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6 **CHINO BASIN WATERMASTER**

7
8 **BEFORE THE**
9 **STATE WATER RESOURCES CONTROL BOARD**
10 **STATE OF CALIFORNIA**

12 In the Matter of Water Right Applications
31165 and 31370 of San Bernardino Valley
13 Municipal Water District and Western
Municipal Water District of Riverside
14 County; Application 31174 of Orange
County Water District; Application 31369
15 of Chino Basin Watermaster; Application
31371 of San Bernardino Valley Water
16 Conservation District; and Application
31372 and Wastewater Change Petition
17 WW-0045 of the City of Riverside

**WRITTEN TESTIMONY OF KENNETH
MANNING**

18 **I. Summary**

19 The diversion and recharge of storm water as described in Application 31369 is one
20 component of a broader comprehensive and integrated water management program for the Chino
21 Bain. Because this program is truly an integrated program, it is not possible to alter any one part of
22 it without impacting the other parts. This is particularly true with the diversion and recharge of
23 storm water as described in Application 31369, since these activities serve as a mitigation measure
24 for the recharge of recycled water under the most recent Regional Water Quality Control Board's
25 Basin Plan. Limitations on Watermaster's ability to divert and recharge storm water acts as an
26 inhibition on the use and recharge of recycled water and increases the reliance of the region on
27 water imported through the State Water Project.
28

1 **II. Introduction**

2 My name is Kenneth Manning and I am the Chief Executive Officer of the Chino Basin
3 Watermaster. My job is to ensure proper compliance with the Judgment in the case Chino Basin
4 Municipal Water District v. City of Chino San Bernardino Superior Court Case No. RCV 51010,
5 and the procedures, rules and regulations established by the Watermaster to implement
6 Watermaster’s Optimum Basin Management Program and any other Court mandates prescribed.

7 **III. Project Description**

8 Watermaster’s project described in Application 31369 entails the diversion to underground
9 storage of ephemeral storm flows in the Chino Basin.¹ These storm flows occur within four primary
10 drainage systems in the Chino Basin: the Chino Creek, Cucamonga Creek, Day Creek, and San
11 Sevaine Creek systems. The Chino Creek System includes San Antonio Creek, the Day Creek
12 system includes Deer Creek, and the San Sevaine system includes Etiwanda Creek.² All four of
13 these creek systems are tributary to the Santa Ana River. The Chino Creek and Cucamonga Creek
14 systems discharge directly in to Prado Reservoir, and Day Creek and San Sevaine Creek discharge
15 in to the Santa Ana River just upstream from Prado. All four of these creek systems are almost
16 entirely concrete-lined as they pass through the Chino Basin, with the exception of small portions
17 near their confluence with the Santa Ana River.³

18 The points of diversion under Application 31369 are recharge basins that are spread
19 throughout the Chino Basin. Some of these basins are off channel basins, and some are flow
20 through basins that are built within the creek channel. Most of the basins were existing flood
21 control basins which were recently modified through the Chino Basin Facilities Improvement
22 Project (described in more detail below) to allow for more efficient recharge activities to
23 accompany the flood control functions.

24 None of these four creek systems has a base flow; water is present in the channels only
25 during or immediately following storm events or while snow melt in present. Most of the time the
26 creeks are dry except when they are used to transport imported water or recycled water.

27 ¹ CBWM Exhibit 1-2: Aerial Photos of Chino Basin Showing Relevant Water Resource Features.

28 ² CBWM Exhibit 1-3: Map of Water Resource Features.

³ CBWM Exhibit 1-4: Photographs of Chino Basin Channels and Facilities.

1 techniques agreed upon by the parties to comprehensively manage the Chino Basin in an integrated
2 manner. The OBMP includes nine program elements.

- 3 • Program Element 1: Develop and Implement Comprehensive Monitoring Program
- 4 • Program Element 2: Develop and Implement Comprehensive Recharge Program
- 5 • Program Element 3: Develop and Implement Water Supply Plan for the Impaired
6 Areas of the Basin
- 7 • Program Element 4: Develop and Implement Comprehensive Groundwater
8 Management Plan for Management Zone 1 (MZ1) Subsidence
- 9 • Program Element 5: Develop and Implement Regional Supplemental Water Program
- 10 • Program Element 6: Develop and Implement Cooperative Programs with the
11 Regional Board and Other Agencies to Improve Basin Management
- 12 • Program Element 7: Develop and Implement Salt Management Program
- 13 • Program Element 8: Develop and Implement Groundwater Storage Management
14 Program
- 15 • Program Element 9: Develop and Implement Conjunctive Use Programs

16 Program Element 2 is Watermaster’s comprehensive recharge program and is the program
17 under which the activities described in Application 31369 fall. It is described in greater detail
18 below.

19 Other Program Elements include an extensive monitoring program which involves the
20 continuous and rigorous monitoring of water levels, water quality, and ground surface levels. The
21 OBMP also includes the management of a subsidence area in the southwest portion of the Basin as
22 well as the development of cooperative efforts with other regulatory agencies such as the Regional
23 Water Quality Board (“RWQCB”) and the development of innovated water treatment facilities such
24 as a series of inland desalination facilities. These facilities have the function of not only treating
25 low quality groundwater that has been degraded by many decades of intensive agricultural use, but
26 also have the function of preventing this low quality water from entering the Santa Ana River. The
27 construction of these facilities is not only required under the OBMP but is also required by the
28 RWQCB under the most recent Basin Plan Amendments which were approved by the State Water

1 Resources Control Board in September 2004.⁷

2 Implementation of the OBMP began through a June 29, 2000 agreement of the Chino Basin
3 parties know as the Peace Agreement.⁸ The OBMP Implementation Plan was included as Exhibit B
4 to the Peace Agreement.⁹

5 Environmental review of the complete OBMP was conducted through the OBMP
6 Programmatic Environmental Impact Report (“OBMP PEIR”)¹⁰ which was certified by the Inland
7 Empire Utilities Agency in June 2000.

8 The OBMP received the Santa Ana Watershed Project Authority’s Integrated Project of the
9 Year award in 2003, and the Chino Basin received SAWPA’s Drought Proofing Award in 2004.

10 **VI. The Chino Basin Is A Leader In The Use Of Recycled Water As Facilitated By**
11 **The Most Recent Basin Plan Amendments For The Santa Ana Watershed, And**
12 **Watermaster’s Diversion And Recharge Of Storm Water Is An Important Component Of The**
13 **Basin Plan Amendments**

14 The most recent Basin Plan Amendments were approved by RWQCB on January 22, 2004 –
15 Resolution No. R8-2004-0001.¹¹ They were approved by SWRCB on September 30, 2004.

16 According to the Basin Plan Amendments: “. . . [B]oth “antidegradation” and “maximum
17 benefit” objectives for TDS and nitrate-nitrogen are specified in this Plan for certain parts of the
18 Chino Basin and the Cucamonga groundwater Management Zone. The application of the
19 “maximum benefit” objectives relies on the implementation by the Chino Basin Watermaster and
20 the Inland Empire Utilities Agency of a specific program of projects and requirements [Ref.10B],
21 which are an integral part of the Chino Basin Optimum Basin Management Program (OBMP)
22 [Ref.10C]. The OBMP was developed by the Watermaster under the supervision of the San
23 Bernardino County Superior Court. The OBMP is a comprehensive, long-range water management
24 plan for the Chino Basin as a whole, including the Chino North (or Chino 1, 2, and 3) and
25 Cucamonga Management Zones. The OBMP includes the use of recycled water for basin recharge,

26 ⁷ CBWM Exhibit 1-8: Basin Plan Amendment.

27 ⁸ CBWM Exhibit 1-9: Peace Agreement for the Chino Basin.

28 ⁹ CBWM Exhibit 1-10: OBMP Implementation Plan.

¹⁰ CBWM Exhibit 3-3: OBMP PEIR.

¹¹ CBWM Exhibit 1-8: Basin Plan Amendment.

1 initially in the Chino North Management Zone. Recycled water recharge in the Cucamonga
2 Management Zone may be pursued in the future. The OBMP also includes the capture of increased
3 quantities of high quality storm water runoff, recharge of imported water when its TDS
4 concentrations are low, improvement of water supply by desalting poor quality groundwater, and
5 enhanced wastewater pollutant source control programs. The OBMP maps a strategy that will
6 provide for enhanced yield for the Chino Basin and seeks to provide reliable water supplies for
7 development expected to occur within the Basin. The OBMP also includes the implementation of
8 management activities that would result in the hydraulic isolation of Chino Basin groundwater from
9 the Orange County Management Zone, thus insuring the protection of downstream beneficial uses
10 and water quality.”¹²

11 Storm water is the highest quality water available for recharge into the Chino Groundwater
12 Basin. Currently, one of the major water supply projects in the Chino Basin is the implementation
13 of Inland Empire Utility Agency’s recycled water recharge project. This project will enhance water
14 use efficiency through the increased utilization of recycled water and will help to reduce the
15 dependence of the region on State Water Project water. However, one of the regulatory
16 requirements on this project, as described in the selection from the Basin Plan Amendment quoted
17 above, is that the impacts of the groundwater quality of the Basin be mitigated through the increased
18 recharge of high quality storm water.¹³

19 Thus, while the diversion of water under Application 31369 will have water quality benefits
20 in itself for the Basin, it is also a key water quality component in a broader project that will lead to
21 increased beneficial use of available local water resources and that will help the region to reduce its
22 dependence on imported State Water Project water.

23 **VII. The Diversion and Recharge of Storm Water as Described in Application 31369**
24 **is One Component of an Overall Recharge Master Plan that Also Includes the Recharge of**
25 **Recycled Water and Imported Water**

26 Program Element Two is the recharge component of the OBMP. The goal of Program
27

28 ¹² CBWM Exhibit 1-8 : Attachment to Resolution No. R8-2004-0001, pp.52-53.

¹³ CBWM Exhibit 1-8: Attachment to Resolution No. R8-2004-0001, page 58 item numbered “5”.

1 Element Two is to develop and implement a comprehensive recharge program. This effort has
2 resulted in Watermaster’s Recharge Master Plan Phase I Report¹⁴ and Recharge Master Plan Phase
3 II Report (August, 2001)¹⁵. According to the Recharge Master Plan:

4 This Recharge Master Plan Phase II Report (Phase II Report) builds
5 upon a series of local collaborative efforts, documented in part in the
6 Chino Basin Recharge Master Plan Phase I Final Report and the
7 OBMP Phase I Report. Both Phase I Reports state the need for a
8 comprehensive recharge program and identify existing recharge
9 basins and potential new recharge sites.

10 This Phase II Report takes the next step by recommending
11 improvements to facilities and potential new sites identified in the
12 Phase I Reports. Additional opportunities are also identified,
13 including innovative concepts for storm water retention.¹⁶

14 The San Bernardino County Flood Control District (“SBCFCD”), Riverside County Flood
15 Control and Water Conservation District (“RCFCWCD”), and the US Army Corps of Engineers
16 (“USACE”) have constructed flood control projects that efficiently capture and convey Chino Basin
17 storm water to the Santa Ana River. These projects have resulted in a condition where most of the
18 stream channels within the Chino Basin are concrete lined. In most cases, no provisions were made
19 to replace the loss of natural recharge capacity lost to these projects. Also, there have been no
20 mitigation efforts to preserve recharge when land use is converted from native and agricultural uses
21 to urban uses.¹⁷

22 “Increasing the yield of the Basin by increasing the capture of new storm water discharge
23 will improve ambient groundwater quality, improve surface water quality in the Santa Ana River
24 and its tributaries, and increase the assimilative capacity of the Basin. Increasing the capture of new
25 storm water will reduce the cost of mitigation requirements for recharge of recycled water. The
26 volume of new storm water recharge will have a dramatic impact on the future cost of recycled
27 water recharge.”¹⁸

28 The initial implementation of this program involved a \$50 million investment in the
improvement of recharge facilities throughout the Chino Basin. These facilities were existing

¹⁴ CBWM Exhibit 1-11: Recharge Master Plan Phase I Report.

¹⁵ CBWM Exhibit 1-12: Recharge Master Plan Phase II report.

¹⁶ CBWM Exhibit 1-12, p. ES-1.

¹⁷ CBWM Exhibit 3-3, p. 3-10.

¹⁸ CBWM Exhibit 1-12, p. ES-2.

1 facilities and some existing facilities were nearly one hundred years old and were primarily used for
2 flood control purposes. The improvement of these facilities is known as the Chino Basin Facilities
3 Improvement Project (CBFIP).¹⁹ Environmental review for this project was tiered off the OBMP
4 PEIR through a project level Initial Study (“IS”) that supported a Negative Declaration for the
5 recharge project itself.

6 Watermaster’s CBFIP received the Project of the Year award from the American Society of
7 Civil Engineers, Los Angeles section on October 2, 2004.²⁰

8 This project has now been in operation for two years and is currently being utilized to
9 recharge storm water, recycled water and imported water. Operations of the project are governed
10 under a procedures manual the creation of which was a joint effort between the Chino Basin
11 Watermaster, the Inland Empire Utilities Agency, the San Bernardino County Flood Control
12 District, and the Chino Basin Water Conservation District.²¹ Watermaster monitors storm water
13 diversions carefully and reports on its recharge activities on a monthly basis.²²

14 **VIII. Watermaster Has Resolved All Conflicts Regarding its Water Right Application**

15 As Watermaster CEO I have participated in the negotiation and implementation of
16 agreements relating to the resolution of conflicts relating to Watermaster’s activities. Of particular
17 importance with respect to Watermaster’s recharge activities has been the resolution of the protest
18 by the Department of Fish and Game (“DFG”) against Application 31369. I personally participated
19 in discussions with DFG and helped to resolve the protest. The protest resolution is embodied in a
20 stipulation between Watermaster and DFG.²³ According to the Stipulation, DFG and Watermaster,
21 do not anticipate an impact on fish, wildlife or other instream beneficial uses (“Resources”) as a
22 result of CBWM’s requested appropriation described in Application 31369.” (Stipulation paragraph
23 3.) Watermaster agreed to continue monitoring its diversions and potential impacts on Resources
24 and to meet periodically with DFG to review the results of this monitoring and to address any

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26 ¹⁹ CBWM Exhibit 1-13:CBFIP Executive Summary and Basin Descriptions. May 2002.

27 ²⁰ CBWM Exhibit 1-14: Press Release from American Society of Civil Engineers

28 ²¹ CBWM Exhibit 1-15: Chino Basin Recharge Facilities Operation Procedures Manual.

²² CBWM Exhibit 1-16: Chino Basin Watermaster Recharge Reports.

²³ CBWM Exhibit 1-17: Stipulation Between Chino Basin Watermaster and Department of Fish and Game regarding Application 31369.

1 impacts that may arise in the future. According to paragraph 6, Watermaster is to present this
2 Stipulation as evidence at the hearing regarding Application 31369.

3 **IX. Conclusion: All of The Management Activities Conducted In The Chino Basin**
4 **Are Part of An Integrated Whole – Alteration of Any One Component Also Alters All The**
5 **Rest. There Are Multiple Reasons Why Watermaster’s Project Satisfies the Public Interest**

6 Watermaster’s Application 31369 highlights the complexity and the integrated nature of all
7 of the projects conducted under the OBMP. While Watermaster’s Application 31369 simply
8 involves the diversion and recharge of storm water, this recharge of storm water is part of what
9 makes possible the recharge of recycled water. Thus, without the recharge of storm water
10 Watermaster would be limited in its recharge of recycled water and would have a greater
11 dependency on imported water from the Delta through the State Water Project.

12 There can be no doubt that Watermaster’s project serves the public interest. At the broadest
13 level, Watermaster’s diversions of storm water are a part of a comprehensive and integrated
14 management plan for the Chino Basin. The State of California has a clear policy interest in the
15 promotion of comprehensive and integrated water planning. The management plan for the Chino
16 Basin helps to ensure a safe and reliable supply of water for numerous urban communities whose
17 population is about 800,000. This supply of water is also used for extensive industrial and
18 agricultural uses. The promotion of a safe and reliable supply of water for these purposes is also in
19 the public interest. This management plan also has as its goal the self-sufficiency of this region with
20 the goal of minimizing the region’s dependence on water imported through the State Water Project.
21 Finally, the project described under Application 31369 is an important component of the ability of
22 the region to use and recharge recycled water, an activity which the SWRCB clearly encourages and
23 in fact approved when it approved the Basin Plan Amendments for the Santa Ana Watershed in
24 2004.

25 Dated: April 12, 2007

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27 _____
28 KENNETH MANNING