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- City of Brea
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- East Orange County Water District
- El Toro Water District
- Emerald Bay Service District
- City of Fountain Valley
- City of Garden Grove
- Golden State Water Co.
- City of Huntington Beach
- Irvine Ranch Water District
- Laguna Beach County Water District
- City of La Habra
- City of La Palma
- Mesa Water District
- Moulton Niguel Water District
- City of Newport Beach
- City of Orange
- Orange County Water District
- City of San Clemente
- City of San Juan Capistrano
- Santa Margarita Water District
- City of Seal Beach
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water District
- City of Tustin
- City of Westminster
- Yorba Linda Water District

August 27, 2014

The Honorable Glenda Sanders
Presiding Judge
Orange County Superior Court
700 Civic Center Drive West
Santa Ana, CA 92701

Dear Judge Sanders,

The Municipal Water District of Orange County (MWDOC) hereby submits its required responses to the findings and recommendations in the Orange County Grand Jury report, **“Sustainable and Reliable Orange County Water Supply; Another Endangered Species?”**

MWDOC recognizes and appreciates the significant time and effort the Orange County Grand Jury invested in engaging and understanding the complex water issues Orange County is facing, and the diversified and collaborative manner in which Orange County Water Agencies work together. MWDOC staff provided substantial background information, invited the Grand Jury to regional water policy meetings and had individual meetings at their request. In addition, MWDOC escorted the Water Committee of the Grand Jury on water trips to Northern California and to the Colorado River. Overall, the 2014 Grand Jury made a substantial investment in understanding Orange County Water and the issues we are facing.

For over sixty years, MWDOC has been instrumental in the innovation, analysis, planning, coordination, collaboration and facilitation of sound water resource management. The combined efforts of the MWDOC Member Agencies have resulted in a number of local and regional reliability projects including Orange County Water District’s (OCWD) Ground Water Replenishment System and Phase One Expansion; the Irvine Regional Interconnection Project, Santa Margarita Water District’s Upper Chiquita Reservoir, Irvine Ranch Water District’s Strand Ranch Banking and Recovery Project; as well as MWDOC’s comprehensive and effective Water Use Efficiency Program. For these projects and many others, it is the integrated planning and coordination among the water agencies that ensures Orange County’s water sustainability and reliability while preserving local control and water rights protection.

MWDOC RESPONSE TO THE FOLLOWING GRAND JURY FINDINGS

As to each Grand Jury finding, the responding person or entity shall indicate one of the following:

- (1) The respondent agrees with the finding

(2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefore.

MWDOC RESPONSES TO THE FINDINGS ARE PROVIDED BELOW:

F.1. MWDOC's SOC water reliability study objective of a 30 to 60 day emergency supply from local storage will fall short, requiring between 33 and 48 MGD of additional capacity. Mitigation of this short fall may require the development of a new water source.

Disagree partially.

We believe the correct statement should have been written as: "MWDOC's South Orange County Reliability study indicates that new emergency supplies of 33 cubic feet per second (cfs) to 51cfs are required to meet either the 30 or 60 day objective of providing emergency supplies without the benefit of the import system. This is equivalent to 22 to 34 million gallons per day (mgd) of new emergency supplies." The Finding Statement seems to imply that Orange County will fall short of meeting that objective. MWDOC believes sufficient alternatives are being evaluated that the 60-day objective will be met. However, it will likely take 3 to 5 years to place these emergency supplies into place.

F.2. The BDCP is an expensive, long-term, (\$25 billion in capital and operations over 50 years) plan yet to be approved or funded project to restore the Bay Delta and improve exported water source reliability. The future effects of climate change on water allocations and the vulnerability of the dual, under delta tunnels have not been well defined and should be developed further before MWDOC allocates significant resources to its implementation.

Disagree.

Characterizing the Bay Delta Conservation Plan (BDCP) as an expensive proposition is not entirely correct. While the program will cost \$25 billion or more, the cost of water reliability secured by the project is reasonable and affordable compared to (1) other feasible alternatives, and (2) the "no project alternative" (i.e., no action).

Without substantial investments for a Bay-Delta solution, it is likely that Southern California would be forced to undertake the entire burden of developing more than one million acre feet (AF) of new water in addition to the amount already projected. This would be even more expensive than pursuing the BDCP and would result in large stranded investments by Southern California for the prior State Water Project investments. MWDOC remains concerned about securing strong

assurances for the reliability of supplies out of the BDCP system, but realizes this statewide investment of many parties involves balancing, trust and adaptive management in order to meet future water resource needs. We believe The BDCP is the best opportunity we have to implement an effective solution for the delta problems. The cost of water “not lost” from inaction and delay has been estimated at \$800 to \$900 per AF including the cost for delivery and treatment to Southern California. While the project cost is large, the result would be one of our lowest cost supplies. We believe the opportunity should be strongly endorsed.

F.3. Most of the local and County water sources have been developed and optimized. Some additional capture of ground water and recycling of municipal waste water is in various stages of planning and execution, but these options are progressively more expensive to execute and, by themselves, are not game changers.

**NOTE: MWDOC IS NOT REQUIRED TO RESPOND TO THIS FINDING
Disagree.**

The statement implies that development of local supply options in Orange County are exhausted. That is not the case. We do not believe there is a “single bullet game-changer” and reliability improvement will require a portfolio of local and regional efforts. Options include projects to expand recycling, improve the flexibility of local supplies and consider other sources of imported water into the region. In addition, new investments will be required in imported water from Metropolitan Water District of Southern California (MET) which contributes heavily to Orange County’s supply reliability. We would note that potential expansions of water recycling by OCWD via its Groundwater Replenishment System could reach 170 mgd (this is 90 mgd over what is being recycled today for replenishment into the groundwater basin. We would also note that the Grand Jury Report did not include the potential for Direct Potable Reuse of water in Orange County that could open up other opportunities.

F.4. OC water quality is widely and frequently monitored by both wholesalers and retailers and, in general, is well within the State standards. Some wells have been contaminated with seawater or industrial chemicals and are either capped or the water is treated on site. All wells and transfer interfaces are frequently monitored for water quality.

Agree

We note that OCWD has provided protection for the groundwater basin from seawater intrusion by management of the basin and

injection of Groundwater Replenishment supplies. Water quality reports are distributed annually by the County's retail water agencies demonstrating compliance with State water quality standards and testing results.

F.5. The largest, yet to be developed source of local water is the Pacific Ocean. Two OC Ocean desalination projects are being evaluated by regulatory agencies and OC water district; Poseidon's 50 mgd Huntington Beach project and the MWDOC's Doheny Coastal Ocean Desalination Project rated at 15 mgd potable/15 mgd barrier injection at Doheny Beach.

Agree partially

Supplies from ocean desalination of more than 100 mgd could be developed in the Orange County area. However, we would also note that new water recycling in OC could equal or surpass that level of development.

F.6. The MWDOC imported water supply source and transport infrastructure has been greatly improved, but it is vulnerable to several major events outside of their control. These include flooding or a large earthquake in the Bay Delta which could collapse levees. Quakes could also damage critical infrastructure such as conveyance piping, water treatment plants and pump stations. Contamination of Bay Delta intakes due to the seawater infiltration is a possibility; some say it's likely. Long periods of drought could also result in the depletion of major State reservoir storage which is currently at 50% or less of annual average capacity.

Agree

MWDOC will perform a county-wide reliability study this fiscal year. This study will quantify the improvements in reliability achieved in the past decade, reexamine reliability goals, quantify the risk of potential scenarios and evaluate potential projects and solutions. In addition, as illustrated by the ongoing drought, additional investment in storage projects is necessary on a statewide basis.

F.7. The local OC water supply is less vulnerable to major events because of a number of innovative retail water supplier and OCWD efforts. The primary focus has been on large waste or surface run-off water reclamation, increased winter and emergency storage, conservation and rate pricing strategies, preventative maintenance, back-up and redundant equipment, and a large number of interconnections between district distribution pipelines.

NOTE: MWDOC IS NOT REQUIRED TO RESPOND TO THIS FINDING

Agree

However, the economic health and growth of Orange County will require additional improvements.

F.8. The imported water supply is less vulnerable to earthquakes and long term drought because of a number of recently completed projects such as:

- 1. Increasing southern California reservoir storage about doubled over the last 10 years and is currently at about 5.5 MAF (million acre-feet, an acre under one foot of water).**
- 2. Upgrading the Diemer imported water treatment plant seismic design.**
- 3. Developing the Diamond Valley reservoir and connecting pipeline to store Colorado River (COR) and State water for emergency use-note that transport piping does not cross the San Andreas Fault and should be less vulnerable to quake caused catastrophic failures.**
- 4. Adding ozone treatment at three water treatment plants for disinfecting potable water.**
- 5. Implementing an extensive conditioned maintenance program for mechanical and electrical equipment including the ability to fabricate, transport and install large diameter pipe spool pieces to repair damaged sections of piping.**
- 6. Negotiating transfer agreements with Imperial and Central Valley agricultural districts for water exchanges and transfers during surplus wet years.**

Agree

We would additionally note that much of the water out of MET's storage system still needs to be delivered into Southern California; vulnerability to major earthquakes represents a large exposure for the reliability of the imported supplies. Metropolitan Water District of Southern California is conducting work on alternative delivery options and options to speed recovery efforts in the event of seismic events. Additional work still needs to be completed to examine how best to deliver water either in the absence of certain facilities and/or to examine how best repairs and restoration of partial or full operation can be achieved during emergency operations. The Department of Water Resources is also examining critical facilities for the State Water Project delivery system.

F.9. Permitting large water infrastructure construction projects consumes many years, and cuts across many agencies and jurisdictions. Permitting issues are frequently used by stakeholder special interests to manipulate outcomes that are not always consistent with the public's greater good.

Agree.

F.10. The San Diego County Water Authority (SDCWA) has geological, demographic and water import issues which are similar to SOC. They are pursuing similar conservation and storage projects, but have also committed to water purchases from a large, 50 Mgd desalination plant located in Carlsbad to achieve a more diverse, local water portfolio. Their interest in seawater desalination has primarily been driven by an imported water curtailment of 50% in 1991. It has taken over 10 years and significant public involvement to obtain regulatory approvals. SDCWA has also completed a conceptual engineering study of the feasibility of locating a second large desalination plant at the Camp Pendleton Marine Base. The Grand Jury recognizes that it lacks jurisdiction over the San Diego Water County Water Authority, but makes the finding merely to demonstrate the complexity of desalination projects and length of time needed for regulatory approval is similar to Orange County. The Grand Jury believes that coordination and advocacy between water districts would be beneficial.

Agree

We would also note that there are differences between Orange County and San Diego County, primarily based on the level of local resources available to each (50% in Orange County and approximately 17% in San Diego County, not counting the Carlsbad Project). This results in somewhat of a different approach in decision-making with respect to water resources. Orange County is watching the development of the Carlsbad Project, especially with respect to any lessons learned that can be applied to Orange County.

MWDOC RESPONSE TO THE GRAND JURY RECOMMENDATIONS

As to each Grand Jury recommendation, the responding person or entity shall report one of the following actions:

- (1) The recommendation has been implemented, with a summary regarding the implemented action.
- (2) The recommendation has not yet been implemented, but will be implemented in the future, with a time frame for implementation.
- (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a time frame for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed,

including the governing body of the public agency when applicable. This time frame shall not exceed six months from the date of publication of the Grand Jury report.

(NOTE: THIS ESSENTIALLY REQUIRES ALL WORK TO BE COMPLETED BY JANUARY 1, 2015)

MWDOC RESPONSES TO THE RECOMMENDATIONS ARE PROVIDED BELOW:

R.1. MWDOC and OCWD should assemble and finance a strong inter-agency (OCWD, MWDOC, and select retailers) advocacy group to drive the final permitting and construction of several large scale seawater desalination plants with the objective of significantly accelerating the process and shortening project schedules. (F.1. through F.6.), (F.10.)

The recommendation has not yet been implemented

OCWD is working on a financing analysis of the Poseidon Project which will provide useful information by September 17, 2014. A Water Reliability Study is being started in Orange County by MWDOC at this time and should have preliminary information available beginning in January 2015, which will help with upcoming decisions on the Poseidon Project. MWDOC, OCWD and the retailers have been working on the Poseidon Huntington Beach Project which is in the last stage of permitting. Following the permitting phase, the project will be evaluated for implementation; we believe this will occur no later than the first half of 2015 calendar year. At that time, a decision whether to proceed with implementation of the project will occur. We also believe a decision will be made in the next few years with respect to the Doheny desalination project moving forward with a permitting decision several years away.

Proceeding with a number of ocean desalination projects will require successful permitting working in conjunction with State Water Resources Control Board and Coastal Commission. MWDOC is currently working with Association of California Water Agencies, State Water Resources Control Board, CalDesal and other organizations to expedite and resolve intake and brine discharge issues.

We believe the San Diego County Water Authority Ocean Desalination Projects within Camp Pendleton will take longer to mature to a point of decision-making. This could take a number of years. Previous analyses have indicated additional conceptual costs of approximately \$500 per AF to be added to the cost of the San Diego projects to account for the cost of conveying this water back into Orange County. Details are yet to be developed.

With respect to the recommendation, we feel there are more issues to be evaluated with these types of projects rather than simply driving “the final permitting and construction of several large scale seawater desalination plants”. The questions include:

- How the project is developed, financed and implemented?
- Who takes on the risks for the project?
- Who ultimately pays for it?
- The benefits need to be quantified and compared to alternative projects?
- For the San Diego desalination projects, what are the additional costs to be incurred to convey the water north into Orange County?
- Are these the most cost effective projects for Orange County?

For example, it may be more advantageous for the local agencies to take an equity position in the project rather than just purchasing water from Poseidon. It may also be a project that is best developed by Metropolitan Water District of Southern California because of their role as the regional water provider. Until such time as the permitting and costs have been estimated, these decisions remain to be answered. MWDOC is initiating a process to help answer these types of questions (the OC Water Reliability Study). The earliest information would begin to be available is in the first part of 2015.

R.2. MWDOC and OCWD should work with legislators, contractors, other stakeholders, and the regulatory agencies to streamline and accelerate the large infrastructure permitting process. The goal should be the development of a one-stop agency capable of representing and adjudicating conflicting or overlapping agency permit requirements. (F.9.), (F.10.)

The recommendation requires further analysis

MWDOC has had the goal of streamlining the permitting process for some time and has held workshops on the topic to engage community leaders and policy makers. Most recently, MWDOC worked with the Public Works Coalition and the Association of California Water Agencies to draft and submit input for State legislative consideration. In the last year, the legislature considered only relatively minor changes from a number of options submitted, although there were a number of legislative bills proposed. Work on this topic continues, but there is no clear path forward or even agreement on changes that might be considered. The timeline for this is unknown and very unlikely due to environmental opposition to changing California Environmental Quality Act (CEQA).

(NOTE: DOES NOT MEET THE TIMING NEEDS)

R.3. MWDOC and OCWD should develop an interconnection process flow network diagram connecting all relevant OC agencies (City, County, and MET) and use it to investigate the impact of —what-if scenarios (various emergency outages due to failed wells and pumping stations, damaged piping, etc.) which could impact local district water supplies. Close coordination of resources and plans is necessary to integrate the local OC water infrastructure. (F.7.)

The recommendation has been implemented, but not necessarily in the format suggested

MWDOC and WEROC have completed a significant amount of emergency planning in Orange County as has Metropolitan Water District of Southern California. Combined with the retailers, we have a good collective understanding on the production and movement of water during normal operations and under emergency operations as they have been hypothesized and evaluated. Updates to prior work will be made as part of the OC Water Reliability Study and additional work is always helpful in preparing for emergency situations.

Earthquakes and power outages are our biggest risks. MWDOC is in the process of collecting and analyzing the capability of the water system to operate in the absence of the electrical power grid and to develop a refueling plan to keep emergency generators running. The ability to secure fuel at various locations when the grid is out is a recently identified need. The results of this study effort will likely result in additional recommendations for emergency capabilities in Orange County. This effort is expected to be completed prior to January 2015.

R.4. MWDOC should continue to monitor and support the BDCP, but a favorable resolution of water supply allocations and tunnel vulnerability issues is required before significant resources should be expended. (F.2.), (F.8.)

The recommendation has been implemented

MWDOC is on record as supporting the BDCP via adoption of a Resolution of Support for the BDCP in April 2014 and submittal of comments and support for the BDCP Alternative #4 in our BDCP Comment Letter of July 24, 2014 on the EIR/EIS. The BDCP is a critical investment to protect against further water supply losses from the State system. It will be incumbent on MWDOC and those with interests in the BDCP to apply pressure to ensure the project is implemented appropriately, including development of more reliable supplies.

We have reviewed several presentations on the tunnel design for the prevalent conditions which indicate a highly reliable system that does not cross any major faults and has short sections that allow some

movement without failure. Our understanding is that the tunnel design is the preferred alternative because it is the least risky water delivery route in the event of seismic activity in that region.

We believe the Bay Delta solutions have been researched and studied sufficiently and that the BDCP is the best option we have explored for almost 100 years. It is important to note that in addition to the fifteen alternative options provided for consideration in the BDCP, there have been over seventy other alternative researched, study and considered since the early 1930's. The issues in the Bay Delta are not new, but the urgency to address them in a comprehensive co-equal manner has become critical. The time and resources to study the Bay Delta are over, it is time to build water reliability into the long term solution of the Bay Delta and we believe alternative 4, the tunnels, is the best option.

R.5. MWDOC and OCWD should consider merging into a single wholesale agency to better evaluate, coordinate, and integrate more complex strategies involving the allocation and distribution of ground and imported water under emergency and climate change impacts. This merger would facilitate the implementation of Recommendations 1-4. (F.1.), (F.4.), (F.6.)

The recommendation requires further analysis

Over the past year, MWDOC and OCWD held a number of meetings regarding consolidation of the two agencies. Considerable time and effort was spent on:

- Developing principles for consolidation including that the overriding basis for consolidation decisions is "the best interest of the citizens of Orange County," the best management of regional water resources and the most effective and efficient organizational structure.
- It was also agreed that:
 - The consolidation would not change existing groundwater or surface water rights.
 - Existing financial liabilities would remain with the currently responsible agencies.
 - The rights and representation of the Three Cities (Anaheim, Fullerton and Santa Ana) would not change. They would retain their status, seats and voting power as MET member agencies.
 - The initial and subsequent Board of Directors would be elected from defined geographic divisions (except for the Directors appointed by the Three Cities).
 - Divisions would be independently developed to reflect the "community of interest" being the retail water service boundaries to the maximum extent possible.
 - The total number of Directors would be reduced from 17 existing combined total of the MWDOC and OCWD

boards to 11. The general preference would be for a Board with 8 elected directors, plus the 3 directors from the Three Cities, for a total of 11 directors. The preference is for all elected directors to vote on all matters.

- The Three Cities would each retain one Director.
 - The consolidation will require state legislation.
 - The existing legislative powers of both MWDOC and OCWD should be maintained in the new legislation. Powers should not be increased or decreased.
- The MWDOC Board also approved in their Principles of Consolidation that the consolidated entity should be:
 - A new organization, with elected directors selected via a “consolidating election” (no incumbents appointed)
 - Formed under a new legislative act
 - Organized with a new name.
 - The OCWD Board did not agree with these final three points.
 - Several financial issues were identified in the discussions which led to the conclusion that the merger of the two organizations would NOT result in significant cost savings and may actually increase the costs to carry-out the functions of both entities.
 - There would be significant transactional costs to the consolidation and a myriad of consolidation issues which would require resolution and incur costs including the retirement programs, representation, debt structure, benefit programs and salary structure.
 - It was noted that the two organizations generally work well together in carrying out their individual functions and meeting the regional water reliability needs of Orange County and resource share in several areas.

(NOTE: DOES NOT MEET THE TIMING NEEDS)

Sincerely,



Larry D. Dick
President