

# **Addressing California's Uncertain Water Future by Coordinating Long-Term Land Use and Water Planning: Is a Water Element in the General Plan the Next Step?**

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## Addressing California's Uncertain Water Future by Coordinating Long-Term Land Use and Water Planning: Is a Water Element in the General Plan the Next Step?

Ryan Waterman\*

*More people, less water: this is the widely anticipated future of the state of California. As the state's population grows to 46 million by the year 2020, California will strive to meet water demand with a reduced water supply from the Colorado River, and struggle with the devastating impacts to the Sierra Nevada snow pack caused by global warming. Yet is California preparing for this future today? Does the law direct land-use planners on the city and county levels to work in concert with their water planning counterparts to prepare for these significant challenges? As concern over these issues has grown, recent judicial and legislative action has added new substantive requirements for land-use and water planning, as well as adding procedural requirements that ask land use and water planners to communicate with one another more consistently. In addition, both the Governor's Office of Planning and Research (OPR) and the California Department of Water Resources (DWR) are currently updating influential reference documents for land use and water planning professionals.*

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*This Comment seizes this timely juncture to analyze the legal requirements for long-term land use and water planning in California. It also evaluates a proposal to add a water element as the eighth element of the general plan process for cities and counties. It concludes by offering an opinion to both the OPR and DWR on the efficacy of a water element in the general plan process as a means of improving the connection between land use and water planning.*

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## INTRODUCTION

One does not need a divining rod to recognize that California's water future looks . . . dry.<sup>1</sup> Increased population alone will put a strain on the state's water resources. The Demographic Research Unit of the State of California's Department of Finance projects the State's population will grow by 11.3 million residents by 2020, bringing its population to 45.8 million.<sup>2</sup> According to the most recent State Water Plan published in 1998, by the year 2020 this population growth will result in unquenched water demand of 2.4 million acre-feet (maf)<sup>3</sup> of water in average rainfall years, and 6.2 maf in drought years.<sup>4</sup> These are significant shortfalls. Assuming the typical single-family household uses one-half an acre-foot of water per year, and that the 2000 Census correctly gauged California's average household size at 2.87 persons, a 2.4 maf shortfall is roughly enough water to supply 3.4 million persons, and a 6.2 maf shortfall is enough to supply 8.9 million persons.<sup>5</sup> Of course, urban water users will not be the only ones to suffer from a water shortage—agricultural water users will suffer as well. California agricultural water users use much more water each year than urban water users—79.3% of California's total water use compared to 20.7% for urban water uses.<sup>6</sup>

Beyond California's population growth, two other factors may exacerbate this already challenging situation. First, similar population growth among its western neighbors is forcing California to reduce its use of Colorado River water from approximately 5.2 maf per year to the base amount of 4.4 maf per

1. Editorial, *Welcome to Dry Times*, L.A. TIMES, Nov. 30, 2002, at B20.

2. STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, INTERIM COUNTY POPULATION PROJECTIONS (2001).

3. An acre-foot is a standard measurement for water. One acre-foot is enough water to cover a one-acre area, one foot deep, or 325,851 gallons, or 43,560 cubic feet. See Robert J. Glennon & Peter W. Culp, *The Last Green Lagoon: How and Why the Bush Administration Should Save the Colorado River Delta*, 28 ECOLOGY L.Q. 903, 906 n.6 (2002); COUNTY OF RIVERSIDE GENERAL PLAN OS-4 (2003); *Brydon v. E. Bay Mun. Util. Dist.*, 24 Cal. App. 4th 178, 182 n.1 (1994). As a general rule of thumb, practitioners now estimate that one-half acre-foot is enough water to supply the water needs of one family for a year. See Glennon & Culp, *supra*, at 906 n.6; COUNTY OF RIVERSIDE GENERAL PLAN OS-4 (2003).

4. STATE OF CALIFORNIA, DEPARTMENT OF WATER RESOURCES, STATE WATER PLAN ES1-2 (1998) [hereinafter STATE WATER PLAN]. This figure may exaggerate the projected water shortage. The Department of Finance's population projection for 2020 made in 1998 for the State Water Plan was 47.5 million. *Id.* Today, the Department of Finance estimates that the state's population in 2020 will be 45.8 million, 3.6% less than its 1998 projection. STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, INTERIM COUNTY POPULATION PROJECTIONS (2001).

5. STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, DEMOGRAPHIC RESEARCH UNIT, CENSUS 2000 CALIFORNIA PROFILE (2002), available at [http://www.dof.ca.gov/html/demograp/Census\\_2000\\_CA\\_Profile.htm](http://www.dof.ca.gov/html/demograp/Census_2000_CA_Profile.htm).

6. The California Department of Water Resources apportions water use estimates among urban, agricultural, and environmental water uses. In the 1998 State Water Plan, estimated 1995 water usage in average rain years for each category was 8.8 maf, 33.8 maf, and 36.9 maf, respectively. The Plan estimates that by 2020, water use figures in an average precipitation year for all categories will change to 12.0 maf, 31.5 maf, and 37.0 maf, respectively. See STATE WATER PLAN, *supra* note 4, at ES4-16.

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year apportioned to it by the U.S. Supreme Court.<sup>7</sup> In 2001, agreements with the United States Department of the Interior and California's fellow Colorado water users gave the State a graduated plan to cut back its usage, achieving the 0.8 maf per year reduction by 2015.<sup>8</sup> The California Department of Water Resources had anticipated this reduction in its 1998 State Water Plan,<sup>9</sup> but how could it have foreseen California's latest drama? On December 31, 2002, the principal parties, including the Imperial Irrigation District (IID), the San Diego County Water Authority (San Diego), and the Metropolitan Water District of Southern California (Metropolitan), failed to reach agreement on a water transfer from IID to San Diego. The missed deadline triggered a federal government decision to cut California's allotment of Colorado River water back to its contractual 4.4 maf per year *immediately*.<sup>10</sup> Almost a year later, the parties signed the historic Colorado River Water Delivery Agreement (Colorado Agreement) that transfers water from IID to San Diego and Metropolitan, as well as supplying water to the endangered Salton Sea.<sup>11</sup> The agreement committed California to specific, incremental steps to reduce its dependence on Colorado River water over the next fourteen years while allowing it to take more than its share, gradually easing California back to its authorized annual share of 4.4 maf.<sup>12</sup> In a signing ceremony on the Hoover Dam, Secretary of the Interior Gale Norton said, "[w]ith this agreement, conflict on the river is stilled."<sup>13</sup> Secretary Norton may have spoken too soon. Both the Board of Supervisors of Imperial County and a group of farmers known as the Imperial Group have filed suit against the Colorado Agreement, alleging that the environmental review documents failed to evaluate adequately the environmental and economic harm it will do to the Imperial Valley.<sup>14</sup>

Environmental changes associated with global warming may also contribute to California's water challenges. A national group of researchers associated with the Scripps Institute for Oceanography issued a troubling study

7. The Supreme Court apportioned 4.4 maf of the Colorado River's annual flow to California, given sufficient mainstream flows, as well as 50% of any surplus beyond the 7.5 maf apportioned to the lower basin states. *Arizona v. California*, 376 U.S. 340, 342 (1964); *see also* Glennon & Culp, *supra* note 3, at 912-25, 939 (discussing the formation of the statutory and case law that governs allocation of the Colorado River (known as the Law of the River) and the development of California's claim on water from the Colorado River).

8. *See* Glennon & Culp, *supra* note 3, at 939-50 (describing in detail the complicated set of agreements between Colorado water users and the Department of the Interior to reduce California's use of the Colorado).

9. *See* STATE WATER PLAN, *supra* note 4, at 7-56 to 7-57.

10. *Water Deal: It May Be Too Little, Too Late*, SAN DIEGO BUS. J., Jan. 13, 2003, at 1.

11. Michael Gardner, *Imperial Water Soon Will Head Our Way*, SAN DIEGO UNION-TRIB., Nov. 26, 2003, at A1.

12. Press Release, U.S. Department of the Interior, Secretary Norton Signs Historic Colorado River Water Pact (Oct. 16, 2003), at <http://www.doi.gov/news/031016b.htm>.

13. Secretary Gale Norton, Remarks of Secretary Gale Norton at Hoover Dam Signing Ceremony for Colorado River Water Agreement (Oct. 16, 2003), at <http://www.doi.gov/secretary/speeches/hoover.html>.

14. Tony Perry, *2 Lawsuits Fault New Water Deal*, L.A. TIMES, Nov. 12, 2003, at B5.

in November 2002 describing the projected effects of global warming on California's water supply.<sup>15</sup> Despite being labeled one of the most optimistic of a series of climate change studies, the Scripps report projected that water supplies will fall far short of future water demands.<sup>16</sup> Although the Scripps report projects that overall precipitation levels are likely to remain constant, models show that a warming climate will reduce the Sierra Nevada snow pack (which functions as a natural reservoir).<sup>17</sup> Currently, snow melt in the spring and summer supplies corresponding increases in water demand, but if rain rather than snow falls in the winter, rivers and streams will fill at times when demand is low. California's water reservoirs are not designed for this pattern of precipitation.<sup>18</sup> A study released in February 2004 by the Department of Energy's Pacific Northwest National Laboratory (PNNL) agreed with the Scripps report, stating that global warming will "diminish the amount of water stored as snow in the Western United States by up to 70 percent in the coastal mountains over the next 50 years . . . ."<sup>19</sup> The PNNL study's chief modeler, L. Ruby Leung, also emphasized the model's conservative assumptions. Echoing the findings of the Scripps report, Leung noted, "The change in the timing of the water flow is not welcome . . . [t]he rules we have now for managing dams and reservoirs and irrigation schedules cannot mitigate for the negative effects of climate change."<sup>20</sup>

Based on these substantial concerns, what long-term planning requirements must land use and water planners establish now to ensure a sufficient water supply for their jurisdictions in the future? Considering the significant connection between land use and water use, how integrated should those planning processes be? In 2000, one commentator noted, "planning processes for the two natural resources [land and water] remain structurally isolated. Planning for water and land uses is still conducted by different agencies, at differing times, for different periods of time, by different methodologies, pursuing objectives and goals adopted under differing considerations by different methods, agencies and constituencies."<sup>21</sup>

The time is ripe to analyze the legal requirements for long-term land use and water planning, as well as to make proposals for improvement. First, recent

15. See *Global Warming to Sap the West's Water Needs, Study Finds*, L.A. TIMES, Nov. 21, 2002, at A34.

16. *Id.*

17. *Id.*

18. *Id.* The California Department of Water Resources, which is charged with updating the State Water Plan every five years, is currently in the process of performing its update of the plan. The effect of global climate change on California's water supply is expected to be one area of concern in the 2003 State Water Plan.

19. Pacific Northwest National Laboratory, *PNNL Climate Model Predicts Dry Future* at <http://www.pnl.gov/> (last visited Mar. 22, 2004).

20. *Id.* at <http://www.pnl.gov/main/news/global.html>.

21. James P. Morris, *Who Controls the Waters? Incorporating Environmental and Social Values in Water Resources Planning*, 6 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 117, 157-8 (2000).

judicial and legislative action has added significant new substantive and procedural requirements for land use and water planning, including requirements for increased communication between land use and water planners.<sup>22</sup> In fact, legislative compromises struck in 2001 have caused a pause in revision of the legislative framework, creating a de facto evaluation period to analyze how the new legislation affects land use and water planning.<sup>23</sup> Second, the Governor's Office of Planning and Research (OPR) made an intriguing proposal in its *2003 General Plan Guidelines*.<sup>24</sup> The OPR has suggested that cities and counties include a new water element in their general plan—beyond the currently required seven elements—that focuses on water and the manner in which the city or county will plan for its acquisition, usage, and conservation.<sup>25</sup> This water element would consolidate the jurisdiction's discussion of water issues from other required elements (such as the circulation, conservation, open-space, and safety elements) in one place, making water issues easier for the public to understand. It thus makes sense to evaluate the efficacy of a proposed water element along with the regulatory schema for long-term land use and water planning.

Further, in 2003 the OPR published the *2003 General Plan Guidelines*, which guides cities and counties in preparing their general plans, and the DWR began updating the State Water Plan, which describes the state's water resources and makes future projections. This Comment aims to help both

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22. Since 2000, both the California Legislature and the courts have been actively considering the requirements placed on land use and water planning. In 2001 the California Legislature passed SB 221 and SB 610, two bills that made significant changes in the requirements for land use and water planning. See discussion *infra* notes 69 - 72. In addition, several major court decisions have interpreted the California Environmental Quality Act (CEQA) in ways that place more requirements on land use and water planners. See *Planning and Conservation League v. Dep't of Water Resources*, 83 Cal. App. 4th 892 (2000) (disapproving contract reformation between the Department of Water Resources (DWR) and its water contractors); *Santa Clarita Org. for Planning the Env't (SCOPE) v. County of Los Angeles*, 106 Cal. App. 4th 715 (2003) (finding that CEQA prohibits reliance on "paper water," specifically water from the State Water Project (SWP) that the water provider has an entitlement to but the DWR has little chance of actually serving due to lack of capacity in the SWP).

23. In a letter to the California Senate President pro Tempore John Burton (D-San Francisco) published in the *Senate Daily Journal*, Senator Sheila Kuehl, author of one of two bills designed to coordinate land use and water planning, wrote:

In order to allow for a reasonable period of time for SB 221 to be properly implemented, and to provide for an opportunity to assess and evaluate how it is being implemented, the author and the stakeholders of SB 221 agree that they will not introduce any legislation regarding the subject matter of this bill for a period of five years from the effective date, unless unforeseen circumstances resulting from implementation of SB 221, or the need for clarification, require it.

CAL. SENATE DAILY J. 3039 (Sept. 14, 2001). For a thorough discussion of SB 221 and its companion bills, SB 610 and AB 901, see Section II.C, *infra*.

24. See STATE OF CALIFORNIA, GOVERNORS OFFICE OF PLANNING AND RESEARCH, GENERAL PLAN GUIDELINES 128-135 (2003) [hereinafter OPR GUIDELINES].

25. *Id.* The seven required elements in the general plan are: land use, circulation, housing, conservation, open-space, noise, and safety. CAL. GOV. CODE § 65302(a)-(g) (2003). For a discussion of the general plan, see Section II.A, *infra*.

agencies consider the efficacy of a water element in the general plan process in order to improve the connection between land use and water planning.

The purpose of this Comment is four-fold. First, it defines the legal requirements for long-term water management planning currently required of land use and water planners by existing statutory and case law. Second, it evaluates the comprehensiveness of that regulatory schema. Third, it explores the arguments for and against adding a proposed water element to the general plan process. Fourth, it makes a recommendation to the DWR and the OPR about how each should respond to such a proposal.

The Comment proceeds as follows. Section I describes recent judicial and legislative attempts to integrate land use and water planning. Sections II and III present how land use and water planning agencies are required to conduct water management planning in the current scheme. These sections also examine points of intersection between the agencies. Section IV presents a graphic depiction of the points where water and land use planning intersect. Section V analyzes the comprehensiveness of the regulatory framework for long-term water management for land use and water planning. Section VI describes the OPR's model water element, evaluates the general plans of three counties that have already taken steps to integrate land use and water planning in their general plans, and suggests techniques for preparing a water element for the general plan. Section VII analyzes the possible advantages and drawbacks of a water element, and the final Section concludes with the author's recommendations and areas for further research.

I. CONVERGENCE OF LITIGATION AND LEGISLATION AT THE FAULT LINE OF LAND USE AND WATER PLANNING

Conflict over water is nothing new to the residents of California, but in the early 1990s, a battle between unusual combatants brought attention to the intersection of water and land use planning. In retrospect, the Dougherty Valley conflict between the East Bay Municipal Utility District (EBMUD) and Contra Costa County can be viewed as one of the foreshocks of a liquid earthquake—the first jolt of a movement that will significantly change the nature of land use and water planning in California.

This section provides a brief chronology of the steps already taken to integrate land use and water planning. It recounts the highlights of the past decade, beginning with the story of Dougherty Valley, and traces major legislative and judicial responses. The section also sets the stage for a more thorough analysis in Sections II and III of how these initial steps have been integrated into the baseline requirements for water and land use planning.

A. *Dougherty Valley: Early Rumbles of Water Conflict*

In 1991, State Assemblyman Cortese introduced AB 455. This was one of the first attempts to ensure that a legislative body could not approve

development without first determining the existence of a sufficient water supply. The bill would have added one section to the California Government Code, which would have read: “[n]o lead agency shall approve a development project unless the applicant identifies a long-term, reliable supply of water to serve the proposed project.”<sup>26</sup> Although the bill never became a law, the problem it attempted to regulate soon became front-page news.

A few days before Christmas 1992, the Contra Costa County Board of Supervisors (Contra Costa) approved the largest housing development in the county’s history.<sup>27</sup> Destined for the Dougherty Valley near the communities of Dublin and San Ramon,<sup>28</sup> Shapell Industries and Windemere Ranch Partners (Shapell/Windemere) proposed a development that consisted of 11,000 new homes to house roughly 30,000 people.<sup>29</sup> A \$4 billion project, it would be built over a thirty-year period, and when completed would use 5.4 million gallons of water per day.<sup>30</sup>

But from where would the water come? The most logical supplier was the East Bay Municipal Utility District (EBMUD), water purveyor to 1.3 million East Bay residents,<sup>31</sup> but the majority of the proposed Dougherty Valley development lay outside EBMUD’s service area. Ignoring EBMUD’s plea not to approve the development without securing another source of water, Contra Costa gave its go-ahead for the project by approving a general plan amendment, specific plan, and Environmental Impact Report (EIR), all listing EBMUD as the primary water provider.<sup>32</sup> EBMUD responded by refusing to

26. See Randle Kanouse, Presentation at the Association of Environmental Professionals Conference (April 19, 2002) (presentation on file with author).

27. Kevin Fagan, *Contra Costa to Be Sued Over Water Plan*, S.F. CHRON., Jan. 14, 1993, at A19; Robert B. Gunnison, *Senate to Debate Water Bill Today*, S.F. CHRON., Sept. 8, 1993, at A13.

28. The Dublin/San Ramon area lies approximately 34 miles almost due east of the City of San Francisco and sits in the San Ramon Valley on the inland side of the coastal foothills. Weather data for nearby Livermore, California, which sits in the same valley, has been kept since 1930 by the Western Region Climate Center. It reports that average yearly precipitation is 14.48 inches per year. Temperatures range from an average high of 57 degrees to a low of 36 degrees in January, the coldest month, to an average high of 89 degrees and a low of 54 degrees in July, the area’s hottest month. Western Region Climate Center at <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calive+nca> (last visited Jan. 21, 2004).

29. Fagan, *supra* note 27; Gunnison, *supra* note 27.

30. Rob Haeseler, *Big East Bay Water Fight May Dry Up*, S.F. CHRON., June 26, 1995, at A1.

31. EAST BAY MUNICIPAL UTILITY DISTRICT, SHAPING OUR FUTURE: EAST BAY MUNICIPAL UTILITY DISTRICT ANNUAL REPORT 4 (2002).

32. Fagan, *supra* note 27; Haeseler, *supra* note 30. A City or County’s general plan is its long-term plan, which guides future development. See Section II.A, *infra*, for a more thorough description. A specific plan is a more detailed planning document than the general plan, and is used to implement the general plan’s policies in a subarea of the general plan area. CAL. GOV. CODE § 65450 (2003). It must be consistent with the general plan. *Id.* § 65454. An Environmental Impact Report, or EIR, is required by the California Environmental Quality Act (CEQA) “whenever substantial evidence supports a fair argument that a proposed project may have a significant effect on the environment. Significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment.” *Laurel Heights Improvement Ass’n v. Regents of Univ. of Cal.*, 6 Cal. 4th 1112, 1123 (1993) (citations omitted). See Section II.B, *infra*, for a more detailed description of CEQA’s requirements.

serve the Dougherty Valley development, citing insufficient supply to accommodate projected demand in its existing service area, let alone providing service to Dougherty Valley. It also quickly filed suit to overturn Contra Costa's approval of the project's EIR, alleging that Contra Costa had not complied with the California Environmental Quality Act (CEQA).<sup>33</sup>

The fight got ugly fast. Shapell/Windemere hired Barry Brokaw, former chief aide to State Senator Dan Boatwright (D-Concord), and Richie Ross, Boatwright's former campaign manager, to generate public support for the development. They requested public records detailing EBMUD's spending, hunting for items that might embarrass EBMUD in the press. Their findings were publicized in a column by the notorious muckrakers Matier and Ross in the *San Francisco Chronicle*.<sup>34</sup> At the same time, Senator Boatwright proposed legislation to force EBMUD to supply Dougherty Valley with water by placing the Local Agency Formation Commission in a position to assess whether EBMUD was truly unable to serve the development with water.<sup>35</sup> In December 1993, the legal battlefield became more complex as Contra Costa County and Shapell/Windemere filed their own suits against EBMUD, alleging that EBMUD's policies illegally hampered development.<sup>36</sup>

The battle over public opinion took a sharp turn in EBMUD's favor when Superior Court Judge David Allen set aside the Contra Costa County's general plan amendment and EIR, writing that the county's

[a]pproval of the project without knowing whether water is, or will be, available to serve the project fails to achieve the fundamental purpose of the California Environmental Quality Act to inform the public and responsible officials of the environmental consequences of their decisions before they are made.<sup>37</sup>

33. Fagan, *supra* note 27; Haeseler, *supra* note 30.

34. Phillip Matier & Andrew Ross, *Water District Spent \$29,000 for Bottled Water*, S.F. CHRON., June 14, 1993, at A13 (the most widely quoted item from this publicity campaign was \$29,075 spent on bottled water. EBMUD later explained that the water was purchased to supply workers at a wastewater plant where the water lines had broken).

35. Tupper Hull, *Battle Lines Drawn in Contra Costa Over Water*, S.F. CHRON., July 7, 1993, at A1. Every County in California has a Local Agency Formation Commission, or LAFCO. CAL. GOV. CODE § 56325. Generally, a LAFCO is composed of two representatives from the County Board of Supervisors, two representatives chosen from among the city council members of the cities within the County, two representatives chosen from among the officers of the independent special districts in the County, and one representative from the general public. *Id.* Some counties have LAFCO memberships defined by statute, such as Los Angeles, Sacramento, Santa Clara, and San Diego counties. *See Id.* §§ 56326-28. LAFCOs are responsible for determining whether an unincorporated area can be incorporated into an existing city, or whether a new city should be incorporated altogether. *Id.* § 56375. They determine whether a special service district should be created to provide public services (such as water, sewer, transit, or numerous other services), or whether an existing special service district should be disbanded because it is no longer useful. *Id.* LAFCOs also serve an important informational function and are charged with studying and inventorying the abilities of local governments and service providers. *Id.* § 56378.

36. *County, Developers Sue EBMUD on Water Policy*, S.F. CHRON., Dec. 4, 1993, at C16.

37. *Judge Voids Huge E. Bay Home Tract*, S.F. EXAMINER, May 27, 1994, at A6.

In a later decision in a suit brought separately by environmentalists, Judge Allen also ruled that Shapell/Windemere had not adequately addressed the source of wastewater and sewage treatment facilities.<sup>38</sup>

As the appeals to Judge Allen's decision began, a hotly contested election for seats on the EBMUD Board of Directors raged. In the previous 1990 election, citizens elected environmentally-oriented candidates to four of the Board's seven positions.<sup>39</sup> In the 1994 election, however, the Building Industry Association of Northern California spent \$150,000 in mailings to defeat two of the environmentally-oriented EBMUD Board incumbents.<sup>40</sup> The 1994 election reconstituted EBMUD's Board, returning only two of the four environmentalists.<sup>41</sup> Instead of a four to three pro-environmental majority, the Board now had what one observer described as a "five-to-two pragmatic majority . . . interested in developing new sources of water, including tapping the American River," a project that the environmental board members opposed.<sup>42</sup>

After the election, the parties reached a settlement agreement before the appellate court issued a ruling. Shapell/Windemere agreed to seek other sources of water and drop its suit against EBMUD, while EBMUD agreed to serve Dougherty Valley if Shapell/Windemere's "best efforts" to find another source of water failed.<sup>43</sup> The developers would have to pay for any conservation programs if EBMUD ran short of water, and drought conditions would stop additional development completely.<sup>44</sup> The reconstituted EBMUD Board voted 4-3 to approve the settlement, as did the Contra Costa Board of Supervisors with a vote of 3-2.<sup>45</sup>

In the end, Shapell/Windemere found water for the Dougherty Valley development in a remote rural corner of Kern County, available for \$7 million, from the Berrenda Mesa Water District.<sup>46</sup> Shapell/Windemere made the deal in 1994, buying permanent rights to 7,000 acre-feet, enough to supply

38. Erin Hallissy, *Coyote Creek Becomes First Piece of Huge Dougherty Valley Project*, S.F. CHRON., June 22, 1994, at A15.

39. Haeseler, *supra* note 30.

40. *Id.*

41. *Id.*

42. *Id.* (quotations omitted).

43. Erin Hallissy, *Contra Costa, EBMUD Settle Suit Over Water Supply*, S.F. CHRON., Aug. 9, 1995, at A15.

44. Allen Matthews, *Dougherty Valley Water Proposal*, S.F. CHRON., June 27, 1995, at A15.

45. Hallissy, *supra* note 43.

46. Dale Kasler, *Private Water Sales Are Paving Way For Growth*, SACRAMENTO BEE, Sept. 22, 2002. It may seem odd that the Dougherty Valley development near the Bay Area would be buying water from a water district in Kern County. To understand it, one must remember that in California, water runs north to south just as much as it runs downhill. The water rights Shapell/Windemere bought were for water running in the California Aqueduct, which passes through nearby Tracy on its way south towards Kern County. Instead of being pumped from Kern County north to Dougherty Valley, the water is diverted from the California Aqueduct and piped to Dougherty Valley. Even so, Tom Koch, a Dougherty Valley manager, said, "the cost of shipping the water will run into the millions over the life of the project." *Id.*

approximately 14,000 homes.<sup>47</sup> Although litigation challenging the Dougherty Valley development has continued, Shapell/Windemere had constructed 964 homes and 252 apartment units by March 2003.<sup>48</sup> Yet the Dougherty Valley conflict prompted both the legislature and the courts to look more closely at the intersection of land use and water planning.

*B. Brief Summary of Legislative and Judicial Action after Dougherty Valley*

The first response to prevent a future Dougherty Valley-type conflict was legislative. Sponsored by Senator Costa (D-Fresno) and passed in 1995, Senate Bill 901<sup>49</sup> attempted to ensure that cities and counties collaborate with water agencies early in the planning process. The bill required cities and counties to obtain a water supply assessment from the water supplier for large projects requiring a general plan amendment or specific plan. Cities and counties also had to include this information in the EIR prepared for the project.<sup>50</sup> While the land use jurisdiction retained the ultimate decision-making power to approve or reject the proposed development regardless of the information provided by the water supplier, SB 901 was one of the first laws that required land use and water agencies to communicate with each other.

Unfortunately, jurisdictions found SB 901 easy to avoid. A study by EBMUD in 2000 found that of the 119 large-scale developments subject to SB 901 between 1996 and 2000, only 2% complied with all five of its requirements.<sup>51</sup> In fact, 24% failed to comply with the law at all, 36% only complied with the first provision by identifying the water supply to be relied upon, and 38% identified the water supply and at least one of SB 901's four other elements: 1) proving water supplies, 2) assessing drought conditions, 3) analyzing third-party impacts, and 4) developing additional supplies.<sup>52</sup> In the opinion of one observer, SB 901 was "more often than not honored only in the breach" of its provisions.<sup>53</sup> These revelations spurred further legislative attempts to close the loopholes in SB 901, but the next part of the story takes place in the courts.

As cities and counties were implementing SB 901 to questionable extent, the courts began ruling on challenges to development based upon the California

47. *Id.*

48. Linda Davis, *Long-planned Dougherty Valley Fast Becomes Reality*, CONTRA COSTA TIMES, Mar. 5, 2003.

49. See CAL. WAT. CODE §§ 10910-10915 (2003).

50. SB 901 amended Section 65302 and added Section 65302.2 to the Government Code, added Section 21151.9 to the Public Resources Code, and added Part 2.10 (commencing with Section 10910) to Division 6 of the Water Code. See [http://info.sen.ca.gov/cgi-bin/postquery?bill\\_number=sb\\_901&sess=9596&house=B&site=sen](http://info.sen.ca.gov/cgi-bin/postquery?bill_number=sb_901&sess=9596&house=B&site=sen) for the full text of the bill.

51. Kanouse, *supra* note 26.

52. *Id.*

53. Matthew D. Zinn, *California's New Water-Supply Planning Statutes: Selected Problems of Application*, 5 CAL. ENVTL. L. REP. 123, 123 (May 2002).

Environmental Quality Act (CEQA). In *Stanislaus Natural Heritage Project v. County of Stanislaus*, 48 Cal. App. 4th 182 (1996), the Fifth District Court of Appeal invalidated Stanislaus County's first tier EIR for a specific plan detailing a 29,500 acre residential and resort development because the County did not know what water supply source the development would use after the first five years of the multi-year project.<sup>54</sup> Many commentators interpreted this decision as a directive to land use planners not to get ahead of the planning efforts of their water supply counterparts.<sup>55</sup> Although *Stanislaus Natural Heritage Project* was grounded in CEQA and not legal changes made by SB 901, it sounded the same theme—namely that land use planners must get some assurance about water supply from their water planning cohorts before project approval.

The next landmark appellate decision, coming this time from the Third District Court of Appeal, was *County of Amador v. El Dorado County Water Agency*, 76 Cal. App. 4th 931 (1999). In *County of Amador*, the court invalidated the El Dorado County Water Agency's (EDCWA) certification of an EIR approving a water supply project designed to serve future growth in El Dorado County.<sup>56</sup> The court found the EIR fundamentally flawed because "[t]he need for new water supplies was predicated on [growth] projections contained in a draft, unadopted general plan."<sup>57</sup> The court concluded that allowing EDCWA to justify its new water supply project with a draft, unadopted general plan would create a circular process that would defeat CEQA's intent.<sup>58</sup> If a water supply project could be built to supply growth projections in a draft general plan, then there would be no reason to disapprove the draft general plan because a water supply would be available to serve it.<sup>59</sup> In the court's opinion, this self-justifying loop would prevent the land use agency from ever seriously contemplating the effects of new development called for in the general plan.<sup>60</sup> Although the court limited its holding to a water project based on a *draft* general plan, it raised a new question: can long-term water planning look beyond the typically ten to fifteen year time horizon of the general plan for the jurisdiction it seeks to serve? If not, this result could be seen as conflicting with the holding of *Stanislaus Natural Heritage Project*, unless one understands the land use and water planning process as an integrated whole that should never get out of balance.

While *Stanislaus Natural Heritage Project* took issue with the County's lack of discussion of water supply, *Planning and Conservation League v.*

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54. *Id.* at 195. For a brief explanation of EIR tiering, see *infra* note 166.

55. Jim Moose, CEQA Land Use and Water Supply Planning, and Groundwater Impact Assessment 6 (May 7, 2001) (unpublished article on file with author).

56. *Id.* at 941.

57. *Id.*

58. *Id.* at 950-51.

59. *Id.* at 950.

60. *Id.*

*Department of Water Resources*, 83 Cal. App. 4th 892 (2000), highlighted another problem—the possibility of land use agencies relying on “paper water” to approve development. In *Planning and Conservation League*, the court invalidated an EIR studying the effects of an agreement (known as the Monterey Agreement)<sup>61</sup> that modified the contracts between the Department of Water Resources (DWR), and the urban and rural water contractors with entitlements to water from the State Water Project (SWP).<sup>62</sup> In its original design, the DWR intended the SWP to deliver 4.2 million acre-feet (maf) of water per year, but only half of the intended waterworks were actually built, creating only half the anticipated capacity.<sup>63</sup> Despite the gap between what the DWR designed and what was built, the water contractors based their entitlements to SWP water on the full build-out capacity of the SWP, creating entitlements to “paper water” —water that could not be delivered by the DWR because the SWP had never been finished.<sup>64</sup> The DWR’s contracts with the water contractors addressed the problem of paper water in article 18, subdivision (b) of the contracts, which provided for a pro rata reduction of all contractors’ entitlements should the DWR determine that the SWP would never be completed.<sup>65</sup>

The most important change wrought by the Monterey Agreement was the elimination of article 18, subdivision (b), which assured that water contractors’ entitlements would never be reduced.<sup>66</sup> The court invalidated the Monterey Agreement’s EIR because it failed to consider the effect of removing article 18, subdivision (b), on land use decisions.<sup>67</sup> The court noted, “[t]here is certainly the possibility that local decision makers are seduced by contractual entitlements and approve projects dependent on water worth little more than a wish and a prayer.”<sup>68</sup>

By year-end 2001, the legislature once again approved a law designed to integrate land use and water planning.<sup>69</sup> Senator Costa sponsored SB 610, a revision and extension of SB 901. SB 610 expanded on two existing water

61. The agreement was dubbed the Monterey Agreement because the negotiations that created it were held in Monterey, California. 83 Cal. App. 4th at 901.

62. *Id.* at 901-02. A more detailed explanation of the Department of Water Resources and the State Water Project it operates is included in Section III.A.1, *infra*.

63. *Id.* at 898-99.

64. *Id.* at 914.

65. *Id.* at 899-900.

66. *Id.* at 908.

67. *Id.* at 915.

68. *Id.*

69. This is not to suggest that the intervening six-year period between the passage of SB 901 and the next series of legislative efforts to tighten the links between water and land use planning were void of legislative activity. In fact, lobbyists from the East Bay Municipal Utility District were especially important in convincing state water planners, building industry policymakers and local government representatives that water supply planning continued to be a serious issue in need of more comprehensive legislation. Interview with Rande Kanouse, Manger of Intergovernmental Affairs, East Bay Municipal Utility District, in Sacramento, Cal. (Dec. 19, 2002).

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planning measures.<sup>70</sup> First, it revised the substantive and procedural requirements of the Urban Water Management Plan Act (UWMP), which requires water agencies to produce a report on their water supplies and the projected demands on those supplies. Second, it strengthened the water supply assessment provision first introduced by SB 901. Senator Sheila Kuehl (D-Los Angeles) sponsored SB 610's companion bill, SB 221, which introduced a new water supply verification requirement at the tentative subdivision map approval stage.<sup>71</sup> Under SB 221, approval of a large residential subdivision requires substantial evidence that a sufficient water supply is available to serve the subdivision's existing and planned water uses. Finally, Assemblywoman Lynn Daucher (R-Anaheim) sponsored AB 901, which required that the water agency's UWMP include "information . . . relating to the quality of existing sources of water . . . and the manner in which water quality affects water management strategies and supply reliability."<sup>72</sup>

The courts have made the most recent push to integrate land use and water planning. In *Santa Clarita Organization for Planning the Environment (SCOPE) v. County of Los Angeles*, 106 Cal. App. 4th 715 (2003), the Second District Court of Appeal returned to the issue of "paper water," first introduced in *Planning and Conservation League*. At issue in *SCOPE* was the County of Los Angeles' approval of an EIR studying the impacts of a development in the Santa Clarita Valley involving 2,545 housing units, 180,000 square feet of commercial retail, and 46 acres of community facilities.<sup>73</sup> The court opened its opinion with a clear statement: "An environmental impact report for a housing development must contain a thorough analysis that reasonably informs the reader of the amount of water available."<sup>74</sup> The court found Los Angeles County's EIR deficient because it relied on SWP entitlements to show a sufficient water supply. In vacating the County's approval of the EIR, the court concluded that,

the EIR fails to undertake an adequate analysis of how much water the SWP can actually deliver . . . . Without such information, the general public and its responsible officials cannot make an informed decision on whether to approve the project. The County's approval of the West Creek EIR is not supported by substantial evidence.<sup>75</sup>

Interestingly, the *SCOPE* court was not impressed by the EIR's discussion of the water supply verification requirement put into place by SB 221. The EIR claimed that because each subdivision included in the West Creek development would have to obtain a water supply verification before its tentative subdivision map could be approved, the development itself "would not result in an

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70. See Section II.C for a detailed description of SB 610's provisions.

71. For a more detailed description of SB 610 and 221's requirements, see Section II.C, *infra*.

72. CAL. WAT. CODE § 10634 (2003).

73. 106 Cal. App. 4th at 718.

74. *Id.* at 717.

75. *Id.* at 724.

unavoidable significant cumulative impact on Santa Clarita Valley water resources.”<sup>76</sup> Despite this later check on incremental subdivision development, the court still insisted that CEQA requires an evaluation of a comprehensive project’s water supply in the first-tier EIR. In fact, the court ignored the fact that this subsequent water supply verification would take place in the County’s discussion of the information to be included in the EIR.

II. LAND USE PLANNING LAW: WATER PLANNING REQUIREMENTS IN LAND USE DECISION-  
MAKING

Understanding the legal requirements linking land use and water planning is critical not only to evaluating how well prepared California is to manage its water challenges, but also for considering the potential benefits and challenges of measures to improve the connections between the two disciplines. This section looks at water management planning required of land use planning agencies by California statutory and case law.

“Water management planning,” as used in this Comment, refers to the interconnected issues of: water supply (including water conservation), water quality, wastewater treatment and disposal, flood management, watershed management, and stormwater management. While evaluating the required planning duties of both land use and water planning agencies, this Comment notes the statutory and judicial requirements placed on the agencies for each of these areas. This is important because the proposed water element described in Section VI suggests that all of these areas should be included in such an element.

This section proceeds as follows. First, it evaluates the water planning requirements inherent in the general plan process. Second, it describes several important judicial interpretations of the California Environmental Quality Act (CEQA), which have added to the requirements imposed on land use planning agencies in the general plan process. Third, it includes several recent legislative actions—most notably SB 610 and SB 221—that have attempted to link water management planning more closely with land use planning.<sup>77</sup>

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76. *Id.* at 719.

77. As mentioned earlier, several important pieces of legislation took effect on Jan. 1, 2002, which raised the level of detail required for water planning and more closely linked the land use and water planning processes. These bills did so by amending and adding provisions to existing laws governing city and county land use planning, and water district planning. For example, SB 610 expanded and extended the requirements initially introduced by SB 901 in 1995. Where appropriate, the author has included textual references and footnotes identifying the changes made by these important bills to the general plan and UWMP statutory framework. For specific discussion of SB 221 and 610 and a thoughtful analysis of potential interpretive issues, see Zinn, *supra* note 53.

A. *The General Plan Requirement and Water Management*

Each city or county must prepare “a comprehensive, long term general plan,”<sup>78</sup> which functions as the constitution of the city or county.<sup>79</sup> There is no specific requirement for how far into the future the general plan must project, or how frequently it must be updated,<sup>80</sup> although it should be reviewed regularly and revised as new information becomes available.<sup>81</sup> Many jurisdictions use a planning time frame of fifteen to twenty years for their general plan, although there is no standard planning horizon.<sup>82</sup> The statutory framework for the general plan requires treatment of seven mandatory elements: land use, circulation, housing, conservation, open-space, noise, and safety.<sup>83</sup> These elements must be internally consistent with one another, creating an integrated, usable document.<sup>84</sup>

General plan requirements include both informational requirements (specific discussion of particular issues related to planning, i.e. the location of floodplains within the jurisdiction), and procedural requirements (procedures that planning agencies must follow while preparing a general plan). These requirements are not segregated in the statute, but it is helpful to consider them in turn for several reasons. First, planning problems may arise from insufficient information being included in a general plan, from inadequate communication between agencies during the planning process, or from a combination of the two. Segregating the informational and procedural requirements as they currently stand presents a clearer picture of where possible weaknesses may lie. For example, land use planning agencies must incorporate large amounts of information into general plans, and it is helpful to examine what information land use agencies are required to provide on their own, and what information they are required to obtain through consultation with other agencies. Any requirement that forces one agency to consult with another creates an opportunity to build relationships, develop more sophisticated analyses, and to treat the subject more comprehensively. However, such consultation also risks miscommunication, dysfunctional processes, and cursory, arms-length

78. CAL. GOV. CODE § 65300 (2003).

79. Each city and county must adopt a general plan “for the physical development of the county or city, and any land outside its boundaries that bears relation to its planning.” CAL. GOV. CODE § 65300. The general plan has been called a city or county’s Constitution for future development. *See* OPR GUIDELINES, *supra* note 24, at 10.

80. The exception to this general statement is the housing element, which must be updated every five years. *See* CAL. GOV. CODE § 65588. In addition, the Office of Planning and Research is required to notify a city or county if it has not updated its general plan in eight years, and the California Attorney General if city or county has not updated its general plan in ten years. CAL. GOV. CODE § 65040.5(a)-(b).

81. CAL. GOV. CODE § 65103(a).

82. OPR GUIDELINES, *supra* note 24, at 14 (noting that “the local jurisdiction may choose a time horizon that serves its particular needs.”).

83. CAL. GOV. CODE § 65302(a)-(g).

84. *Id.* § 65300.5.

exchanges. By isolating the substantive and procedural aspects of the general plan process, it may be possible to see more clearly where improvements can be made. Second, segregating the analysis in this way also furthers this Comment's ultimate goal of evaluating what a proposed water element may add to the planning process. By clearly presenting the informational baseline requirements for general plans, it will be easier to review the benefits and drawbacks of the proposed water element.

1. *Informational Requirements in the General Plan*

California Government Code section 65302 describes the elements of a general plan and the minimum subject matter that the plan must address within each element, although jurisdictions may add more detail.<sup>85</sup> Recognizing the vast differences among cities and counties within the state, section 65301(c) directs that each of the elements should be addressed in general plans "to the extent that the subject of the element exists in the planning area. The degree of specificity and level of detail of the discussion of each such element shall reflect local conditions and circumstances."<sup>86</sup>

Of the seven mandatory elements that cities and counties must cover in their general plans, some degree of water management information addressing water supply, water quality, wastewater treatment and disposal, flood management, watershed management, and/or stormwater management is required in five of them: land use, circulation, conservation, open-space, and safety.

**Land Use Element:** The land use element designates "the proposed general distribution and general location and extent of uses of the land . . ."<sup>87</sup> It presents the guiding principles that govern the approval of future land use within the jurisdiction. For example, the Riverside County General Plan, adopted in October 2003, provides a Land Use Element with three sections: (1) a background section that describes the natural and urban setting of the county; (2) a statistical summary detailing land usage and buildout capacities; and (3) a section with land use policies that direct future development.<sup>88</sup>

Although some jurisdictions have added more requirements, the only statutorily required water management content that planning agencies must include in the land use element is to "identify areas covered by the plan which are subject to flooding . . ."<sup>89</sup> There are no explicit statements in the Government Code—beyond description of flood plains—about how water management planning should be integrated into the land use decision-making

85. *Id.* § 65303.

86. *Id.* § 65301(c).

87. *Id.* § 65302(a).

88. COUNTY OF RIVERSIDE GENERAL PLAN, ch. 3, LU-1 to LU-2 (2003).

89. CAL. GOV. CODE § 65302(a).

process.<sup>90</sup> Conspicuously absent in the land use element are requirements to include consideration of water supply and water quality issues created by new development. In fairness, many of the other required elements refer back to and must be consistent with the land use element, thereby imputing the other elements' water management planning requirements back to the land use element. Yet, it is the approved pattern of land use that will dictate the demands on an area's water resources. The almost complete absence of water management requirements in the land use element is an initial indication of the disconnect between the land use and water planning functions.

**Circulation Element:** The circulation element requires an accounting of "the general location and extent of existing and proposed . . . local public utilities and facilities, all correlated with the land use element of the plan."<sup>91</sup> At a minimum, this element requires description of existing and proposed water infrastructure, as well as wastewater treatment and disposal infrastructure, overlaid onto the land use map. While this information is important, it is only a descriptive requirement that generally has no normative effect on development. The exception is land reserved for water-related uses, such as runoff basins, canals, or reservoirs, which must be described in a jurisdiction's open space element, as discussed, *infra*.

**Conservation Element:** The conservation element is one of two elements in which water management planning is most clearly intended by the statutory language, yet its provisions are so broadly construed that they could justify almost any interpretation a jurisdiction might supply. The conservation element is for "the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources."<sup>92</sup> Further, it "shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on *public lands* . . ."<sup>93</sup> Finally, if the water agency that supplies water to the development has provided water supply and demand information to the jurisdiction, then the jurisdiction shall coordinate with the water agency by discussing the information.<sup>94</sup> Yet nothing in the law goes further to define what kind of analysis these broad statements require.

In the absence of clarity, one can find guidance from the Office of Planning and Research (OPR), which is charged with aiding cities and counties

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90. *Id.*

91. *Id.* § 65302(b).

92. *Id.* § 65302(d).

93. *Id.* (emphasis added) (depending on the percentage of privately-owned land within the jurisdiction, this could be a substantial limitation on the conservation element's analysis of the impact of development proposed in the land use element).

94. *Id.*

in complying with their general plan requirement.<sup>95</sup> According to the OPR, the conservation element has not been “the specific subject of either court decisions or legal opinions of the California Attorney General.”<sup>96</sup> The OPR’s *2003 General Plan Guidelines*, however, assume that the conservation element is the proper place to inventory water resources (rivers, lakes, streams, etc.), define watershed boundaries, assess water supply and water quality, and project water demand, supply, and quality.<sup>97</sup>

The law creates no affirmative obligation to provide this information, however. Section 65302(d) only notes that the conservation element

may also cover the following: (1) The reclamation of land and waters. (2) Prevention and control of the pollution of streams and other waters. (3) Regulation of the use of land in stream channels . . . (5) Protection of watersheds. . . [and] (7) Flood control.<sup>98</sup>

In fact, many counties do detail their water supply, water quality, and watershed management plans in the conservation element.<sup>99</sup> Yet the substance of those discussions is left almost entirely up to the jurisdiction preparing the plan.

**Open Space Element:** The open space element is the second place where water management planning is clearly contemplated in the law. Open space land is defined as “any parcel or area of land or water that is essentially unimproved and devoted to an open-space use . . . .”<sup>100</sup> This definition controls the breadth of the open space element. The element requires a description of lands designated as open space lands for the purposes of

[1] preservation of natural resources including, but not limited to . . . habitat for fish and wildlife . . . rivers, streams, bays and estuaries . . . and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands, [2] managed production of natural resources, including but not limited to . . . areas required for recharge of ground water basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries . . . , [3] outdoor recreation, including but not limited to, areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams, [and 4] “public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special

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conditions such as . . . floodplains, watersheds . . . [and] areas required for the protection of water quality and water reservoirs . . . .<sup>101</sup>

Unless land is defined as “essentially unimproved and dedicated to an open-space use,” the aforementioned requirements do not apply.

To its credit, the open space element lists its required water management subject matter in finer detail than any other element, requiring discussion about water supply (recharge of groundwater basins), watershed management, flood management, and water quality (areas required for the protection of water quality and water reservoirs).<sup>102</sup> While some of the open space element’s requirements may overlap with the conservation element’s requirements, the open space element’s specificity is greater than that of the conservation element. In some cases, jurisdictions have combined the conservation and open space elements into a single element.<sup>103</sup>

**Safety Element:** Finally, the safety element requires mapping of hazardous zones for flood, dam failure, tsunamis, and slope instability, as well as planning to avoid catastrophes and to address them if they ever occur.<sup>104</sup>

In summary, general plans’ informational requirements for water management planning are minimal and largely avoidable. Lack of specificity in some places, most notably the land use and conservation elements, robs general plan requirements of some of the impact they would otherwise have. The requirements leave much interpretive room to the cities and counties preparing the general plans, which may allow them to avoid, or supply insufficient discussions of, important water management planning issues.

## 2. *Process Requirements in Preparation of the General Plan*

Land use planning agencies must often gather information from outside sources while preparing general plans. In addition, the Government Code mandates that the general plan development process be a public one, and many different groups must have the opportunity to contribute and comment.<sup>105</sup> At minimum, before adopting or amending a general plan, the “legislative body must hold at least one public meeting.”<sup>106</sup> Specifically, the Legislature has declared: “it is vital that there be close coordination and consultation between California’s water supply agencies and California’s land use approval agencies

101. *Id.* §§ 65302(e), 65560.

102. *Id.* § 65560.

103. For example, the Riverside County General Plan integrates both the open space and conservation elements into a single Multipurpose Open Space Element. COUNTY OF RIVERSIDE GENERAL PLAN, MULTIPURPOSE OPEN SPACE ELEMENT, ch. 5 (2003).

104. CAL. GOV. CODE § 65302(g).

105. *Id.* § 65351 (requiring that the planning agency “provide opportunities for the involvement of citizens, public agencies, public utility companies, and civic, education, and other community groups, through public hearings and any other means the city or county deems appropriate”).

106. *Id.* § 65355.

to ensure that proper water supply planning occurs in order to accommodate projects that will result in increased demands on water supplies.”<sup>107</sup>

In order to accomplish this goal, cities and counties must consult and coordinate with water planning agencies in several respects. First, the conservation element requires that the land use planning agency work together with the water management agency (or agencies) to develop the conservation element.<sup>108</sup> Second, the land use planning agency must utilize the Urban Water Management Plan (UWMP) of the relevant water planning agency (or agencies) as a source document for the adoption or revision of the general plan, if the UWMP has been submitted to the land use agency.<sup>109</sup>

Third, before the ratification of a general plan, the land use planning agency must send a copy of the draft general plan to

[a]ny public water system . . . with 3,000 or more service connections, that serves water to customers within the area covered by the proposal. The public water system shall have at least 45 days to comment on the proposed plan . . . and to provide the planning agency with information set forth in Section 65352.5.<sup>110</sup>

In turn, the water agency receiving the land use planning agency’s draft general plan must respond within forty-five days with any comments it has on the proposed plan, as well as providing the following information to the land use agency, as required by section 65352.5:

- 1) current Urban Water Management Plan
- 2) current capital improvement plan
- 3) description of the total water supply available to the water agency
- 4) description of surface water available

107. *Id.* § 65352.5(a). Despite the apparent good intent of this statement, the author finds this phrasing awkward and somewhat difficult. First, it seems to imply that proper water supply planning occurs *only* when it results in projects that *increase* demands on water supplies. Although the implication was likely unintended, it seems to preclude water supply planning for projects that *do not* increase demands on water supply (for instance, a project that pays for water conservation in neighboring areas in order to mitigate the impact on the water district bound to serve it). Second, although the finding strongly states that close coordination and consultation between land use and water agencies is vital, the law that implements it goes on to provide for an exchange of documents at the end, or near the end, of the respective land and water development processes—the draft general plan on the land use side, and the most recent Urban Water Management Plan on the water side. More appropriate phrasing might change Section 65352 to read: “it is vital that there be close coordination and consultation between California’s water supply agencies and California’s land use approval agencies. Proper water supply and land use planning occurs when each planning process includes its sister discipline *from the earliest stages.*”

108. The statute requires: “That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies that have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.” *Id.* § 65302(d).

109. *Id.* § 65302.2.

110. *Id.* § 65352.

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- 5) description of groundwater available
- 6) proposed additional sources of water
- 7) total water customers, by category (agricultural, commercial, industrial, residential)<sup>111</sup>
- 8) projected water demand reduction from conservation
- 9) any other relevant information

These requirements may at first appear to create a strong collaborative link between land use and water planners, yet there are several conditions that weaken the link. First, a land use planning agency faces no consequences for failing to forward its draft general plan to the water planners.<sup>112</sup>

Second, although the land use agency is supposed to collaborate with the water agency in preparation of the conservation element, which constitutes “discussion and evaluation of any water supply and demand information . . . if that information has been submitted . . . to the city or county,”<sup>113</sup> the collaboration requirement dissolves if the water agency does not forward information to the city or county. If land use and water planners do collaborate at this stage, however, their efforts must be reflected throughout the rest of the general plan due to the requirement that all elements of the general plan be consistent with one another.

Third, a closer look at the required coordination for updating a general plan reveals that what is minimally required could more appropriately be called a potential, one-time exchange of voluminous documents. The land use agency starts the exchange by sending its draft general plan to the water agency. Next, the water agency responds with the required information under section 65352.5 (as detailed *supra*). Finally, the land use agency must look at the information the water agency provides, but that “coordination” may come too late. In fact, both the land use agency and the water agency are exchanging documents in relatively final form—the city or county provides its draft general plan after it has put the bulk of its time and effort into creating the plan, and the water agency provides its UWMP, which is itself a finalized document.

The fourth condition that weakens the link between land use and water planning agencies is the possibility that the agencies could fail to coordinate at all. There are no practical consequences for either agency in any of the following scenarios:

Scenario #1: The land use planning agency sends a copy of the draft general plan to the water planning agency, but the latter simply does not

111. One editor of this work noted that municipal use is not included in this list. Must it be accounted for? Although it seems likely that it should be, there is no definitive answer in the legislative history of the law or in case law.

112. CAL. GOV. CODE § 65352(c)(1).

113. *Id.* § 65302(d) (emphasis added).

respond.<sup>114</sup> Although the land use planning agency has no UWMP or other information to work with, it may proceed with the finalization of the general plan.

Scenario #2: The land use planning agency fails to send notice to the water agency that it is updating its general plan, and somehow the water agency misses other required public notices. According to section 65352(c)(1), the general plan is still valid if the land use agency never forwards a draft general plan or requests information from the water agency.

Scenario #3: The land use agency provides a draft general plan to the water agency, and the water agency responds with its required information. The land use agency discusses and evaluates the information from the water agency, but decides that its own water supply projections are more reliable. The general plan will be valid as long as the land use agency has not acted arbitrarily, capriciously, or without evidentiary basis in making its decision.<sup>115</sup>

Although these scenarios are obviously worst-case examples, they reveal that the statutory structure for coordination between land use and water planning agencies at the general plan level relies heavily on the good faith of the parties involved.

### B. CEQA's Link Between Water Management and Land Use Planning

Based on the National Environmental Policy Act (NEPA),<sup>116</sup> the California Environmental Quality Act (CEQA) was passed in 1970 to improve dissemination of information about projects that have a significant environmental impact.<sup>117</sup> In the past decade, CEQA has been invoked to link the water and land use planning processes more tightly than otherwise provided for in the Government and Water Codes. This judicial trend reflects a growing concern that land use agencies may be approving development that cannot be served by available water supply. This section begins with a brief summary of the major tenets of CEQA, and then describes four significant judicial decisions that have forged new linkages between the land use and water planning processes.

114. There is one caveat to this point. Water agencies that do not prepare and adopt an UWMP, and do not forward that plan to the Department of Water Resources (DWR), face serious consequences in the form of ineligibility for state funding. See discussion *infra* Section III.B. The scenario described above could still happen, however. Even if the water agency has prepared its UWMP and does forward it to the DWR but *fails* to send it to the city(ies) and county(ies) that are in its service area, there does not seem to be any mechanism requiring a city/county to seek an UWMP.

115. Challenges to the adoption of a general plan must be brought as petitions for writ of mandate. CAL. GOV. CODE §§ 65750, 65751. California Code of Civil Procedure § 1085 governs writs of mandate. The appropriate standard of judicial review is whether the adopting agency has acted arbitrarily, capriciously, or without evidentiary basis. See § 65750; *Concerned Citizens of Calaveras County v. Bd. of Supervisors*, 166 Cal. App. 3d 90, 96 (1985).

116. National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4370(e) (2003)).

117. California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000-21178 (1990).

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*1. The California Environmental Quality Act (CEQA)*

In *Laurel Heights Improvement Ass'n v. Regents of University of California*, 6 Cal. 4th 1112 (1993), the California Supreme Court provided an overview of the CEQA process, which has been summarized into bullet points here:

- 1) The Environmental Impact Report (EIR) is the “heart of CEQA.”<sup>118</sup> Its purpose is to make sure that the government decision-makers, as well as the public, are informed of the environmental consequences of their decisions before they are made.
- 2) An EIR must be prepared “whenever substantial evidence supports a fair argument that a proposed project may have a significant effect on the environment. Significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment.”<sup>119</sup>
- 3) CEQA only applies to specific actions, which means that planning or contemplation of action does not trigger the statute.
- 4) Once CEQA is triggered, the lead agency (which is the agency that will approve or deny the project) must prepare an EIR that presents a detailed statement of all foreseeable environmental impacts and considers all reasonable alternatives (including a “no project” alternative).
- 5) The public must be allowed to comment about environmental issues, and the lead agency must evaluate and respond to those comments. In its responses, the lead agency must explain in detail its reasons for rejecting suggestions and proceeding with the project despite any environmental effects.
- 6) The final step of the EIR process is certification of the EIR by the lead agency. When it certifies the EIR, the lead agency must conclude “either that the project’s significant environmental effects identified in the [final] EIR have been avoided or mitigated or that the unmitigated effects are outweighed by the project’s benefits.”<sup>120</sup>
- 7) In the land use context, only discretionary government actions are subject to CEQA (i.e. general plan adoption/amendment, specific plan adoption, zoning, and grant of tentative subdivision map), as opposed to ministerial actions which are not subject to CEQA (i.e. grant of final subdivision map, building permit, and certificate of occupancy).<sup>121</sup> The exception to this general rule is general plan

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118. 6 Cal. 4th at 1123 (internal quotations removed and citations omitted).

119. *Id.* (internal quotations and citations omitted).

120. *Id.* (internal quotations and citations omitted).

121. Exempted ministerial acts are those “involving little or no personal judgment by the public official as to the wisdom or manner or carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or judgment in reaching a decision.”

amendments and zoning changes that are approved by voter initiative. CEQA exempts projects approved by initiative.<sup>122</sup>

- 8) CEQA requires only an analysis of the physical environmental effects, not the social impacts, of a given action.<sup>123</sup>
- 9) Judicial review of the sufficiency of the EIR is conducted with an “abuse of discretion” standard, and the EIR will only be declared unfit if the lead agency has not proceeded according to law, or its decision is not supported by substantial evidence. A reviewing court does not rule on the lead agency’s conclusion, but rather on the sufficiency of the EIR as an informational document.<sup>124</sup>

## 2. CEQA Decisions Linking Water and Land Use Planning

In the last decade, courts have increasingly interpreted CEQA to require water management planning requirements—specifically water supply requirements—during the land use planning process. As noted above, CEQA only applies to discretionary actions taken by a government agency on documents such as: (1) general plans, which serve as the primary long term visioning document of the land use planning process; (2) specific plans, which although not part of general plans, serve as a tool to implement general plans in subareas addressed by the general plan by including more concrete standards and details than a general plan; and (3) individual project approvals, such as subdivision approval.

### a. CEQA and the General Plan

Four recent cases require land use agencies to establish important links between land use and water planning when taking action on their general plan.

**County of Amador v. El Dorado County Water Agency:** In *County of Amador v. El Dorado County Water Agency*,<sup>125</sup> the Third District Court of Appeal overturned El Dorado County Water Agency’s (El Dorado) certification of a water project EIR and approval of the water project itself.<sup>126</sup>

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Guidelines for Implementation of the California Environmental Quality Act, CAL. CODE REGS. tit. 14, § 15369 (2003) [hereinafter CEQA GUIDELINES]; see also *Leach v. City of San Diego*, 220 Cal. App. 3d 389 (1990) (plaintiffs sued to make officials prepare an EIR before drawing water from one reservoir to another, but court rejected suit, noting that CEQA only applies to discretionary, not ministerial, projects that have an ultimate impact on the environment).

122. See *DeVita v. County of Napa*, 9 Cal. 4th 763, 794 (1995); *Arnel Dev. Co. v. City of Costa Mesa*, 28 Cal. 3d 511, 516 (1980).

123. See *San Franciscans for Reasonable Growth v. City and County of San Francisco*, 209 Cal. App. 3d 1502, 1521-22 n.13 (1989) (holding that any project-specific or cumulative impacts from a proposed office and retail project on the availability of child care programs were not environmental impacts and therefore not subject to CEQA).

124. *Laurel Heights*, 6 Cal. 4th at 1132-33.

125. 76 Cal. App. 4th 931 (1999).

126. *Id.* at 940-41.

The root of the court's concern sprang from the fact that El Dorado's project to obtain an additional 17,000 acre-feet (af) of water per year was based "on [population] projections contained in a draft, unadopted [county] general plan."<sup>127</sup> The court held that if El Dorado's project were built, then no agency would have looked at the environmental impact of providing a water supply for potential future growth.

By proceeding without the benefit of the general plan in place, and by developing projects on needs described in an unadopted plan, the CEQA process is stood on its head. . . . The issues become circular: water supply projects are adopted to meet growth plans outlined in a draft general plan, and the general plan is then adopted because an adequate water supply exists for the outlined development plans.<sup>128</sup>

The court's holding suggests a bright line rule for counties (and presumably cities) preparing general plans or general plan amendments: some consideration of the environmental effects of water supply and development must be included, and a draft general plan cannot serve as an authoritative definition of need.

Yet *County of Amador* also complicates the land use and water planning processes. First, if land use agencies are required to evaluate the environmental impact of increased demand for water, it may require them to analyze environmental impacts outside of their jurisdiction.<sup>129</sup> For example, if a land use agency is served by a waterworks that delivers water across long distances, such as the State Water Project or the Colorado Aqueduct, *County of Amador* suggests that the agency should evaluate the impact that its proposed development will have on the watersheds those projects draw from. This requirement may not prove to be a problem if there are relevant EIRs done by state or regional agencies studying anticipated impacts on the State Water Project or Colorado Aqueduct as a whole that the local land use agency can rely on, but otherwise it could be a large burden. Such environmental studies may be especially difficult for land use agencies to perform because, unlike EIRs for specific projects that often are paid for by project proponents, an EIR for a long-term plan may or may not have a specific project in view at the time.<sup>130</sup>

Second, if water planners must wait for the relevant land use agency to finish the general plan process before initiating their long-term water planning,

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127. *Id.* at 940.

128. *Id.* at 950.

129. *See* Moose, *supra* note 55, at 39.

130. Recently passed legislation has remedied this problem to an extent yet to be determined. AB 2936, which amended Government Code section 66014, permits jurisdictions "to include the costs reasonably necessary to prepare and revise the plans and policies that a local agency is required to adopt before it can make any necessary findings and determinations." This allows cities and counties to add a long-term planning charge into fees for zoning variances, zoning changes, use permits, building inspections and permits, and other development-related actions. *See infra* Section VII.B.

water agencies may not be able to complete projects in time to meet demand.<sup>131</sup> This may be especially problematic because general plans typically look fifteen to twenty years into the future,<sup>132</sup> yet it may take much longer for a water agency to bring a new supply project on line due to environmental and economic concerns.<sup>133</sup>

However, the *County of Amador* court did not say that the water agency must look only to the general plan for an authoritative statement of need. Under the Urban Water Management Plan Act, a water agency can use population projections from many sources to support its water demand projections, including the Demographic Research Unit of the California Department of Finance.<sup>134</sup> Accordingly, the water agency may not be tied to the general plan at all, although such a result would be contrary to the legislative actions of the past few years that attempt to bind land use and water planning more closely.

**Planning and Conservation League v. Department of Water Resources:** In *Planning and Conservation League v. Department of Water Resources*,<sup>135</sup> the Third District Court of Appeal overturned the EIR for a negotiated agreement (known as the “Monterey Agreement”) between the Department of Water Resources (DWR) and some of its water contractors. The DWR is the state agency charged with operating the State Water Project (SWP), a series of dams and canals that begins with the Oroville Dam in the north and stretches to Los Angeles in the south.<sup>136</sup> The SWP is a major source of water in California—two out of every three Californians receives some of their water from it.<sup>137</sup>

The Monterey Agreement was motivated in part by the water contractors’ desire to change how their contracts with the DWR handle water shortages in dry years. Article 18 of the original water contracts dealt with water

131. Moose, *supra* note 55, at 40.

132. OPR GUIDELINES, *supra* note 24, at 14 (2003).

133. In his remarks entitled “Show Me the Water: Quenching California’s Growing Thirst,” Randle Kanouse, Manager of Intergovernmental Affairs of the East Bay Municipal Utility District, noted that water projects proposed shortly before and after the dawn of the environmental movement in the U.S. have been very slow to achieve approval, if they are approved at all. He cited three projects that took more than three decades from proposal to completion, including the State Water Project Coastal Aqueduct (35 years), the Los Vaqueros Reservoir (38 years), and the New Melones Reservoir (40 years). He also noted four other proposed projects have been pending for decades and may never be completed, including the Shasta Reservoir Enlargement (over 20 years), the Auburn Dam (over 35 years), the Freeport Regional Aqueduct (over 30 years), and the Peripheral Canal (over 30 years). Kanouse, *supra* note 26.

134. The current UWMP requirement in Water Code section 10631(a) just asks the water supplier to estimate future water demand based on “. . . data from the state, regional, or local service agency population projections within the service area of the urban water supplier . . .”

135. 83 Cal. App. 4th 892 (2000).

136. For information about the Department of Water Resources, consult its website, available at <http://www.water.ca.gov/> (last visited Jan. 21, 2004).

137. The State Water Project makes deliveries to 2 out of every 3 Californians. State Water Project website, *supra* note 136.

shortage.<sup>138</sup> Subdivision (a) described procedures during drought conditions, which required agricultural users to accept larger supply reductions in order to preserve deliveries to urban contractors.<sup>139</sup> Yet subdivision (b) of Article 18 dealt with a different issue—how to re-allocate water entitlements amongst the water contractors if the SWP was not fully built out.<sup>140</sup> In fact, the SWP is only half completed, and it is likely that economic and environmental concerns will preclude its completion.<sup>141</sup> In the event that statewide water planners acknowledge that the full build out of the SWP will not occur, subdivision (b) calls for a proportional reduction in entitlement, which would reduce all the water contractors' entitlements by roughly half.<sup>142</sup>

The court invalidated the EIR prepared for the Monterey Agreement for several reasons, but the most relevant to this discussion was the EIR's failure to contemplate the "no project" alternative—what would happen if the agreement did not come to pass and all the contractors had their entitlements reduced by half.<sup>143</sup> The contractors argued in response that removing Article 18, subdivision (b) would have little effect because contractors rarely, if ever, ask the DWR for their full entitlement, and the DWR has typically "been able to meet contractor requests except for in a few drought years."<sup>144</sup> The court refused to accept the contractors' argument, instead pointing to the possible effects that removing subdivision (b) might have on the land use planning decisions of jurisdictions served by the SWP:

What then are the environmental consequences of removing article 18, subdivision (b), if the contractors continue to receive the same amount of water whether or not the provision is invoked? The answer is that entitlements under table A—"paper water," so called because it exists only on paper—*serve as the basis for land planning decisions*. Projects that are given the clearance to proceed based upon an entitlement to X acre-feet of water might not proceed if a contractor's entitlement is reduced to (X–Y) acre-feet.

Commenters to the draft EIR spoke directly to the issue of land use planning. One commenter pointed out,

Potential environmental effects exist because local land use jurisdictions within SWP Contractors' service areas vary considerably in their planning responses to the availability of project water. Some . . . assume that most or all of their SWP entitlement will be available for new development. Others more reasonably assume that they will receive water in proportion to the project's actual yield. Thus,

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138. *Planning and Conservation League*, 83 Cal. App. 4th at 899.

139. *Id.* at 899-900.

140. *Id.* at 900.

141. *Id.* at 898-99, 912-15.

142. *Id.* at 899-900.

143. *Id.* at 908.

144. *Id.* at 914.

where land use planning determinations can be made on the basis of entitlement rather than real water, development can outpace the availability of water, leading to detrimental environmental consequences, excessive groundwater pumping, and pressure to develop additional water supplies.<sup>145</sup>

The court's holding can be viewed as a warning to land use agencies not to approve development based on "paper water" entitlements that may never be supplied after projects are built and demand for water is made.

**Santa Clarita Organization for Planning the Environment v. County of Los Angeles:** In *Santa Clarita Organization for Planning the Environment (SCOPE) v. County of Los Angeles*,<sup>146</sup> the Second District Court of Appeal forcefully reaffirmed the message first made in *Planning and Conservation League*—no reliance on "paper water." At issue in *SCOPE* was the County of Los Angeles' approval of an EIR studying the impacts of a residential and commercial development in the Santa Clarita Valley involving 2,545 housing units, 180,000 square feet of commercial retail, and 46 acres of community facilities.<sup>147</sup> Despite its euphemistic name, West Creek was challenged on the security of its water supply.

The court opened its opinion with a clear statement: "An environmental impact report for a housing development must contain a thorough analysis that reasonably informs the reader of the amount of water available."<sup>148</sup> The EIR at issue defined the water supply available to West Creek by looking to the water wholesaler for the region, the Castaic Lake Water Agency (Castaic). In addition to groundwater withdrawals, Castaic holds entitlements from the SWP for 54,000 acre-feet per year. These entitlements were used to calculate the water supply available to the agency to supply both the West Creek development and the anticipated future development in the Santa Clarita Valley as a whole.

Referring back to the holding in *Planning and Conservation League*, the court took issue with the EIR's reliance on Castaic's SWP entitlements. "As the court in *Planning & Conservation League* points out, the entitlements are based on a state water system that has not been completed. There is a vast difference between entitlements and the amount of water that SWP can actually deliver."<sup>149</sup> To provide a sufficient analysis of water supply, the court wrote that the EIR should have defined any differences between "entitlements" and "actual supply" for wet, normal, and dry years. In addition, part of this explanation should have been an estimate from the DWR, the agency charged

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145. *Id.* (emphasis added).

146. 106 Cal. App. 4th 715 (2003).

147. *Id.*

148. *Id.* at 717.

149. *Id.* at 721-22.

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with operating the SWP, “as to how much water it can deliver . . . [and if] no such reliable estimates are available. . . the EIR should say so.”<sup>150</sup>

In vacating the county’s approval of the EIR, the court concluded that the EIR

fails to undertake an adequate analysis of how much water the SWP can actually deliver . . . Without such information, the general public and its responsible officials cannot make an informed decision on whether to approve the project. The county’s approval of the West Creek EIR is not supported by substantial evidence.<sup>151</sup>

This opinion is the clearest statement to date that CEQA requires a realistic discussion of a development’s water supply in its EIR. Interestingly, the court also rejected the chance to defer such a water supply analysis to a later stage in the development process by criticizing the EIR’s discussion of the water supply verification requirement put into place by SB 221.<sup>152</sup> The EIR claimed that because each subdivision included in the West Creek development would have to obtain a water supply verification before its tentative subdivision map could be approved, the development itself “would not result in an unavoidable significant cumulative impact on Santa Clarita Valley water resources.”<sup>153</sup> Despite this later check on development, the court insisted that CEQA requires an evaluation of a project’s water supply in the EIR. “Nor is the inadequacy cured by the requirement that Newhall demonstrate an adequate supply of water before the tract map is recorded. An EIR’s purpose is to inform. This purpose is not satisfied by simply stating information will be provided in the future.”<sup>154</sup>

**Save Our Peninsula Committee v. Monterey County Board of Supervisors:** In *Save Our Peninsula Committee v. Monterey County Board of Supervisors*,<sup>155</sup> the Sixth District Court of Appeal invalidated an EIR for an overdrafted groundwater basin based on the EIR’s failure to create an accurate picture of baseline groundwater usage conditions, as required by CEQA.

The property at issue was zoned for residential use and was governed by the Carmel Valley Master Plan (Master Plan), a part of the Monterey County General Plan. Monterey County received plans for the proposed development of one hundred single family homes and seventeen moderate income units in 1995.<sup>156</sup> Environmental review established that the groundwater sub-basin below the property was interconnected with the groundwater basin that serves the Monterey Peninsula. This recognition immediately complicated the proposed development because the Monterey Peninsula’s water supply was

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150. *Id.* at 722.

151. *Id.* at 724.

152. *See infra* Section II.C.

153. *SCOPE*, 106 Cal. App. 4th at 719.

154. *Id.* at 723.

155. 87 Cal. App. 4th 99 (2001).

156. *Id.* at 109.

severely limited, and a decision by the State Water Resources Control Board left the project dependent on groundwater. The Master Plan had recognized this water shortage and created a policy that new development “shall be subject to County adopted water allocation and/or ordinances applicable to lands in the Carmel Valley Master Plan area.”<sup>157</sup>

The case turned on how the county developed its projection of the baseline water usage on the property, which would determine the number of units that the developer would be allowed to build. First, the EIR approved by the Board of Supervisors included several different methods of projecting the baseline water usage on the project, leaving the Supervisors to pick the method they found most appropriate.<sup>158</sup> The court noted that while the method of projecting water usage was within the Supervisors’ discretion, their choice of method must be supported by reasoned analysis and substantial evidence.<sup>159</sup>

Second, the court took issue with the fact that one method of projecting water usage on the property included data observed *after* the proposed project was submitted to the county.<sup>160</sup> This was significant because water usage on the property increased substantially in the years after the project was submitted, and there were allegations that the developer was increasing irrigation in order to raise the baseline.<sup>161</sup> The Supervisors eventually accepted a baseline water usage figure that included water usage *after* the project was submitted, which the court said was “clearly faulty [because a] baseline figure must represent an environmental condition existing on the property prior to the project.”<sup>162</sup>

Finally, the court held that the Supervisors violated CEQA in two ways by waiting until the end of the CEQA process to select a methodology with which to estimate the baseline water usage. First, the postponement left no time for public comment. Specifically, the court noted that CEQA requires that: (1) the public and other interested agencies have an opportunity to comment, and (2) the lead agency analyze and respond to those comments.<sup>163</sup> Second, the county’s first step in preparing the EIR should have been to establish the baseline water usage. This decision should not have been left to the end of the EIR process.<sup>164</sup>

In sum, *County of Amador, Planning and Conservation League, SCOPE*, and *Save Our Peninsula Committee* strengthen the ties between land use and water planning. First, *County of Amador* states that land use planning must lead water planning; second, *Planning and Conservation League* and *SCOPE* both

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157. *Id.* at 108.

158. *Id.* at 120-21.

159. *Id.* at 120 (“[W]e believe CEQA requires that each alternative be supported by reasoned analysis and evidence in the record so that the decision of the agency is an informed one.”).

160. *Id.* at 123.

161. *Id.*

162. *Id.*

163. *Id.* at 124.

164. *Id.* at 125.

hold that approval of new development, at any stage in the land use process, cannot rely on “paper water,” especially if the entitlement comes from the State Water Project; and third, *Save Our Peninsula Committee* requires a reasonably justifiable baseline of environmental conditions, including groundwater usage and condition of the groundwater aquifer, upon which decision makers can base their judgments.

*b. CEQA and the Specific Plan*

The courts have also addressed a city’s ability to approve a specific plan without examining the long-term water supply effects. In *Stanislaus Natural Heritage Project v. County of Stanislaus*,<sup>165</sup> the Fifth District Court of Appeal invalidated Stanislaus County’s first-tier<sup>166</sup> EIR for a specific plan detailing a 29,500 acre residential and resort development. The specific plan anticipated that the development would be built out in four phases over twenty-five years. Although the project had no onsite water supply, the EIR did not evaluate the effects of providing water for the development past the first five years.<sup>167</sup> Instead, the county accepted the unknown future water supply as an unmitigated impact and stated that no future stages of the project would be approved without an assured source of water.<sup>168</sup>

In the court’s view, “the County’s approval of the project under these circumstances defeated a fundamental purpose of CEQA: to inform the public and responsible officials of the environmental consequences of their decisions before they are made.”<sup>169</sup> The court held that it was not possible for the county to make an informed decision about the environmental impacts of the proposed project without having a clear understanding of the impacts that securing an off-site water supply for the whole project would have on the environment.<sup>170</sup>

165. 48 Cal. App. 4th 182 (1996).

166. Some proposed projects may include many phases and take years to complete. It may be duplicative and inefficient to require a full EIR that evaluates the whole project at each stage of the project. To prevent such duplication, CEQA allows tiering of environmental impact reports. Tiering means the coverage of general matters and environmental effects in an [EIR] . . . followed by narrower or site-specific [EIRs] which incorporate by reference the discussion in any prior [EIR] and which concentrate on the environmental effects which (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior [EIR].

CAL. PUB. RES. CODE § 21068.5 (2003). EIRs should be tiered whenever the lead agency considers such tiering feasible. *Id.* § 21093(b). Subsequent EIRs do not have to consider environmental effects discussed in a previous EIR if those effects were mitigated by the previous EIR, or analyzed in specific enough detail to allow the current project to mitigate the effects. *Id.* § 21094. Tiering is also discussed in the CEQA GUIDELINES, *supra* note 121, §§ 15152, 15153, and 15385.

167. *Stanislaus Natural Heritage*, 48 Cal. App. 4th at 186, 194-95.

168. *Id.* at 195.

169. *Id.* (internal quotations omitted).

170. *Id.* at 199-200.

*Stanislaus Natural Heritage* holds that a county cannot approve a specific plan for a project without evaluating the effects on the environment of securing a long-term water supply for the whole project.<sup>171</sup> This holding poses a timing problem that potentially conflicts with *County of Amador*, discussed in Section II.B.2.a, *supra*. *Stanislaus Natural Heritage* holds that the water planning agency must have reasonably certain long-term water supply answers when specific projects come asking for water.<sup>172</sup> Yet *County of Amador* warns that the water planning agency cannot plan ahead of the land use agency. These holdings together imply that both the land use and water agencies should communicate closely with one another to prevent the missteps of one from impeding the actions of the other.

C. *Recent Legislation: Land Use and Water Planning with SB 610 and SB 221*

In his 2001 letter to the Legislature after signing Senate Bills 610 (Costa) and 221 (Kuehl), Governor Gray Davis wrote, “these bills will coordinate local water supply and land use decisions to help provide California’s cities, farms and rural communities with adequate water supplies. Additionally, these bills increase requirements and incentives for urban water suppliers to prepare and adopt comprehensive management plans on a timely basis.”<sup>173</sup> This bland language downplays the fact that together both bills go further than any other previous steps towards integrating the land use and water planning processes.

Although sufficient time to judge the bills’ success has not yet passed, commentators expect the bills to affect the land use and water planning processes significantly.<sup>174</sup> In fact, SB 221 breaks entirely new ground by requiring land use agencies to condition approval of some types of residential development on a showing that a sufficient water supply is in place to serve both the proposed project, as well as other existing and planned future uses.<sup>175</sup> SB 610 follows up on Senator Costa’s previous effort in 1995<sup>176</sup> to require a water assessment before land use agencies approve large-scale projects, as well as expanding requirements under the Urban Water Management Planning Act.

171. *Id.* at 205-06.

172. *Id.* at 206.

173. Letter from Governor Gray Davis to the California Legislature, accompanying Senate Bills 221 and 610 (Jan. 1, 2001) (on file with author).

174. Zinn, *supra* note 53, at 130 (noting that “[h]owever they are ultimately interpreted in the courts, SB 610 and SB 221 have changed the planning landscape noticeably.”).

175. CAL. GOV. CODE § 66473.7(a)(2) (2003).

176. Senator Costa authored SB 901, encoded at California Water Code §§ 10910-15, which was a first attempt to provide for a water supply assessment process before land use agencies approved large-scale development. As one commentator noted, however, “[t]he assessment requirement [was] more often than not honored only in the breach.” Zinn, *supra* note 53, at 123. A study performed by the East Bay Municipal Utility District (EBMUD) in 2001 found that only 2% of the projects covered by SB 901 had complied with all of its requirements. See Zinn, *supra* note 53 (citing Al Herson & Ron Bass, 2001 *CEQA Legislation and Guidelines Update*, 2001 CAL. ENVTL. L. REP. 343 (2001)).]

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Both bills address large-scale development proposals, which they describe in very similar terms. SB 221 applies to “subdivisions,” which it defines as a residential development of more than 500 units.<sup>177</sup> For public water systems with less than 5,000 connections, however, a subdivision means any development that would increase the number of connections by 10% or more.<sup>178</sup> SB 610 applies to “projects,” which are defined more broadly than subdivisions in SB 221, but uses a similar measure of size. A “project” is defined as a residential development of more than 500 units, a shopping center employing more than 1,000 persons or including more than 500,000 square feet of floor area, a commercial development employing more than 1,000 persons or including more than 250,000 square feet of floor area, a motel or hotel with over 500 rooms, an industrial, manufacturing, or processing plant housing more than 1,000 persons or including more than 650,000 square feet of floor area, a mixed use project with one or more segments that match any of the previously listed components, or a project that would demand as much water as a 500 dwelling unit project.<sup>179</sup> For water suppliers that have less than 5,000 connections, “project” is amended to mean any development that would result in a 10% or greater increase in its number of connections.<sup>180</sup>

The earlier discussion in Sec. II.A, *supra*, analyzed the substantive and procedural requirements for the general plan separately. This segmentation, which does not exist in statute, illustrates: (1) the substantive requirements inherent in the general plan process, and (2) the degree of collaboration already required between land use and water planning agencies. This segmentation is useful for evaluating SB 221 and 610 for the same reasons.

#### 1. Informational Requirements Added by SB 610 and SB 221

Both bills attempt to link the land use and water planning processes at multiple levels in the land use process. SB 610 requires a water assessment for any “project” (as defined *supra*) that is subject to CEQA. The assessment must be prepared by the relevant water agency as soon as the land use agency determines the project is subject to CEQA.<sup>181</sup> For example, the Dougherty Valley case described in Section I.A, *supra*, would have triggered a water supply assessment under SB 610. Contra Costa County approved a general plan amendment and adopted a specific plan to accommodate the project, and the project was subject to CEQA.<sup>182</sup> Under SB 610, Contra Costa County would have been required to seek a water supply assessment from EBMUD before it could have made any of the legislative approvals that led to EBMUD’s

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177. CAL. GOV. CODE § 66473.7(a)(1).

178. *Id.*

179. CAL. WAT. CODE § 10912(a) (2003).

180. *Id.* § 10912(b).

181. *Id.* § 10910(a).

182. *See supra* notes 28 through 32 and accompanying text.

litigation. SB 221, on the other hand, inserts a check on development at the discretionary subdivision approval stage in the planning process. Before a city or county can approve a tentative subdivision map, it must receive a water supply verification from the public water agency that will supply the subdivision. The verification must state that there is a sufficient source of water.<sup>183</sup>

**Water Supply Assessment Under SB 610:** A water assessment under SB 610 is a document evaluating the ability of the designated water agency to serve the project for the next twenty years. The assessment looks at ability to meet the project's estimated demand, as well as other existing and planned future uses (including agricultural and manufacturing uses), in normal, single-dry, and multiple-dry water years.<sup>184</sup> This assessment must be supported by evidence showing the water entitlements, rights, or contracts designated for the project, and the amount of water received historically.<sup>185</sup> If no water has been received historically with the aforementioned entitlements, rights, or contracts, the assessment must identify the other water agencies using the source of supply.<sup>186</sup> If groundwater is the source of supply, additional detail about the status of the groundwater basin is required, including: (1) whether it has been adjudicated; (2) whether the basin is in overdraft conditions; (3) description of groundwater pumping for the past five years; (4) projected groundwater pumping in the future; and (5) a sufficiency analysis of the groundwater basin as a source of supply.<sup>187</sup>

**Water Verification Under SB 221:** Similar to the SB 610 assessment, verification under SB 221 requires the designated water agency to provide "total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including, but not limited to, agricultural and industrial uses."<sup>188</sup> This verification must be supported by substantial evidence, which may be provided by a water assessment, the most recent Urban Water Management Plan (UWMP),<sup>189</sup> or recitation of the water entitlements, rights, and contracts detailed in the water assessment section.<sup>190</sup> If the water supply noted in the

183. CAL. GOV. CODE § 66473.7(b)(1).

184. CAL. WAT. CODE § 10910(c). The terms single dry and multiple dry water years come from the Urban Water Management Plan Act. *Id.* § 10631. Under section 10631(c), an urban water supplier is supposed to describe the reliability, to the extent practicable, of its water supply in the event of an average water year, a single dry water year, and a multiple dry water year. The terms are not defined with more detail.

185. *Id.* § 10910(d).

186. *Id.* § 10910(e).

187. *Id.* § 10910(f).

188. CAL. GOV. CODE § 66473.7(a)(2).

189. Analysis of the Urban Water Management Plan Act and its role in the land use planning process is provided in Section III.B.

190. CAL. GOV. CODE § 66473.7(c).

verification is a future source of supply that is not currently available, the verification requires proof of water contracts to serve the subdivision; documentation of a capital outlay program for financing the delivery of water; secured federal, state, and local permits to serve the subdivision; and any other necessary regulatory approvals.<sup>191</sup> If the project will rely on groundwater, the verification should assess the landowner's right to withdraw the groundwater.<sup>192</sup> In addition, the verification must make a statement about the reasonably foreseeable impacts of the subdivision on the availability of water for agricultural and industrial users that access the same source of supply as the water agency.<sup>193</sup>

The Urban Water Management Plan Act (discussed in Sec. III.C, *infra*) requires water agencies to provide much of the information required of them by SB 610 and 221. As long as water agencies are in compliance with the Act, they should be able to provide both water assessments and verifications to cities and counties that request them without much additional effort.

Both water assessments and verifications seem to require detailed water supply information that would enable a land use agency to determine whether sufficient supply exists to serve the proposed project. However, the interpretation of several critical terms could limit the effectiveness of both water assessments and verifications.

**Defining a Sufficient Water Supply.** Both assessments and verifications require an analysis of a sufficient water supply. Yet how will sufficiency be determined? In fact, sufficiency will depend on how broadly the water agency defines the phrase "planned future uses."<sup>194</sup> Neither SB 601 nor 221 defines this term. One logical interpretation would require evaluation of all planned growth in the general plan.<sup>195</sup> SB 221 seems to require concrete proof of actual water supplies to approve development, and the general plan may include more development than the water supplier currently has capacity to serve. If localities are permitted to define what "planned future uses" means, they might shorten the timeframe of analysis, thereby limiting the long-term water planning that SB 610 and 221 seem to require.

**Groundwater.** The issue of groundwater presents another difficulty for both assessments and verifications. One commentator has noted that "groundwater rights in California are nearly as fluid as the resource itself, making identification of entitlements extraordinarily difficult. Groundwater rights are always subject to change and are not supported by solid evidence of ownership such as deeds or a system of recordation."<sup>196</sup>

191. *Id.* § 66473.7(d).

192. *Id.* § 66473.7(h).

193. *Id.* § 66473.7(g).

194. For SB 610, see CAL. WAT. CODE § 10910(c) (2003), and for SB 221, see CAL. GOV. CODE § 66473.7(a)(2).

195. See Zinn, *supra* note 53, at 127.

196. *Id.* at 128.

The legal structure of groundwater rights leads to several problems. First, a groundwater user with a low priority appropriative right may be able to pump water today, but in the future be required to curtail withdrawals if the groundwater basin faces overdraft.<sup>197</sup> Second, according to groundwater law, a present right to appropriate groundwater does not exist until water is withdrawn.<sup>198</sup> This creates a chicken and the egg problem with respect to a water supply verification. A verification must be given before a project can be approved, but the right to draw water will not exist until the project begins pumping. SB 221 clearly states that in some cases verification will be based on groundwater, which provides some support for the idea that water verification for a groundwater source should be possible.<sup>199</sup> The current schema, however, does not reveal how this will happen.

## 2. *Process Requirements Added by SB 610 and 221*

What process is initiated when a water assessment is required under SB 610? First, the city or county must identify any water supplier that will serve the project, and if no water supplier can be identified, then the city or county must take on the burden of preparing a water assessment.<sup>200</sup> Second, the city or county must ask the identified water system(s) whether the proposed project was considered in the most recent UWMP. If it was, then the water system can use the UWMP information in the water supply assessment it delivers to the city or county.<sup>201</sup> If the most recent UWMP did not consider the project, however, then the water supplier must develop project-specific information to complete a water supply assessment.<sup>202</sup> In either case, the water supply assessment must be provided to the city or county that requested it within ninety days of the request.<sup>203</sup> The city or county can grant a single thirty day extension upon request by the water supplier.<sup>204</sup> Once the city or county has the water assessment in hand, it is required to include it in any environmental review document prepared to comply with CEQA.<sup>205</sup>

The process defined above begins as soon as the land use agency determines that the project is subject to CEQA. Despite this early beginning, however, the process calls for only a one-time exchange of information between the land use and water planning agencies—a request from the land use agency, and the water assessment from the water agency—and does not provide for any collaborative process that might allow the water and land use

197. *City of Pasadena v. City of Alhambra*, 33 Cal. 2d 908, 926 (1949).

198. *Id.* at 925 (noting that “[t]he right of an appropriator depends upon an actual taking of water”).

199. *See* CAL. GOV. CODE § 66473.7(h).

200. CAL. WAT. CODE § 10910(b).

201. *Id.* § 10910(c)(2).

202. *Id.* § 10910(c)(3).

203. *Id.* § 10910(g)(1).

204. *Id.* § 10910(g)(2).

205. *Id.* § 10911(b).

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agencies to work together to assure that there is a sufficient water supply for the project. Of course, SB 610 does not prevent the land use and water agencies from working together before the water assessment request is issued in order to ensure that there will be a sufficient water supply at that time.

A water supply verification under SB 221 is similar to the water supply assessment required by SB 610. The land use agency or the project applicant must request verification from the water agency before the final subdivision map can be approved.<sup>206</sup> The water agency can use a variety of sources to prepare the verification, including a current UWMP that considers the subdivision or a water assessment prepared under SB 610.<sup>207</sup> Unlike SB 610, however, SB 221 includes a provision that allows for a collaborative process between the subdivision applicant, the land use agency, and the water planning agency. “In making any findings or determinations under this section, a local agency, or designated advisory agency, may work in conjunction with the project applicant and the public water system to secure water supplies sufficient to satisfy the demands of the proposed subdivision.”<sup>208</sup>

### III. WATER PLANNING LAW: LAND USE CONSIDERATION IN THE WATER PLANNING PROCESS

The 1998 California State Water Plan, prepared every five years by the Department of Water Resources, states that more than seventy percent of the state’s annual water runoff occurs in the northern third of the state, while seventy-five percent of the state’s urban and agricultural water demand exists in the southern two-thirds of the state.<sup>209</sup> This lopsided orientation could never have come to pass without a sophisticated and complex water system. This section evaluates how water agencies charged with developing, maintaining, and operating California’s remarkable water delivery system are required to interact with their land use planning counterparts.

#### A. Agencies Responsible for Water Planning

California’s water planning is conducted at the state, regional, and local levels. State agencies and their subdivisions regulate water rights and water quality, perform long-range water planning, and manage the large public works projects that deliver water from the north to the south. The water districts hold the actual responsibility for delivering water to the faucet. Ranging in size from districts with truly regional service areas to those with very local ones, legislative acts and judicial decisions are increasingly tying water districts to the land use planning process.

206. CAL. GOV. CODE § 66473.7(b)(1) (2003).

207. *Id.* § 66473.7(c).

208. *Id.* § 66473.7(f).

209. STATE WATER PLAN, *supra* note 4, at 3-2. California also imports water from the Colorado River. *See supra* notes 7-10.

1. *State Water Agencies*

Two state water agencies play a significant role in water distribution in California. First, the State Water Resources Control Board (SWRCB) controls all surface water development and transfer in California.<sup>210</sup> Formed in 1967 by joining two pre-existing boards, the State Water Quality Control Board and the State Water Rights Board, the SWRCB's mission is to balance all the water needs in the state, be they agricultural, urban, industrial, or environmental. The SWRCB is composed of five full-time salaried members, who are appointed by the Governor and confirmed by the Senate. The SWRCB has permitting jurisdiction over all surface waters and subterranean stream water,<sup>211</sup> but no permitting jurisdiction over groundwater.<sup>212</sup> Second, the Department of Water Resources (DWR) consolidates water planning, development, and management, subject to the oversight of the SWRCB. Its principal task is to operate the State Water Project—the system of reservoirs and aqueducts that begin in northern California and run the length of the state—and contract with state water contractors who desire delivery of water from the State Water Project.<sup>213</sup> This is a critical mission, considering that the State Water Project serves 20 million Californians and 660,000 acres of irrigated farmland.<sup>214</sup>

The SWRCB has divided California into nine regions, each governed by a different regional water quality control board.<sup>215</sup> The mission of these regional boards is “to preserve, enhance and restore the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.”<sup>216</sup> Each regional board is composed of nine members appointed by the Governor and confirmed by the Senate. The regional boards are responsible for formulating, adopting, and enforcing water quality control plans for the surface and ground water basins within their service areas. The Porter-Cologne Water Quality Control Act details the specific responsibilities of the SWRCB and the regional boards.<sup>217</sup>

210. Codified as amended at CAL. WATER CODE § 174.

211. The term “subterranean stream” comes from Water Code § 1200: “subterranean streams flowing through known and definite channels.”

212. JOSEPH L. SAX, STATE WATER RESOURCES CONTROL BOARD, REVIEW OF THE LAWS ESTABLISHING THE SWRCB’S PERMITTING AUTHORITY OVER APPROPRIATIONS OF GROUNDWATER CLASSIFIED AS SUBTERRANEAN STREAMS AND THE SWRCB’S IMPLEMENTATION OF THOSE LAWS 1 (No. 0-076-300-0, 2002) (detailing the interesting history and current state of the law for groundwater in California).

213. Codified as amended at CAL. WATER CODE § 120.

214. Available at <http://www.wowe.water.ca.gov/swp/index.cfm> (on file with author).

215. For example, the area running through the central part of California, from the northern border with Oregon to the Grapevine outside Bakersfield, is managed by the California Regional Water Quality Control Board—Central Valley Region. A map of its service area is available at [http://www.swrcb.ca.gov/rwqcb5/location/region\\_map.html](http://www.swrcb.ca.gov/rwqcb5/location/region_map.html) (last visited Jan. 21, 2004).

216. California Environmental Protection Agency, *State Water Resources Control Board*, at <http://www.swrcb.ca.gov> (last updated Feb. 9, 2004).

217. CAL. WAT. CODE § 13000 *et seq.* (2003).

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For example, the Central Valley Region is responsible for the following water quality issues: (1) agricultural drainage, which may be high in selenium and other pollutants, (2) mitigation and reduction of the accumulation of salts from irrigation, (3) address nitrate levels in groundwater from agricultural fertilizers, (4) mitigate the effects of discharges of heavy metals from abandoned mines, (5) identify and control toxic pollutants to surface and groundwaters, and (6) prevent underground tanks from leaking and polluting groundwater.<sup>218</sup>

## 2. Local and Regional Water Districts

The concept of a special water district to raise funds and build public works to address a specific matter of public concern arose in 1861 in response to the problem of flooding.<sup>219</sup> Since then, the concept of special districts has been applied to water supply and delivery, cemeteries, irrigation, fire protection, and the other public projects.<sup>220</sup> In fact, water districts have proliferated in California and there are now over 1,200.<sup>221</sup>

In California, water suppliers can be broken into three broad categories. First, there are several very large, regional water agencies that serve vast areas and play a formidable role in water planning and policy in California. Foremost among them is the Metropolitan Water District of Southern California (MWD), which supplies water to approximately eighteen million Californians,<sup>222</sup> or approximately fifty-one percent of the state's population.<sup>223</sup> MWD was formed by an act of the California State Legislature in 1927.<sup>224</sup> Other significant

218. See California Environmental Protection, *Central Valley Regional Water Quality Control Board*, at [http://www.swrcb.ca.gov/rwqcb5/board\\_information/Overview.html#Challenges](http://www.swrcb.ca.gov/rwqcb5/board_information/Overview.html#Challenges) (last updated July 8, 2003).

219. See NORRIS HUNDLEY, JR., *THE GREAT THIRST* 81 (2001). According to Hundley, the Reclamation and Swamp Land Act, Cal. Stats., ch. 352 (1861), 355-61, first authorized the creation of such special districts.

220. *Id.* at 82.

221. In 2001, AB 38 Strom-Martin required that the Legislative Analyst's Office (LAO) begin studying water special districts. The LAO's report considered data available from the California Controller in the most recent year available (1997-1998). See Legislative Analyst's Office, *Water Special Districts: A Look at Governance and Public Participation*, Figure 1 (Mar. 2002), available at <http://www.lao.ca.gov/2002/water%5Fdistricts/special%5Fwater%5Fdistricts.html>.

222. METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, 2002 ANNUAL REPORT 2 (2002).

223. The Demographic Research Unit estimates that the population of California on January 1, 2002 was 35,037,000. Dividing 18 million into 35 million reveals that MWD served approximately 51% of the state's population. STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, DEMOGRAPHIC RESEARCH UNIT, E-1 CITY/COUNTY POPULATION ESTIMATES (2002), available at <http://www.dof.ca.gov/HTML/DEMOGRAP/E-1table.xls>.

224. Metropolitan Water District Act, 1927 Cal. Stat. 492 (repealed by CAL. WATER CODE § 109-550). In 1921, the Legislature passed the Municipal Utility District Act, which created the necessary authority to form the organizational structure that many water and wastewater service providers have assumed today. CAL. PUB. UTIL. CODE § 11501 *et seq.*

regional water agencies include the Los Angeles Department of Water and Power (LADWP), which serves 3.8 million people and is the largest municipally owned utility in the United States;<sup>225</sup> the East Bay Municipal Utility District (EBMUD), which serves 1.3 million households in the Bay Area;<sup>226</sup> and the San Francisco Public Utilities Commission (SFPUC), which operates a water system that serves 2.4 million people in the City/County of San Francisco and in the East Bay.<sup>227</sup>

Second, there are water districts whose service area only encompasses a portion of one jurisdiction, whether that jurisdiction be a county or a city. For example, the City of Stockton, located approximately fifty miles south of Sacramento, is served by twelve water districts: the City of Stockton, the California Water Service Company, San Joaquin County, the Elkhorn Golf Course Estates, the Water Maintenance District, the Rancho San Joaquin Maintenance District, CSA (County Service Area) #15, the Walnut Acres Maintenance District, CSA #17, the Lincoln Village Maintenance District, the Colonial Heights Maintenance District, and CSA #40.<sup>228</sup>

Third, there are jurisdictions that provide their own water service. For example, the City of Davis, located fifteen miles to the west of Sacramento, provides for its own water supply and wastewater services.<sup>229</sup>

### B. Integrated Resource Planning (IRP)

In the 1990s, water agencies began looking to integrated resource planning (IRP) as a way to develop a least-cost, long-term plan that meets the stringent reliability standards of water suppliers and addresses both water demand and supply.<sup>230</sup> One scholar has further defined IRP as follows:

Integrated resource planning is a comprehensive form of water utility planning that encompasses least-cost analysis of demand-management and supply-management options, as well as an open and participatory decision-making process, the construction of alternative planning scenarios, and recognition of the multiple institutions concerned with water resources and the competing policy goals among them.<sup>231</sup>

225. See City of Los Angeles, *Water Supply Fact Sheet*, at <http://www.ladwp.com/ladwp/cms/ladwp000508.jsp> (last visited Jan. 21, 2004).

226. EAST BAY MUNICIPAL UTILITY DISTRICT, *SHAPING OUR FUTURE: EAST BAY MUNICIPAL UTILITY DISTRICT ANNUAL REPORT 4* (2002).

227. See San Francisco Public Utilities Commission, *Overview of SFPUC*, at [http://sfwater.org/detail.cfm/MC\\_ID/5/MSC\\_ID/38/MTO\\_ID/NULL/C\\_ID/17](http://sfwater.org/detail.cfm/MC_ID/5/MSC_ID/38/MTO_ID/NULL/C_ID/17) (last visited Jan. 21, 2004).

228. SAN JOAQUIN COUNTY, *GENERAL PLAN 2010, I POLICIES/IMPLEMENTATION*, Table IV-4, at IV-67 (July 1992).

229. CITY OF DAVIS, *DAVIS GENERAL PLAN, SECTION V: COMMUNITY FACILITIES AND SERVICE 199-201* (May 2001).

230. Janice A. Beecher, *Integrated Resource Planning Fundamentals*, JOURNAL AWWA, Jun. 1995, at 41.

231. *Id.* at 42.

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A key change between IRP and previous water agency planning processes is that water demand is not assumed as a given in any IRP analysis. This change in assumptions reflects the limits environmental concerns have placed on the development of new water sources, such as building reservoirs and other waterworks.<sup>232</sup> MWD's IRP process is a good example of constrained optimization of multiple objectives, or trying to balance seemingly opposed goals. The MWD noted,

The major objective for the IRP was developing a comprehensive water resources plan that ensures: (1) reliability, (2) affordability, (3) water quality, (4) diversity of supply, and (5) adaptability for the region, while recognizing the environmental, institutional and political constraints to resource development.<sup>233</sup>

One might think that describing a planning process as a "constrained optimization of multiple objectives" would be a politically correct way of saying that MWD did not achieve its goals through an IRP. On the contrary, MWD noted that the strengths of its IRP were: (1) achievement of one hundred percent reliability at the retail level over the twenty-five year projected life of the IRP, (2) development of the least-cost approach to sustainable reliability, (3) achievement of regional water quality objectives, (4) reduced risks to MWD through diversification of water sources of supply, and (5) flexibility to adjust to future changes based on its diversified supply strategy.<sup>234</sup> Although water agencies are not legally required to create IRPs, some have used IRPs as the basis for their legally mandated Urban Water Management Plans.<sup>235</sup>

### C. *The Urban Water Management Plan Act*

In 1983, the California Legislature passed the Urban Water Management Planning Act<sup>236</sup> for the purpose of managing urban water supplies, encouraging efficient use of water resources, and protecting the people of the State and their water resources.<sup>237</sup> SB 610 (Costa) and AB 901 (Daucher) substantially amended the requirements of the Act in 2001. According to the Act, all water districts with more than three thousand connections (or providing more than three thousand acre-feet (af) of water per year) must prepare and adopt an

232. See Kanouse, *supra* note 26. The State's failure to build the other half of the State Water Project envisioned by its original designers is another poignant example. See Planning and Conservation League v. Dep't of Water Resources, 83 Cal. App. 4th 892, 899 (2000).

233. METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, I SOUTHERN CALIFORNIA'S INTEGRATED WATER RESOURCES PLAN 1-8 (1996).

234. *Id.* at E-15-E-16 (1996).

235. MWD used its 2000 UWMP requirement to begin the update of its 1996 IRP. See *id.* at II-1.

236. CAL. WAT. CODE §§ 10610-10657 (2003).

237. *Id.* § 10610.4.

Urban Water Management Plan (UWMP).<sup>238</sup> UWMPs must plan for a twenty-year time horizon,<sup>239</sup> and be updated once every five years.<sup>240</sup>

While IRP is a voluntary process that not all water agencies engage in, the UWMP is the legally required long-term planning document of the water district—the closest equivalent to a city or county’s general plan. There is one significant difference between the UWMP and a general plan—the UWMP is not subject to CEQA. Water Code section 10652 notes that “[t]he California Environmental Quality Act. . . does not apply to the preparation and adoption of [UWMPs].” Therefore, UWMPs may be less realistic documents than general plans because the environmental consequences of future projects can be left for others to consider, with less opposition from the public.

The following analysis of the UWMP process is divided into two parts. The first considers the information that must be included in UWMPs, and the second addresses the process that water districts must follow when they are preparing, reviewing, or amending their UWMPs.

#### 1. *Informational Requirements in the UWMP*

Unlike general plans, which may include discussion of a wide range of water management-related issues (water supply, water quality, wastewater treatment and disposal, flood management, watershed management, and stormwater management), UWMPs focus primarily on water supply, with some consideration given to other issues as they affect supply, including water quality and watershed management.<sup>241</sup> Their construction is also markedly different from general plans because UWMPs project how development will occur in five-year intervals up to the twenty-year time horizon, as opposed to providing an overall picture of how the city or county may develop within that time frame.<sup>242</sup>

The UWMP Act recognizes the variety of specific conditions facing water districts around the state and allows UWMP construction to vary from district to district: “[t]he components of the plan may vary according to the individual community or area’s characteristics and its capabilities to efficiently use and conserve water.”<sup>243</sup> The Act also defines what UWMPs must cover in much

238. *Id.* §§ 10617, 10620(a).

239. *Id.* § 10631(a).

240. *Id.* § 10621(a). The Act provides for state-wide coordination when updating UWMPs. All UWMPs must be updated in years ending in either five or zero. For the most recent UWMP update in 2000, the Department of Water Resources (DWR) determined that 371 water suppliers were required to submit an UWMP. By November 2001, it reported that 272 water suppliers had complied with the requirement. See CALIFORNIA DEPARTMENT OF WATER RESOURCES, *Summary of 2000 Urban Water Management Plans 1* (Dec. 1, 2001). DWR’s report leaves out significant, relevant information about UWMPs, such as how many Californians receive their water from an agency that is required to file an UWMP and the total water supplied by agencies reporting with UWMPs.

241. CAL. WAT. CODE §§ 10631, 10633.

242. *Id.* § 10631(a).

243. *Id.* § 10615.

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finer detail than in the comparable general plan provisions.<sup>244</sup> Water Code section 10631 describes the specific issues that an UWMP must address, which are: (1) population, climate, and other demographic factors affecting supply; (2) existing and planned sources of supply and their projected yields; (3) reliability of sources of supply and vulnerability to climatic changes under average water year, single dry water year, and multiple dry water year conditions; (4) opportunities for water exchange and transfer; (5) quantity of water used in the past, measured in five year increments, for residential, commercial, industrial, institutional, and other uses;<sup>245</sup> (6) methods of water demand management measures and their state of implementation; and (7) all future water supply projects under consideration by the district. In addition, section 10632 requires that the UWMP contain a contingency plan for water shortages, and section 10633 requires a discussion of recycled water as a source of supply.

Water districts must also consider water quality issues. AB 901 added section 10634, which requires that the district's UWMP include "information. . .relating to the quality of existing sources of water. . .and the manner in which water quality affects water management strategies and supply reliability."

Water districts may satisfy the requirements of the Act through a UWMP that considers the service area of the district, or the districts can participate in a collaborative planning effort that addresses the area, region, watershed, or groundwater basin, where "those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use."<sup>246</sup> Water districts are specifically permitted to recoup the costs of preparing an UWMP and implementing water conservation measures by raising their service rates.<sup>247</sup>

The requirement to prepare and adopt an UWMP, as well as to implement it, is enforced by the threat of cutting off state funding. Section 10631.5 requires the Department of Water Resources (DWR) to consider whether the water district has begun implementing its water conservation plans when considering the district's application for grants and loans. In addition, a district that does not prepare, adopt, and submit a UWMP to the DWR is ineligible to receive funding under the Safe, Clean, Reliable Water Supply Act or under the

244. See *supra* discussion in Section II.A. It is important to note that AB 901 (Daucher) and SB 610 (Costa) both proposed amendments to Water Code section 10631, substantially increasing the detail required of UWMPs.

245. The statute explicitly specifies the type of discussion it expects from water districts. It asks the water districts to identify the amount of water used among the following specific uses: single family residential, multifamily, commercial, industrial, institutional and government, landscape, sales to other agencies, saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof, and agricultural uses. CAL. WAT. CODE § 10631(e)(1)(A)-(I).

246. *Id.* § 10620(d)(1).

247. *Id.* § 10654.

Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act, or to receive drought assistance.<sup>248</sup> Finally, section 10657 requires that the Department's review of the district's eligibility for funding include consideration of whether the district has provided the DWR with an updated UWMP, consistent with the requirements of section 10631.<sup>249</sup>

The informational requirements of the UWMP, as amended by SB 610 and AB 901, seem relatively strict. Since they took effect on January 1, 2002, more time is required to tell how effective they will be at creating a detailed, consistent water supply reporting system in California.

## 2. *Process Requirements in Preparation of the UWMP*

Although the Act clearly contemplates water districts as the repositories of knowledge for water supply within their service area, it mandates that the districts consult others when preparing, adopting, and implementing the UWMP. The UWMP process assumes the involvement of wholesale water suppliers, the jurisdiction(s) that lie within the district's service area, water experts, and the public. The water district must "coordinate the preparation of its plan with other appropriate agencies in the area, including water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable."<sup>250</sup> Duplicating this directive, the Act also grants permission to urban water suppliers to consult with the cities and counties they serve,<sup>251</sup> state agencies, and experts in water demand management.<sup>252</sup> The Act also encourages urban water suppliers to solicit "the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan."<sup>253</sup> Urban water suppliers are also specifically directed to provide their wholesale water supplier, if any, with water use projections for the next twenty years, in five year time periods, and the wholesale water supplier is required to provide similar information to the urban water supplier.<sup>254</sup>

Section 10621(b) requires urban water suppliers to provide notice to any city or county within their service area when they review the UWMP or consider amendments. Before adopting a plan, the water district must hold at

248. *Id.* § 10656. The Safe, Clean, Reliable Water Supply Act is found at Water Code §§ 78500-78702, and the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act is coded at Water Code §§ 79000-79221.

249. SB 610 strengthened the consequences for water districts that fail to prepare, adopt, and maintain UWMPs by adding § 10657 and amending § 10656 to bar funding under both the Safe, Clean, Reliable Water Supply Act and the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act.

250. CAL. WAT. CODE § 10620(d)(2).

251. *Id.* § 10621(b).

252. *Id.* § 10641.

253. *Id.* § 10642.

254. *Id.* § 10631(i).

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least one public meeting, and notify any cities or counties within its service area of that meeting.<sup>255</sup> When a water district does adopt a new UWMP, it must supply a copy to any city or county that it serves, as well as to the DWR.<sup>256</sup>

These process requirements contemplate no more coordination between land use and water planning agencies than the general plan requirements. Although a water district must coordinate with the other relevant agencies when preparing or adopting an UWMP, the coordination is limited by the phrase “to the extent practicable.”<sup>257</sup> The requirements placed on a water district are minimal. They must notify jurisdictions within their service area that they are working on their UWMP, they must hold one public meeting, and they must forward copies of the completed UWMP to the relevant jurisdictions.

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255. *Id.* § 10642.

256. *Id.* §§ 10635(b), 10644(a).

257. *Id.* § 10620(d)(2).

IV. THE BIG PICTURE: A DIAGRAM OF LINKAGES BETWEEN LAND USE AND WATER PLANNING

The requirements linking water and land use planning can be summarized with the visual illustration set forth on the following two pages.<sup>258</sup> The following diagram juxtaposes the land use and water planning processes, and focuses on the points where current legislation and case law direct the agencies to interact at each stage in the process. Each planning process begins with a long-range visioning document (the general plan for cities and counties presented on the left-hand side, and the UWMP for water agencies presented on the right-hand side), and works downward to the approval of specific development and the provision of water services to such development. The arrows down the middle of the diagram reveal what exchange is directed by law. Two arrows illustrate a mutual exchange of information, while a single arrow shows a one-sided exchange.

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258. The graphic depiction of land use and water planning linkages presented in this section is based on the presentation made by Rande Kanouse to the Association of Environmental Professionals Conference in 2002. *See* Kanouse, *supra* note 26.

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**Linkages Between Land Use Planning Agencies and...**

**LAND USE AGENCY — CITY/COUNTY**

**GENERAL PLAN (GP)**

Coordinate with water agency to prepare conservation element by discussing water info. agency supplies; use UWMP as source document



Send draft general plan to water agency

Notify water agency if considering residential project of 500+ units (or equivalent development) that is subject to CEQA



Water supply discussion in EIR must be supported by substantial evidence – no “paper water.” *Santa Clarita Organization for Planning the Environment (SCOPE) v. County of Los Angeles* (2003)

**SPECIFIC PLAN**

Notify water agency if considering residential project of 500+ units (or equivalent development) that is subject to CEQA



City or county determines if water supply is sufficient

**ZONING**

Notify water agency if considering residential project of 500+ units (or equivalent development) that is subject to CEQA



City or county determines if water supply is sufficient

**TENTATIVE & FINAL SUBDIVISION MAP**

Request proof of a sufficient water supply for the project if considering a residential subdivision of 500+ units



City or county can work with the project applicant and the public water system to secure a sufficient source of water for the project

**BUILDING/CONSTRUCTION**

**WATER CONNECTIONS MADE**

### ...Water Planning Agencies in the Development Process

#### WATER AGENCY

##### URBAN WATER MANAGEMENT PLAN (UWMP)



Send UWMP + specific water supply info. + comments on draft general plan



**Water Supply Assessment (SB 610):** within 90 days of request, provide detailed water supply assessment to city/county

Notify city/county if reviewing UWMP

Notify city/county of public meeting regarding changes to UWMP



Coordinate w/ relevant agencies in preparing UWMP, to the extent practicable

Send UWMP to city/county & DWR when adopted



**Water Supply Assessment (SB 610):** within 90 days of request, provide detailed water supply assessment to city/county



##### DEVELOPMENT OF SPECIFIC WATER PROJECTS

**Water Supply Assessment (SB 610):** within 90 days of request, provide detailed water supply assessment to city/county



**Water Supply Assessment/Verification (SB 610 or 221):** within 90 days of request, provide detailed water supply verification to city/county

City or county can work with the project applicant and the public water system to secure a sufficient source of water for the project



**“WILL SERVE” LETTER**

**WATER CONNECTIONS MADE**

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## V. ANALYSIS OF THE LEGAL FRAMEWORK FOR LONG-TERM LAND USE AND WATER PLANNING

What conclusions can be drawn from the preceding pages? The current scheme for long-term land use and water planning suffers from three obvious omissions. First, the Urban Water Management Plan requirement is inadequate to induce coordination and collaboration between water planners and their land use counterparts. Second, current regulations do not compel collaboration between water and land use planners early enough in their long-term planning processes. Instead, only an exchange of nearly completed documents is required, allowing planners to forego significant collaboration. Third, minimal general plan requirements for water planning miss the opportunity to induce jurisdictions to better coordinate land use and water planning.

A. *UWMP Requirements Do Not Integrate With the Land Use Planning Process*

The Urban Water Management Plan (UWMP) requirement for estimating future water demand is currently based on population, climate, and other demographic factors. This is problematic for at least five reasons. First, relying on population projections alone does not comport with water agency best practices for forecasting water demand. The best practices for estimating water demand in the industry today are based on looking at demographic *and economic* trends, translating those trends into future land uses, and projecting future demand from those land uses. For example, the Metropolitan Water District of Southern California goes beyond mere demographic data to make its projections in its 2000 UWMP.<sup>259</sup> Even more detailed forecasting is possible if specific land uses can be tied to parcels in a Geographic Information System (GIS), and historic water use information can be applied to the parcels, according to the type of land use.<sup>260</sup>

Second, Water Code section 10631 does not standardize the source of projections data among land use and water planning agencies. Water suppliers are free to choose the population projection estimate with which they feel most comfortable (from state, regional, or local service agency). There is no requirement that the land use and water planning agencies agree on what

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259. The MWD UWMP goes through a four-step analysis to project water demand. First, it uses economic and demographic projections from Southern California Association of Governments (SCAG) and San Diego Association of Governments (SANDAG) as its sources. Second, those estimates are inputted into a statistically derived water model called MWD-MAIN Water Use Forecasting System (MWD-MAIN). Third, MWD-MAIN estimates how water will be used, given demographic and economic data, among different types of land uses, including: single family residential/demand per dwelling, multi-family residential/demand per unit, and industrial/commercial/institutional/demand per employee. Finally, conservation measures are then applied to end-uses to create water demand, corrected with conservation measures.

260. The East Bay Municipal Utility District (EBMUD) is implementing this type of a system. East Bay Municipal Utility District (EBMUD), EBMUD Watershed Master Plan 91 (1996, revised 1999).

demographic and economic projections to use. It makes sense not to require a water agency to use projected data that it thinks is incorrect, but it makes no sense to allow the water agency and land use planning agencies not to talk about why each is choosing its projections source.<sup>261</sup>

Third, water agencies are not required to use the general plan of the jurisdictions they serve as a source document for preparing their UWMP.<sup>262</sup> This might be explained by the fact that many general plans are significantly out of date. This omission in the Water Code is problematic given the strength of the judicial decisions and the policy arguments for basing long-term planning processes on the relevant general plan. *County of Amador* rejected a water project EIR based on a draft, unadopted general plan, and suggested that the general plan should be a source document for water agency planning efforts.<sup>263</sup> “Approving a water program before enacting a general plan places the proverbial cart before the horse.”<sup>264</sup> In addition, intended land use policy undisputedly affects water demand. Therefore, it makes little sense for long-term water planning *not* to be connected to the long-term land use plan. For example, general plans often include water-related policies, such as water conservation efforts, which should be factored into water demand figures. If water conservation policies from the general plan are not factored into water demand projections, such projections may be overstated. Finally, the new water assessments/verifications required by SB 221 and SB 610 for projects may look to UWMPs for water sufficiency if the relevant UWMP has included the project in its projections.<sup>265</sup> Therefore, the water agency will save itself later effort, and increase the security of development process, if it includes proposed projects in its UWMP. This will be impossible unless the water agency pays close attention to the general plan.

Fourth, the graphic depiction of the land use and water planning legal framework in Section IV, quickly reveals the hole on the land use side of the UWMP update process. There are no substantive requirements for collaboration between the land use and water planning agencies in regards to the UWMP. One possible exchange of information could be a mandatory request by the water agency for all pending projects that are expected to trigger CEQA. This exchange would ensure that the water agency could include those projects in its UWMP, which would allow both agencies to comply more easily with SB 221 and SB 610.

Finally, UWMPs, the water supply assessment in SB 610, and the water supply verification in SB 221 all require a *sufficient water supply*, defined as

261. It may be that land use and water planning agencies always use the same projections when forecasting for the future. Additional research is necessary to determine whether this is actually the case. Regardless, the law should not permit land use and water planners to use different estimates.

262. See notes 254-256 and accompanying text.

263. *County of Amador v. El Dorado County Water Agency*, 76 Cal. App. 4th 931, 949 (1999).

264. *Id.*

265. CAL. WAT. CODE § 10910(c)(2) (2003).

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“the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including, but not limited to, agricultural and industrial uses.”<sup>266</sup> The critical term in this seemingly specific definition is “planned future uses,” which is not defined in any of the statutes. This term implies some coordination with the general plan—the repository for the jurisdiction’s “planned future uses” —but the lack of specificity impairs the usefulness of the UWMP, the water assessment, and the water verification.

In his consideration of this issue, attorney Matthew Zinn notes that there are three possible ways to interpret the term: (1) use the CEQA definition of “probable future projects,” including all previously approved but unbuilt development projects (including development contemplated in Specific Plans), and perhaps projects for which applications have been submitted;<sup>267</sup> (2) use all development approved in the general plan; or (3) defer to individual water providers and local governments for the meaning of “planned future uses.”<sup>268</sup> As it stands now, the lack of connections between the UWMP process and the land use planning process undercuts all three of these possible interpretations, and decreases the likelihood of achieving the goals of SB 221, 610, and AB 901.

*B. General Plan Procedural Requirements Do Not Ensure Collaboration*

The foregoing discussion revealed that water planners are not required to consult with land use planners at all in the preparation of their UWMPs, despite the potential benefits that could be gained through such collaboration. In what ways are land use planners required to collaborate with their water planning counterparts?

Land use planners are required to refer to the most recent UWMP when they are preparing a general plan update, to send a draft of the general plan to the water agency before adopting it, and to consider comments returned to them by that agency. However, these requirements are too little, too late. They do not involve the relevant planning personalities in the early stages of the process. Instead, these requirements simply suggest an exchange of nearly finished or finished documents. The water agency begins by sending its UWMP to the land use agency; next, the land use agency replies with their draft general plan; and finally, the water agency sends back comments on the draft general plan. This exchange of nearly final and final documents is too easily viewed as a mere procedural requirement. Instead, there should be working groups of land use and water planners involved in the early stages of

266. See CAL. GOV. CODE § 66473.7(a)(2) (2003); see also CAL. WAT. CODE § 10910(c)(3).

267. See CEQA GUIDELINES, *supra* note 121, § 15130(b)(1)(B).

268. Zinn, *supra* note 53, at 127-28.

each other's long-term planning processes in order to voice their mutual concerns, to gain efficiencies, and to standardize assumptions.

*C. General Plan Informational Requirements Allow Minimal Long-Term Water Planning*

The evaluation of the legal requirements in Section II.A.1 revealed that the informational requirements for water management planning in general plans are minimal and avoidable. Lack of specificity in some places, most notably the land use and conservation elements, robs the general plan requirement of some of the impact it would otherwise have. The requirements leave much interpretive ability to the cities and counties preparing the general plans, which may allow them to avoid, or supply insufficient discussions of, important water management planning issues.

For example, the OPR's *2003 General Plan Guidelines*, which are purely advisory, assume that the conservation element is the proper place to inventory water resources (rivers, lakes, streams, etc.), define watershed boundaries, assess water supply and water quality, and project water demand, supply, and quality.<sup>269</sup> Yet the law creates no affirmative obligation to provide this information.

V. A WATER ELEMENT IN THE GENERAL PLAN

Both legislative and judicial bodies are forging linkages between the water and land use planning processes. Yet have these steps created a planning scheme that makes sense? Are there ways that water and land use planning could be integrated in a more logical or holistic way? Are agencies communicating early enough in the planning process to avoid problems?

One potential method of linking water and land use planning processes is to add an eighth required general plan element. This element would document the interaction between water issues and the jurisdiction's land use plan. The idea has some intuitive appeal. First, the general plan is the constitution for the future development of the city or county, which guides long-term land use planning for the jurisdiction. It makes sense that long-term planning for water management should have a designated place in the general plan. Second, much of the water planning process is now scattered among three or four elements of the general plan. Consolidating them into one section may make them more easy to contemplate—both by land use planners who refer to the plan to implement policy, and by the public and other interested parties who want to understand to what the legislative body has committed itself. Third, unifying water planning into one element could make it easier for cities and counties to coordinate their planning processes with the water agencies required to do long-term water planning by the Urban Water Management Plan Act. Finally, a

269. OPR GUIDELINES, *supra* note 24, at 75

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water element could aid cities and counties in complying with the new legislative and judicial mandates focused on assuring an adequate water supply for new development.

The idea of including a water element in the general plan is not new. At least one California county has adopted a Water Element for its general plan, and many other counties have created extensive Water Resources subsections in either the Conservation or Open Space Elements of their general plans.<sup>270</sup> In addition, in the *2003 General Plan Guidelines*, the Governor's Office of Planning and Research (OPR) included an outline for a water element in its discussion of optional general plan elements.<sup>271</sup>

This section begins with a brief description of the OPR's outline for a water element. Next, it evaluates the three most complete examples of water elements<sup>272</sup> already in action among a non-statistical sample of sixteen county general plans to recognize the common attributes. It concludes with a summary of seven common attributes among the three general plans that suggest possible best practices for integrating the water and land use planning processes in the general plan.

#### A. *The Office of Planning and Research's Optional Water Element*

The OPR suggests communities create a separate water element for their general plans, in which each aspect of the hydrologic cycle is collected in a single element.<sup>273</sup> Such a proposed element would consolidate discussions of water supply and demand, water quality, wastewater treatment, watershed and habitat protection, flood management, and other relevant water resource factors that previously have been scattered throughout the general plan, as detailed in Section II.A, *supra*.<sup>274</sup>

Following is a brief description of the issues the OPR considers logically suitable for a water element, their connections to the land use process, and

270. As mentioned earlier, cities and counties are welcome to create additional elements for their general plans as long as they include the required seven elements. Imperial County did just that when it created a Water Element for its general plan in 1997. IMPERIAL COUNTY GENERAL PLAN, WATER ELEMENT, at 1 (1997). In addition, Inyo, Riverside, and Santa Barbara Counties have created extensive Water Resources subsections in their Conservation, Open Space, or joint Conservation/Open Space Elements, depending on how each county arranged the general plan. INYO COUNTY GENERAL PLAN, CONSERVATION/OPEN SPACE ELEMENT, ch. 8, sec. 8.5 (2001); COUNTY OF RIVERSIDE GENERAL PLAN, MULTIPURPOSE OPEN SPACE ELEMENT, ch. 5 (2003); SANTA BARBARA COUNTY COMPREHENSIVE PLAN, CONSERVATION ELEMENT, Water Resources Section, at 16 (1997).

271. The outline for the optional water element was prepared by Dr. Jeff Loux, Director of the Land Use and Natural Resources Extension, University of California, Davis. See OPR GUIDELINES, *supra* note 24, at 128-33.

272. In fact, of the three counties examined in detail, only Imperial County has a Water Element that is co-equal with the other elements of its general plan. The other two counties, Inyo and Riverside Counties, have extensive water resources subsections in their joint Conservation/Open Space Elements. See *infra* Section VI.B.

273. OPR GUIDELINES, *supra* note 24, at 130-31.

274. *Id.* at 128-33.

examples of how a community's policies and future actions could be defined to coordinate land use and water issues.

**Water Supply and Demand:** In addition to SB 610 and 221's requirements for water supply assessment and water supply verification, the Government Code requires that cities and counties consider UWMPs prepared by water districts that serve the jurisdiction as a source document in the preparation of the conservation element of the general plan.<sup>275</sup> The water element would inventory existing water supply, analyze projected demand, assess opportunities for water conservation, project any shortfalls in supply, and consider future plans to increase water supply.<sup>276</sup> Assuming that a valid UWMP is available, this section could incorporate much of the UWMP by reference.

**Water Quality:** SB 610 includes a requirement that the UWMP consider the impact of water quality on projected water supplies,<sup>277</sup> but land use policies also impact water quality. Federal and state law require that "impaired" water bodies be identified and plans developed for reducing pollutants in water resources, which will require jurisdictions to modify land use plans and development policies to improve water quality.<sup>278</sup>

**Wastewater Treatment:** Incorporating the wastewater treatment scheme into the water element may reveal more ways to use treated wastewater for landscape, recreation, industrial, or agricultural uses.<sup>279</sup> Since the feasibility of such re-use plans can depend heavily on the proximity of compatible land uses, integrating the wastewater treatment plan with the land use element can reveal opportunities for such water re-use.<sup>280</sup>

**Watershed and Habitat Conservation:** The conservation and open-space elements currently discuss watershed and habitat conservation in varying detail. There are many ways that land use policies can be set to improve watershed management techniques.

**Flood Management:** Currently the land use and safety elements require a discussion of flood management policies and actions. Consolidating that discussion into a water element corresponds with a watershed mapping effort.<sup>281</sup>

**Stormwater Management:** As the earlier discussion of water quality mentioned, stormwater runoff is a major source of non-point source water pollution. Many communities face stricter requirements to manage non-point

275. CAL. GOV. CODE § 65302.2 (2003).

276. OPR GUIDELINES, *supra* note 24, at 130.

277. CAL. WAT. CODE § 10634 (2003).

278. *See* Clean Water Act, 33 U.S.C. § 1313(d) (2003) (requiring preparation of "total maximum daily load" studies of water bodies and plans to reduce the pollutant loads of those found to be impaired); CAL. WAT. CODE §§ 13000-14958.

279. OPR GUIDELINES, *supra* note 24, at 131.

280. *Id.*

281. *Id.*

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source pollution. Including those policies and actions in a water element that also considers the interconnection between water supply and water quality makes sense.<sup>282</sup>

***Inter-Agency Coordination, Collaboration:*** Clearly, integrating the land use and water planning processes is not an easy task. A water element is a good place for setting forth the policies and actions that a jurisdiction will follow in trying to coordinate and collaborate with the many neighboring, regional, state, and federal agencies that have some part in water planning.<sup>283</sup>

*B. Examples of Integrated Land Use and Water Planning in County General Plans*

As previous sections have shown, current legal structures do not require extensive integration of land use and water planning in general plans. Yet jurisdictions are free to do more than the law requires. How have jurisdictions in California included water management planning in their general plans? Are there any good examples of water management planning already available?<sup>284</sup>

In order to assess how closely jurisdictions have been integrating land use and water planning in their general plans, the author conducted a non-statistical survey of sixteen counties (denoted by stars in the map of California's counties below<sup>285</sup>).<sup>286</sup> The survey attempted to balance geographic differences (coastal, inland, foothill, or mountain geography), location within the state (northern, central, southern), and level of urban development (urban, rural). How recently the general plan had been updated, whether the county was reputed to have a water element, and the availability of the general plan (either at the OPR's

282. *Id.* at 131, 133.

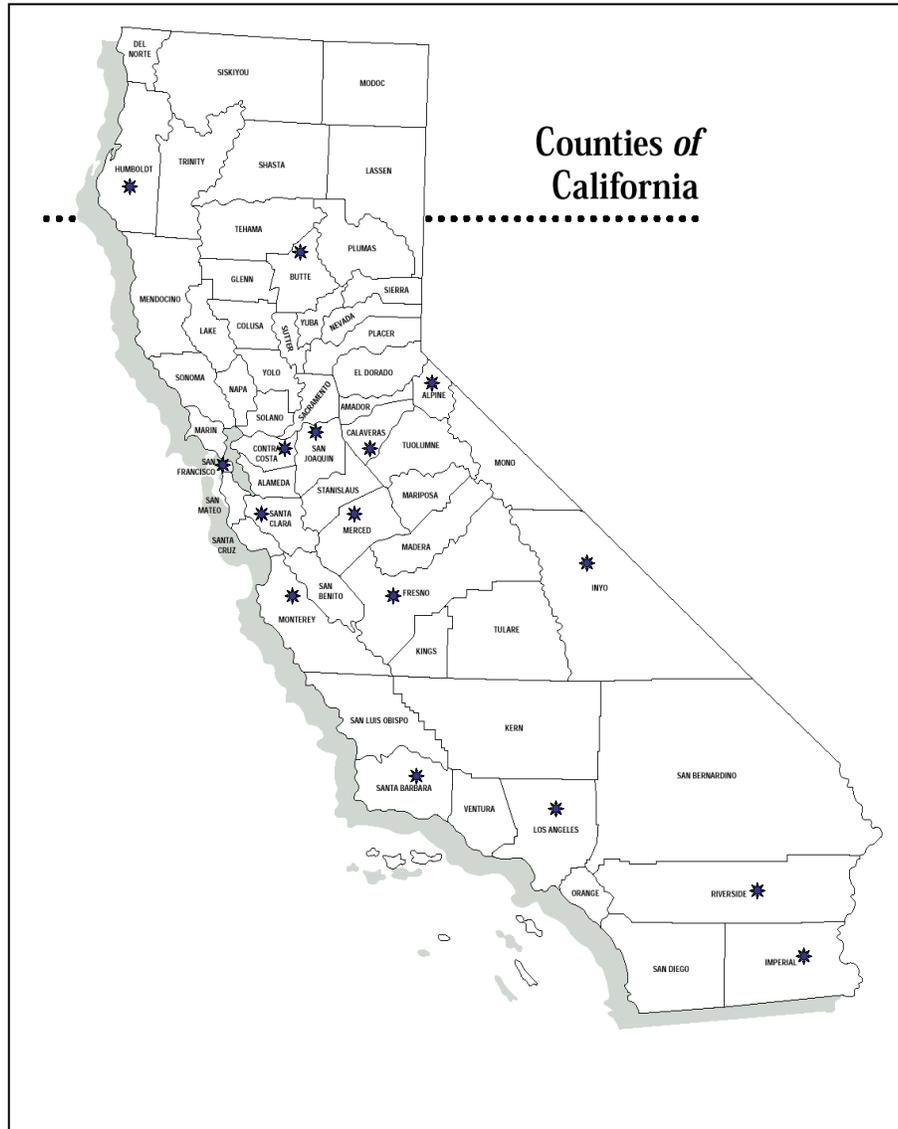
283. *Id.* at 133.

284. Drawn from the self-reporting documents filed with the Office of Planning and Research by cities and counties, the California Planners' Book of Lists 2000 includes a section that details the optional elements that cities and counties have adopted for their general plans, in addition to the required seven elements. According to that list, only nine of California's fifty-eight counties had prepared an optional water resources element for their general plans by 2000. They were: Alpine, Humboldt, Mono, Nevada, Placer, Shasta, Sierra, Tehama, and Ventura counties. See STATE OF CALIFORNIA, GOVERNORS OFFICE OF PLANNING AND RESEARCH, THE CALIFORNIA PLANNERS' BOOK OF LISTS 2000, at 43 (2000). The author's review of these self-identified optional water resources elements found that they differed widely in what they labeled a water resources element.

285. The map is based on the Counties of California map in the PLANNERS' BOOK OF LISTS 2000, *supra* note 284, at 6.

286. The author focused on a county-oriented level of analysis for several reasons. First, choosing to review a sample of the fifty-eight county general plans was more practical than attempting to do the same with the much more numerous group of incorporated cities. Second, counties typically cover a larger area and their general plans address more of the various challenges that California's diverse territory presents to land use and water planners. Finally, the author's bias towards regional resource planning encouraged a county-level of review. The author recognizes, however, that valuable work has also been done by cities in this area, and that cities have an important role to play in integrating land use and water planning.

offices in Sacramento, or through the internet) increased the chances of a county being included in the survey.<sup>287</sup>



287. Assuredly, there are counties the author did not survey that have innovatively integrated land and water use planning in their general plans. The author hopes to have the opportunity to study them in the future.

Of the sixteen counties studied, three counties in particular deserve special discussion for their extensive treatment of water management issues in the general plan. Unsurprisingly, all three of them—Imperial County, Inyo County, and Riverside County—have faced, and continue to face, especially difficult water-related challenges. Does this make them biased examples? Not necessarily. If California’s dire water forecasts prove accurate, many more areas of the state will find themselves in similarly difficult situations. If so, then the techniques these counties have implemented will be the most relevant. As the following discussion reveals, what makes the Imperial, Inyo, and Riverside County general plans interesting is how comprehensively they treat water management issues.

### 1. *Imperial County*

Imperial County is home to some of the State’s most fertile farmland. The Imperial Irrigation District (IID), one of the major water purveyors to the County, is one of California’s most senior Colorado River water rights holders.<sup>288</sup> In spite of (or because of) these two factors, the County plays host to some of the most contentious water battles in the state.<sup>289</sup> The County’s more urban neighbors covet its water supply, and environmentalists argue that more water should be used to preserve the critical but gradually failing Salton Sea habitat for birds, fish, and other wildlife.

Like many other Southern California counties, Imperial County is also anticipating substantial growth pressures in the form of a near-doubling of population by the year 2020.<sup>290</sup> Imperial County’s response to these pressures has been to adopt a water element that stands co-equal with the other seven required elements. Imperial County is the only one of the sixteen sampled counties to have done so. In fact, the County’s general plan recognizes the critical importance of water to the County. “The history of Imperial County is tied to the availability of water, and the availability of this resource will play an

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288. *Arizona v. California*, 439 U.S. 419, 429 (1979); *see also* Glennon & Culp, *supra* note 3, at 920.

289. *See* Michael Gardner, *Imperial an Oasis of Opportunity but Many Fear that Idling Farmland Could Pull the Plug on Growth*, SAN DIEGO UNION-TRIB., May 29, 2003, A1.

290. *See* STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, DEMOGRAPHIC RESEARCH UNIT, INTERIM COUNTY POPULATION PROJECTIONS (2001). Imperial County’s estimated population in July 2000 was 149,000. By July 2020, its population is projected to reach 294,200—a 97.4% increase.

important role in determining the population and economic growth of the region.”<sup>291</sup>

Imperial’s water element, which was first included in the County’s general plan in 1993 and revised in 1997, has several characteristics that link water and land use planning.<sup>292</sup> First, it explicitly recognizes the interconnection between water supply and land use, and suggests that the inclusion of a water element is an important step in planning with this connection in mind. On the first page of the water element, their general plan notes that “[a]n awareness of the importance of a sound Water Element is important in recognizing that water in California is becoming a scarce resource. Land use decisions based in part upon water resources have significant effects on the physical, social, and economic character of the county.”<sup>293</sup>

Second, the water element addresses several significant water management issues (also suggested by the OPR’s optional water element) including: water supply and conservation,<sup>294</sup> water quality,<sup>295</sup> watershed management,<sup>296</sup> and coordination and collaboration between the County and water agencies that serve within its boundaries.<sup>297</sup>

Third, the water element includes a substantial background section that details the existing conditions and trends in water management in Imperial County.<sup>298</sup> Two detailed appendices supplement this discussion; the first relates the history of Imperial County’s water supply, and the second provides a thorough assessment of the water quality of all sources of supply.<sup>299</sup> These background materials indicate a level of coordination with the relevant water agencies that prepared the data (notably the IID), and provide a basis for the goals and policies presented in the water element.

291. IMPERIAL COUNTY GENERAL PLAN, OVERVIEW, at 10 (1997).

292. *Id.* at 1; IMPERIAL COUNTY GENERAL PLAN, WATER ELEMENT, at 1.

293. IMPERIAL COUNTY GENERAL PLAN, WATER ELEMENT, at 1(1997).

294. Goals 1 and 3 address water supply and conservation in the County. Goal 1: “The County will secure the provision of safe and healthful sources and supplies of domestic water adequate to assure the implementation of the County General Plan and the long-term continued availability of this essential resource.” *Id.* at 30. Goal 3: “The County will secure the provision of safe and healthful sources and supplies of agricultural irrigation water adequate to assure the continuation of agricultural land uses as established by the County General Plan and the long-term continued availability of this essential resource.” *Id.* at 31.

295. Goal 4 addresses water quality. Goal 4: “The County will adopt and implement ordinances, policies, and guidelines that assure the safety of County ground and surface waters from toxic or hazardous materials and wastes.” *Id.*

296. Goal 2 addresses watershed issues. Goal 2: “Long-term viability of the Salton Sea, Colorado River, and other surface waters in the County will be protected for sustaining wildlife and a broad range of ecological communities.” *Id.*

297. “The County of Imperial shall confer and consult with the Imperial Irrigation District and incorporated communities of the County to assure a coordinated and coherent water policy for all interested parties in the County.” *Id.* at 38.

298. *Id.* at 22.

299. *Id.* at A-1, B-1.

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## 2. Inyo County

Inyo County has only recently begun to reverse the outflow of water to the City of Los Angeles from within its boundaries. That outflow is the result of an historic water grab that began almost one hundred years ago.<sup>300</sup> The County's growth has been curtailed by its early failure to manage its own water resources, and its general plan reflects a desire to prevent any additional water losses while also trying to expand the water base necessary for the County's growth. As the Background Report to Inyo County's general plan noted, "the control and use of water resources has had a greater effect on the county's development in the past than any other single factor, and this issue will continue to play a large role in defining its future."<sup>301</sup> This dusty past has caused the County to integrate the general plan's land use and water planning mechanisms to a high degree.

Inyo County finished its most recent general plan update in December 2001 (a process that it began in 1997), and its general plan is notable for three reasons.<sup>302</sup> First, when drafting the plan Inyo County made a significant effort to improve the level of participation of both the public and governmental agencies with management authority over Inyo County lands. A memorandum of understanding established the Inyo County Collaborative Planning Team in 1998, which brought local, state, and federal land use managers together every two months to talk about the plan.<sup>303</sup> In addition, the County facilitated public participation by establishing land use and water advisory committees for the five distinct regions within Inyo County,<sup>304</sup> organizing a community-wide full day public workshop to elicit citizens' visions for the future of Inyo County,

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300. In 1913, the City of Los Angeles Department of Water and Power (LADWP) completed the Los Angeles Aqueduct and began exporting water from the Owens Valley in Inyo County and delivering it to the City of Los Angeles. Within eleven years, the Owens Lake was dry. INYO COUNTY GENERAL PLAN, BACKGROUND REPORT, ch. 8, at 8-26 (2001).

301. *Id.*, ch. 1, at 1-4.

302. INYO COUNTY GENERAL PLAN, GOALS AND POLICIES, ch. 1, at 1-3 (2001).

303. The Inyo County Collaborative Planning Team included the County, as well as representatives from every federal, state, and local agency that manages lands within the County or imposes regulations on the use of those lands. Many of the lands within Inyo County are managed by area plans created by the stakeholders included on the Collaborative Planning Team. The Team consisted of the following members: a member of the Board of Supervisors of Inyo County (who served as the chair of the Team), the California Department of Fish and Game (Region 6), the Lahontan Regional Water Quality Control Board, the Great Basin Air Pollution Control District, the California Department of Transportation (Region 9), the City of Los Angeles Department of Water and Power, the Inyo National Forest, the Bureau of Land Management, the Death Valley National Park, the China Lake Naval Air Weapons Center, the U.S. Department of Energy Yucca Mountain Site Characterization Office, and the City of Bishop. INYO COUNTY GENERAL PLAN, BACKGROUND REPORT, ch. 3, at 3-16 (2001).

304. The County created five advisory committees to develop land use, land release, and water system issues. The five geographically oriented committees were: Bishop Land and Water Advisory Committee, Big Pine Land and Water Advisory Committee, Independence Land and Water Advisory Committee, Lone Pine Land and Water Advisory Committee, and the Southeast County Advisory Committee (Shoshone/Tecopa area). INYO COUNTY GENERAL PLAN, GOALS AND POLICIES, ch. 1, at 1-9 (2001).

and following-up with community workshops that gave the public a chance to comment on the goals and policies of the draft general plan.<sup>305</sup>

Second, the organization and substance of the Inyo County general plan is creatively and comprehensively construed to address water management issues. The general plan distinguishes itself from most other general plans by including a separate Background Report that “provides a detailed description of the conditions that existed within the Planning Area prior to adoption of the General Plan.”<sup>306</sup> This in turn correlates with the Goals and Policies Report that “contains the goals and policies that will guide future development within the County.”<sup>307</sup> The Background Report has an extensive discussion on water resources that considers the regulatory framework that directs water rights and water quality issues, describes the County’s groundwater and surface water resources, details both surface water and groundwater supplies, use patterns and quality, and reports the status of the agreement between the County and the City of Los Angeles Department of Water and Power over water resources.<sup>308</sup> In addition, their general plan includes an optional government element designed to improve inter-governmental communication and collaboration, and an extensive discussion of water resources in the joint conservation/open space element.<sup>309</sup>

The optional government element is especially relevant to the goal of integrating land use and water planning efforts. Policy Gov.-1.1 states that, [t]he County shall work with federal and state agencies, local districts, utilities (e.g., LADWP), and Native American tribes to ensure that they are aware of the contents of the County’s General Plan and work with them to ensure that their plans are consistent with Inyo County’s General Plan to the greatest extent possible.<sup>310</sup>

Further, Goal Gov.-2 extends the mandate for Inyo County to collaborate with other agencies beyond its own planning process, calling for Inyo County to “ensure planning decisions are done in a collaborative environment and to provide opportunities of early and consistent input by Inyo County and its citizens into the planning processes of other agencies, districts, and utilities.”<sup>311</sup>

Third, the water resources subsection of the joint conservation/open space element includes many of the elements suggested by the OPR’s optional water

305. *Id.* at 1-9 to 1-10.

306. *Id.* at 1-5.

307. *Id.*

308. INYO COUNTY GENERAL PLAN, INYO BACKGROUND REPORT, ch. 8, at 8-26 to 8-27 (2001).

309. INYO COUNTY GENERAL PLAN, GOALS AND POLICIES, ch. 1, at 1-4 (2001). In fact, Inyo County’s general plan includes two optional elements. One focuses on government, while the other addresses economic development. *See id.*, chs. 3 and 5.

310. *Id.*, ch. 3, at 3-4.

311. *Id.*, ch. 3, at 3-5.

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element, including water supply and conservation,<sup>312</sup> watershed management,<sup>313</sup> and inter-agency coordination/collaboration.<sup>314</sup>

Despite these attempts to integrate water and land use planning in their general plan, there are three potential problems with the Inyo County general plan's treatment of water management issues. First, not all of the water management policies expressed in the water resources subsection are thoroughly integrated in the land use element. For example, although General Plan Policy WR-1.1 notes that "[t]he County shall review development proposals to ensure adequate water is available to accommodate projected growth,"<sup>315</sup> only the commercial development land type has a policy that "[a]dequate water supplies. . . shall be required."<sup>316</sup> In fairness, this may be the result of Inyo County's small size (the County's population in July 2000 was estimated at 18,200).<sup>317</sup> It may be that only commercial development creates a significant draw on the available water supply. Second, dispersion of the stormwater management and wastewater treatment to the public services and utilities subsection of the land use element,<sup>318</sup> and flood control to the public safety element, could reduce the clarity of the water-related goals and polices of the County.<sup>319</sup> The OPR optional water element suggests comprehensively discussing these issues together. Third, there is no policy that indicates how frequently the general plan will be updated to reflect changing conditions and policies. This may allow the general plan to lag behind the long-term planning of the relevant water agencies, although the call for continual updating included in the optional government element may reduce this possibility.

312. See Goal WR-1: "Provide an adequate and high quality water supply to all users within the County." *Id.*, ch. 8, at 8-20.

313. See Policy WR-3.1: "Protect, maintain, and enhance watersheds within Inyo County." *Id.*, ch. 8, at 8-22.

314. See Implementation Measure 1.0: "The County shall coordinate with LADWP and local water agencies to ensure that water supplies and facilities are planned to serve development planned within the County." *Id.*, ch. 8, at 8-23. See also Policy WR-3.3: "Support the implementation of the Long Term Groundwater Management Agreement between the County and LADWP, the MOU between LADWP, the County, the California Department of Fish and Game, the California State Lands Commission, the Sierra Club and the Owens Valley Committee, and the Inyo County Groundwater Ordinance (Ordinance 1004)." *Id.*, ch. 8, at 8-22.

315. *Id.*, ch. 8, at 8-20.

316. *Id.*, ch. 4, at 4-20. Of course, SB 610 and 221's requirements for water assessment/verification would also apply if a sufficiently large residential or industrial project were proposed.

317. See STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, DEMOGRAPHIC RESEARCH UNIT, INTERIM COUNTY POPULATION PROJECTIONS (2001).

318. See Goal PSU-4: "To ensure adequate wastewater collection, treatment, and disposal," and Goal PSU-5: "To collect and dispose of stormwater in a matter that minimizes inconvenience to the public, minimizes potential water-related damage, and enhances the environment." INYO COUNTY GENERAL PLAN, GOALS AND POLICIES, Ch. 4, at 4-34 to 4-35 (2001).

319. See Goal FLD-1: "Provide adequate flood protection to minimize hazards and structural damage." *Id.*, ch. 9, at 9-12.

### 3. *Riverside County*

The challenge spurring Riverside County's integrated water and land use planning process is the projected near-doubling of the county's population by the year 2020.<sup>320</sup> Beginning with a Strategic Vision adopted in October 1998, the County has engaged in an on-going, multi-year, three-part planning process known as the Riverside County Integrated Project (RCIP), which includes an update to the county general plan, a Community Environmental Transportation Corridor Acceptability Process (CETAP), and a Multiple Species Habitat Conservation Plan (MSHCP).<sup>321</sup> When it was recently named California's fastest growing county, Riverside County Supervisor Bob Buster cited Riverside's planning process as its principle strength. "We're in a very enviable position compared to the rest of the state in that we have the planning in place to turn the growth to our advantage."<sup>322</sup>

What makes the Riverside's general plan noteworthy? First, the general plan itself is highly creative and adds several optional elements not commonly included in general plans. For example, Chapter 2, entitled "Vision for Riverside County," presents a written picture of the County in the year 2020 that describes the intended effects of the goals and policies of the general plan.<sup>323</sup> Chapter 5 integrates the open space and conservation element requirements into one Multipurpose Open Space Element, and further distinguishes its discussion between resources that will be conserved or preserved by the plan.<sup>324</sup> Chapter 10 is an Administration Element, designed to establish, maintain, and apply "the tools and procedures for interpreting the intent of the General Plan."<sup>325</sup> Appendix K to the general plan, the Implementation Program, includes action items correlated with general plan policies and designed to implement them.<sup>326</sup> These additional elements contribute to the comprehensive nature, clarity, and potential for success of Riverside County's general plan.

320. See STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, DEMOGRAPHIC RESEARCH UNIT, INTERIM COUNTY POPULATION PROJECTIONS (2001). Riverside County's estimated population in July 2000 was 1,577,700. By July 2020, its population is projected to reach 2,817,600—a 78.6% increase. In the twelve months ending July 1, 2003, Riverside County became the fastest growing county in the state.

321. COUNTY OF RIVERSIDE GENERAL PLAN, ch. 1, at 1 (2003). The general plan was approved by the Board of Supervisors on October 7, 2003. See <http://www.rcip.org/Documents/Resolution2003-487.pdf> (last visited Jan. 21, 2004). The most recent general plan update before this current effort was in 1987.

322. Jim Miller, *Riverside County Fastest Growing In State*, RIVERSIDE PRESS ENTER., Feb. 12, 2004.

323. COUNTY OF RIVERSIDE GENERAL PLAN, ch. 2, at V-1 (2003).

324. The Multipurpose Open Space Element is broken into two sections: conservation and preservation. Conservation is defined as "to protect from loss of harm by using carefully or sparingly," and preservation as "to keep in a perfect or unaltered condition; maintain unchanged." *Id.*, ch. 5, at OS-1.

325. *Id.*, ch. 10, at A-1.

326. See *id.*, app. K, 1-2.

Second, the plan development process includes a diverse group of stakeholders on the plan development team, both to gather input on the content of the plan and to create a strong constituency for the plan.<sup>327</sup> Third, water management issues receive comprehensive treatment in Riverside's general plan, including all of the specific issues recommended by the OPR's water element. The Multipurpose Open Space Element begins with the County's polices on water resources (including subsections devoted to water supply and water conservation), and watershed management (including subsections on water quality, groundwater recharge, floodplain and riparian area management, and wetlands).<sup>328</sup> The water supply subsection contains a detailed description of current and projected-2020 water demand and supply, in both normal and drought year conditions.<sup>329</sup> Although many of the County's water management policies are noteworthy, three policies focused on water supply are especially relevant to this Comment because they directly address the intersection of water and land use planning that have been the subject of legislation and judicial decisions:

Multipurpose Open Space Element (OS) 1.1: Balance consideration of water supply requirements between urban, agricultural, and environmental needs so that sufficient supply is available to meet each of these different demands.<sup>330</sup>

OS 1.2: Develop a repository for the collection of County water resources information.<sup>331</sup>

OS 1.3: Provide active leadership in the regional coordination of water resource management and sustainability efforts affecting Riverside County and continue to monitor and participate in, as appropriate, regional activities, addressing water resources, groundwater, and water quality, such as a Groundwater Management Plan, to prevent overdraft caused by population growth.<sup>332</sup>

Fourth, the County's water management policies are thoroughly integrated into the land use element. These policies include assessing water supply before approving development, encouraging collaboration and consistency with water

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327. *Id.*, ch. 1, at I-5. The General Plan Advisory Committee (GPAC) met monthly for the life of the project, and attempted to involve many different stakeholders. The GPAC membership included: two representatives appointed by each County Supervisor, and representatives from the Western Riverside Council of Governments, Building Industry Association, CA Department of Fish & Game, US Fish & Wildlife, Community Access Center, Endangered Habitats League, Sierra Club, Farm Bureau, Riverside County Office of Education, Riverside County Economic Development Agency, Riverside County Property Owners Association, and selected cities.

328. *Id.*, ch. 5, at OS-3 to OS-13.

329. *Id.*, ch. 5, at OS-4 to OS-6.

330. *Id.*, ch. 5, at OS-8.

331. *Id.* This policy is supported by Implementation Action Item 55, which calls for the County to "[e]stablish and maintain a centralized water resource database that incorporates surface and groundwater data and provide for the public dissemination of water resource information." *Id.*, app. K, at 18.

332. *Id.*, ch. 5, at OS-6.

planning agencies, and implementing the best practices set forth in the Multipurpose Open Space Element. For example, the County's policy for all land use types that allow built structures "require[s] that adequate and available circulation facilities, water resources, and sewer facilities exist to meet the demands of the proposed land use."<sup>333</sup> Depending on how broadly the County interprets these policies, they could initiate a water supply assessment for all projects, an even broader requirement than that contained in SB 610. Policy Land Use (LU) 1.5 directs the County to ". . . participate in regional efforts to address issues of mobility, transportation, traffic congestion, economic development, air and water quality, and watershed and habitat management with cities, local and regional agencies, stakeholders, Indian nations, and surrounding jurisdictions." Policy LU 5.3 requires a review of "all projects for consistency with individual urban water management plans."<sup>334</sup> Just one of many policies designed to implement the best management practices from the Multipurpose Open Space Element, Policy LU 4.1(d) "[r]equire[s] that new development utilize drought tolerant landscaping and incorporate adequate drought-conscious irrigation systems."<sup>335</sup>

Finally, the Administrative Element standardizes the general plan review process and sets the comprehensive review interval at five years.<sup>336</sup> This is a very unusual provision, based on the author's review of general plans. This provision addresses the problem of general plans sliding out of date.

### C. *Summary of Techniques to Integrate Land Use and Water Planning in General Plans*

Imperial, Inyo, and Riverside counties use similar techniques to link water and land use planning. These techniques emphasize public participation in preparing the general plan, a comprehensive analysis of water management issues, a land use element that is fully integrated with the water element, regular review and update of the general plan, and provisions for collaboration and cooperation with other agencies. They also suggest that while a water element in the general plan is certainly a positive step for linking water and land use planning policies, it is not the only method to which counties have turned.

333. See Land Use Element policies LU-20.3, 22.3, 23.7, 24.7, 25.4, 26.6, 28.4, and 29.3. *Id.*, ch. 3, at LU-52, LU-56, LU-59, LU-60, LU-61, LU-65, LU-68. Those land use types that can be served by septic facilities include the language "and/or septic capacity." *Id.*, ch. 3, at LU-52 and LU-68.

334. *Id.*, ch. 3, at LU-24.

335. *Id.*, ch. 3, at LU-22 (2003). New development is required by state law to utilize drought tolerant landscaping and to incorporate drought-conscious irrigation systems. See CAL. GOV. CODE § 65591 (2003).

336. *Id.*, ch. 10, at A-13 to A-16. The OPR's *General Plan Guidelines* also suggests a five-year comprehensive review interval for the general plan. See OPR GUIDELINES, *supra* note 24, at 46 ("At least once every five years, each local planning agency should thoroughly review its entire general plan and revise the document as necessary.").

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**Technique 1: General plans are developed with a community-wide process that includes all stakeholders.** Both the Inyo County General Plan and the Riverside County Integrated Project (RCIP) emphasized a community-wide, inclusive process to develop the general plan. By including the public, stakeholders, and interested agencies in the planning process, Inyo and Riverside attempted to gather substantive input for the content of their plans and to create a strong constituency behind the planning process.

**Technique 2: Water management goals and policies address all relevant water management issues, and are presented comprehensively.** Imperial and Riverside Counties both addressed, in a single water element or water resources subsection, the seven critical water management issues highlighted in the OPR's optional water element, including: (1) water supply and conservation, (2) water quality, (3) wastewater treatment, (4) flood management, (5) watershed management, (6) stormwater management, and (7) inter-agency coordination and collaboration. While Inyo County's General Plan also addressed all of these water issues, it did so in different elements. Imperial's and Riverside's summation of their policies in a single section made their General Plans seem clearer. It is likely that the difference in presentation is negligible for the professionals who use the plans on a daily basis. For the public and other interested parties who do not refer to the plan frequently, however, such comprehensive treatment may highlight important aspects of the County's water and land use planning policies that might otherwise be missed if they did not read beyond the water resources subsection of the joint Conservation/Open Space Element.

**Technique 3: Water management goals and policies are integrated in detail with the land use element.** This technique seems intuitive considering the requirement that general plan elements be internally consistent.<sup>337</sup> Yet, as a practical matter, plans sometimes are not consistent. There can be a range of problems from plans with obviously contradictory elements to plans that call for broad goals in one section that are not implemented by the detailed policies of another section. For example, Riverside County's Multipurpose Open Space Element Policy OS-1.1, which calls for a balanced consideration of urban, agricultural, and environmental uses to maintain sufficient water supply, is obviously reinforced by and consistent with the many policies in the Land Use Element that require adequate water resources to meet the demands of proposed land uses before development approval.<sup>338</sup> In contrast, Inyo County's Land Use Element does not provide support for an equivalent policy in its water resources subsection.<sup>339</sup>

**Technique 4: The general plans set a long-term planning horizon with scheduled review/update cycles.** This technique is not truly a shared one. Of

337. CAL. GOV. CODE § 65300.5.

338. See *supra* Section VI.B.3.

339. See *supra* Section VI.B.2.

the three Counties studied, only Riverside County included this policy in its general plan.<sup>340</sup> Yet the technique receives mention here because it appears to be a serious attempt to prevent the County's general plan from lagging behind the Urban Water Management Plan (UWMP) process of the relevant water planning agencies. Many of the benefits of integrated water and land use planning begin to decline if the general plan lags behind the long-term water planning. First, water agencies begin to lose the ability to include future projects in their UWMPs, because those future land use decisions are not included in the general plan. This makes the water supply assessment requirement imposed by SB 610 more onerous for the water planning agency, because it has less time to prepare its response. Second, considering how quickly California is growing, some jurisdictions may face a greater workload when they attempt to comply with SB 221 and 610's requirements if they do not update their general plans on a regular basis. Third, an outdated general plan could possibly impede long-term water planning efforts if a broad interpretation of *County of Amador* takes hold and mandates that water planning agencies not get ahead of land use planning agencies.

**Technique 5: Coordination/collaboration between land use and water agencies is well-defined in the general plan.** Considering that this coordination and collaboration historically has been challenging for land use and water planners, it is no accident that all three counties included coordination/collaboration discussions in the water element/water resources subsection of their general plans. For example, the Riverside County water resources subsection directs the county to coordinate/collaborate with water agencies by: (1) creating a repository of water resources information,<sup>341</sup> (2) providing active leadership in the regional coordination of water resource management and sustainability efforts,<sup>342</sup> (3) engaging in joint water conservation educational efforts,<sup>343</sup> and (4) participating in groundwater aquifer recharge programs.<sup>344</sup> Yet it remains unclear what this will mean in terms of concrete action for Riverside County. This is a point where the broader view and long-term focus of a general plan clash with the specifics that are needed to provide a basis for performance review and goal setting.

**Technique 6: The land use element expresses land use policies through a GIS map that can be shared with water planners.** State-of-the-art GIS water demand forecasts use a model to map existing and projected land use types. The GIS model then applies historic customer water use information

340. As noted in *supra* Section VI.B.2, Inyo County's optional Government Element includes several goals and policies that may achieve an equivalent result to a policy that requires a regular update of the general plan.

341. COUNTY OF RIVERSIDE GENERAL PLAN, ch. 5, Policy OS 1.2, at OS-8 (2003).

342. *Id.*, at Policy OS 1.3.

343. *Id.*, Policy OS 2.4, at OS-9.

344. *Id.*, Policy OS 4.2, at OS-10.

to the various land use categories to project future water demand.<sup>345</sup> As the land use designations of cities and counties change over time, the water agency updates its GIS model to reflect the changes in future water demand. In the same way, the effects of conservation efforts targeted at specific land uses and land use types can be included in water demand projections. This sophisticated method of projecting water demand replaces the historic practice of estimating water demand from population projections, which did not take into account large water users like commercial and industrial developments.

Advances in computer mapping technology outstrip the pace of change of most general plans. Riverside County's plan, as the most recent effort, includes this goal more clearly than either of the other two counties. Several action items in the Implementation Program call not only for the development of a parcel level GIS map of land use types,<sup>346</sup> but also for "a centralized water resource database that incorporates surface and groundwater data and provide[s] for the public dissemination of water resources information."<sup>347</sup>

**Technique 7: The general plan includes history and baseline conditions.** Imperial, Inyo, and Riverside Counties all made a substantial effort to include the history surrounding their water use, with Imperial County doing the most complete description. Imperial County included two appendices, a History of Imperial Valley Water, and a Resource Assessment, in addition to an Existing Conditions and Trends subsection in the Water Element itself.<sup>348</sup> The historic and baseline conditions are important for two reasons. First, they justify the goals and policies expressed in the plan. Second, they provide the context necessary for the public and those parties interested in the general plan to understand the motivations of the County. For example, any interpretation of Inyo County's water and land use planning policies would be incomplete without an understanding of its relationship with the City of Los Angeles and the City's export of water from the County.

#### VI. CHALLENGES AND BENEFITS OF A WATER ELEMENT IN THE GENERAL PLAN PROCESS

The previous section defined how a water element for a general plan might look, described three counties that have created a co-equal water element or extensive water resources subsection in their general plans, and identified seven common techniques used by those counties. This section attempts to present objectively the benefits and challenges of a water element, providing the reasoning for each of the different perspectives that this proposal has provoked. It first argues for creating a water element in a general plan, and then presents the counter-arguments against such a proposal.

345. See KAREN JOHNSON & JEFF LOUX, WATER AND LAND USE: PLANNING FOR THE FUTURE OF CALIFORNIA AS IF WATER REALLY MATTERED (forthcoming Jan. 2004, Solano Press Books).

346. COUNTY OF RIVERSIDE GENERAL PLAN, app. K, AI 11, at 11 (2003).

347. *Id.*, AI 55, at 18.

348. See IMPERIAL COUNTY GENERAL PLAN, WATER ELEMENT, at A-1, B-1, 3-22 (1997).

A. *Why Create a Water Element in the General Plan?*

1. *Providing Better Information to the Public*

One legacy of California's struggle to channel its waters where it wills is the service district system.<sup>349</sup> Owing their roots to flood control, service districts have been adopted for a wide range of municipal purposes, such as water provision, wastewater management, flood control, irrigation, trash collection, and cemetery services. For example, a citizen can be served by one organization for fresh water, another for wastewater services, and yet another for flood control. This diffusion of responsibility for water management may make it difficult for citizens to get a complete picture of what policies are being put in place.

There are two possible ways that a water element could provide better information to the public. First, by integrating water agency planning into a general plan, interested citizens, members from adjoining jurisdictions, and state officials could get a clear summary of how the jurisdiction is managing water, as well as its plans for the future. This would provide better information because few people interact with the disparate plans produced by water districts, but many people participate in the general plan process for cities and counties. Second, to the extent that a jurisdiction already includes water agency planning in its general plan but currently discusses water planning issues among several general plan elements, consolidating everything in one element will make the jurisdiction's water-related policies more clear.

The structured process for general plan preparation will aid in the goal of providing the public with better information. While the California Legislature has given cities and counties latitude about much of the subject matter that goes into the plan and how the plan is ultimately organized,<sup>350</sup> the Legislature has given specific directions about how discussion should be conducted in the document. California Government Code Section 65302 states that "the general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals." These facets—objectives, principles, standards, and plan proposals—are defined in the General Plan Guidelines produced by the Governor's Office of Planning and Research (OPR).<sup>351</sup> This format leads to

349. See HUNDLEY, *supra* note 220.

350. See *supra* discussion in Section II.A.

351. STATE OF CALIFORNIA, GOVERNORS OFFICE OF PLANNING AND RESEARCH, GENERAL PLAN GUIDELINES 15-16 (2003) (An objective is "a specified end, condition, or state that is an intermediate step towards attaining a goal." A principle is "an assumption, fundamental rule, or doctrine guiding general plan policies, proposals, standards, and implementation measures." A policy is a "specific statement that guide decision-making." A standard is a "rule or measure establishing a level of quality or quantity that must be complied with or satisfied." Plan proposals describe "the development intended to take place in an area. [They] are often expressed in on the general plan diagram.").

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clearer statements of development policy. If a water element were included in the general plan, it could help crystallize water management policy.

### 2. *Helping Local Government to Comply with State and Federal Law*

The most significant recent changes in land use and water law with which cities and counties must comply have come in the water supply and water quality arenas. First, courts have interpreted CEQA's provisions to require a showing of a sufficient water supply before a project can be approved.<sup>352</sup> Second, SB 610 and 221 now require detailed analysis of water supply for some large-scale projects before the projects can be approved. Although there is a limit to how specific a general plan element can be, a more thorough analysis of water supply issues in the general plan will reduce the need for subsequent analysis as specific projects come up for consideration.

Third, concerns over non-point source pollution, such as water runoff from parking lots, have increased as point source water pollution, such as emissions into a river from a factory discharge pipe, has been increasingly contained. As the federal and state governments ask cities and counties to implement plans for controlling non-point source pollution, and as development of new sources of water supply becomes a priority, water-related policies in the general plan will help jurisdictions meet water pollution requirements. Finally, both water and land use planning efforts implicate state and federal environmental laws, including the California Environmental Quality Act (CEQA), the Clean Water Act (CWA), the Endangered Species Act (ESA), and the National Environmental Policy Act (NEPA).<sup>353</sup> The more thoughtfully a jurisdiction's general plan considers the environmental values its development policies will affect, the more certain it can be that a legal challenge under one of these statutes will be unsuccessful.

### 3. *Timely Update of Water-related Issues in the General Plan*

Time frames for effective planning vary from element to element within the general plan. For example, law mandates that the housing element be updated every five years,<sup>354</sup> yet effective planning for water supply should look twenty to thirty years into the future.<sup>355</sup> As stated in Section II.A, *supra*, general plans typically look to a fifteen to twenty year planning horizon.

352. See *Stanislaus Natural Heritage Project v. County of Stanislaus*, 48 Cal. App. 4th 182 (1996); *County of Amador v. El Dorado County Water Agency*, 76 Cal. App. 4th 931 (1999); *Santa Clarita Org. for Planning the Env't (SCOPE) v. County of Los Angeles*, 106 Cal. App. 4th 715 (2003).

353. CAL. PUB. RES. CODE §§ 21000-21178 (1990); 33 U.S.C. §§ 1251-1387 (2003); Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (2003); National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4370(d) (2003)).

354. CAL. GOV. CODE § 65588 (2003).

355. For example, Urban Water Management Plans have a twenty-year horizon. See CAL. WAT. CODE § 10631(a) (2003).

Currently, water-related issues are typically scattered among the land use, conservation, and circulation elements of the general plan. There is no assurance that each of these elements will be updated frequently enough to deal with the complexities imposed by the current statutory and judicial framework. Notably, *County of Amador* suggested that a water planning agency could not plan in advance of the land use agency's general plan.<sup>356</sup> If the general plan is out of date, the lack of coordination between the land use and water agencies could impair long-range water planning, leading to inefficiency and potential failures in supply planning.

By consolidating water management into a single element, however, water management issues would have a greater chance of being updated on a timely basis. Cities and counties could focus on updating one element of their general plan, as opposed to updating pieces of three or four elements, and water planning agencies could clearly point to a city's or county's general plan as the basis of their long-range water planning documents.

#### 4. *Reducing Future Costs: Avoiding Litigation, Preparing Environmental Documents*

Recall the initial thought that California is just now seeing the foreshocks of a liquid earthquake—a future where conflict over water could be much more widespread. In order to plan for the coming conflicts, cities and counties may better protect themselves from lawsuits by clearly addressing water issues in a single water element. This element could then justify decisions made throughout the development process, including adoption of specific plans, zoning, and subdivision maps. While preparation of this element would take significant resources, it could preserve even greater resources that would otherwise be consumed in legal battles.

Judicial decisions and the water supply assessment and verification requirements detailed, *supra*, require extensive treatment of water supply issues in the environmental documents that must be prepared along with legislative decisions made by cities and counties. Yet, the environmental review necessary to adopt a water element could be incorporated by reference in the environmental documents required of later steps in the development approval process.

Finally, the water assessment required by SB 610 and water supply verification required by SB 221 only give water districts ninety days to provide the detailed assessment or verification. Districts can request a thirty day extension, but then a city or county may compel production of the assessment by mandamus. If the city or county asks for detailed water assessments for plans that have not been analyzed by the UWMP, the water district will need to invest a large amount of resources in analyzing the project and providing the

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356. See notes 127-134 and accompanying text.

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necessary information. Yet, a water agency cannot include a discussion of future projects without coordinating with the land use agency. Therefore, if a water element could help to synchronize the preparation of the UWMP and the general plan, it would likely save costs to the water district down the line.

#### 5. *Increasing Predictability for Development*

Depending on the type of development, the lead-time from conception to construction may take years, which introduces financial complexity. Much of the cash flow needed to fund any given development must often be contributed by the developer, who then depends on project revenues at the end of the process to recoup costs. This poses a substantial risk to the developer. If the development process is stalled by CEQA or NEPA lawsuits, or by water service providers' recognition that insufficient supply exists to serve the development (as occurred with EBMUD in the Dougherty Valley development), the developer may face financial failure.

A water element in the general plan may help to increase the predictability of the development process. It could provide some assurance that there will be adequate supply when a specific development reaches critical approval stages. Further, it could also protect against legal challenges seeking to stop development despite approval by the relevant land use agency, as occurred in *Santa Clarita Organization for Planning the Environment (SCOPE) v. County of Los Angeles* and *Save Our Peninsula Committee v. Monterey County Board of Supervisors*, discussed in Section II.B.2, *supra*.

#### 6. *Synergism Between Land Use and Water Planners, Regional Planning, and Statewide Planning*

Commentators have noted that water and land use planning historically have occurred as separate enterprises.<sup>357</sup> Yet, the theory behind Integrated Resource Planning, discussed in Section III.B *supra*, notes that a higher level of collaboration between land use and water planners can result in efficiencies that have not previously been possible. A water element in the general plan that included policies for inter-agency collaboration would be one effective way to find out if such benefits could be obtained.

In addition, many experts have argued that the region is the most appropriate unit for water planning for several reasons.<sup>358</sup> First, California's

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357. Morris, *supra* note 21.

358. The first was John Wesley Powell, an early director of the U.S. Geological Survey, but better known as the first white person to explore the Colorado River. He urged Congress to conform political boundaries in the West to watersheds, but was ignored. See ROBERT GLENNON, WATER FOLLIES: GROUNDWATER PUMPING AND THE FATE OF AMERICA'S FRESH WATERS 19 (2002). More recently, the California State Secretary for Resources, and the Chair of the State Water Resources Control Board convened a study of watershed management partnerships. Although it did not declare that California's political boundaries should be redrawn to conform to watersheds, it did state that "watershed

geographic, demographic, and climatic differences require different management approaches. Second, the decision-making units (cities and counties) that affect demand and land use decisions are at the regional or sub-regional level. Third, localities often share common water sources, such as groundwater basins or watersheds. Accordingly, water planning performed at the regional level would seem to enable the most effective management of water supply.

If this is so, then means that further the practicality and effectiveness of regional water planning should be evaluated. A water element could contribute to this goal in several ways. First, it would promote more cooperative planning between water and land use planners, which would increase the flow of information. Second, it would give adjoining localities similar planning processes and shared documentation that could aid them in communicating about water planning. For example, a water element could serve as a source document for a regional decision-making body that coordinated land use and water impacts that crossed jurisdictional boundaries. This idea includes many complexities beyond the scope of this Comment, but the system of associations of governments, like the San Diego Association of Governments (SANDAG) in the south, or the Association of Bay Area Governments (ABAG) in the north, could be good vessels.

Finally, statewide water planners at the State Water Resources Control Board (SWRCB) and the Department of Water Resources (DWR) could refer to local governments' water element to prepare a state-wide assessment of water challenges. Additionally, a water element would contain information relevant to the DWR, which must prepare the State Water Plan every five years.<sup>359</sup> Currently the DWR receives information from the UWMPs that must be submitted by water agencies with more than three-thousand residential water connections. Yet, UWMPs are not subject to CEQA's study and reporting requirements, and therefore may lack some of the reality of a general plan. In addition, as the court in *County of Amador* held,<sup>360</sup> it is a general plan that determines what growth a jurisdiction will undertake. For the DWR, a water element could provide a gauge to estimate the degree of growth a jurisdiction actually will experience and the corresponding draw on water resources.

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359. CAL. WAT. CODE § 10004(b)(1) (2003) ("The department shall update The California Water Plan on or before December 31, 2003, and every five years thereafter.")

360. *County of Amador v. El Dorado County Water Agency*, 76 Cal. App. 4th 931, 950-51 (1999).

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*B. Why Oppose a Water Element in the General Plan?*

*1. Another Unfunded Mandate from the State*

There are few legislative actions *more* unpopular than unfunded suggestions or mandates from the state to counties and cities. A water element would almost certainly not be accompanied by state funding, and it is uncontested that adding a water element would be a long, expensive process for cities and counties.

This shortcoming may be remedied in some way by the recently passed AB 2936 (2002), which allows cities to recoup upfront costs spent for long-term planning. AB 2936 amended Government Code section 66014, which now permits jurisdictions “to include the costs reasonably necessary to prepare and revise the plans and policies that a local agency is required to adopt before it can make any necessary findings and determinations.” This provision allows jurisdictions to add a long-term planning charge onto fees for zoning variances, zoning changes, use permits, building inspections and permits, and other development-related actions.<sup>361</sup>

Yet, even assuming that jurisdictions can recoup their costs in the long-run, this does nothing to change the fact that all of the costs to create a water element are *upfront costs*. They must be borne long before development fees are collected, and the money to pay for those costs will come from programs and services currently being provided by cities and counties.

Finally, the proposed water element appears to be just another way to require cities and counties to expend money for the benefit of the state without the state paying for any of that benefit. If the state’s water managers think it would be useful to use the water elements from each county as a source document for the State Water Plan, then the state should contribute State Water Plan funds to equalize the local cost-state benefit equation.

*2. Difficulties Measuring the Cost-Benefit Equation for a Water Element*

Why assume that a water element will save costs in the long-run? There are at least three reasons to be suspicious of a justification based on the idea of future savings. First, how do the proponents of such an element expect to measure the benefits of a water element? How can we accurately calculate benefits when they are expressed as intangibles, like cost savings for litigation that never occurs, environmental documents that are more easily prepared, or additional security in the development process?

Second, why assume that there will be fewer lawsuits under CEQA if a water element is in place? Although it may make it more likely that the city or county will be upheld on a CEQA challenge, those upset with a jurisdiction’s

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361. CAL. GOV. CODE § 66014 (2003).

decision to develop or not develop may still sue to bring their case in the court of public opinion. It seems more likely that a jurisdiction's costs will actually increase if it prepares a water element because of an unchanged number of lawsuits and the added cost of creating a water element.

Third, the benefits of a water element are overstated because for many jurisdictions developing a water element will only involve a reorganization of many issues already presented in detail in a general plan, as opposed to a truly new contribution to the planning process. Cities and counties may respond to the recent changes in the law, notably SB 221 and 610's water supply assessment and verification requirements, as well as recent CEQA case law, by providing more extensive discussions of water supply in their general plans in sections that already discuss water supply. In this case, reorganizing the presentation into a single water element may have little or no affirmative benefits.

### *3. Experience with the Housing Element in the General Plan Suggests that Implementation of a Water Element Could Be Problematic*

A root motivation behind the idea of a water element is to encourage cities and counties to consider the impact of their growth on the region. Water is a shared resource and neighbors' use of water resources impact one another. Attempting to focus local attention on regional issues, especially when local and regional interests conflict, is a very challenging problem in regulation. Currently, the only required element in the general plan that attempts to do this is the housing element. Thus, the issues associated with the housing element in the general plan are illustrative of the problems that could potentially plague a good faith attempt to implement a water element in the general plan.

The housing element differs from the other required elements of the general plans in that it is the only element that must be updated regularly (it is on a five-year update cycle),<sup>362</sup> and is the only element subject to state oversight—the state Department of Housing and Community Development (HCD) evaluates the ability of each jurisdiction's housing element to accommodate its share of the statewide demand for housing.<sup>363</sup> The purpose of the housing element is to encourage cities and counties “to make adequate provision for the housing needs of all economic segments of the community.”<sup>364</sup> This goal includes the development of affordable housing for both low- and moderate-income households according to the jurisdiction's “fair

362. *Id.* § 65588(b). During the 1990s, the Legislature allowed cities and counties to postpone their updates of the housing element due to budget shortfalls. *See* PAUL G. LEWIS, PUBLIC POLICY INSTITUTE OF CALIFORNIA, CALIFORNIA'S HOUSING ELEMENT: THE ISSUE OF NONCOMPLIANCE 2 (2003).

363. CAL. GOV. CODE §§ 65580-65589.8.

364. *Id.* § 65580(d).

share” of the region’s housing, as determined by HCD with information from the relevant Council of Governments (COG).<sup>365</sup>

What problems has California experienced with the housing element requirement? First, ensuring that cities and counties comply with the requirement has been challenging. A September 2002 HCD report, cited by a recent Public Policy Institute of California (PPIC) study, noted that one-third of cities and one-fifth of counties in California were out of compliance with the housing element requirement at that time.<sup>366</sup> In addition, jurisdictions have been able to comply with the letter of the housing element requirement, without complying with the spirit of the law.

Second, the PPIC study did not find a statistical correlation between compliance with the housing element requirement and housing growth.<sup>367</sup> It examined housing growth throughout the 1990s in communities that complied with the housing element requirement.<sup>368</sup> The study found that “a city’s demographic characteristics, its position in the urban hierarchy, and its physical capacity to accommodate new buildings are better predictors of housing growth” than compliance with the housing element requirement.<sup>369</sup> Ironically, however, the study did find a correlation between *lack of compliance* with the housing element and higher percentage construction of single-family homes, as opposed to multi-family housing.<sup>370</sup>

The PPIC study concluded that the housing element requirement was hampered by conflicting goals, as well as by its sheer length and complexity.<sup>371</sup> The housing element requirement seeks to both maximize housing production while assuring that each city or county bear its “fair share” of the regional housing need. Yet these goals can conflict, especially in high-cost communities where building affordable housing is more difficult and expensive. In such places, it is impossible to both maximize housing development and balance housing share.<sup>372</sup> Not only are the housing element’s internal goals in conflict, but also the element’s mandate to build housing contradicts planning laws that restrict development. For example, “[t]he state’s new law requiring that local governments identify a 20-year supply of water for new housing developments

365. A COG is a “single or multicounty council created by a joint powers agreement . . . .” *Id.* § 65582(b). Each COG is responsible for doing studies that provide population and economic forecasts that HCD can use to determine each region’s fair share of the region’s housing. *Id.* § 65584(a). The COG is then responsible for determining each jurisdiction’s share of the regional housing need. *Id.*

366. CALIFORNIA’S HOUSING ELEMENT, *supra* note 362, at 3-4.

367. *Id.* at x.

368. *Id.*

369. *Id.*

370. *Id.*

371. *Id.* at 88.

372. For example, if one were trying to maximize production of housing above all else, then building more housing in low-cost communities, instead of trying to build equally in high-cost communities to assure they built their “fair share,” would satisfy that goal. However, if one were trying to assure that each city bore its “fair share” of affordable housing, then the variation in building expense among cities would not change the decision to site housing in one city or another.

before approving them also sends a different signal from housing element policy.”<sup>373</sup> Further, the PPIC report notes that the lengthy and highly detailed housing element requirement impedes easy understanding, either in its entirety or in its details.<sup>374</sup>

California’s thirty-three years of experience with the housing element requirement presents cautionary lessons for those considering the adoption of a water element. First, conflicting goals and policies would likely be a significant challenge in adopting a water element. As a preliminary matter, every element within the general plan must be consistent, and it is possible that a jurisdiction’s water element and housing elements could reflect conflicting goals. For example, the water element could set policies that restrict where housing can be built, while the housing element sets policies that decrease development review in order to promote housing development. Second, water is just as contentious an issue as housing, and the housing element experience has shown that regulation of contentious issues tends to create regulations that are highly detailed, lengthy, and difficult to apply.<sup>375</sup> In fact, this Comment has already suggested that current regulations are not detailed enough to prevent wide variation in interpretation of informational requirements in the general plan. The housing element experience tells us that there may be some point where such complexity overwhelms the benefits of uniformity. In conclusion, water management planning may prove even more difficult to regulate than affordable housing.

#### 4. *Water Element May Become an Exclusionary Tool*

Another significant danger is that jurisdictions will use a water element to impose an unfair barrier to growth that pits those who would like to become part of a community against those who already live there. There are significant public policy issues here, including: (1) should existing residents be allowed to profit by restricting growth and realizing gains in their property values?; and (2) will a jurisdiction be allowed to cite water issues as a reason not to provide affordable housing, thereby excluding a class of people from becoming residents? Without careful design, the implementation of a water element may produce these troubling results.

#### 5. *Water Element May Not Be Suitable for All Jurisdictions*

It is important to restate that not all cities and counties are in similar positions when it comes to evaluating the efficacy of a water element for the general plan. In Section III.A.2, *supra*, this Comment identifies three general categories into which the relationship between the city or county and the water

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373. CALIFORNIA’S HOUSING ELEMENT, *supra* note 362, at 89.

374. *Id.* at 89-90.

375. *See id.*

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district(s) that serve them can be classified. First, in some places a single water district serves multiple cities and possibly multiple counties. For example, Metropolitan Water District of Southern California serves as the water wholesaler for over half of the state's residents.<sup>376</sup> Second, two or more water districts may serve some cities and counties. Third, still other cities or counties may provide water services themselves. The efficacy of creating a water element, and the ease with which one can be prepared, will differ among these categories.

## CONCLUSION: RECOMMENDING A COURSE OF ACTION FOR THE OPR AND THE DWR

This Comment began with the thought that California is just beginning to see the foreshocks of a liquid earthquake—a future where intense conflict over water supplies will pit jurisdictions against one another and test community values. If California truly will see shortfalls of 2.4 million acre-feet (maf) in normal years and 6.2 maf in dry years by the year 2020, and if the changes associated with global warming anticipated by scientists materialize, then now is the time to integrate land use and water planning to the highest degree possible. Both the economic prosperity and environmental integrity of the state depend on it.

One important step towards greater integration of long-term land use and water planning is understanding the current regulatory scheme. This Comment provides a detailed analysis of the water management requirements included in the long-term land use and water planning processes, as well as a visual depiction of the connections between them. In addition, it points out several gaps in the regulatory scheme, notably problems with the Urban Water Management Plan requirement, and opportunities for increasing both the informational and procedural requirements for general plans. The author recommends that the OPR and the DWR encourage policymakers to consider filling these gaps in the long-term planning processes.

This Comment also analyzes the idea of a water element for general plans. The concept is attractive for several reasons. Such an element would be consolidated and measurable, facilitating the comparison of general plans among jurisdictions. The water element also lends itself to oversight by a state agency, such as the DWR, which could benefit from a uniform way to gain information about water planning throughout the state. Finally, a water element would present a more intuitive picture to the public, to whom local governments owe a duty to provide information about the water challenges facing their homes and the steps being taken to assure that there will be a quality water supply for the long-term.

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376. METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, 2002 ANNUAL REPORT 2 (2002). In 2002, MWD was the wholesale water distributor for eighteen million Californians, approximately fifty-one percent of the state's population.

But cities and counties may not need to create a water element in order to benefit from many of the other gains mentioned in Section VII.A, *supra*. Of the three counties analyzed in detail, only Imperial County has a fully coordinated water element. The other two counties—Inyo and Riverside—integrated land use and water planning by comprehensively discussing water management issues in one place in their general plans. The discussion retains its value whether it takes place in a co-equal water element or in a water resources subsection of a Conservation/Open Space Element (as it did in the Riverside County plan).

The County of Riverside embarked on a lengthy, substantial effort to create a vision for 2020. Riverside County's residents see the writing on the wall—a projected 78.6% increase in population by 2020 and the prospect of urbanization, similar to that experienced by its neighbor, Los Angeles—and they have made a plan to channel and shape that growth.<sup>377</sup> It will be fascinating to look back at their plan in 2020 to see how closely it conforms with reality. But could the state have regulated in a way that prompted Riverside to create its current plan? California's experience with the housing element requirement for general plans tells a cautionary tale. A substantial portion of the state's cities and counties do not comply with the requirement. A recent study by the Public Policy Institute of California (PPIC) found that the highly detailed, lengthy housing element law is difficult to understand. It also found that the law subjected cities and counties to competing policy objectives. Most frightening, the study did not find a correlation between production of housing and compliance with the housing element requirement. While this does not mean that the housing element is a useless planning requirement, it does suggest that it is not an effective tool for compelling jurisdictions to do what they otherwise would rather not do.

The idea of a water element makes sense. If jurisdictions adopt water elements, they will benefit from the effort invested in creating them. Yet, a good idea when done under the initiative of the individual jurisdiction might turn into a bad idea if required of all cities and counties. Long-term planning for land use and water is just as contentious and complex as affordable housing issues, if not more so. The two regulatory frameworks parallel one another in many ways, and California's thirty-three years of experience with enforcing the housing element requirement should not be discounted.

The DWR should support the integration of comprehensive treatment of water management issues in one place in the general plan, as did the OPR in the 2003 *General Plan Guidelines*. Whether that happens in a water element, or in a conservation/open-space element that is highly correlated with the land use element, seems less significant. The DWR should include a favorable review of

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377. See INTERIM COUNTY POPULATION PROJECTIONS, *supra* note 320.

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the water element concept in its 2003 update of the State Water Plan.<sup>378</sup> Both of these documents could serve to put the land use and water planning communities on notice that new expectations are being placed on them.

Next, both the OPR and the DWR should continue to build the collaborative capacity of land use and water planners by implementing the proposals listed above, and instituting other creative ways to achieve that goal.<sup>379</sup> Money and technical support to help jurisdictions develop the collaborative processes and data necessary to comprehensively examine water issues in the general plan are critical. Sponsoring joint workshops that invite best practice presentations from water and land use agencies that have begun to collaborate effectively and have recognized benefits from such collaboration is also a useful step.

Another variable in this whole discussion is the UWMP update process. Statute requires that UWMPs be updated in years ending in five and zero. A reasonable approach may be to provide incentives that encourage land use agencies to update the water management-related sections of their general plans alongside their water planning counterparts during the 2005 iteration of the UWMP update process.

The next step could be to encourage water element updates with technical support and outreach on the same interval as the UWMP process—in years ending in zero and five. Considering that such a water element would also require a CEQA review, preparation of a water element for most jurisdictions would need to begin by some time in 2006 or 2007 in order to coordinate the joint preparation of the general plan element and the UWMP. Placing both the water element and the UWMP processes on the same update schedule would encourage collaboration between land use and water planning agencies because both entities would need information that the other possessed. That gives the OPR and the DWR just less than five years to build capacity and support among the land use and water planning constituencies, and for recent legislation to develop a reviewable track record in practice and in the courts.

This Comment leaves substantial questions for further research. A logical first step would be consideration of how other states have addressed the challenge of integrating the land use and water planning processes. A second would involve a detailed analysis of the costs and benefits of implementing a water element, as well as methodology to measure cost savings. This Comment

378. The DWR projects that the 2003 update of the State Water Plan will be available on December 31, 2004. See <http://www.waterplan.water.ca.gov/b160/committee/calendar#October2004>.

379. From his interactions with the Office of Planning and Research and Department of Water Resources staff, the author was impressed by the expertise, helpfulness, and commitment shown to him by the professionals in both agencies. It is one thing to perform legal analysis in an academic setting, but quite another to create policy, interpret regulations, and provide assistance to jurisdictions throughout the state, who may or may not be in conflict with one another. This Comment is not intended to take issue with the performance of either agency, but rather, to underscore that their service to the state is becoming even more vital (if such is possible) than it already has been.

has posited that the savings of a water element would outweigh its upfront costs by reducing the cost of project-level environmental reviews, avoiding litigation, increasing the certainty of the development process, helping water planning agencies improve their long-term water planning capabilities, and reducing the costs of their water supply assessments and verifications. Developing a methodology to check these assumptions with the actual experiences of the jurisdictions that have begun to implement water elements already, such as Imperial, Inyo, and Riverside Counties, would be one way to proceed with this analysis. Third, the limited review of county general plans conducted in this Comment should be expanded and continued to develop a more accurate understanding of what steps jurisdictions are taking to integrate water and land use planning in their general plans.

As the rumbles of growing water conflict in California highlight the intersection of water and land use planning in the collective consciousness, reasonable people have begun to ask how well we are planning for future growth and whether the water will be there to serve growth when it arrives. The past decade has seen substantial improvement in the linkages between water and land use planning, including the recent passage of SB 221, SB 610, and AB 901, as well as a series of judicial decisions under CEQA. By encouraging cities and counties to incorporate water issues into their general plans, and by advocating for stronger ties between UWMPs and general plans, the OPR and the DWR will take positive steps towards helping California plan for a challenging water future.