit through more opportunities to obtain State direct supervision, enabling the SWRCB to provide financial, and technical assistance to the water systems.

If the Board desires for Public Health to persist in its efforts to assist water systems and advocate for the strategies indicated above, it will be necessary to allocate funding to sustain these endeavors.

Please contact me if you have any questions or would like additional information.

BF:lf