

1 EDWARD J. CASEY (State Bar No. 119571)
 2 TAMMY L. JONES (State Bar No. 232693)
 3 WESTON, BENSHOOF, ROCHEFORT,
 RUBALCAVA & MacCUISH LLP
 333 South Hope Street
 Sixteenth Floor
 Los Angeles, California 90071
 Telephone: (213) 576-1000
 Facsimile: (213) 576-1100

**ENDORSED
 FILED
 JAN 05 2006
 SUPERIOR COURT OF CALIFORNIA
 COUNTY OF SONOMA**

6 Attorneys for Petitioners and Plaintiffs,
 O.W.L. FOUNDATION, a non-profit organization,
 7 KATHLEEN HAYNIE, an individual, JOAN McLAIN,
 an individual, and CRAIG ROTH, an individual

9 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
 10 **FOR THE COUNTY OF SONOMA**

11 O.W.L. FOUNDATION, a non-profit
 organization, KATHLEEN HAYNIE, an
 12 individual, JOAN McLAIN, an individual, and
 13 CRAIG ROTH, an individual,

Case No.: SCV 236309

14 **Petitioners and Plaintiffs,**

**PETITIONERS' OPENING
 MEMORANDUM OF POINTS AND
 AUTHORITIES IN SUPPORT OF
 VERIFIED FIRST AMENDED PETITION
 FOR WRIT OF MANDAMUS AND
 COMPLAINT FOR DECLARATORY
 AND INJUNCTIVE RELIEF**

15 v.

16 CITY OF ROHNERT PARK, CITY COUNCIL
 FOR THE CITY OF ROHNERT PARK, and
 DOES 1 through 25, inclusive,

Date: April 4, 2006
 Time: 8:30 a.m.
 Ctrm.: 18 (Honorable Knoel Owen)

18 **Respondents and Defendants.**

19 UNIVERSITY DISTRICT LCC and VAST
 20 OAK PROPERTIES L.P.,

Filing Date: February 24, 2005

21 **Intervenors and Real Parties in Interest.**

333 South Hope Street, Sixteenth Floor
 Los Angeles, California 90071

TABLE OF CONTENTS

Page

1

2

3 I. SUMMARY OF ARGUMENT..... 1

4 II. THE PARTIES 3

5 III. BACKGROUND OF SB 610..... 3

6 A. The Events Leading Up To The Adoption Of SB 610..... 3

7 B. Requirements Of SB 610..... 5

8 C. The Department Of Water Resources’ Role 8

9 IV. FACTUAL BACKGROUND 9

10 A. The South Santa Rosa Plain Groundwater Subbasin 9

11 B. Studies Conducted On The Santa Rosa Plain Groundwater Subbasin..... 10

12 C. The City’s Evaluation Of The SRP Subbasin 11

13 D. The Sonoma County Water Agency And Its Surface Water Supply 12

14 E. The City’s Plan For Future Development 14

15 F. The Adoption Of The City’s Water Supply Assessment 15

16 V. STANDARD OF REVIEW..... 16

17 VI. THE WSA SHOULD BE INVALIDATED BECAUSE ITS ANALYSIS OF

18 THE ADEQUACY OF GROUNDWATER SUPPLIES (1) VIOLATES THE

19 MANDATORY PROVISIONS OF SB 610 AND (2) IS NOT SUPPORTED

20 BY SUBSTANTIAL EVIDENCE 18

21 A. The Legal Definition Of Overdraft 18

22 B. The WSA’s Groundwater Analysis Is Legally Inadequate Because It

23 Analyzed An Area Smaller Than The Basin Or Subbasin 20

24 C. The City’s Conclusion Of An Adequate Water Supply Cannot Be

25 Supported By Substantial Evidence Since The WSA Consultant Never

26 Examined the PES Groundwater Model Or the Backup Data Used In

27 that Model..... 20

28 D. The WSA’s Conclusion That The SRP Subbasin Is Not In Overdraft Is

Contrary To A Wealth Of Substantial Evidence To The Contrary..... 21

WESTON BENSHOOF ROCHEFORT RUBALCAVA MACCUISH LLP
333 South Hope Street, Sixteenth Floor
Los Angeles, California 90071

TABLE OF CONTENTS
(continued)

	Page
1.	The WSA Improperly Defines the Boundaries Of The SRP Subbasin22
2.	The WSA Contains Several Criticisms Of The PES Computer Model, Each Of Which Is Fundamentally Flawed.....25
E.	The WSA Never Provides A Quantification Of The Recharge That Will Be Lost Due To Future Development29
F.	The Subbasin’s Shifting Groundwater Divide Is An Indication Of Overdraft That Is Ignored By The City29
VII.	THE WATER DEMAND ANALYSIS IN THE WSA IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE30
A.	The Absence Of Support For The WSA’s Baseline Water Demand30
B.	The Calculation Of Future Water Demands In The WSA Is Equally Unsupported By Substantial Evidence31
VIII.	THE CITY FAILED TO CONDUCT THE PUBLIC HEARING ON THE WSA IN A FAIR MANNER.....33
IX.	THE CITY’S REFUSAL TO ADOPT SPECIFIC AND ENFORCEABLE GROUNDWATER MANAGEMENT MEASURES, SUCH AS A MANAGEMENT PLAN, RENDERS THE WSA LEGALLY INADEQUATE34
X.	CONCLUSION35

WESTON BENSHOOF ROCHEFORT RUBALCAYA MACCUISH LLP
333 South Hope Street, Sixteenth Floor
Los Angeles, California 90071

TABLE OF AUTHORITIES

Page

STATE CASES

Berkeley Keeps Jets Over the Bay Committee v. Board of Port Comm'rs of the City of Oakland,
91 Cal.App.4th 1344 (2001)..... 17, 20

City of Pasadena v. City of Alhambra,
33 Cal.2d 908 (1949)..... 7, 18, 19, 20

Cohan v. City of Thousand Oaks,
30 Cal.App.4th 547 (1994)..... 33

Horn v. County of Ventura,
24 Cal.3d 605 (1979)..... 33

Intercommunity Medical Center v. Belshe,
32 Cal.App.4th 1708 (1995)..... 16

League for Protection of Oakland's Architectural and Historic Resources v. City of Oakland,
52 Cal.App.4th 896 (1997)..... 17

Martha H. Wright v. Goleta Water District,
174 Cal.App.3d 74 (1985)..... 19

Mountain Lion Foundation v. Fish and Game Commission,
16 Cal.4th 105 (1997)..... 16, 17, 20

Napa Citizens for Honest Government v. Napa County Board of Supervisors,
91 Cal.App.4th 342 (2001)..... 5

Planning and Conservation League v. Department of Water Resources,
83 Cal.App.4th 892 (2000)..... 4, 5, 6

Santa Clarita Organization For Planning The Environment v. County of Los Angeles,
106 Cal.App.4th 715 (2003)..... 5

Santa Monica Chamber of Commerce v. City of Santa Monica,
101 Cal.App.4th 786 (2002)..... 16

Stanislaus Natural Heritage Project v. County of Stanislaus,
48 Cal.App.4th 182 (1996)..... 4, 6

DOCKETED CASES

South County Resource Preservation Committee, et al. v. City of Rohnert Park, et al.,
Case No. 224976 13, 14

Friends of the Eel River v. Sonoma County Water Agency et al.
Case No. 220847 13, 14

TABLE OF AUTHORITIES
(Continued)

Page

STATE STATUTES

1		
2		
3		
4	Cal. Const., Art. X, § 2	7
5	Cal. Code of Civil Procedure § 1094.5.....	16
6	Cal. Water Code § 10750	34, 35
7	Cal. Water Code § 10910	1
8	Cal. Water Code § 10910(b).....	6
9	Cal. Water Code § 10910(c)(3)	6, 28, 29, 30
10	Cal. Water Code § 10910(d)(2)	6
11	Cal. Water Code § 10910(f)	19
12	Cal. Water Code § 10910(f)(2).....	7
13	Cal. Water Code § 10910(f)(3)(4)-(5)	8
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

WESTON BENSHOOF ROCHEFORT RUBALCAYA MACCUISH LLP
333 South Hope Street, Sixteenth Floor
Los Angeles, California 90071

1 **I. SUMMARY OF ARGUMENT**

2 Water is our most precious natural resource. Our ever growing population and the
3 increasing threats to water quality posed by that growth heighten the need to carefully
4 manage our water resources. This management is most effective when done at a local level
5 since the water demands and supplies of each community are so unique. In order to ensure
6 local management of this precious natural resource is properly carried out, the state recently
7 enacted legislation known as Senate Bill 610 (“SB 610”).

8 SB 610 stemmed from a need to improve the link between water supply availability
9 and land use decisions made by cities and counties. Previous legislative mandates
10 addressing insufficient water supply issues were largely ignored. As a result, SB 610
11 amended Water Code section 10910 *et seq.* in order to make certain there would be
12 coordination between water suppliers and cities and counties when considering large-scale
13 development projects. Specifically, SB 610 requires a “Water Supply Assessment”
14 (“WSA”) be prepared for each large development project in order to determine whether
15 projected water supplies are sufficient to meet the project’s anticipated demand. Under SB
16 610 the WSAs must address water supplies and demands for the next twenty years, during
17 both dry and wet water years, for existing and future development, and cities and counties
18 must consider these assessments before approving development projects. Either a water
19 purveyor will be responsible for preparing the Water Supply Assessment, or if a water
20 supplier is not identified to serve the project, the city or county must prepare the assessment.

21 This case involves a WSA that was prepared by respondents and defendants City of
22 Rohnert Park (“City”) and adopted by its City Council (“Council”) on January 25, 2005.
23 That WSA attempts to assess the adequacy of the water supply necessary to support not only
24 the City’s existing development, but also the 4,000 new residential units and almost 2 million
25 square feet of new commercial uses that are proposed under the City’s General Plan. More
26 immediately, there are five large development projects totaling over 3,000 residential units in
27 areas outside the City boundaries that would be annexed into the City.

28 Of key concern is the City’s analysis of groundwater supplies from the Santa Rosa

1 Plain Subbasin (“SRP Subbasin” or “Subbasin”). This is not the first time the Subbasin’s
2 water supply has been analyzed. Rather, numerous studies have been conducted over the
3 past 45 years. These studies have been conducted by, among others, the California
4 Department of Water Resources and PES Environmental, a consultant hired by the City to
5 analyze the SRP Subbasin’s water supply for the City’s 2000 General Plan update. After
6 developing sophisticated computer models based on state and federal standards, these studies
7 reached a similar conclusion: that the water levels in the Subbasin are declining and the
8 southern SRP Subbasin is in overdraft. Absent remedial measures, groundwater from an
9 overdrafted condition is not a reliable and sufficient water supply under SB 610.

10 These declining water levels and the overdraft situation recently led the Grand Jury
11 for the entire County of Sonoma to recommend the adoption of a groundwater management
12 plan. However, despite this recommendation (rejected by the City), and despite the findings
13 of the over 45 years worth of studies conducted on the SRP Subbasin, the WSA concludes
14 that there is plenty of water in the Subbasin to sustain both existing and future development.
15 The conclusions reached in the WSA were provided by a new consulting firm hired by the
16 City to draft its WSA.

17 Curiously, the City did not ask PES Environmental to draft its WSA, but rather the
18 City chose to hire an entirely new consultant for the job. In rendering its findings, this new
19 consultant chose not to utilize either the wealth of information and data that has been
20 collected on the Subbasin, or the federally blessed computer model that is often used to
21 assess groundwater supplies. Rather, the consultant used an entirely different methodology,
22 deftly changed the boundaries of the Subbasin and cherry picked data to support its newly
23 found conclusion of groundwater sufficiency. The result is a WSA that is clearly legally
24 insufficient under SB 610.

25 A water supply assessment is an important document for the long term health of any
26 community. Such a document must be carefully prepared, with attention to prior work
27 performed by other agencies, and not rushed simply because proposed development outside
28 the City is pushing for it. Since none of those guiding principles were followed by the City,

1 the City failed to comply with the mandates of SB 610 and adopted a legally insufficient
2 WSA. Accordingly, Petitioners are forced to bring this lawsuit.

3 **II. THE PARTIES**

4 O.W.L. is a non-profit organization comprised of residents of the City as well as the
5 County of Sonoma (“County”) (Cplt., ¶ 4). O.W.L.’s mission is to secure the adoption of a
6 program that ensures sustainable management of the water resources in the County (AR,
7 2:302).¹ Plaintiffs Haynie, McLain, Roth and O.W.L.’s Board members and donors own
8 land in the County and/or the City, pay water assessments charged by the City or other water
9 purveyors, own and operate groundwater wells, and/or have lost groundwater wells due to
10 declining water levels in the groundwater basin at issue (Cplt., ¶ 4).

11 The City’s role is two-fold. First, the City is the water purveyor for existing Rohnert
12 Park residents and the future purveyor for residents in the vast areas that the City is seeking
13 to annex (infra, § IV (E)). Second, the City acts as the decision-making authority for all land
14 use permits required by developers for their new projects. One of these development
15 projects is for the University District Specific Plan, which consists of 20 parcels on
16 approximately 300 acres (AR, 33:8933). The real parties in interest are the entities
17 processing the University District Specific Plan.

18 **III. BACKGROUND OF SB 610**

19 **A. The Events Leading Up To The Adoption Of SB 610**

20 Ensuring sustainable water resources is the driving objective of SB 610. As stated by
21 the Legislature in its enactment of SB 610, “[C]alifornia’s overall water delivery system has
22 become less reliable over the last 20 years because demand for water has continued to grow
23 while new supplies have not been developed in amounts sufficient to meet the increased
24 demand.” (AR, 2:501). Thus, SB 610 mandates that all land use agencies clearly identify a
25 sufficient and reliable water supply for development projects before approving those
26 projects. Although SB 610 clearly identifies the Legislature’s concern over insufficient

27 ¹ O.W.L. is an acronym standing for Open Space, Water Resource Protection, and Land Use, in
28 Sonoma County (AR, 2:302).

References to the administrative record (“AR”) prepared by the City shall be to volume number and
then to page number.

1 water supplies and development projects that rely on those supplies, it is instructive to note
2 the bill was not adopted in a vacuum. Even before SB 610 was enacted on January 1, 2002,
3 the California Environmental Quality Act (Cal. Public Resources Code Sections 21000 et
4 seq.) (“CEQA”) required agencies to identify the source of water for proposed development
5 projects at the time environmental impact reports (“EIRs”) are certified. See e.g., Stanislaus
6 Natural Heritage Project v. County of Stanislaus, 48 Cal.App.4th 182 (1996) (“Stanislaus”)
7 (EIR for resort community found inadequate because of a failure to identify a reliable water
8 source beyond the first five years of development). Setting the stage for SB 610, various
9 appellate courts then built on that CEQA principle by scrutinizing the reliability of the
10 agency’s selection of the source of water for development. Those court decisions stemmed
11 from a common concern that cities, counties and other land use agencies were relying on
12 “paper water” rather than a realistic and reliable supply of water to sustain future
13 development projects. The term “paper water” was coined and explained by the Court in the
14 landmark case of Planning and Conservation League v. Department of Water Resources, 83
15 Cal.App.4th 892 (2000) (“PCL”).

16 In PCL, the plaintiffs challenged the sufficiency of an EIR prepared in connection
17 with amendments to a series of contracts entered into by the Department of Water Resources
18 (“DWR”) and various water agencies. Those contracts (originally executed in the 1960’s)
19 provided that DWR would build and operate the “State Water Project” (which includes the
20 California Aqueduct) in order to supply water to 29 agricultural and urban water suppliers
21 throughout the State (83 Cal.App.4th at 899). As originally envisioned, DWR would provide
22 4.23 million “acre-feet” (“AF”)² of water to those agencies once the State Water Project was
23 fully built (Id. at 908). Each supplier contracting with DWR was allocated a maximum
24 “entitlement” of water in its individual contract, which entitlement assumed full build out of
25 the State Water Project (Id.). The amended agreement at issue (the “Monterey Agreement”)
26 included modifications to that entitlement scheme, and the EIR sought to evaluate the

27
28 ² An acre-foot of water is the volume of water equal to 325,851 gallons (AR, 6:1590) and can serve two single-family households of four persons per year (AR, 6:1624-1632).

1 environmental impacts of those contract modifications.

2 However, as of the date of the Monterey Agreement, the State Water Project had not
3 been fully built out. As a result, the Court noted that the actual, reliable water supply from
4 the Project was in the vicinity of 2.5 million AF rather than the 4.3 million AF of water on
5 which the Monterey Agreement was relying (Id.). Thus, “there is a huge gap between what
6 is promised and what can be delivered.” (Id.) Because of this large discrepancy, the Court
7 noted that any “entitlement” water the parties were relying on represented nothing more than
8 “hopes, expectations, water futures, or, as the parties refer to them, ‘paper water’.” (Id.) The
9 Court further elaborated that many land use decisions are predicated on available water
10 supply. As a result, “there is certainly the possibility that local decision makers are seduced
11 by contractual entitlements and approve projects dependent on water worth little more than a
12 wish and a prayer.” (Id. at 915.) Accordingly, the Court invalidated the EIR.

13 In addition to the PCL case, other CEQA cases contained similar holdings regarding
14 insufficient water supply. See e.g., Santa Clarita Organization For Planning The
15 Environment v. County of Los Angeles, 106 Cal. App. 4th 715 (2003) (EIR invalidated for
16 failure to analyze dry year supply from State Water Project); Napa Citizens for Honest
17 Government v. Napa County Board of Supervisors, 91 Cal.App.4th 342 (2001) (EIR found
18 inadequate due to a failure to provide sufficient information about an industrial development
19 project’s effect on regional water supply).

20 These cases exemplify the reasons why SB 610 is so important. As the PCL Court
21 noted, land use decisions are often predicated on the assumption that water supply is readily
22 available. As evidenced by these prior court decisions, a fatal flaw in this assumption will
23 occur if the agency relies on “paper water,” rather than a firm water supply that is backed by
24 substantial evidence. Avoiding the paper water trap lies at the heart of the mandatory
25 provisions of SB 610. Each of these provisions contains language requiring evidence of a
26 reliable water supply before development projects can be approved.

27 B. Requirements Of SB 610

28 SB 610 requires a city or county, at the time it determines that an EIR or other related

1 CEQA document must be prepared, to secure a WSA from the operator of the public water
2 system that would supply water to the proposed development project (Cal. Water Code §
3 10910 (b)). If a city or county operates the public water system, the city or county must
4 prepare the WSA. (Id.)

5 That WSA must determine whether the total project water supplies, for normal, single
6 dry, and multiple dry water years over a 20-year period, will meet the project's demands
7 (Cal. Water Code § 10910 (c)(3)). The emphasis on "total" is important as it applies to water
8 supply for both existing and future demand. The logic behind this requirement may be
9 gleaned by the Stanislaus decision, supra, in which the Court invalidated the EIR on the basis
10 that the agency was unable to identify a reliable water supply for its resort development
11 beyond the first 5 years of the project (Stanislaus, 48 Cal.App.4th at 205). Thus, it is
12 insufficient for an agency to simply make a 20-year projection for existing uses and the
13 particular development project at issue. Rather, the agency is statutorily mandated to
14 provide a reliable water supply to meet the demands of *all* projects, both existing and
15 anticipated, over a 20-year period.

16 In addition, the WSA must include evidence confirming the adequacy of the water
17 supply, such as evidence of water rights, water supply contracts, capital improvement plans
18 and budgets and all necessary regulatory approvals (Cal. Water Code § 10910(d)(2)). This
19 evidentiary requirement relates to the paper water supply issues addressed in the PCL case.
20 Specifically, where land use planning determinations are made on the basis of entitlement or
21 paper water, rather than reliable water, development can outpace the availability of water,
22 leading to detrimental environmental and social consequences. (PCL, 83 Cal.App.4th at
23 914.) By requiring evidentiary support of water rights and water supply contracts, as well as
24 other factors relevant to reliable water supplies, SB 610 ensures that agencies will not rely on
25 paper water to support current and future development projects.

26 These concerns are heightened when the agency is relying on groundwater to supply
27 development projects. California is one of the few states that does not impose a state-wide
28

1 regulatory or permitting system on the production of groundwater.³ Because there is no
2 state-wide system governing groundwater production, persons may acquire a water right to
3 produce groundwater based on common law. Under that body of common law, that person's
4 water right may be reduced by a court if the groundwater basin being utilized is in an
5 "overdraft" condition. (See generally City of Pasadena v. City of Alhambra, 33 Cal.2d 908,
6 924 (1949) ("Pasadena"); Cal. Const., Art. X, § 2.). Generally speaking, overdraft occurs
7 when the amount of water that is withdrawn by pumping is greater than the amount of
8 groundwater that recharges the groundwater basin over a period of years (AR, 79:25525). If
9 an overdraft condition continues for a number of years, significant adverse impacts may
10 occur, including increased extraction costs, costs of well deepening or replacement, land
11 subsidence, water quality degradation and other environmental impacts. (AR, 79:25525).

12 Because an overdrafted groundwater basin can have such deleterious effects, SB 610
13 imposes additional requirements if groundwater is a planned source of water. Specifically,
14 the WSA must include a description of the groundwater basin from which the proposed
15 project will be supplied and, if that basin has not been judicially adjudicated, information
16 must be supplied as to whether (i) the basin is overdrafted or is projected to be overdrafted,
17 and (ii) any management efforts being taken to eliminate the long-term overdraft condition.
18 (Cal. Water Code § 10910(f)(2).)

19 This statutory emphasis on overdrafted basins stems from the paper water concern
20 discussed previously. If a groundwater basin is in overdraft, any person's groundwater
21 production may be lost or reduced either by court order or sheer loss of groundwater supply
22 (see Pasadena, supra.). Consequently, an agency may not rely on an overdrafted basin's
23 groundwater supply to support future development projects -- absent judicial or agency
24 management measures aimed at curing the overdraft. To ensure that an agency is not relying
25 on an overdrafted supply of groundwater, SB 610 further requires the WSA to include a
26 detailed description and analysis of (i) the amount and location of groundwater pumped by

27
28 ³ An informative overview of California groundwater law is provided in DWR's Bulletin 118 update (2003) (AR, 78:25412-25676), and the law review article attached as Exhibit A to Petitioners' Additional Legal Authorities filed concurrently herewith.

1 the public water system for the past five years from the groundwater basin at issue, (ii) the
2 groundwater that is projected to be pumped, and (iii) the sufficiency of the groundwater to
3 meet the project's demand (Cal. Water Code § 10910(f)(3)(4)-(5)).

4 C. The Department Of Water Resources' Role

5 The California Department of Water Resources ("DWR") provides assistance to water
6 agencies in preparation of WSAs under SB 610. DWR is a governmental agency whose
7 mission is to assist local agencies statewide in developing and implementing effective
8 groundwater management programs (AR, 78:25416). In connection with this mission, DWR
9 has published a guidebook to assist water suppliers, cities and counties in their
10 implementation of SB 610 ("DWR Guidelines"). The DWR Guidelines are designed to
11 provide step-by-step suggestions for completing a WSA and include commonly accepted
12 definitions and examples of various supply and demand scenarios. (A copy of the DWR
13 Guidelines can be found at AR, 2:405-528).

14 In addition to providing SB 610 guidance, DWR has conducted numerous technical
15 studies of groundwater basins throughout the State. As stated by DWR, basic information
16 for many groundwater basins is lacking and the essential data that is necessary to provide for
17 both the protection and optimal use of groundwater is often not available (AR, 78:25445).
18 Therefore, in order to provide guidance in the largely unregulated area of groundwater
19 supply and availability, DWR has become an authority on the subject by conducting various
20 groundwater studies. Among the most prominent of these studies is DWR's Bulletin 118.
21 Bulletin 118 presents the results of groundwater basin evaluations in California (A copy of
22 DWR's update of Bulletin 118 can be found at AR, 78-79:25412-25676). These
23 comprehensive groundwater basin evaluations are based on information provided by DWR,
24 the U.S. Geological Survey, and other agencies to "help those who must make decisions
25 affecting the protection, additional use, and management of the State's ground water
26 resources." (AR, 78:25444).

27 In addition to its statewide Bulletin 118 series, DWR has released several other
28 publications that evaluate specific groundwater basins. Of importance to the instant

1 litigation, Bulletin 118-4 provides highly relevant information on the geology and hydrology
2 of the groundwater systems underlying Sonoma County, including the major groundwater
3 basins underlying the Santa Rosa Plain and the Petaluma and Sonoma Valleys. (A copy of
4 DWR Bulletin 118-4 can be found at AR, 70:22829-23012).

5 **IV. FACTUAL BACKGROUND**

6 A. The South Santa Rosa Plain Groundwater Subbasin

7 “A groundwater basin can serve the same function as a surface reservoir; it can act as
8 a natural receptacle for storing water subsequent extraction. . . .” (Pet. Add. Authorities,
9 Exh. A, p. 5.) “Groundwater is the water occurring beneath the earth’s surface that
10 completely fills (saturates) the void space of rocks or sediment.” (Refer to DWR’s “Basic
11 Groundwater Concepts,” AR, 78: 25509.) “A groundwater basin is defined as an alluvial
12 aquifer or a stacked series of alluvial aquifers with reasonably well-defined boundaries in a
13 lateral direction and a definable bottom. Lateral boundaries are features that significantly
14 impede groundwater flow such as rock or sediments with very low permeability or a
15 geologic structure such as a fault. Bottom boundaries would include rock or sediments of
16 very low permeability if no aquifers occur below those sediments within the basin.” (AR,
17 79: 25517.) “An aquifer is a body of rock or sediment that yields significant amounts of
18 groundwater to wells or springs.” (AR, 78:25514.) “[C]oarse materials such as sand and
19 gravel deposits usually provide the best source of water and are termed aquifers; whereas,
20 the finer-grained clay and silt deposits are relatively poor sources of water and are referred to
21 as aquitards.” (AR, 78: 25509.)

22 The County of Sonoma includes seven major groundwater basins (AR, 70:22907).
23 The City pumps groundwater from the Santa Rosa Valley Groundwater Basin. (AR,
24 33:8951). Three “subbasins” occur within this basin, including the SRP Subbasin, the
25 Healdsburg Subbasin and Rincon Valley Subbasin (AR, 33:8951). The City of Rohnert Park
26 is located within the SRP Subbasin, which is the groundwater basin at dispute in this case.
27 The Subbasin is bounded on the east by the Sonoma Mountains and the Wilson Grove
28 Formation Highlands Basin, and on the west by the hills of the Mendocino Range. (AR,
3:725). The Sonoma Mountains are principally composed of the Sonoma Volcanics, which

1 have been uplifted along the Healdsburg-Rogers Creek Fault Zone. (Id.) Surface water
2 enters the Subbasin through streams originating in the highlands east and west of the
3 Subbasin, with all major streams being discharged into the Laguna de Santa Rosa located on
4 the southern boundary of the Subbasin (Id.).

5 B. Studies Conducted On The Santa Rosa Plain Groundwater Subbasin

6 As discussed previously, DWR has conducted a series of Bulletin 118-4 studies that
7 have evaluated the SRP Subbasin. In addition, numerous other studies have been undertaken
8 over the last 45 years concerning the SRP Subbasin. See e.g. (Geology and Groundwater in
9 the Santa Rosa and Petaluma Valley Areas Sonoma County California, G.T. Cardwell, 1958
10 (AR, 23:6180-84); Meeting Water Demands in the City of Rohnert Park, Department of
11 Water Resources, 1979 (AR, 9-10:2458-581); Evaluation of Groundwater Resources
12 Sonoma County, Department of Water Resources Bulletin 118-4, September 1982 (AR,
13 10:2582-721); Santa Rosa Plain Groundwater Model, Department of Water Resources,
14 September 1987 (AR, 32:8696-735); California's Groundwater, Department of Water
15 Resources Bulletin 118, 2004 (AR, 2:400-04); and Evaluation of Groundwater Supply
16 Alternatives, Water Supply and Transmission System Project, Parsons Engineering Science,
17 Inc., 1995 (AR, 17:4696-98).

18 Due to the large span of time covering these studies, the studies differ in detail and
19 scope. However, similar themes run throughout each of them. Each study warns of the
20 declining water levels in the SRP Subbasin. By way of example, the 1979 DWR study
21 indicates that “presently available water level data indicate a gradual lowering of water
22 levels beneath the City of Rohnert Park over time.” (AR, 9:2473). In addition, the study
23 acknowledges that “[G]reatly increasing the number of pumping wells may cause an
24 overdraft situation.” (AR, 9:2484). Critically, the 1982 DWR study states that the SRP is
25 “about in balance” with increased groundwater levels in the northeast and decreased water
26 levels in the south (AR, 10:2596) (emphasis added). Thus, these two DWR studies confirm
27 that as of 1982, the amount of water recharging the SRP Subbasin by rainfall and other
28 means was precisely the same amount as the water being pumped out of the SRP Subbasin.

1 Thus, over time, the SRP Subbasin was bound to fall out of balance since less water will be
2 recharged into the Subbasin due to urbanization of open space and natural recharge areas,
3 while the amount of groundwater pumped out will increase due to growing population
4 demand.

5 More recent studies draw similar conclusions. For instance, the 1987 DWR study
6 discusses the rapidly increasing demand for water in the Santa Rosa Plain, both from the
7 SRP Subbasin and imported surface water. (AR, 32:8701). The 1995 Parsons Engineering
8 Science study further emphasizes the increasing reliance on groundwater in the southern
9 portion of the SRP Subbasin groundwater by noting “[G]roundwater pumping has lowered
10 the water table on the order of 100 feet in this area.” (AR, 17:4697).

11 C. The City’s Evaluation Of The SRP Subbasin

12 In October 1999, the City prepared and released a Draft EIR in connection with
13 amendments to its General Plan. The Draft EIR evaluated the sufficiency of the City’s water
14 supply and came to many of the same conclusions concerning the SRP Subbasin’s
15 groundwater supply made in earlier studies. Presumably due to the insufficiencies related to
16 the SRP Subbasin’s groundwater supply and in response to the numerous comments
17 received, the City prepared a Revised Draft EIR in 2000. (The Revised Draft EIR can be
18 found at AR 2-3:529; and the General Plan can be found at AR, 75:24477). The Revised
19 Draft EIR similarly concluded that a “significant impact would occur with full
20 implementation of the Rohnert Park General Plan in the event operation of the municipal
21 wellfield [at the rates projected in the Revised Draft EIR] results in substantial lowering of
22 groundwater levels” (AR, 3:735). Such adverse impacts loomed since the Revised Draft EIR
23 concluded that “production of groundwater resources may result in the lowering of
24 groundwater levels” (AR, 3:753). Indeed, the City itself, in its response to comments on the
25 Draft EIR, conceded that “[I]t is possible that the demand on the groundwater supply may
26 exceed the recharge rate” and that “in the short term, more water may be extracted from the
27 groundwater basin than will be replenished.” (AR, 74:24305).

28 The objective of the Revised Draft EIR was to provide an “expanded discussion of

1 water supply resources...and an in-depth analysis of potential impacts on groundwater
2 resources.” (AR, 3:563). In order to adequately provide this expanded analysis, the City
3 hired a consulting company called PES Environmental (“PES”). PES performed its analysis
4 of the SRP Subbasin using a sophisticated computed model (called MODFLOW) developed
5 by the U.S. Geological Survey (“USGS”) (AR 3:735). MODFLOW is a model that is run on
6 data and assumptions used as inputs into the model (Id. at 754). PES inputted a host of data
7 into the model and drew upon many of the earlier studies, included those conducted by both
8 DWR and Cardwell (Id.).

9 Using this computer model, PES examined the recharge rate for an even larger portion
10 of the southern SRP Subbasin than analyzed in the City’s WSA (AR, 3:736). PES concluded
11 that the natural recharge rate averages 1.60 million gallons per day (“mgd”) or 1,792 AF per
12 year (“afy”). (AR, 3:753). Yet, between 1984-1999 the total amount of groundwater
13 pumping by the City alone was 2.5 times greater than that recharge rate. (AR, 3:734). Given
14 this significant imbalance between the water going into the southern SRP Subbasin and the
15 amount being pumped out, PES concluded that the SRP Subbasin was in overdraft. (AR,
16 3:753). The EIR containing the PES Study was certified as complete and accurate by the
17 City in July, 2000 (AR, 73:24181).

18 Recognizing the insufficiency of its groundwater supply, the City’s General Plan EIR
19 calls for the virtual elimination of groundwater pumping by 2010 (AR, 75:24670). The
20 City’s proposed solution for accommodating future growth was to rely more heavily on
21 imported surface water to sustain the water demand associated with future growth (Id.). In
22 fact, the 2000 EIR assumed that the City would receive 16,800 afy (or 15.0 mgd) of such
23 additional imported water by the year 2010 more than double the City’s existing allotment of
24 imported surface water (Id.). The source of this surface water is the Sonoma County Water
25 Agency.

26 D. The Sonoma County Water Agency And Its Surface Water Supply

27 Water supply can come from two sources, either from a groundwater basin, or from
28 surface water that is imported from a water supplier. The provider of surface water to the

1 City is the Sonoma County Water Agency (“SCWA”). SCWA diverts water from the
2 Russian River and delivers that water to the City and seven other entities (known as
3 “Contractors”) and a number of other entities located outside Sonoma County. (AR, 6:1553-
4 57). SCWA supplies this water pursuant to written supply contracts, which set forth the
5 “entitlement” or maximum amount of water each Contractor can receive. (AR, 6:1560).

6 The governing contract that binds all these entities is the Eleventh Amended
7 Agreement for Water Supply dated January 26, 2001 (AR, 6:1503-51). Under the Eleventh
8 Amended Agreement, the City’s maximum annual entitlement to SCWA water is 7,500 afy
9 (AR, 6:1520). However, as SCWA stated in its 2000 Urban Water Management Plan,
10 “deliveries by the Agency to its water contractors will be limited to the capacity of the
11 transmission system.” (AR, 6:1586). In an effort to resolve that limited capacity, SCWA
12 proposed a project to increase the amount of water that could be diverted from the Russian
13 River and thereby increase the amount of water that could be provided to SCWA’s
14 Contractors. (*Id.*). In the meantime, SCWA and its Contractors entered into a Memorandum
15 of Understanding Regarding Water Transmission System Capacity Allocation During
16 Temporary Impairment (the “Impairment MOU”) dated March 1, 2001 (AR, 8:2054-68).
17 That Impairment MOU curtailed the City’s entitlement of SCWA water during times of peak
18 usage to 5,936 afy (AR, 8:2059)⁴.

19 Not long after the City’s surface water supply was reduced due to the Impairment
20 MOU, the City faced a legal challenge to its groundwater supply. In 2002, a lawsuit entitled
21 South County Resource Preservation Committee, et al. v. City of Rohnert Park, et al., Case
22 No. 224976, resulted in a Stipulated Judgment that prohibited the City from approving any
23 development project outside its existing boundaries that would result in the City exceeding
24 an average annual groundwater pumping rate of 2.3 million gallons per day (“mgd”) or 2,577
25 afy (AR, 6:1465-66).

26 Further complicating the City’s increasing water supply issues, an appellate court
27 invalidated the EIR prepared by SCWA for the Russian River project (Friends of the Eel
28

⁴ The Impairment MOU states water supply in terms of “mgd”. One mgd equals 1120 AFY.

1 River v. Sonoma County Water Agency et al., Case No. 220847) (“Eel River”) in May 2003
2 (AR, 8:2072). The Eel River decision led SCWA’s General Manager to send a letter to all
3 Contractors stating that SCWA cannot implement the proposed project. (AR, 19:5192-94).
4 Thus, as of the summer of 2003, the City’s overall water supply was limited to the surface
5 water allotment per the Impairment MOU and the groundwater restrictions set forth under
6 the Stipulated Judgment.

7 E. The City’s Plan For Future Development

8 As confirmed in its current General Plan, the City seeks to approve annexation of five
9 massive new development projects into the City’s boundaries. Those projects are:

10 (a) University District SPA – The University District project consists of 20 parcels
11 on approximately 300 acres. The application for the project requests 1,610 residential units
12 and approximately 250,000 square feet of commercial land uses. The entire plan area has the
13 potential for 1,610 units and 350,000 square feet of commercial space. (AR, 33:8933).

14 (b) Northeast SPA – The Northeast project consists of 36 parcels on approximately
15 264 acres. The application for the project requests 559 residential units. The entire plan area
16 has the potential for 1085 units. Id.

17 (c) Southeast SPA – The Southeast project consists of two parcels on
18 approximately 80 acres. The application for the project requests 499 residential units and
19 20,000 square feet of commercial use. (AR, 33:8933-34).

20 (d) Northwest SPA – The Northwest project consists of 170 acres. The application
21 for the project requests 495 residential units and 495,000 square feet of
22 commercial/industrial use. The entire plan area has the potential for 900 units, 480,000
23 square feet of commercial space, 260,000 square feet of office space and 560,000 square feet
24 of industrial space. (AR, 33:8934).

25 (e) Wilfred Dowdell SPA – The Wilfred Dowdell project consists of
26 approximately 25 acres, located between the existing City limits and the Northwest SPA.
27 The future land uses include approximately 300,000 square feet of commercial space. (Id.)

28 In addition to these specific projects, the City’s General Plan anticipates the approval

1 of almost 4,500 new residential units, 5 million square feet of new commercial uses, and the
2 annexation of over 1,000 acres of land into City territory. (AR, 75:24531-24534). Further
3 development just outside the City's limits will also affect the City's water supply shared with
4 others. For instance, the Graton Rancheria Indian tribe seeks to develop a casino complex
5 and plans to use groundwater to serve the casino's demand. (AR, 6:1484). There will also
6 be additional stress on the SRP Subbasin caused by the County's recently approved Canon
7 Manor West project, which lies within the City's sphere of influence. (AR, 5:1307).
8 Hundreds of new homes are planned for under this project, all of which will rely on the SRP
9 Subbasin's groundwater as its primary supply.

10 F. The Adoption Of The City's Water Supply Assessment

11 Against the backdrop of PES' conclusion that the SRP Subbasin is in overdraft, the
12 reduction of available SCWA water, the groundwater restrictions in the Stipulated Judgment,
13 and the five massive development projects waiting to be annexed, the City retained a
14 consultant to prepare its first ever WSA under SB 610 in 2004. However, rather than
15 retaining PES to conduct its groundwater analysis, the City hired a brand new consultant –
16 Luhdorff & Scalmanini. And, instead of updating the computer models of the SRP Subbasin
17 developed by PES and DWR, the City's new consultant used an entirely different
18 methodology to analyze the SRP Subbasin.

19 In late October 2004, the City released its draft of the WSA for public review.
20 Somehow, the City's new consultant, using its new methodology, reached the conclusion
21 that the SRP Subbasin is not, and will not be, in overdraft, and there will be sufficient water
22 to meet all future demands. During that public review process, numerous comments by
23 O.W.L and others were made concerning the legal insufficiency of the Draft WSA. Further,
24 owners of private groundwater wells in the SRP Subbasin testified to their wells going dry in
25 recent years due to dropping water levels. (AR, 34:9267, 9273, 9282, 9290). The City
26 scheduled a public hearing on the draft WSA for November 23, 2004.

27 At the November 23, 2004 hearing, the City and its new consultant submitted a new
28 document entitled "Technical Memorandum." (AR, 2:285-301). This Technical

1 Memorandum was not released to the public for review prior to the evening of the hearing.
2 The Technical Memorandum provided new information and analyses related to both water
3 supply and demand assessments. Despite all that new information, the City Council, on
4 express instruction by the City Attorney, closed the public hearing on November 23, 2004
5 (AR, 32:8890-91). The City then issued its Final WSA in January 2005 (AR, 33:8908-
6 9124). The Final WSA doubled the length of the Draft WSA and added a substantial amount
7 of new information. The City Council adopted the Final WSA on January 25, 2005 per
8 Resolution No. 2005-24 (AR, 34:9235-36).

9 **V. STANDARD OF REVIEW**

10 The City held a public hearing on the WSA and accepted evidence and testimony at
11 that hearing. Accordingly, this petition for writ of mandate is governed by C.C.P. § 1094.5.
12 (See C.C.P. § 1094.5(a); see also, Stipulation Re Resolution Of Plaintiff's Motion To
13 Augment And Respondents' Demurrer To The Third Cause Of Action filed on October 27,
14 2005 and City's Case Management Statement paragraph 17(c) filed on August 5, 2005)
15 Thus, the standard of review is whether substantial evidence supports the agency's decision
16 in light of the whole record (C.C.P. § 1094.5(b), (c)). In determining whether there is
17 substantial evidence to support an agency's decision, the court examines all relevant
18 evidence in the entire record, both evidence that supports the agency's decision and evidence
19 against it. Intercommunity Med. Center v. Belshe, 32 Cal.App.4th 1708, 1711 (1995).

20 Two important aspects of case law illustrate when an agency's decision is not
21 supported by the evidence. First, courts have held that augment, speculation, unsubstantiated
22 opinion or narrative, [and] evidence which is clearly erroneous or inaccurate do not
23 constitute substantive evidence. See e.g., Santa Monica Chamber of Commerce v. City of
24 Santa Monica, 101 Cal.App.4th 786, 797 (2002) (decision under CEQA).

25 The second category of relevant cases concerns those agencies' decisions that were
26 contrary to the recommendation of an expert agency or advisory body. In those cases, a
27 number of the courts have held that the agency's decision is not supported by substantial
28 evidence. For instance, in Mountain Lion Foundation v. Fish and Game Comm'n, 16 Cal.4th

1 105 (1997), the Department of Fish and Game (“Department”) prepared a report to the Fish
2 and Game Commission (“Commission”) reviewing the status of the “threatened” Mojave
3 Ground Squirrel under the California Endangered Species Act (Id. at 136). The Department,
4 an expert in the field, recommended that the Commission keep the squirrel on the threatened
5 species list. However, ignoring that recommendation, the Commission voted to delist the
6 squirrel (Id.). The Court found that the Commission’s decision to remove the ground
7 squirrel from the threatened species list was not supported by substantial evidence because
8 the Commission did not give “due consideration” to the Department’s recommendation and
9 failed to offer sufficient evidence to support the Commission’s rejection of the Department’s
10 recommendation (Id. at 136-37).

11 Other cases confirm the heightened level of evidence needed to rebut findings or
12 recommendations made by expert agencies or advisory bodies. For example, in Berkeley
13 Keeps Jets Over the Bay Comm. v. Bd. of Port Comm’rs of the City of Oakland, 91
14 Cal.App.4th 1344 (2001), the California Air Resources Board (“CARB”) submitted an
15 analysis to the lead agency, the Port of Oakland (“Port”), criticizing the accuracy of the air
16 quality data utilized in an EIR for a proposed airport expansion (Id. at 1366). The Court
17 invalidated the EIR since the Port “mischaracterized the view of CARB, the agency having
18 the pertinent expertise”, “failed to acknowledge the opinions of responsible agencies and
19 experts who cast substantial doubt on the adequacy of the EIR’s analysis,” and “fail[ed] to
20 support its many conclusory statements by scientific or objective data.” (Id. at 1367 n. 13,
21 1371.)

22 Similarly, in League for Protection of Oakland’s Architectural and Historic Resources
23 v. City of Oakland, 52 Cal.App.4th 896 (1997), the court found that the city’s determination
24 that a building was not eligible for classification as a historical building was not supported
25 by substantial evidence (Id. at 899). In that case, the city disregarded advice from the City
26 Landmarks Preservation Advisory Board as well as the city’s own internal documents. Both
27 of these sources recognized the historical significance of the building. (Id.) Based on that
28 evidence, the Court invalidated the City’s approval of a mitigated negative declaration.

1 As demonstrated below, the City relied on conclusions reached by its new consultant
2 in the WSA that run directly contrary to analyses previously prepared by DWR and the
3 City's former consultant, PES, and there is no substantial evidence to support such a
4 contradictory position.

5 **VI. THE WSA SHOULD BE INVALIDATED BECAUSE ITS ANALYSIS OF THE**
6 **ADEQUACY OF GROUNDWATER SUPPLIES (1) VIOLATES THE**
7 **MANDATORY PROVISIONS OF SB 610 AND (2) IS NOT SUPPORTED BY**
8 **SUBSTANTIAL EVIDENCE**

9 For groundwater basins that have not been judicially adjudicated, SB 610 requires an
10 analysis as to whether the basin is overdrafted or is projected to be overdrafted, and any
11 management efforts being taken to eliminate the long-term overdraft condition must be
12 identified (AR, 2:502). As stated above, the rationale for this requirement is critically
13 straightforward. Absent any judicial or agency management of the basin, prolonged
14 overdrafting of a groundwater basin will lead to a reduced (if not non-existent) supply due to
15 worsening water quality, dropping water levels, or a court order in an adjudication lawsuit
16 (supra, p. 7). Because of these serious adverse impacts, various legal mechanisms have been
17 put into place to safeguard against such damage to a basin's groundwater supply. For
18 instance, a person possessing groundwater rights can file a complaint for a judicial
19 adjudication of water rights for future use, which action authorizes courts to impose a
20 "physical solution" for the basin (see Pasadena, supra, 33 Cal.2d at 924). Also available to
21 local water agencies is the adoption of a groundwater management plan pursuant to a State
22 statute commonly known as "AB 3030." (Cal. Water Code Sections 10750-10755) (infra, p.
23 34).

24 There is no dispute that the City failed to include any groundwater management
25 measures in its WSA needed to eliminate the overdraft condition. Rather, the City concluded
26 that the SRP Subbasin is not in overdraft.

27 A. The Legal Definition Of Overdraft

28 According to DWR, overdraft is defined as "the condition of a groundwater basin or
subbasin in which the amount of water withdrawn by pumping exceeds the amount of water
that recharges the basin over a period of years." (AR, 79:25525). Thus, overdraft can be

1 characterized by groundwater levels that decline over a period of years and never fully
2 recover, even in wet years. (Id.)

3 Despite the use of the term “overdraft” in SB 610 and the straightforward definition of
4 that term provided by the State agency with the relevant expertise (DWR), the WSA focuses
5 on a different concept in groundwater law -- “safe yield.” The WSA points to the State
6 Water Rights Board’s definition of “safe yield,” which is “the maximum average annual
7 pumping draft which can be continually withdrawn for useful purposes under a given set of
8 conditions without causing an undesired result.” (AR, 33:8950). While this definition of safe
9 yield may be accurate, the City’s reliance on it in the WSA is misplaced for at least two
10 reasons. First, the WSA utterly fails to provide an actual quantification of the safe yield for
11 the SRP Subbasin, let alone any analysis supporting such a quantification. (See generally the
12 discussion of quantification of “safe yield” in adjudication actions. City of Pasadena v. City
13 of Alhambra, 33 Cal.2d 908, 922 (1949); Martha H. Wright v. Goleta Water District, 174
14 Cal.App.3d 74, 81 (1985).) Consequently, the City cannot prove that the SRP Subbasin is
15 not in overdraft or exceeded the safe yield since it provides no quantification of the safe
16 yield.

17 The second error in the City’s position is rooted in the rationale behind separating the
18 concept of “safe yield” from the concept of “overdraft” for purposes of compliance with SB
19 610. The essence of SB 610 is the assured supply of water for existing and future
20 development. SB 610 contemplates that groundwater from a basin that is in “overdraft,” as
21 defined by DWR, can still serve as an adequate supply if the overdrafting or overproduction
22 of the groundwater has not reached the level of “undesired results” (i.e., the level of safe
23 yield) and there are management measures in place aimed at alleviating such overdraft and
24 avoiding undesired results (Cal. Water Code § 10910(f)). In contrast, overdraft, as defined
25 by the City, would not occur until the groundwater has already been pumped to the point
26 where an “undesired result” has occurred, which, in turn, would have already impaired the
27 adequacy of the supply. Thus, the City’s logic runs contrary to the statute, as well as an
28 admonishment from the California Supreme Court:

1 “The proper time to act in preserving the supply is when overdraft commences,
2 and the aid of the courts would come too late and be entirely inadequate if, as
3 appellant seems to suggest, those who possess water rights could not
4 commence legal proceedings until the supply was so greatly depleted that it
5 actually became difficult or impossible to obtain water. Where the quantity
6 withdrawn exceeds the average annual amount contributed by rainfall, it is
7 manifest that underground store will be gradually depleted and eventually
8 exhausted, and, accordingly, in order to prevent such a catastrophe, it has been
9 held proper to limit the total use by all consumers to an amount equal, as near
10 as may be, to the average supply and to enjoin takings in such quantities or in
11 such a manner as would destroy or endanger the underground source of water.
12 (City of Pasadena v. City of Alhambra,” 33 Cal.2d 908, 929 (1949) (emphasis
13 added).)

14 B. The WSA’s Groundwater Analysis Is Legally Inadequate Because It
15 Analyzed An Area Smaller Than The Basin Or Subbasin

16 SB 610 and DWR’s 610 Guidelines clearly require water supply assessments that rely
17 on groundwater to analyze the groundwater “basin.” (AR, 2:502). While Petitioners
18 acknowledge that the SRP Basin is large, the “study area” analyzed in the WSA is
19 substantially smaller than even the SRP Subbasin already mapped by DWR. (AR, 33:8994).
20 There is simply no reason for the WSA to not have analyzed the SRP Subbasin since it had
21 been studied by many others in the past, including DWR and its computer model of that
22 Subbasin (supra, pp. 10-11). Absent an analysis at a Subbasin level, the adequacy of
23 groundwater from the SRP Subbasin cannot be determined as a matter of law under SB 610.
24 For this reason alone, the WSA must be invalidated.

25 C. The City’s Conclusion Of An Adequate Water Supply Cannot Be Supported
26 By Substantial Evidence Since The WSA Consultant Never Examined the
27 PES Groundwater Model Or the Backup Data Used In that Model

28 As discussed above, DWR developed a computer model of the SRP Subbasin in the
late 1970s-early 1980s, and concluded that the Subbasin was “in balance” with respect to the
levels of recharge and production. Since that time, the levels of recharge must have
decreased due to urbanization of open space, and the level of groundwater production must
have increased given the water needs of a larger population. That resulting imbalance --
overdraft -- was confirmed in 2000 by the City’s own consultant, PES. PES reached that
conclusion by also developing a sophisticated groundwater model using a host of
information (AR, 3:753-54).

Those conclusions drawn by two different experts based on state and federally-
approved computer models and the teachings of Mountain Lion, Berkeley, and Oakland,

1 supra, mandate that a significant amount of evidence be proffered by the City in order to
2 refute these findings of an overdraft condition in the SRP Subbasin. Accordingly, one would
3 expect the City's WSA consultant to have run his own computer model. That was not done.
4 Or, one would expect the City's WSA consultant to begin with the prior modeling work and
5 update the input data. That was not done. Indeed, one would expect the City's WSA
6 consultant, at the very least, to obtain the backup data (commonly known as the "input and
7 output" files) used by the City's prior consultant who analyzed the same issue presented to
8 the WSA consultant. Incredibly, as conceded by the City in a Stipulation filed with the
9 Court on October 20, 2005, that did not happen:

10 "Respondents stipulate that the PES Work Documents⁵ have never been
11 reviewed by the Respondents, any employee of the Respondents, or the outside
12 consulting company that prepared the WSA." (Emphasis added.)⁶

13 Without examining the documentation substantiating the City's prior conclusion of
14 overdraft, the City's new Consultant could not, as a matter of law, have provided substantial
15 evidence to rebut that prior conclusion of overdraft. Accordingly, the WSA should be
16 invalidated.

17 D. The WSA's Conclusion That The SRP Subbasin Is Not In Overdraft Is
18 Contrary To A Wealth Of Substantial Evidence To The Contrary

19 As far back as 1982, the SRP Subbasin was determined to be "about in balance" by
20 DWR. (AR, 10:2596). A basin "in balance" indicates that the amount of water recharging
21 the SRP Subbasin in 1982 was essentially the same as the amount of water that was being
22 pumped out. This detail is significant because that same 1982 study also noted that the City
23 of Rohnert Park was the third largest city in Sonoma County and was among the three fastest
24 growing cities in the County with a population increase of 267% from 1970 (AR, 10:2591).
25 Given the massive developments projects proposed in the City's General Plan, there are
26 certainly no plans to slow down that trend of rapid growth.

26 ⁵ The Stipulation defines PES Work Documents as "documents generated by PES Environmental
27 ("PES") relating to a groundwater model study that PES performed for an Environmental Impact Report
28 prepared for the City's General Plan Update of 2000."

⁶ As discussed in the next subsection, the WSA consultant distinguished the entire PES computer
model based on one isolated phone call!

1 What is difficult to discern, then, is how the SRP Subbasin could be “in balance” in
2 1982, yet now have sufficient water to support the development that has occurred since 1982
3 and the future development projects totaling over 3,000 residential units. In boldly asserting
4 that the SRP Subbasin remains in balance and will remain in balance for years to come, the
5 City’s WSA Consultant deftly changed the boundaries of the SRP Subbasin and cherry
6 picked data to support its newly found conclusion of groundwater sufficiency. Essentially,
7 the WSA Consultant tried to rewrite hydrological history. Thus, the issue before the Court is
8 whether the City should have based its WSA on the substantial evidence from prior studies
9 indicating the SRP Subbasin is in overdraft, or whether the City and its WSA Consultant
10 should be allowed to fashion a fictional solution in an attempt to resolve the ever-
11 diminishing water supply problems plaguing the City and surrounding areas.

12 1. The WSA Improperly Defines the Boundaries Of The SRP Subbasin

13 Groundwater basins are typically recharged by spring runoff in streams and
14 percolation from rainfall (AR, 78:25449). Thus, essential in any groundwater analysis is
15 determining how much of the water pumped out of the groundwater basin may be recharged
16 from these sources. To make this determination, one must first determine the actual
17 boundaries of the basin that is being recharged. Hence, the requirement in both SB 610 and
18 DWR’s 610 Guidelines that WSAs must include a description of the “groundwater basin or
19 basins from which the proposed project will be supplied.” (AR, 2:502).

20 Providing details of the boundaries of the SRP Subbasin should have posed little
21 problem for the City as these boundaries had been clearly delineated by prior studies. For
22 example, in DWR’s 1979 study entitled “Meeting Water Demands in the City of Rohnert
23 Park” (AR, 9:2458-2581), DWR defined the SRP Subbasin consistent with its State-wide
24 guidance on the issue. DWR characterizes a groundwater basin as bounded by one or more
25 of the following: rocks or sediment of low permeability, a geologic structure, such as a fault,
26 and a hydrologic feature, such as a stream, lake or groundwater divide (AR 79:25517). This
27 groundwater boundary definition coincides perfectly with DWR’s 1979 study for the City.
28 Specifically, the Petaluma Formation and Sonoma Volcanics comprise the rocks and

1 sediment, the Sebastopol fault and Rogers Creek comprise the geologic structure and the
2 Russian River and groundwater divide with Petaluma Valley make up the hydrologic
3 boundary. Similar boundaries were determined by PES in its 2000 study. (The maps
4 depicting those basin boundaries determined by DWR and PES are found at AR, 9:2467 and
5 AR, 3:736).

6 Numerous problems exist, however, when comparing the WSA's study boundary with
7 the definition of a groundwater boundary clearly articulated by DWR. First, rather than use
8 that well accepted definition of a "groundwater basin," the WSA arbitrarily defines the study
9 area in terms of a "surface watershed." (AR, 33:8951.) However, this "surface watershed"
10 that comprises the WSA study area is substantially smaller, and different, than the
11 boundaries of the SRP Subbasin. For example, the WSA study area does not extend north
12 into the Laguna de Santa Rosa near Sebastopol, an area in the SRP Subbasin (AR, 33:8994).
13 Thus, the WSA is able to ignore the substantial amount of groundwater production that
14 occurs in that area, such as SCWA's production (ranging up to 4,087 afy) from its three
15 wells located in the Laguna de Santa Rosa (AR, 2:310).

16 Second, the WSA's study area extends southwest into the Wilson Grove Formation
17 area and east into the Petaluma and Sonoma Volcanics Formation areas (AR, 33:8997).
18 However, the Wilson Grove area is not part of the SRP Subbasin, but rather, is part of an
19 entirely separate and distinct groundwater basin -- the Wilson Grove Formation Highlands
20 Basin (AR, 79:25550). Additionally, the eastern portion of the WSA study area is not only
21 outside the boundary of the Subbasin but is not part of a groundwater basin at all (see infra,
22 pp. 25-26).

23 Although this technical information may sound tedious, the City's strategy in
24 redrawing the boundaries of the SRP Subbasin is perfectly clear. More recharge and less
25 production equals a basin that is not in overdraft. The City is able to meet this formula by
26 eliminating the substantial amount of groundwater produced by SCWA from its three wells
27 in Sebastopol, and simultaneously extending the southwestern and eastern boundaries of the
28 SRP Subbasin to seemingly include more recharge.

1 Although the City heavily relies on the increased “recharge” in these extended areas
2 to the east and southwest, the City appears to be the only authority that has concluded that
3 these areas are capable of even sustaining recharge to the SRP Subbasin. In one breath, the
4 City concedes in the WSA that “based on DWR’s definitions and mapping, less than five
5 percent of the [DWR] study area would be classified as a “recharge area” (AR, 33:8969), but
6 then claims that the U.S. Geological Survey mapping software (used by PES) and the DWR
7 recharge classifications “oversimplify recharge conditions by ignoring much of the
8 variability in soil permeability and slope within the study area.” (AR, 33:8970). The City
9 rejects the methodology employed by those federal and state entities by simply noting that
10 “geology does not appear to be a limiting factor in the study area.” (Id.) Yet, it is virtually
11 impossible to determine how the City came to this conclusion, particularly as to the
12 additional area in the eastern portion of the WSA study area. For that area, the study area
13 maps contained in the WSA clearly indicate that there is a “double barrier” to recharge in
14 these areas. This “double barrier” consists of numerous fault zones that cut off groundwater
15 flow (the Rogers Creek Fault Zone) and a substantial amount of unfavorable geology that
16 exists below the permeable soil of much of the study area. (AR, 33:8997).

17 Both faults and unfavorable geology can significantly impact a groundwater basin’s
18 ability to absorb recharge. A fault acts as a groundwater barrier that restricts recharge and
19 creates a “zone of confinement” against which groundwater recharge is restricted (AR,
20 9:2473). In addition, DWR has determined that the Petaluma Formation, which is located
21 along the eastern boundary of the WSA’s extended study area, contains large amounts of
22 clay and “is generally not considered to be a water producing formation.” (AR, 9:2487).
23 That conclusion by DWR was confirmed in its Bulletin 118-4 update for the SRP Subbasin
24 when it stated “the groundwater reservoir is extensively compartmentalized due to the
25 discontinuous nature of most of the water-yielding units and to faulting, which thins water-
26 yielding materials and may impede groundwater flow.” (AR, 10:2596).

27 The fact that there is little recharge in these extended boundaries is also reflected in
28 the WSA itself. Although the WSA contains a large amount of water level data for the

1 numerous wells located throughout the study area, there is not a single groundwater well
2 depicted in the eastern portion of the study area. (AR, 33:8996). One would assume that if
3 there truly is four times more recharge in this study area than determined by PES, as the City
4 claims,⁷ then production wells would have been sited in this water rich area to the east.
5 However, there is not a single production well in that area.

6 2. The WSA Contains Several Criticisms Of The PES Computer Model,
7 Each Of Which Is Fundamentally Flawed

8 In drafting the WSA, the City's newly hired Consultant was faced with an enormous
9 hurdle. That Consultant was tasked with finding an explanation for how the SRP Subbasin
10 could consistently experience declining water levels for 30 years, yet now have sufficient
11 water to sustain the massive amount of development contemplated in the City's General
12 Plan. To accomplish that task, the WSA Consultant was also forced to somehow reconcile
13 its new findings with those made by PES. The WSA Consultant's theory concerning the
14 PES model is comprised of several conclusory statements in a total of two pages, this out of
15 the 217 pages that make up the WSA. Yet, each of those statements is fundamentally
16 flawed.

17 Before reviewing those flawed statements, it is important to recognize that other
18 experts and agencies have embraced the PES conclusions. For example, an expert retained
19 by the County recognized the accuracy of PES' recharge rate of 1,900 afy for the southern
20 half of the SRP Subbasin (AR, 77:25175). In fact, that expert also recognized that "the total
21 amount of natural recharge in the southern portion of the basin is significantly less than one
22 third of the Santa Rosa basin total because much of the basin recharge occurs due to
23 percolation from the Russian River and other larger streams north of Rohnert Park." (Id.)
24 (emphasis added). All of these technical studies led the County itself to conclude that the
25 southern "portion of the Santa Rosa Basin is in an overdraft situation." (AR, 77:25181)
26 (emphasis added).

27 As to the WSA's attempts to criticize the PES study, the WSA claims that PES

28 ⁷ The WSA concludes that there is 8,400 AFY of recharge as compared to the 1,900 AFY of recharge
estimated by the PES study (AR, 33:8975).

1 omitted vast amounts of recharge from its model (AR 33:8973). For example, the WSA
2 contends that PES improperly excluded the extended boundaries of the study area to the
3 southwest and the east (discussed above) because they contain some of the “most permeable
4 soils and the highest recharge potential.” (AR, 33:8973). As discussed above, there is
5 substantial evidence from both DWR and PES that these areas, particularly to the east, are
6 not within the SRP Subbasin, geologically unfavorable to recharge, and bounded by fault
7 zones and, therefore, cannot provide substantial recharge to the SRP Subbasin. Then the
8 City attempts to argue that additional recharge from streams was not accounted for in the
9 PES computer model (AR, 33:8972-73). Yet, this argument is refuted by the City’s 2000
10 EIR, which states that the PES model specifically included “stream channel(s)” and “stream
11 terrace deposits” as “principal water-bearing deposits that comprise the basin within the
12 vicinity of Rohnert Park.” (AR, 3:726.) Finally, the City states that the PES findings did not
13 take into account recharge from “return flow” to the Subbasin from irrigation and septic
14 tanks (AR, 33:8972). Yet, even if true, such recharge is minimal based on the source
15 document relied on in the WSA (AR, 5:1342 and 5:1369). Thus, all of the WSA’s claimed
16 errors in the PES model concerning recharge are themselves erroneous.

17 Second, the WSA states that PES ignored “semi-confined zones” in the SRP Subbasin
18 and instead ran its model as a “single unconfined” basin (AR, 33:8972). A confined basin
19 contains a layer on top (called an “aquitarde”) that prevents groundwater from returning to the
20 surface until the layer is penetrated by a well (AR, 79:25516). The City argues that running
21 a computer model as a single unconfined basin does not distinguish between different zones
22 of the basin and how these zones respond to differing pumping stresses (AR, 33:8973).
23 However, the City’s argument is simply a red herring since the 2000 EIR states specifically
24 that PES recognized both unconfined and semi-confined zones (AR, 3:726), and PES ran its
25 computer model in exactly the manner as DWR ran its primarily unconfined model of the
26 SRP Subbasin in 1982 (AR, 17:4697).

27 The City’s last attack on the PES findings concerns the methodology used by PES in
28 calibrating its computer model. Calibration of a groundwater computer model provides an

1 important “reality check” that verifies the consistency between the recharge estimate
2 produced by the model and historic groundwater elevations. The PES computer model
3 evaluated and calibrated historical responses of groundwater to both steady-state and
4 transient (i.e., changing) conditions (AR, 3:754). The steady-state simulations were
5 performed and calibrated for the years between 1952 and 1970 (AR, 3:754). The transient
6 simulations were performed and calibrated for fluctuations in groundwater pumping between
7 the years of 1970 and 1989 (AR, 3:754). Once these simulations were calibrated, the model
8 was then used to simulate, and accurately predict, recharge rates for the years 1970 through
9 1999 (AR, 3:754).

10 Despite this careful methodology, the WSA criticizes PES’ methodology by claiming
11 that groundwater levels were stable to slightly increasing during the 1990s and the PES
12 model could not reproduce the outcome (AR, 33:8974). This criticism is flawed, however,
13 as the PES model specifically accounted for actual water level data from the 1990s in its
14 model, and then looked at the trend in water levels over a thirty-year period (1970-1999),
15 *double* the period examined in the WSA (1986-2001) (AR, 33:8974). Thus, the PES model
16 not only considered “stabilized water levels” but was also able to make future predictions for
17 the years 2000 through 2010 (AR, 3:753).

18 In contrast, the methodology employed by the WSA cannot account for past
19 fluctuations in water levels or make any prediction as to future levels. For instance, the
20 WSA notes that water levels were declining during the 1980’s and then “stabilized” in the
21 1990’s (AR, 33:8974). However, the City provides no explanation as to how water levels
22 could drop in the 1980’s and then stabilize over the next decade while production of
23 groundwater still remained constant. (Refer to AR, 33:9026 for production levels during that
24 time period). Nor does the WSA provide any explanation for how these “stabilized” water
25 levels in the 1990’s can be reconciled with the increase in rainfall that occurred in that same
26 period. (AR, 79:25748). A logical assumption is that an *increase* in rainfall would lead to a
27 corresponding increase in, rather than a stabilization of, water levels. Thus, water levels
28 should have risen to the same degree that rainfall levels rose in the 1990’s (as depicted by the

1 graph in the Slade report depicting “accumulated” departures in rainfall (AR 79:25748)).⁸
2 However, this was not the case, and this discrepancy is not explained in the WSA.

3 It is difficult to ascertain how the SRP Subbasin’s water levels would not increase
4 during a period of consistently elevated rainfall unless the SRP Subbasin was in overdraft.
5 Perhaps even more telling, is the possible explanation as to why the Subbasin’s water levels
6 were “stabilizing” over this time period. Between 1985 and 1999, the City sited a number of
7 new production wells in the northeast and southeast fringes of the City (AR, 33:8996). Thus,
8 the City was able to flatten out the “cone of depression” in the groundwater table directly
9 below the City boundaries by simply decreasing its production from older production wells
10 in the center of this zone. Corroborating evidence of that phenomenon is provided by the
11 landowners in the Canon Manor area, who testified that their groundwater wells had gone
12 dry (AR, 34:9267, 9273, 9282, 9290), as well as the dropping water level in the Penngrove
13 Water Company well analyzed in the Canon Manor EIR. Thus, the water level in the SRP
14 Subbasin was not actually “stabilizing” but rather was simply shifting.

15 Thus, what the SRP Subbasin is experiencing is called the “step down” effect of a
16 basin in overdraft. In such a basin, the water levels drop in dry years, and then level off in
17 wet years. Repeat cycles of dry and wet years produces a basin that is “stepping down” over
18 time. DWR has created an exemplar hydrograph to illustrate such “historic overdraft.” (AR,
19 79:25526). The startling feature of this hydrograph is that it is nearly the mirror image of an
20 actual hydrograph produced from a DWR monitoring well that exists less than a mile
21 northeast of the City (AR, 33:9154).

22 SB 610 contains a clear mandate that WSAs that rely on groundwater supplies must
23 determine the present conditions in the basin and assess future water supplies for a 20-year
24 period. (Cal. Water Code § 10910 (c)(3).) The WSA fails to comply with this mandate as
25 the City’s methodology is unable to account for past trends in the SRP Subbasin or make
26 predictions for groundwater levels in the future. Accordingly, the WSA should be
27

28 ⁸ An analysis depicting accumulated rainfall departures shows average rainfall at the zero level, then plots the annual and accumulated departures (plus or minus) from that benchmark level.

