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10 Attorneys for CITY OF BRENTWOOD

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12 BEFORE THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

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14 In the matter of 2016 SWRCB Hearing re  
15 CalWaterFix Petition for Change

**TESTIMONY OF CHRIS EHLERS**

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1 **I. BACKGROUND AND QUALIFICATIONS**

2 1. I presently hold the position of Assistant Director of Public Works for the City of  
3 Brentwood. As part of my duties, I oversee the operations of five divisions: water, wastewater,  
4 solid waste, street maintenance and fleet/facilities maintenance. I attended California State  
5 University, Sacramento, where I completed the water program. I have a Grade V Water  
6 Treatment license (No. 19477) and a Grade V Water Distribution license (No. 7951), and I have  
7 worked in the field of water and wastewater management for more than 23 years. I have worked  
8 for the City for over 12 years and I have been in charge of the City's exercise of its water rights,  
9 the deliveries of water to the City's water treatment plant, and the interaction between the City's  
10 water treatment and delivery system and the City's wastewater treatment plant and its operations.

11 2. As Assistant Director of Public Works, I am responsible for water quality and  
12 quantity for the City. During my tenure at the City, I have worked with the Contra Costa Water  
13 District (CCWD) on many agreements for treatment and conveyance of water for the City. The  
14 City currently has a capacity right with CCWD in facilities such as the Contra Costa Canal and  
15 the Randal Bold Water Treatment Plant.

16 **II. GENERAL INFORMATION ABOUT THE CITY OF BRENTWOOD**

17 3. The City of Brentwood is located about 55 miles east of San Francisco and so is  
18 within the far Eastern Contra Costa County region of the San Francisco Bay Area. The  
19 community has a long history in agriculture and farming production. That tradition continues  
20 today even with the residential growth the City has experienced over the last several years. In the  
21 late spring and summer months, area farms are brimming with agri-tourists seeking out the latest  
22 stone fruits, corn and cherries.

23 4. The City's incorporated boundary currently totals 14.8 square miles (9,502 acres),  
24 with a sphere of influence totaling 17.4 square miles (11,129 acres) and a population of 58,764.  
25 The current General Plan has an estimated build out population in 2034 of approximately 81,000  
26 (92,336 including the sphere of influence).

27 5. The City currently delivers about 8,096 acre-feet/year of treated water to its retail  
28 customers. The City obtains about 2,541 acre-feet/year from pumping groundwater from the San

1 Joaquin Valley Tracy Groundwater Basin. In addition, the City typically obtains about 5,555  
 2 acre-feet/year of surface water by means of a contract with East Contra Costa Irrigation District  
 3 (ECCID); of that quantity, about 1,800 acre-feet/year are obtained by means of various contracts  
 4 with CCWD and delivered by ECCID.

5 6. CCWD currently operates three pump stations located on the southwest part of the  
 6 Sacramento River Delta (Rock Slough, Old River, and Middle River). Surface water diverted  
 7 directly under the provisions of the ECCID contract is diverted by CCWD on behalf of the City at  
 8 Rock Slough; surface water diverted under the provisions of contracts with CCWD is diverted by  
 9 CCWD on behalf of the City at the CCWD intakes on either Old or Middle River. Surface water  
 10 is pumped to both the City's Brentwood Water Treatment Plant and CCWD's Randal Bold Water  
 11 Treatment Plant, which are located adjacent to each other, through a series of conveyances owned  
 12 and operated by CCWD. Water obtained from the Rock Slough pump station is the least  
 13 expensive, and the City has purchased a capacity right in the Contra Costa Canal for conveying  
 14 water from the Rock Slough pump station to the City.

15 7. The City has an agreement with ECCID wherein the City can purchase up to  
 16 14,800 acre-feet/year of ECCID's pre-1914 appropriative right of 50,000 acre-feet/year. That  
 17 pre-1914 appropriative water right is secured by the terms of the 1981 agreement between ECCID  
 18 and the State of California (Exhibit DWR-305) which guarantees ECCID (and its customers) an  
 19 adequate supply of water of acceptable quality for agricultural and municipal and industrial uses  
 20 within the ECCID service area (which includes a portion of the City). During the wintertime,  
 21 average demand by the City's customers is about 5 million gallons per day (MGD) while peak  
 22 summertime demand is about 18 MGD. Over the past three years, the City has complied with the  
 23 water conservation limits imposed by the State Water Resources Control Board. As of July 31,  
 24 2016, the City's cumulative water consumption is 34.5% less than 2013, well beyond even the  
 25 requirements for 2015.

26 8. The City has recognized the need to diversify its sources of water supply and to  
 27 become more efficient as a result of the recent drought. In order to diversify its water supplies,  
 28 the City is proposing to construct a modular expansion of the City's wastewater treatment plant

1 (WWTP) to increase the treatment capacity from the current average dry weather flow of 5 MGD  
2 to 7.5 MGD to accommodate population growth projected in the City's General Plan.

3 Construction activities for the Proposed Project would occur on about 4 acres within the  
4 boundaries of the WWTP, construction is scheduled to begin in 2017 and to occur over a period  
5 of approximately 24 months.

6 9. The WWTP expansion project would increase recycled water production for  
7 landscape irrigation. The increased use of recycled water would result in lower effluent discharge  
8 rates to Marsh Creek during the irrigation period (i.e., May through August) and increased  
9 effluent discharge in the low irrigation period. In this way, the City plans to use recycled water to  
10 help ensure constant levels of discharges to Marsh Creek throughout the year, thereby helping to  
11 promote a more sustainable ecosystem.

### 12 **III. EFFECTS OF THE WATERFIX ON THE CITY OF BRENTWOOD**

13 10. In 2014, the City hired Exponent Inc. to provide scientific modeling and analysis  
14 in the Sacramento River Delta. City staff have been working with Dr. Susan Paulsen in  
15 identifying water quality impacts on the City's water supply should the California WaterFix  
16 project (WaterFix) be constructed.

17 11. It is my professional opinion that WaterFix would interfere with the City's water  
18 and wastewater operations in three different ways. First, the degradation in water quality at the  
19 City's intake, which is described in Dr. Susan Paulsen's testimony, would have the effect of  
20 interfering with the City's ability to meet the terms of its waste discharge requirement (WDR) for  
21 the City's wastewater treatment plant. Currently the Regional Water Quality Control Board,  
22 Central Valley Region, has imposed an effluent limitation on the City's WWTP discharge of 344  
23 mg/l of chloride. As the manager responsible for permit compliance for that WWTP, it is our  
24 experience that when the City diverts water that has a concentration of chloride greater than 150  
25 mg/l, we are unable to comply with our WDR permit terms. At present, as shown in Dr.  
26 Paulsen's testimony, such exceedances only occur during dry and critical years, and the Regional  
27 Board has made allowances for those exceedances (even though we have still had to pay fines for  
28 the exceedances). But, as shown in Dr. Paulsen's testimony, if the WaterFix were to be

1 implemented, the number of days each year where chloride levels exceed 150 mg/l at the Contra  
 2 Costa Canal Pumping Plant #1 (our primary point of diversion) would be significantly greater. In  
 3 this way, the WaterFix project would interfere with our WWTP's ability to comply with its WDR  
 4 and so would injure the City's water rights, as we reasonably relied on the existing water quality  
 5 before building our WWTP.

6 12. Second, as shown in Dr. Paulsen's testimony, the operation of the WaterFix is  
 7 likely not to meet the municipal and industrial water quality objectives contained in Water Right  
 8 Decision 1641 as often as they are met now. Those objectives are the foundation for the City's  
 9 water resources management, as the City has reasonably believed that the State Water Resources  
 10 Control Board would – in all circumstances save a dire drought – enforce those water quality  
 11 objectives in order to protect human health and the environment in the Delta. If water quality at  
 12 the City's intakes is degraded in the manner described in Dr. Paulsen's report, the City would  
 13 have two choices. First, the City could opt to use the degraded water and incur the additional  
 14 treatment costs for potable deliveries (which would require the construction of a new water  
 15 treatment plant) or to incur the fines and penalties (as well as or in addition to additional  
 16 treatment costs) from the poorer-quality wastewater discharges into the Delta. Based on my  
 17 experience, the cost of the first option would be in the tens of millions of dollars plus additional  
 18 annual operational costs in the millions of dollars for power and off-haul of brine, and such a  
 19 project is not included in the City's Capital Improvement Program. The cost of the second option  
 20 would be the amount of the fine imposed by the Regional Water Quality Control Board if the  
 21 City were not able to meet its discharge standards. Under California law, the Regional Water  
 22 Quality Control Board has authority to fine the City \$10,000/day and \$10/gallon for the City's  
 23 discharges that fail to meet applicable standards. It is entirely possible that such fines could be in  
 24 the millions of dollars. Under these circumstances, the WaterFix project would effectively compel  
 25 the City to construct a new water treatment plant.

26 13. Third, as an alternative to building a new water treatment plant, the City could opt  
 27 to purchase additional water from CCWD, presumably water that would be delivered through the  
 28 new proposed inter-tie between CCWD and the WaterFix tunnels on Victoria Island or East Bay

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1 MUD's Freeport Regional Water Project. This option would be acceptable in terms of water  
2 quality, but it would impose a very large cost on the City. Currently, CCWD charges municipal  
3 customers \$656/AF for untreated water, which represents a cost of more than 36% greater than  
4 the City's existing cost to obtain treated water from its existing diversions.

5 14. In summary, the WaterFix project will disrupt the City's ability to deliver high-  
6 quality, low-cost water to our residents and businesses. The WaterFix project will also interfere  
7 with the operation of the City's WWTP and is likely to cost the City many millions of dollars in  
8 fines that would be imposed by the Regional Board. The WaterFix project would also impose  
9 many millions of dollars in additional costs for water treatment, either by the construction of a  
10 new water treatment plant or by forcing the City to obtain water of an acceptable quality from  
11 CCWD.

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