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September 5, 2023

The Honorable Maria Hernandez
Presiding Judge of the Superior Court
700 Civic Center Drive West
Santa Ana, CA 92701

DRAFT

Subject: MWDOC Responses to the Orange County Grand Jury 2022-2023 Report's Findings and Recommendations

Dear Judge Hernandez,

Please accept this letter as the Municipal Water District of Orange County's (MWDOC) timely response to the 2022-23 Orange County Grand Jury report, **"HISTORIC DROUGHT, YET DROUGHT REMAINS."** The responses to the Orange County Grand Jury Report's findings (F1-F12) and recommendations (R1-R4) are attached.

MWDOC appreciates the Grand Jury's time and efforts in preparing this report. Orange County water agencies continuously work to address the balance between our need for water (demands) and sufficient reliable water supplies to meet those needs. The integrated planning efforts undertaken by water agencies establish a long-term, comprehensive water resources strategy to provide the region with reliable and affordable water supplies. Water resources and the provision of water supplies and services at both the wholesale and retail levels are highly complex issues with multiple factors affecting supplies and demands.

MWDOC proactively conducts ongoing integrated water reliability planning efforts, which lay out plausible future scenarios to help inform water reliability for both short-and long-term. The intent of these planning efforts is to provide the most current and relevant information for use by a broad audience, including governing officials, water agency staff, and the public, to form fact-based policies and make well-informed decisions on water project and program investments that strengthen regional resiliency. The goal is not to dictate decisions, as every city, water agency, and regulatory agency has the authority and responsibility to make their own decisions.

As a wholesale water supplier and resource planning agency, MWDOC continues to provide regional leadership and to work collaboratively with the Metropolitan Water District of Southern California (Metropolitan) and Orange County water agencies. MWDOC's efforts focus on sound planning and appropriate investments in water supply development, water use efficiency, public information, legislative advocacy, water education, and emergency preparedness. It is MWDOC's mission "to provide reliable, high-quality supplies from the Metropolitan Water District of Southern California (Metropolitan) and other sources **to meet present and future needs, at an equitable and economical cost, and to promote water use efficiency for all of Orange County.**"

We thank the Grand Jury for its work on the report and for its interest in Orange County water issues. To help future Orange County Grand Juries interested in a greater understanding of Southern California's water supplies and resources integration, MWDOC would like to help facilitate tours of local and regional water projects, including the Colorado River Aqueduct, the State Water Project, and the Pure Water Southern

California Project. -MWDOC would also offer to provide briefings on the most current information pertaining to water resources, water demands and supplies, along with new climate change information. We look forward to future coordination with the Grand Jury.

Sincerely,

Board President

CC: Orange County Board of Supervisors
MWDOC Member Agencies

DRAFT

RESPONSES TO THE ORANGE COUNTY GRAND JURY 2022-2023 REPORT
“HISTORIC DROUGHT, YET DROUGHT REMAINS”
FINDINGS AND RECOMMENDATIONS

FINDINGS

F1 – FUTURE WATER SUPPLIES ARE IMPACTED BY CLIMATE CHANGE AND CURRENT SUPPLIES WILL NOT MEET FUTURE DEMANDS.

RESPONSE: Disagree Partially with this Finding

MWDOC partially disagrees with this finding. MWDOC agrees that future water supplies are forecasted to be impacted by climate change, however MWDOC disagrees with the conclusion that supplies will not meet future demands. **Future supply investments are currently being developed and more are under consideration by water agencies in Orange County to ensure those future demands are satisfied.**

Being “reliable” refers to having sufficient water to avoid shortages whether from long-term climate change, short-term drought, earthquakes or other emergencies, as well as having the ability to meet current and future water demands. Therefore, as a wholesale water supplier and resource planning agency, MWDOC’s efforts focus on sound data-driven planning and support of appropriate investments in water supply development. Since 2014, MWDOC [in collaboration with retail water agencies in Orange County has](#) taken the initiative to conduct comprehensive Orange County Water Reliability Studies (*OC Reliability Study*) to address what is needed to be “reliable.”

Following the completion of the initial *OC Reliability Study* in 2016, the study was updated in 2018, and most recently again in 2023. The evolving scientific understanding of climate change has been tracked since the beginning of these planning efforts and the latest information relevant to water supply and demand impacts to Southern California’s water supply sources has been incorporated into these studies. The purpose of reliability planning is to provide information to decisionmakers early enough to make sound and necessary investment decisions.

The 2023 *OC Reliability Study* looked at two main climate change characteristics which climate experts indicate are likely to have large impacts on future water supplies - temperature and precipitation. The results of the 2023 *OC Reliability Study* indicate that under a hot/dry climate future, which recent evidence seems to suggest might be the current path, there is a maximum potential need for water supplies in 2050 under plausible future conditions of 40,000 Acre-Feet per Year (AFY) for Orange County after consideration of the new water supply projects and additional conservation efforts. This maximum potential need is less than 10% of Orange County’s estimated demand; and the probability of these maximum potential shortages occurring is only 3.5%. Although these additional shortages are not large or frequent, they indicate support for the need to make the kinds of future investments accounted for in the 2023 *OC Reliability Study* analysis.

Additionally, the Metropolitan Water District of Southern California (Metropolitan) is in the process of developing its Climate Adaptation Master Plan for Water which integrates current climate, water resources, hazard mitigation, and financial planning efforts to prepare the region for the extremes of climate change.

[Link to: Orange County Water Reliability Studies \(https://www.mwdoc.com/orange-county-water-supply-reliability-study/\)](https://www.mwdoc.com/orange-county-water-supply-reliability-study/)

[Link to: Metropolitan Climate Adaptation Master Plan & Integrated Water Resources Plan \(https://www.mwdh2o.com/how-we-plan/\)](https://www.mwdh2o.com/how-we-plan/)

F2 – CLIMATOLOGISTS PREDICT FUTURE EXTENDED PERIODS OF LOW MOISTURE WITH OCCASIONAL WET YEARS.

RESPONSE: Agree with this Finding

MWDOC agrees with this finding. The final installment of the Intergovernmental Panel on Climate Change's (IPCC) 6th Assessment Report was released on March 20, 2023. This was an 8-year long undertaking from the world's most authoritative scientific body on climate change. It summarizes the findings from 234 scientists on the physical science of climate change; 270 scientists on impacts, adaptation, and vulnerability to climate change; and 278 scientists on climate change mitigation. To date, this is the most comprehensive and best available scientific assessment of climate change.

Some of the more relevant findings from the IPCC 6th Assessment Report for Orange County are included in the 2023 OC Reliability Study, but one set of IPCC findings in particular addresses Orange County Grand Jury's Finding 2: Changes in precipitation and intensity will vary in North America. The IPCC findings indicate that there is a high confidence that total precipitation will increase somewhat for the northern half of North America, and medium confidence that it will decrease somewhat in parts of the western and southwestern United States. Further, the IPCC 6th Assessment report indicates a greater fraction of precipitation is expected to occur as "intense events" such as those caused by atmospheric rivers.

F3 – CLIMATE CHANGE IS INEVITABLE AND IS EXACERBATED BY HUMAN BEHAVIOR.

RESPONSE: Agree with this Finding

MWDOC agrees with this finding. **Concurrent findings from the IPCC 6th Assessment Report address Orange County Grand Jury's Finding 3: "Human activities have warmed Earth's climate by more than 1°C since the late 19th century, and the effects on our climate are unprecedented"** (IPCC 6th Assessment Report – The Physical Science Basis).

NASA's Global Climate Change Evidence website illustrates how the Earth's climate has changed throughout history. It additionally notes that the current warming is happening at a rate not seen in the past 10,000 years (<https://climate.nasa.gov>).

The evolving scientific understanding of climate change has been tracked since the beginning of the *OC Reliability Studies*. From the studies' commencement in 2014 through the update in 2023, the latest information relevant to water supply and demand impacts to Southern California's water supply sources are incorporated.

F4 – SOUTH ORANGE COUNTY RELIES PRIMARILY ON THE IMPORTATION OF WATER.

RESPONSE: Disagree Partially with this Finding

MWDOC partially disagrees with this finding. Water agencies in South Orange County have varying degrees of dependence on imported water supplies. While the Orange County Groundwater Basin provides 85% of the drinking water supply to 2.5 million people in North and Central Orange County, South Orange County with its 600,000 residents relies heavily (approximately 80%) on imported water from MWDOC purchased through Metropolitan. ~~The Orange County Groundwater Basin provides 85% of the drinking water supply to 2.5 million people in North and Central Orange County. Conversely, eight retail water agencies deliver drinking water to the remaining 600,000 residents and businesses located in South Orange County.~~ Further, this portion of the county is heavily (approximately 80%) dependent on imported water, which MWDOC purchases through Metropolitan for their drinking water supply. Refer to Attachment 1 for map of MWDOC's water service area.

With recent advancements in technology and significant financial investments, South Orange County water agencies have made great strides in diversifying their water supply portfolios. The region continues to work together

to develop numerous local water supply projects to bolster water reliability. South Orange County can now meet approximately 20% of their demands through local water supply production.

Moreover, there are several additional local projects recently completed and more under development in South Orange County that will further expand and diversify the region's water supply portfolio. These include:

Project Type	Project name(s)
Recycled Water Expansions	El Toro Water Recycling Plant; San Clemente Recycled Water Expansion Project; Lake Mission Viejo Advanced Treated Water Facility; Los Flores Recycled Water Expansion Project
Ocean Desalination	Doheny Ocean Desalination Project
Storage Project	Trampas Reservoir; Gobernadora Basin; Upper Chiquita Reservoir
Groundwater Supply Production	Ranch Water Filtration Plant; San Juan Creek Watershed Project; South Coast Water District Groundwater Recovery Facility
Stormwater Capture	Aliso Creek Water Reclamation Facility

Furthermore, Orange County water agencies have some of the most robust water use efficiency programs in Southern California.

F5 – LOCAL WATER SUPPLIERS RECOGNIZE THAT ENHANCED STORMWATER CAPTURE AND STORAGE, WASTEWATER RECYCLING, AND INFRASTRUCTURE IMPROVEMENTS WILL NOT BE SUFFICIENT TO ADDRESS THE LONG-TERM FORECAST OF DROUGHT AND ITS EFFECTS ON SUPPLY.

RESPONSE: Disagree Partially with this Finding

MWDOC partially disagrees with this finding. Stormwater capture at Prado Dam and along the Santa Ana River by Orange County Water District (OCWD) essentially captures 100% of the stormwater in most years and percolates the water into the Orange County Groundwater Basin for access by overlying water entities. Much of the runoff in San Juan Creek in South Orange County is also percolated into the groundwater basin. A project to examine additional capture through the use of inflatable rubber dams was put on hold due to the costs and challenges associated with accommodating potential fish passage.

~~Local supplies are not solely enough,~~ It has long been recognized that there is a need for a robust water portfolio that includes imported supplies, new local supply development, and water use efficiency measures. To ensure the continued reliability of Southern California's regional water supplies, Metropolitan in collaboration with its member agencies are is developing a Climate Adaptation Master Plan for Water, a roadmap that will guide future capital investments and a business model to confront the new climate reality in the years and decades ahead. The 2023 *OC Reliability Study* recommends a policy position of an “all-of-the above” strategy that continues to advocate for water use efficiency and water supply projects at the local and regional level to meet future demands. While Metropolitan and MWDOC typically play a critical role in supporting the success of local projects, ultimately, each local water agency determines the types of projects and actions based on what is best for their local needs.

The continued performance and availability of both local and imported supplies are impacted by many factors which can impede supply development and production. Such factors can include funding, water contamination, changing regulatory requirements, urban development (which increases the amount of impervious surface), and climate



El Toro Water District
Recycled Water Expansion

change. At the same time, the region has made substantial gains in supply and infrastructure reliability projects as well as storage development.

MWDOC does agree that new sources of supply are needed, and those new supplies should consist of a diversified portfolio of water supply projects. Future demands will not only be met by the development of local supplies, continued water use efficiency actions, but also by optimization and enhancements to imported supplies managed by Metropolitan. Metropolitan has positioned its supply portfolio with various supplemental imported supplies that can be called upon under dry conditions. These include mutually beneficial contractual partnerships with the agricultural community, which uses 70% of the state's developed water supply, to secure water during dry conditions through temporary fallowing programs, exchanges, and market-based water transfers. These voluntary arrangements have provided Metropolitan the ability to enhance its current portfolio of State Water Project water and Colorado River water during critical periods.

The region has and will continue to invest in groundwater storage to provide wet year storage and dry year recovery. Current and future climate conditions will likely result in multiple dry years contrasted with less frequent extraordinarily wet years, such as the 2022-2023 water year, where substantial supplies are available. Managing through these climate extremes through more storage will help balance wet and dry periods. At the end of this calendar year, Metropolitan will have more water in storage than at any time in its almost 100-year history.

F6 – THERE IS SIGNIFICANT WATER INFRASTRUCTURE PLANNING, BUT INADEQUATE IMPLEMENTATION.

RESPONSE: Disagree Wholly with this Finding

The 2023 Orange County Grand Jury report lacks specific evidence or examples of the inadequate implementation of water infrastructure projects. The Orange County water community has successfully planned and implemented numerous water supply and infrastructure reliability projects ranging from water recycling, potable system emergency interconnections, groundwater and surface water treatment, water transmission infrastructure, surface water storage, and others. Refer to Attachment 2 for a graphical representation of Orange County water supply sources.

Orange County is well recognized for its forward-thinking approach to water resource management and execution of both innovative and timely water infrastructure projects.- This includes state-wide leadership in water recycling and conjunctive use of groundwater storage with local and imported sources of surface water, and potable reuse of wastewater.

Orange County's water infrastructure network is vast and well-developed and has advanced the development and utilization of multiple new sources of water.

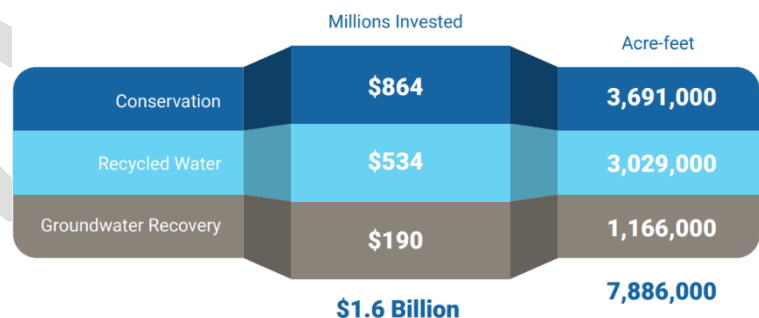
A sample of water supply projects implemented by Orange County water agencies includes:



Santa Margarita Water District Trampas Canyon Dam and Reservoir

Project Name	Multi-Agency	Reuse	Stormwater	Storage	Distribution
OCWD Groundwater Replenishment System (GWRS)	X	X	X	X	
Anaheim Lakes and Santiago Pits Recharge facilities			X	X	
Irvine Lake			X	X	
Baker Water Treatment Plant	X				
Baker Pipeline	X				X
Michelson Water Recycling Plant		X			
Los Alisos Water Recycling Plant		X			
JB Latham Water Reclamation Plant		X			
Regional Water Reclamation Plant		X			
Coastal Water Reclamation Plant		X			
Oso Reservoir		X		X	
San Joaquin Reservoir		X		X	
IRWD Natural Treatment System			X		
Santa Ana River Conservation and Conjunctive Use Program (SARCCUP)	X		X	X	
Allen-McCulloch Pipeline	X				X
South County Pipeline	X				X
East Orange County Feeder No. 2	X				X
South County Joint Transmission Facilities					X

All future water supply projects undergo financial scrutiny and comparison to available options to determine which projects best balance factors including environmental, financial (both affordability of project costs and the capacity to maintain and enhance local economic sustainability), quality of life, and the human right to water. Pursuing collaborative cost-sharing partnerships and the promotion of affordability initiatives are also evaluated as we make the necessary investments to adapt Southern California's water infrastructure to the challenges of the 21st century. To date, Metropolitan has invested \$1.6 billion for conservation, recycled water, and groundwater recovery projects, resulting in 7.9 million acre-feet of supply regionally. Specifically, Metropolitan's Local Resources Program provides incentives for member and local agencies to develop new local projects, such as water recycling and groundwater recovery. Metropolitan has provided financial assistance to more than 100 projects across Southern California. By providing direct funding based on how much water projects produce, the program has significantly increased their economic viability.



F7 – THE REVIEW AND APPROVAL PROCESS FOR MAJOR WATER CAPITAL PROJECTS IS CUMBERSOME AND OVERLY RESTRICTIVE.

RESPONSE: Agree with this Finding

MWDOC agrees with this finding. On a state-wide level, projects like the Delta Conveyance Project and Sites Reservoir have struggled with implementation.

On May 19, 2023, Governor Newsom announced the state's most ambitious permitting and project review reforms in a half-century to build California's clean energy future. The measures will facilitate and streamline project approval and completion to maximize California's share of federal infrastructure dollars and expedite the implementation of projects that meet the state's ambitious economic, climate, and social goals.

Through unprecedented investments over the past two state budgets, as well as funding from the federal Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA), California will invest up to \$180 billion over the next decade in clean infrastructure, which will create 400,000 jobs while helping meet the state's climate goals.

By streamlining permitting, cutting red tape, and allowing state agencies to use new types of contracts, these proposals will maximize taxpayer dollars and accelerate timelines of projects throughout the state, while ensuring appropriate environmental review and community engagement.

Governor Newsom also signed an [executive order](#) to set up a strike team to accelerate clean infrastructure projects across the state by implementing an all-of-government strategy for planning and development.

The legislative package and executive order will:

- **Speed Up Construction:** Current construction procurement processes drive delays and increase project costs. The Governor's proposals include methods to offer a streamlined process for project delivery to reduce project timeframes and costs.
- **Expedite Court Review:** Legal challenges often tie up projects even after they have successfully gone through environmental review. These proposals would authorize expedited judicial review to avoid long delays on the back end and advance projects without reducing the environmental and government transparency benefits of CEQA.
- **Streamline Permitting:** Makes various changes to California law to accelerate permitting for certain projects, reducing delays and project costs.
- **Address cumbersome CEQA processes across the board:** Streamlines procedures around document retention and review.
- **Maximize Federal Dollars:** Establish a Green Bank Financing Program within the Climate Catalyst Fund so that the state can leverage federal dollars for climate projects that cut pollution, with an emphasis on projects that benefit low-income and disadvantaged communities.

While this is a step in the right direction, more work needs to be done for millions of Californians to benefit from a broad, statewide Water Resilience Portfolio approach to safeguard a vital source of affordable water. Governor Newsom has prioritized Delta conveyance as part of the state's Water Resilience Portfolio, a plan to ensure California has a reliable water supply for future generations in the face of climate change and other challenges.

F8 – FAILING TO FIND SOLUTIONS TO WATER SHORTAGES WILL HAVE A SIGNIFICANT IMPACT ON THE ORANGE COUNTY ECONOMY.

RESPONSE: Disagree Partially with this Finding

MWDOC partially agrees with this finding. As a wholesale water supplier and resource planning agency, MWDOC's efforts focus on sound planning and appropriate investments in water supply development. The economic impacts of water shortage are a driving factor to continue planning, finding solutions, and minimizing impacts. It is MWDOC's primary mission to provide reliable, high-quality supplies to meet present and future needs, at an equitable and economical cost.

In 2021, MWDOC initiated an economic study to determine the value of water by estimating the economic impacts of water shortages. MWDOC's *Economic Impacts of Water Shortages in Orange County* report determined that sudden water shortages could result in financial impacts to the Orange County economy, only if there was a future

where water agencies fail to ensure water reliability. For this reason, to safeguard against this possibility, agencies continue to make investments in a diversified water supply portfolio (e.g., reuse, water transfers and banking, groundwater/surface water conjunctive use, desalination, and water use efficiency).

[Link to: The Economic Impacts of Water Shortages in Orange County \(https://www.mwdoc.com/water-education/reports-studies/\)](https://www.mwdoc.com/water-education/reports-studies/)

F9 – CONTINUED DEVELOPMENT IN ORANGE COUNTY CREATES ADDITIONAL WATER SUPPLY NEEDS.

RESPONSE: Disagree Partially with this Finding

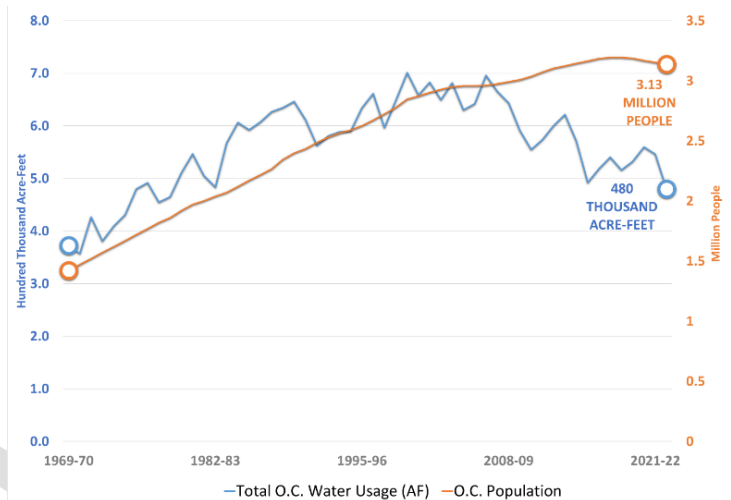
MWDOC agrees partially with this finding. Population growth and water demands (in large part due to tremendous strides in efficiency) are far less than once predicted. Furthermore, the 2023 Orange County Grand Jury report also does not distinguish between development and re-development, which in some cases uses less water than the development it is replacing due to changed land use types and contemporary efficiency measures.

MWDOC is required by state law to incorporate future development and its associated demands into its mandated Urban Water Management Plan (UWMP) every five years. The information and demand/supply analyses contained within this comprehensive plan is coordinated with demographers at the Center for Demographic Research at Cal State Fullerton and the region's development planner the Southern California Association of Governments (SCAG), as well as with Metropolitan and Orange County retail water agencies.

As noted in the 2020 UWMP, North Orange County is predominately built-out and development is in the form of re-development infill. In contrast, South Orange County has potential for new development, with vacant areas gradually transitioning to residential and commercial mixed-use areas. MWDOC and its member agencies work with the local permitting agencies to ensure that local planning information is incorporated into long-range water resources planning by assessing that there are adequate water supplies to meet future demands for the 25-year planning horizon.

As the local permitting agencies, Orange County cities plan for the additional development within their local jurisdictions. Additionally, because of stringent water use standards in place for new development state-wide, MWDOC expects future development to have less of an impact on total water demands than has historically been the case.

[Link to: MWDOC 2020 Urban Water Management Plan \(https://www.mwdoc.com/your-water/water-supply/urban-water-management-plan/\)](https://www.mwdoc.com/your-water/water-supply/urban-water-management-plan/)



F10 – CONSERVATION AND EFFICIENT USE OF WATER IS ESSENTIAL.

RESPONSE: Agree with this Finding

MWDOC agrees with this finding. Conservation and efficient use of water has been underpinned as critical and one of many tools for a comprehensive long-term water supply reliability strategy. Metropolitan and MWDOC

administer regional conservation programs and co-funds retail agency conservation programs designed to increase water use efficiency and bolster water conservation ethics.

Conservation comes from two areas of change: structural conservation which involves increases in water use efficiency, and behavioral conservation, which involves modifying consumer water-using behavior through messaging, education, pricing, and mandates. —Of these two forms of conservation, structural conservation is more permanent, very similar to the development of a core supply. —Water-efficient device retrofits, landscape conversions, plumbing codes, and leak prevention contribute to ongoing structural water savings. — Conservation device retrofits help recover storage in future years by lowering demands in all years, not only drought years.

In contrast, behavioral conservation is less permanent and can wax and wane due to various influences outside of a water agency's direct control. The integrated reliability planning recognizes water use behavior, represented by per capita water use, as a major uncertainty for regional demands over time.

MWDOC administers a robust water use efficiency program. In partnership with Metropolitan, an average of \$6.3 million in rebates and incentives have been provided to Orange County end-users for completing water efficiency projects. Additionally, MWDOC actively pursues state and federal funding. Over the last five years alone, MWDOC has been awarded more than \$8.7 million in grant funding to further support and facilitate water conservation projects in Orange County.



F11 – INCREASED OUTREACH AND PUBLIC EDUCATION ARE NECESSARY.

RESPONSE: Agree with this Finding

MWDOC presently develops, coordinates, and delivers a substantial number of programs and services aimed at elevating stakeholders' awareness about water policy, efficient water use, and the MWDOC's role in advocating for sound policy and water reliability investments that are in the best interest of Orange County. As water is a necessary resource to all life, these efforts encourage and benefit all Orange County residents and businesses, across all demographics.

Over the past decade, there has been a significant shift in the way people receive information. The media market is overcrowded and constantly evolving. The public is bombarded minute by minute with news from their phones, televisions, computers, and tablets. Traditional media has been on the decline and at the same time, digital media continues to explode. Water providers must prove themselves to be relatable, trustworthy, and essential. This is accomplished by communicating more frequently and more effectively using a wider array of tools and channels to meet the needs and interests of an extremely diverse demographic. It is important to recognize that no single communications tool or channel can fulfill all the MWDOC's identified goals and objectives. Instead, a holistic approach should be taken, utilizing all the tools in the toolbox to create a compounding and inclusive impact.

Strategic communication is an ongoing activity where the purpose, audience, message, tools, and channels may change at any given moment, however, for the most part, the overarching goals remain the same. As a result of

this, MWDOC's Strategic Communications Program and Plan must remain a living document to implement effective, relevant communication with timeliness and accuracy. This document serves as a blueprint, establishing a baseline understanding for how MWDOC's programs will provide information and value to its various stakeholders, partners, and employees; enhance the MWDOC's image; and support MWDOC's mission, goals, and objectives to secure long term water reliability for the region. We recognize that more can be done to highlight the projects, policies, and programs that water agencies have developed to help ensure the County's continued resilience and reliability. Acknowledging this opportunity, MWDOC has updated the Board's Strategic Priorities, where increased outreach and public education related to water supply reliability is both a focal point and long-term commitment.

F12 – DESALINATION HAS PROVEN TO BE TECHNOLOGICALLY AND ENVIRONMENTALLY FEASIBLE AND IS SLOWLY BEING EMBRACED AS A DROUGHT-RESISTANT SOURCE OF WATER.

RESPONSE: Agree with this Finding

MWDOC agrees with this finding. Desalination of seawater, brackish water, and wastewater are potential new sources that can be made available to mitigate uncertainties in future supplies. Desalination enables local production of high-quality, pure drinking water, as part of a portfolio of diversified supplies to address demands.

The adoption of desalination as a drought-resistant source of water has evolved. Recent technological advances have also made it more sustainable, energy-efficient, and less impactful on the environment to turn seawater into drinking water. In addition, the rising cost of treating and conveying water from other sources has made seawater desalination more economically feasible compared to other new supply alternatives.

Brackish groundwater desalination transforms previously unusable brackish groundwater supplies into high-quality drinking water by removing not only salts, but also other contaminants such as nitrates and per- and polyfluoroalkyl substances (PFAS). Improved technology to remove salt from brackish groundwater has made desalination an increasingly important tool for both augmenting water supplies and improving water quality.

The embrace of desalination in Southern California comes with its challenges and considerations. Misconceptions Apprehensions remain about the environmental impact of desalination and the potential for harm to marine life. Concerns have also been expressed regarding the energy consumption of desalination projects. Although these impacts can be and are being addressed in the planning and design of contemporary desalination projects, educating the public about the benefits of desalination, and addressing these concerns as well as cost and rate impacts is crucial for successful adoption. It is important to recognize that each project has unique considerations and benefits, based on factors such as the proposed design and technologies, size of the plant, and location. The OC Water Reliability Studies have consistently recognized the system and supply reliability benefits that the proposed Doheny Desalination Plant in South Orange County can provide, and MWDOC has played a key role in supporting the success of this project since its inception.

RECOMMENDATIONS

R1 – THE COUNTY OF ORANGE BOARD OF SUPERVISORS SHOULD TAKE A LEADERSHIP ROLE BY THE END OF CALENDAR YEAR 2023 TO EXPLORE THE ESTABLISHMENT OF A "CLIMATE RESILIENCY DISTRICT" OR JOINT POWERS AUTHORITY TO FUND AND EXPEDITE IMPLEMENTATION OF A DROUGHT-RESISTANT SOURCE OF WATER.

RESPONSE: Not required to answer per Penal Code – providing the following for information purposes

The report recommends the County Board of Supervisors explore the establishment of either a Climate Resiliency District or a Joint Powers Authority (JPA). However, the report does not provide sufficient justification, enumerate compelling benefits, or indicate what powers, authorities, and capabilities a Climate Resiliency District would

provide for the implementation of water supply implementation projects that cannot be accomplished through a Joint Powers Authority (JPA), or is not already being provided by MWDOC, OCWD or other retail water agencies in the County.

In addition, the exploration of forming a JPA for water supply projects, as optionally recommended in the report, should be undertaken by MWDOC and other water agencies in Orange County. This recommendation ignores the integrated planning efforts already undertaken by water agencies to establish long-term, comprehensive water resources strategies to provide the region with reliable and affordable water supplies. In addition to water, the water-energy nexus is an important issue that water agencies are starting to pay attention to and do more about. More water agencies now develop Climate Action Plans to identify ways to reduce carbon emissions from their procurement system and operations, etc. The Department of Water Resources also requires UWMPs to include assessments of energy usage in water supply production.

The County would not be part of a water resources infrastructure or water supply JPA because it neither has the current jurisdiction nor expertise. The establishment of a Climate Resilience District – given the fact that this type of organization has only recently been authorized by the State in September 2022 (SB 852) – is a new type of governance structure without a track record or experience. Such a district would likely not only be focused on solving water reliability issues which are challenging on their own; but would likely also need to focus on “projects that address sea level rise, extreme heat, extreme cold, the risk of wildfire, drought, and the risk of flooding”.

In short, in addition to extensive water agency issues to ensure a reliable and resilient water supply future for Orange County, this type of organization would likely have the added charges of addressing Orange County Fire Authority issues, Orange County Flood Control District issues. The scope of such a governance structure – and if it should appropriately include water supply, needs to be fully considered in order to create an environment for success.

R2 – ORANGE COUNTY WATER AGENCIES SHOULD EXPEDITE THE PLANNING, DEVELOPMENT, AND CONSTRUCTION OF DESALINATION PLANTS OVER THE NEXT FIVE YEARS TO INSURE A SUSTAINABLE AND RELIABLE DROUGHT-RESISTANT SOURCE OF WATER

RESPONSE: Will not be Implemented

Since the formation of Metropolitan Water District in 1928, Southern California has benefited from integrated water supply reliability through Metropolitan, its now 26 member agencies, and 300 local retail agencies working together. Metropolitan routinely conducts comprehensive regional planning historically through its Integrated Water Resources Plans, and now through the Climate Adaptation Master Plan for Water process.

With the Orange County Grand Jury's focus of this recommendation exclusively on ocean desalination as a local resource, it disregards the full water resources available to the County and other potentially less costly and/or easily implementable local and regional projects or programs to mitigate variations in imported water supplies such as water transfers, groundwater banking, and additional recycling through potable reuse. MWDOC suggests that each new Orange County Grand Jury interested in water issues take tours of local and regional projects, including the Colorado River Aqueduct, the State Water Project, and the Pure Water Southern California Project. We would also provide briefings on the most current information on demands and supplies, along with new climate change information.

MWDOC continues to work with local and regional water agencies on implementation planning for desalination, including the Doheny Ocean Desalination Project. This is in addition to efforts to assess options for both seawater and brackish water desalination that could serve as potential new sources that can be made available to mitigate

uncertainties in future supplies. Water desalination has the potential to provide supply reliability to southern California and Orange County through an interconnected and robust system of supplies, storage, and programs.

In the upcoming quarter, the Metropolitan Board will be considering a regional assessment of water desalination opportunities and technology. The scope of this effort will include: (1) preparing an inventory of potential seawater desalination plant sites in Metropolitan's service area; (2) assessment of permitting and regulatory frameworks that would potentially impact the potential siting of a seawater desalination plant; (3) developing an evaluation methodology for the suitability of this water supply, including consistency with Metropolitan's commitment to carbon neutrality by 2045; (4) identifying applicable water quality and regulatory requirements; (5) developing conceptual cost estimates and schedules for water produced from desalination facilities; (6) developing project implementation options that would best suit these types of facilities; (7) determining the approximate proportion and area of Metropolitan's service area that would potentially receive water from the plant; and (8) assessing the near-term potential for advances in seawater desalination technologies. Similar work is also being undertaken for potential brackish water resources. On behalf of its Orange County service area, MWDOC will coordinate with Metropolitan on the preparation of this assessment.

While ocean desalination projects such as Doheny Desalination are an important part of the future water supply portfolio for the County and southern California, an "all of the above" strategy of local and imported supplies complemented with water use efficiency is the best strategy for fulfilling future water supply needs. This includes in-County projects such as maximizing non-potable recycling and potable reuse, groundwater banking, and impaired groundwater water treatment, combined with the imported water reliability strategies being undertaken by Metropolitan.

R3 – THE COUNTY OF ORANGE AND ALL ORANGE COUNTY CITIES SHOULD FORMULATE AN EMERGENCY DEVELOPMENT MORATORIUM PLAN IN ANTICIPATION OF THE COLORADO RIVER WATER SUPPLY BEING CONSTRAINED. THE EMERGENCY MORATORIUM PLAN SHOULD BE DEVELOPED BY THE END OF CALENDAR YEAR 2023.

RESPONSE: Not required to answer per Penal Code – providing the following for information purposes

Please note that all major development projects are required to have a Water Supply Assessments under state law completed by the local water supplier to ensure the availability and adequacy of supplies before they are issued a water will-serve letter. As such, a "development moratorium plan" is premature, reactionary, and does not consider existing statutory mechanisms to limit development should water supplies be unavailable.

In identifying the potential need for a development moratorium, the 2023 Orange County Grand Jury report fails to acknowledge that Orange County recently withstood a state-wide drought emergency without physical curtailment in deliveries nor mandatory water rationing. This is in large part due to water agency's past and ongoing investments in local supply projects. Orange County has one of the most diverse water supply portfolios in southern California and there are numerous new water supply projects (south Orange County potable reuse, Doheny desalination, etc.) and storage programs (such as SARCCUP) in the planning or implementation stages.

The 2023 Orange County Grand Jury report also does not distinguish between development and re-development, which in some cases use less water than the development it is replacing due to changed land use types and contemporary efficiency measures. Additionally, every water supplier in Orange County has developed a robust response to water shortages through their Water Shortage Contingency Plan (WSCP). Water agencies have pre-determined their shortage response actions, which allows for a progressive and appropriate response to shortage conditions of 50% or greater of their supply being interrupted.

R4 – ORANGE COUNTY WATER AGENCIES SHOULD UPDATE THEIR PUBLIC COMMUNICATION STRATEGIES, BY CALENDAR YEAR END 2023, TO INFORM THE PUBLIC OF LIFESTYLE CHANGES IF ADDITIONAL WATER SOURCES ARE NOT DEVELOPED.

RESPONSE: Has been Implemented

The vast majority of Orange County water agencies and MWDOC in particular, have extensive integrated water education campaigns regarding the value of water, water use efficiency, and the sources and uses of water in the County. Preparing a public information campaign that has negative connotations regarding detrimental “lifestyle changes” that would be needed if new sources of water are not secured is speculative and completely disregards the projects that are being planned and implemented both within the County and at the Metropolitan level to ensure sufficient supplies.

MWDOC’s WSCP is a strategic planning document designed to prepare for and respond to water shortages and comply with California Water Code (CWC) Section 10632, which requires that every urban water supplier shall prepare and adopt a WSCP as part of its Urban Water Management Plan. As of July 2022, California water agencies are also required to develop and submit an Annual Demand and Supply Assessment to the state. —This level of detailed planning and preparation is intended to help maintain reliable supplies and reduce the impacts of supply interruptions.

Timely and effective communication is a critical element of each urban water supplier’s adopted WSCP implementation. Per CWC 10632 (a)(5), MWDOC has established communication protocols and procedures to inform the public, stakeholders, and local, regional, and state governments regarding any current or predicted water supply shortages as determined by the annual water supply and demand assessment. The type and degree of communication varies with each WSCP shortage level; thus, predefined, and actionable communication protocols improve MWDOC’s ability to message necessary events.

Strategic communication is an ongoing activity where the purpose, audience, message, tools, and channels may change at any given moment. In the context of water shortage response, the purpose may be an emergency water shortage such as what may result from the impacts of an earthquake or a longer-term, non-emergency shortage condition like drought. In an emergency, MWDOC will activate the communication protocol detailed in the Water Emergency Response Organization of Orange County (WEROC) Emergency Operations Plan administered by MWDOC. In a non-emergency water shortage situation, MWDOC will implement the procedures identified in the Strategic Communications Program and Plan.

The MWDOC Strategic Communications Program and Plan aligns the MWDOC’s identified goals and objectives with the respective audiences, and outlines the appropriate communications tools and channels used to connect them all together. The most current MWDOC Strategic Communications Program and Plan was revised in 2020. This living document will continue to be updated and amended as the MWDOC’s goals and objectives evolve, shift, or change. We recognize that more can be done to highlight the projects, policies, and programs that water agencies have developed to help ensure the County’s continued resilience and reliability.

In June 2023, the MWDOC Board completed identifying Strategic Priorities. Through this process seven key goals were developed:

- 1) **MWDOC’s Mission:** Clarify MWDOC’s mission and roles by defining those functions and actions that help provide cost-effective, long-term water reliability and security for its member agencies and Orange County constituents.

- 2) **Metropolitan Policy Positions:** Balance support for Metropolitan’s regional mission and Orange County values and interests, with an emphasis on completing the IRP and shaping a sustainable business model.
- 3) **Metropolitan Director Consultation:** Ensure that Metropolitan Directors regularly reach out to and collaborate with MWDOC’s member agencies to represent their interests and needs at Metropolitan.
- 4) **Reliability Planning:** Work with member agencies to develop water supply and demand objectives that take a broad view of cost-effective options to increase supply and manage demands.
- 5) **Member Agency Collaboration:** Solicit input and feedback from member agencies to support their needs and create opportunities that benefit Orange County’s water future.
- 6) **Communications:** Strengthen communications and coordination of messaging with member agencies, tailored to large and small agency needs.
- 7) **Staff Development:** Invest in workforce development and succession planning to continuously strengthen and renew MWDOC’s staff capabilities.

As part of the next step in this process, MWDOC is developing actions to achieve these goals, including an update to the Strategic Communications Program and Plan, which is expected to be completed by in Fiscal Year 2023-2024.

The effectiveness of the MWDOC Strategic Communications Program and Plan depends on a large variety of factors, including technological advancements or changes, the rise and fall of audience engagement, current news or media concentration, political changes in leadership and focus, and even the weather. MWDOC currently utilizes a robust set of Key Performance Indicators, metrics, and measurements to track the effectiveness of MWDOC’s programs, activities, and communication efforts. Through this process, the MWDOC’s programs and activities are continuously shaped and refined to remain relevant and valuable to the public, stakeholders, partners, employees, and member agencies in full support of the region’s water reliability and resilience.

Attachment 1: MWDOC's Water Service Area by Retail Agency

