NO	1 2 3 4 5 6	MICHAEL T. FIFE (State Bar No. 203025) BRADLEY J. HERREMA (State Bar No. 2289 MORGAN R. EVANS (State Bar No. 241639) HATCH & PARENT, A Law Corporation 21 East Carrillo Street Santa Barbara, CA 93101 Telephone: (805) 963-7000 Facsimile: (805) 965-4333 Attorneys for Applicant CHINO BASIN WATERMASTER		
	7			
	8	BEFORE THE		
	9	STATE WATER RESOURCES CONTROL BOARD		
	10	STATE OF CALIFORNIA		
RATI	11			
HATCH & PARENT, A LAW CORPORATION 21 East Carillo Street Santa Barbara, CA 93101	12 13	In the Matter of Water Right Applications 31165 and 31370 of San Bernardino Valley Municipal Water District and Western Municipal Water District of Riverside	WRITTEN TESTIMONY OF TOM DODSON	
	14 15 16 17	County; Application 31174 of Orange County Water District; Application 31369 of Chino Basin Watermaster; Application 31371 of San Bernardino Valley Water Conservation District; and Application 31372 and Wastewater Change Petition WW-0045 of the City of Riverside		
	18	I. <u>INTRODUCTION</u>		
	19	My name is Tom Dodson. My curricul	um vitae is attached hereto as CBWM Exhibit 3-2.	
	20	Since 1983, I have been President of Tom Dodson & Associates (TDA), an environmental consulting firm in the City of San Bernardino. From the outset my firm has focused on preparing environmental documentation for compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) and on regulatory compliance with the federal and state requirements to protect "waters" and the state and federal Endangered Species Act and its regulations. During this period I have either authored or overseen preparation of more than a thousand environmental documents for compliance with CEQA and NEPA. In 1999, the Inland Empire Utilities Agency (IEUA, on behalf of the Chino Basin Watermaster and other stakeholders)		
	21			
	22			
	23			
	24			
	25			
	26			
	27			
	28	SB 425233 v3:008350.0013	1	
		WRITTEN TESTIMO	ONY OF TOM DODSON	

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

retained my firm to prepare a Programmatic Environmental Impact Report (PEIR) for a planning document titled the "Optimum Basin Management Program." The Notice of Determination (NOD) for this EIR was filed by IEUA on July 13, 2000.

After working with this document and its many second-tier specific projects for the past seven years, I believe the simplest interpretation of the Optimum Basin Management Program (OBMP) is that it sets forth an overall management guide to clean the Chino Basin groundwater aquifer (which consists of several subareas) and to increase the yield of the Chino Basin for the water purveyors and other large groundwater producers in the Basin. Again, in its simplest form the program consists of a number of actions that increase the recharge of water into northern and central portions of the Basin; extract high salt and nitrate contaminated water at the south end of the Basin; and provide for conjunctive use by expanding storage in the Basin. The OBMP and its second-tier specific projects comprise a sophisticated program to cleanse a groundwater aquifer which will, over time, restore the Chino Basin groundwater resources to high quality.

II. BACKGROUND OF ANALYSES WITH RESPECT TO STORMWATER DIVERSION AND RECHARGE UNDER THE OBMP

With this contextual information in mind, a key component of the OBMP implementation program is the recharge of the Chino Basin groundwater aquifer with stormwater, recycled water and imported water both to offset forecast increases in groundwater extraction and to increase the groundwater in storage. The OBMP evaluated the broad issue of the critical balance between recharge and extraction in the Basin. In addition, certain capital facilities required to support the groundwater recharge program were identified and evaluated in the OBMP. However, more detailed consideration of such facilities has been provided in numerous subsequent environmental documents, prepared primarily for IEUA, but also for other stakeholders. The primary capital facilities considered over the past seven years to support the recharge program include: recharge basin rehabilitation, pipelines to deliver recycled water to recharge basins and users of recycled water; turnouts and pipelines from imported water lines to recharge basins; new storage reservoirs, some for recycled water; monitoring wells and other monitoring systems; and groundwater extraction wells. Although other environmental firms may have prepared environmental documents

to support the OBMP implementation, my firm has been involved with most of the second-tier implementation projects.¹

In summary, the OBMP set the stage for a number of capital facility improvements in the Chino Basin designed to increase the amount of groundwater available for use by the various stakeholders in the Basin. I have personally authored or overseen many of the environmental documents compiled to ensure that CEQA compliance was achieved for these capital facility improvements in accordance with the originally adopted OBMP Program Environmental Impact Report. The end result is that 20 recharge basins, almost all originally designed and installed by the San Bernardino County Flood Control District (now part of the San Bernardino County Department of Public Works), have been prepared to receive a mix of stormwater, recycled water and imported water to increase the volume of groundwater in storage within the Chino Basin. The necessary connections (pipelines and turnouts) have been installed and additional facilities are being considered, reviewed and funded on an ongoing basis.

III. <u>DESCRIPTION OF IMPACTS UNDER THE PEIR AND INITIAL STUDY</u>

A. <u>PEIR Findings</u>

The OBMP Programmatic Environmental Impact Report² ("OBMP PEIR") provided a programmatic level analysis of the entire OBMP, including but not limited to, the recharge of stormwater. At the time of the OBMP PEIR, some implementation elements of the OBMP were unknown and so were described in a broad conceptual manner. In contrast, the Recharge Master Plan was well understood and so was analyzed in detail. The stormwater recharge component of the Recharge Master Plan was especially well understood as that component is just an expansion of

¹The following is a list of some of the environmental documents compiled by TDA that are directly related to implementing the recharge and extraction programs outlined in the OBMP. These documents are available upon request.

^{1. &}quot;Turner Basin #1 Expansion Project," NOD filed May 2001

^{2. &}quot;Implementation of Storm Water and Imported Water Recharge at 20 Recharge Basins in Chino Basin," NOD filed October 2001

^{3. &}quot;Program Environmental Impact Report for the Wastewater Facilities Master Plan, Recycled Water Master Plan and Organics Management Master Plan," NOD filed in July 2002

^{4. &}quot;Storm Water, Imported Water and Recycled Water Recharge at the Upland Basin in the Chino Basin," NOD filed in May 2003

^{5. &}quot;Chino Groundwater Basin Conjunctive Use Expansion Program," NOD filed in June 2005 ² CBWM Exhibit 3-3: OBMP Final EIR.

HATCH & PARENT, A LAW CORPORATION
21 East Carrillo Street
Santa Barbara, CA 93101

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

activities that have occurred since the early 1900s.

The PEIR was certified by IEUA on July 13, 2000 – at about the same time as Watermaster's Application was submitted to the SWRCB. As the Recharge Master Plan was actually implemented, minor changes to the project occurred, but the project as ultimately completed is substantially similar to that described in the OBMP PEIR.

The following is a description of a selection of the areas of analysis in the OBMP PEIR that are most relevant to the SWRCB's consideration, with a focus on the analysis of the stormwater recharge component of that analysis.

1. Water Resources/Water Quality **OBMP PEIR**, pp. 4-88 to 4-210 (Section 4.5)

The PEIR addresses several questions related to water resources and water quality for the entire OBMP. Under the analysis for each question, the specific analysis as it relates to the recharge of stormwater is called out under the heading for Program Element 2. The questions analyzed by the PEIR are:

- Will the project cause changes in absorption rates, drainage patterns or the rate and a. amount of surface runoff?³
- Will the project cause the exposure of people or property to water-related hazards, b. such as flooding?⁴
- Will the project discharge pollutants into surface waters or cause alterations to c. surface water quality?⁵
- Will the project change the amount of surface water in any water body?⁶ d.
- Will the project cause changes in currents, or the course or direction of surface water e. movements?⁷
- f. Will the project cause the change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or

³ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-126.

⁴ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-129.

⁵ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-131.

⁶ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-140.

⁷ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-143.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

excavations, or through substantial loss of groundwater recharge capability?⁸

- Will the project alter the direction or rate of flow of ground water?⁹ g.
- Will the project have an impact on groundwater quality?¹⁰ h.

The analysis of these issues covers questions relating to the impacts from the project on surface flows within the Chino Basin and at Prado Reservoir. In summary, the OBMP PEIR finds that no adverse impacts will result from the project. Of particular note is the finding with regard to impacts of the project on Prado itself. The OBMP PEIR finds that the project has the potential to reduce the amount of surface water at Prado, but also finds that (1) the total amount of water at Prado will continue to increase (a finding consistent with the findings made by the SWRCB in its decision to revise the FAS Declaration)¹¹, and (2) that the relocation of discharge and stormwater will have a beneficial impact on the future attempt to maintain water at or below the maximum allowed flood pool elevation.¹²

2. **Biological OBMP PEIR, pp. 4-308 to 4-344 (Section 4.8)**

The stream systems within the Chino Basin are primarily concrete-lined flood control channels. Because of this, the analysis of biological impacts of the recharge project in the PEIR focused in potential impacts of the project to biological resources in Prado reservoir.

The fundamental finding by the SWRCB in the initial FAS hearing was that there is an increased amount of water in the Santa Ana River. Indeed, the records of the Santa Ana Watermaster clearly show an increasing trend in flows at Prado, and all projections anticipate that these flows will continue to increase. Watermaster plans to divert substantially less than the projected increased flows reaching Prado, so that the net effect will merely be a smaller increase in flows than otherwise would be the case, and no adverse impacts on resources.

3. **Growth Inducement OBMP PEIR, pp. 4-23 to 4-25**

In summary, the OBMP PEIR found that the whole of the OBMP was designed to enhance

⁸ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-146.

⁹ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-149.

¹⁰ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-152.

¹¹ CBWM Exhibit 3-3: OBMP Final EIR, p. 4-141.

¹² CBWM Exhibit 3-3: OBMP Final EIR, p. 4-141.

the ability of the water providers in the Chino Basin to supply water to uses within their service areas. In fact, the OBMP was designed to enhance the ability of all users of water in the Chino Basin, whether municipal, industrial or agricultural, to make maximum beneficial use of the water resources of the Basin. Without the OBMP, urban growth in the Chino Basin would continue. From a water supply perspective it would simply be more expensive and less efficiently managed to accommodate this growth. For example, to offset aquifer storage of recycled, stormwater and imported water resources, additional surface facilities, such as reservoirs and additional water treatment facilities, would have to be installed.

B. Initial Study Findings

1. Hydrology and Water Quality pp. 46-49 References OBMP PEIR, Section 4.5

In general, the Initial Study¹³ (IS) found that the project will have a beneficial impact on water quality issues, and will have a beneficial impact on downstream flood concerns. In summary, the IS found that:

[R]echarge of storm water into the Chino Basin at the proposed project site is not forecast to cause any significant adverse degradation to groundwater in the Basin. In fact, the OBMP, and particularly this component of the program, is forecast to be a substantial benefit to water quality in the Chino Basin. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast impacts to groundwater quality will be nonsignificant without mitigation. ¹⁴

2. Biological pp. 36-38 References OBMP PEIR, Section 4.8

The OBMP PEIR and the IS recognize that the project area for the Recharge Master Plan is a heavily urbanized and agriculturally developed area. The southern end of the Basin is known as the "Dairy Preserve" and contains the highest concentration of dairies in the United States. The Chino Basin is one of the fastest growing urban areas in California, and several of the water provider services areas have already achieved complete build-out. In general, the IS found that the recharge basin sites are existing facilities that have been used for recharge purposes for as much as

¹³ CBWM Exhibit 3-4: Initial Study for the Implementation of Storm Water & Imported Water Recharge at 20 Recharge Basins in Chino Basin.

¹⁴ CBWM Exhibit 3-4: Initial Study for the Implementation of Storm Water & Imported Water Recharge at 20 Recharge Basins in Chino Basin, p. 49.

30 years.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Similarly, while the extreme northern portion of the watershed (as distinguished from the groundwater Basin area) is in an undeveloped condition, this area also has unimpaired stream channels (though these areas are dry for the great majority of the year). However, south of this area, in the area of the Chino Basin as defined under the 1978 Judgment, the stream channels are all concrete lined. This lining has been accomplished over a period of years by the San Bernardino County Flood Control District for flood control purposes. One function of the project is to attempt to reclaim some portion of the natural stream-channel recharge that has been lost by this activity.

The result of this, however, is that there are literally no biological resources in the subject area. Aquatic species cannot live in the channels and there are no plant species whatsoever.

C. **Mitigation Measures**

The OBMP PEIR described numerous mitigation measures for the entirety of the OBMP Program Elements. A number of these relate to the implementation of the stormwater recharge project. In turn, the Initial Study found that the mitigation measures described in the PEIR were sufficient to mitigate any impacts.

Mitigation Measures¹⁵:

4.5-1 To minimize potential ground disturbances associated with installation and maintenance of proposed monitoring equipment on existing wells, the equipment will be installed within or along existing disturbed easements or right-of-way or otherwise disturbed areas, including access roads and pipeline or existing utility easements.

This mitigation measure is relevant to monitoring equipment that will be installed pursuant to the Recharge Master Plan. Monitoring of Watermaster's recharge activities pertains to the amount and timing of water recharged at each of the recharge basins, as well as monitoring of the impacts on the Chino Groundwater Basin of that recharge, both from a water quality as well as a water level perspective.

4.5-2 The watermaster or other agencies implementing recharge programs shall confer

¹⁵ CBWM Exhibit 3-3: OBMP Final EIR, pp. 4-161 to 4-164.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

with the San Bernardino County Department of Transportation and Flood Control for each flood control basin that is proposed to be utilized for recharging water to the Chino Basin, to define the amount of water that can be set aside as a conservation pool within existing flood control basins and specific operational parameters (such as time and volume of water that can be diverted into each basin). This will ensure that recharge activities do not conflict with flood control operations at any flood control basins. Variable pooling and recharge schedules that are coordinated with storm forecasting to halt deliveries during storm events will ensure that flood-related hazards remain less than significant.

Watermaster participates with the San Bernardino Flood Control District and the Chino Basin Water Conservation District on the Groundwater Recharge Coordinating Committee ("GRCC"). The purpose of the GRCC is to coordinate and manage the use of the recharge basins for all recharge purposes contemplated under the Recharge Master Plan. The GRCC is currently in the process of developing individualized operating plans for each of the recharge basins.

4.5-4 In compiling local and in lieu groundwater storage balances, the Watermaster shall include the estimated amount of water lost from the Basin due to rising water at the low end of the Basin and adjust storage salt balance accounts accordingly.

Under the "Maximum Benefit" standards of the most current Basin Plan for the Santa Ana Watershed, Watermaster is required to achieve and maintain Hydraulic Control of the Chino Basin in order to prevent rising water at the low end of the Basin. Thus, this mitigation measure has been superceded by the Basin Plan amendments.

4.5-5 For each OBMP construction site, regardless of size, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented. Each plan shall identify the best management practices (BMPs) that will be used for that site to minimize the potential for accidental releases of any chemicals or materials on the site that could degrade water quality, including solid waste and require that any spills be cleaned-up, contaminated material properly disposed of and the site returned to pre-discharge condition, or in full compliance with regulatory limits for

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

the discharged material. The portion of the SWPPP that addresses erosion and
related sediment discharge shall specify the percentage of pollutant removal, as
illustrated in the attached Figure 4.5-56 which was abstracted from Supplement A t
the "Riverside County Drainage Area Management Plans, Attachment" publication
At a minimum BMPs shall achieve 60 percent removal of sediment and other
pollutants from disturbed sites.

Recycled water shall not be discharged to streams that are transporting storm flows for subsequent groundwater recharge (except as authorized by existing discharge permits issued by the Regional Board), unless mitigation as identified in mitigation measures 4.5-12 is provided. If the storm water component of the combined flow is a part of the total sub-basin assimilative capacity, which is fully allocated, then mitigation pursuant to mitigation measure 4.5-12 for recharge of the recycled water will be the same as if the recycled water had been directly recharged. However, if the assimilative capacity of the storm water has not been allocated, then mitigation will be based on the quality of the commingled storm flow and recycled wastewater.

Mitigation measures concerning recharge of recycled water and its relationship to stormwater recharge have been superceded by the "Maximum Benefit" standards of the current Basin Plan for the Santa Ana Watershed.

4.5-12 When recharge of State Project Water (SPW) or recycled water with TDS greater than the background groundwater TDS or the Basin Plan water quality objective is utilized at a recharge site, the entity conducting the recharge will conduct additional analysis including modeling to identify the volume and rate of recharge that can be conducted without causing the Basin Plan water quality objective for TDS to be exceeded. In addition, the amount of additional salt added to the Basin above the background groundwater quality condition shall be calculated and the greater of the two amounts will be offset, either by blending with better quality TDS water (storm water) provided that the assimilative capacity of the storm water has not already been allocated as more thoroughly described in mitigation measure 4.5-8. The

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

program could utilize SPW water for recharge when such water is available and when such water is better in quality than recycled water (i.e. lowest TDS). Under no circumstance will discharge of SPW or recycled water cause or contribute to a cumulative violation of Basin Plan water quality objectives or interfere with a designated beneficial use for a water or groundwater body.

Mitigation measures concerning recharge of State Water Project water and recycled water and its relationship to stormwater recharge have been superceded by the "Maximum Benefit" standards of the current Basin Plan for the Santa Ana Watershed.

4.5-13 When recharge of recycled water is proposed for a specific location, the entity proposing such recycling shall provide the following data to DHS: the area encompassed by the minimum six months detention period before use and the area encompassed by the long-term equilibrium concentration of 20 percent recycled water within the aquifer. Based on these area estimates, the entity will determine whether any existing WSA production wells or water supply aquifers will be impacted by these pumping constrained areas. If impacts will affect existing wells or water supply aquifers, the entity proposing to discharge recycled water will fund the provision of a comparable quality and quantity of potable water to the WSA [this can be done through installing new wells, direct water deliveries (for example from desalters), etc.].

Mitigation measures concerning recharge of recycled water and its relationship to stormwater recharge have been superceded by the "Maximum Benefit" standards of the current Basin Plan for the Santa Ana Watershed.

4.5-14 When recharge of recycled water with TIN greater than the background groundwater TIN or the Basin Plan objective at a recharge site is utilized, the entity conducting the recharge will conduct modeling and/or additional studies to identify the volume and rate of recharge that can be conducted without causing the Basin Plan water quality objective for TIN to be exceeded. Under no circumstance shall discharge of SPW or recycled water cause or contribute to a cumulative violation of

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Basin Plan water quality objectives or interfere with a designated beneficial use for a water or groundwater body.

Mitigation measures concerning recycled water and its relationship to stormwater recharge have been superceded by the "Maximum Benefit" standards of the current Basin Plan for the Santa Ana Watershed. In fact, many of the concepts identified in the above mitigation measures were better defined and as a result provided input to the "Maximum Benefit' standards of the current Basin Plan.

- 4.5-15 When recharge of water is proposed within the vicinity of an existing or known groundwater quality anomaly (contaminated groundwater plume), modeling and/or additional studies will be conducted to determine whether recharge of the recycled water will increase the local hydraulic gradient and cause more rapid spread of the existing plume. If existing domestic water production wells will be impacted by the plume a minimum of one year earlier than under pre-existing conditions, or if significant quantities of additional groundwater (more than 5,000 acre-feet) will become contaminated within a five year period due to the recharge of water, an alternative location for recharge will be selected to avoid not only the loss of the recharged water due to contamination, but also additional high quality groundwater due to more rapid expansion of the contaminated plume.
- 4.5-16 Whenever possible and feasible, OBMP projects that are highly capital intensive, or that employ workers who are onsite for more than just maintenance activities, shall consider Figure 4.5-47 when siting specific project locations for OBMP facilities. Areas defined on this map that potentially may be affected by flood-hazards shall be avoided, unless conjunctive use and flood-control operations demand that facilities must be located within these areas. If facilities are constructed in a flood zone, the facility will be brought to a level above flood hazards, or hardened against flood related impacts. Additionally, if facilities must be located within flood plains or hazard areas, a flood management program to minimize impacts to people and surrounding property shall be created and implemented for each facility that may

HATCH

21 East Carrillo Street lanta Barbara, CA 93101

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

occur within these hazard areas.

4.5-17 Prior to implementation of any recharge projects at either existing or new basins, a management plan will be established to the satisfaction of SBCFCD. This plan shall be created specifically for each individual basin to ensure the safety of surrounding property and people from undue risks associated with water-related hazards (i.e. flooding). The management plan will firmly establish a priority of flood-control functions over and above recharge-related operations. Weather forecasts of upcoming storm events will be carefully monitored and in the event of a significant forecasted storm-event, recharge deliveries to the basins will be ceased until further notice is received from SBCFCD that it is safe for deliveries to resume. Additionally, no more than three days' percolative capacity of water will be allowed to sit in a basin at a time if such basin is also used for flood control activities. Additionally, each SBCFCD basin will have a specific management plan developed, so as to coordinate flood control with recharge. This mitigation measure will ensure that people and property are not subject to additional risk associated with waterrelated hazards in the Basin, and will allow SBCFCD to make full utilization of the basin's flood control capacity in the event of a storm.

Watermaster participates with the San Bernardino Flood Control District and the Chino Basin Water Conservation District on the Groundwater Recharge Coordinating Committee ("GRCC"). The purpose of the GRCC is to coordinate and manage the use of the recharge basins for all recharge purposes contemplated under the Recharge Master Plan. The GRCC is currently in the process of developing individualized operating plans for each of the recharge basins.

IV. **CONCLUSION**

In my judgment, adequate environmental consideration, in accordance with CEQA and occasionally NEPA (when federal funding has been obtained), has been conducted by the Watermaster, IEUA and other stakeholders as the broad objectives and goals of the OBMP have been converted to reality.

For the purpose of my testimony with regard to Application 31369 I have reviewed the SB 425233 v3:008350.0013 12

	1	docum
	2	contair
	3	the PE
	4	with re
	5	
	5 6	Dated:
	7	
	8	
	9	
	10	
	11	
_	12	
llo Street CA 9310	13	
21 East Carrillo Street Santa Barbara, CA 93101	14	
21 Santa	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	
	23	
	24	
	25	
	26	
	27	
	28	
		SR 425222

documents and finding referenced here and have made supplemental investigations of the facts contained herein. Based on these investigations, in my professional opinion the findings made in the PEIR and the Initial Study are still accurate and can serve as a basis for decision by the SWRCB with respect to Application 31369.

Dated: April 12, 2007

//Tom Dodson TOM DODSON

B 425233 v3:008350.0013 13