

Water Supplies Finally Take Center Stage in the Land Use Planning Arena

Jamey Volker*

Water supply has long been a pivotal issue in California land use, and is now more critical than ever. With growing strains on the state's water supplies, Californians are faced with the consequences of the state's rapid urbanization and agricultural development and the challenge of ensuring adequate water supply in the long run. In addressing these issues, two of the major questions are how much and in what form the availability of water should direct land use development. The California Supreme Court entered into this complicated debate in its recent decision, Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, by setting standards for water supply analyses done in environmental impact reports under the California Environmental Quality Act (CEQA).

In this Note, I argue that the court's decision in Vineyard will spawn increasing reliance on urban water management plans (UWMPs) in CEQA water supply analyses. And, with some important caveats, increasing reliance on UWMPs should have the concomitant effect of deepening the connection and communication between land use planners, water providers, and developers. However, UWMPs are by no means a panacea. Many additional measures are necessary to ensure sustainable land use that does not outstrip California's limited water supplies, including a policy of mandating curtailment of new development where water supplies are shown to be unavailable or sufficiently uncertain.

Copyright © 2008 by the Regents of the University of California.

* J.D. Candidate, University of California, Berkeley, School of Law (Boalt Hall), 2010; M.C.P. Candidate, University of California, Berkeley, Department of City and Regional Planning, 2010; B.S., University of California, Davis, 2006. Special thanks to Stephan Volker for his expertise, comments, and support. Many thanks also to Katherine Bowman, Joseph Farris, Christie Henke, Harry Moren, Courtney Covington, Jeff Loux and Bob Infelise for their input, assistance and support at various stages of the writing process. I am also grateful to David Volker and all my friends and family for their continued inspiration and encouragement.

Introduction.....	575
I. <i>Vineyard</i> and Its Legislative and Judicial Context	578
A. Legislative Context	579
1. The Urban Water Management Planning Act.....	580
2. Senate Bill 610.....	581
3. Senate Bill 221	582
B. CEQA and the Judicial Context	583
1. CEQA	583
2. Previous Appellate Decisions Regarding the Sufficiency of CEQA Analyses of Future Water Supplies	584
C. The <i>Vineyard</i> Decision	586
1. Four Basic Principles Announced for Assessing the Adequacy of EIR Analyses of Future Water Supplies.....	587
2. The Court's Application of the Principles to the Project's FEIR.....	589
a. Analysis of Near-Term Water Supplies.....	589
b. Analysis of Long-Term Supplies	590
3. Epilogue.....	591
4. Guidance Going Forward.....	592
II. <i>Vineyard's</i> Impact on Land Use and Water Supply Planning in California.....	595
A. Why Developers and Land Use Planners Are Likely to Change the Way They Approach Development in Light of <i>Vineyard</i>	595
B. How Developers and Land Use Planners Are Likely to Change the Way They Approach Development in Light of <i>Vineyard</i>	597
III. Reliance on Urban Water Management Plans Should Increase, but the Benefits of Increased Reliance Will Not Occur Automatically.....	599
A. Potential Benefits of Increased Reliance on UWMPs.....	599
1. More Communication and Collaboration between Land Use Planners, Developers, and Water Providers.....	599
2. Increased Certainty and <i>County of Amador v. El Dorado</i> <i>County Water Agency</i>	599
3. Increased Public Involvement in Water Supply Planning.....	600
4. Increased Drought Preparedness.....	601
B. Obstacles to Obtaining the Benefits and Other Limitations of UWMPs	601
1. Obstacles to Obtaining the Benefits.....	601
2. Other Limitations of UMWPs.....	603
C. To Maximize the Benefits from UWMPs, the Documents Need to Be Accurate and Robust	604

IV. Many Other Tools Must Also Be Used to Sufficiently Link Land Use and Water Supply to Ensure a Modicum of Sustainable Growth in California.....	607
A. Limiting Growth Based on Water.....	607
Conclusion.....	609

INTRODUCTION

Water supply has long been a pivotal issue in California land use, and is now more critical than ever. For more than a century, residents of the American West have debated the role that water supply planning should have in determining land use planning and settlement patterns. Some, like John Wesley Powell, argued that state and county boundaries in the western United States should be coterminous with watershed boundaries to prevent conflict over water and ensure that population growth would not outstrip the capacity of the West's water resources to support it.¹ Most, however, were not of Powell's persuasion. In fact, a number of noted scientists and politicians in the 1870s subscribed to the theory that settlement of the West had somehow led to an increase in precipitation and would continue to do so.²

While this theory was soon discredited, the western settlers' general disregard for the limits of the West's water resources continued. For most of the 20th century, the predominant mantra of municipal water managers was that if local supplies were inadequate to support urban population growth, water would just have to be imported from elsewhere.³ In California, this frame of mind led to intense development in areas with scarce water resources and the subsequent construction of the numerous inter-county and interstate water projects Californians rely on today.⁴ To make matters worse, many of these water projects were built, and their water supplies allocated, with unrealistic assumptions as to the amount of water they could deliver over the long term. For example, the State Water Project (SWP) is only half-completed and not likely to ever be fully completed, yet the California Department of Water

1. MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* 47 (rev. & updated ed. 1993).

2. *Id.* at 35–36.

3. See, e.g., KAREN E. JOHNSON & JEFF LOUX, *WATER AND LAND USE: PLANNING WISELY FOR CALIFORNIA'S FUTURE* 8–10 (2004); see also NORRIS HUNDLEY, JR., *THE GREAT THIRST: CALIFORNIANS AND WATER: A HISTORY* 144–45 (rev. ed. 2001) (recounting the plan to supply Los Angeles with water from the Owens River, 235 miles away).

4. See *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 166–167 (Cal. Ct. App. 1986). California's interstate and inter-county water projects include Los Angeles' Owens River aqueduct, San Francisco's Hetch Hetchy reservoir and conveyance facilities, the All American Canal, the State Water Project, the Central Valley Project, and others.

Resources (DWR) allocated entitlements to SWP contractors based on the project's expected capacity at full build-out.⁵

In sum, development in California, and the western United States generally, has proceeded with very little consideration for the limits of regional water resources to sustain it. We have essentially "decoupled land use from water use."⁶ And now, this historic disconnect between land use and water supply planning is becoming ever more problematic as California's water supplies are increasingly strained on both the demand and supply sides. This trend is predicted to continue. On the demand side, the California Department of Finance estimates that California's current population of around 38 million⁷ will increase by 12 million by 2030 and nearly double to almost 60 million by 2050.⁸

On the supply side, there are a number of impending challenges. For one, global warming is projected to increase the proportion of winter precipitation falling as rain. This, in turn, will significantly reduce the snow pack in the Sierra Nevada⁹ and elsewhere in the western United States, and cause our streams, lakes and reservoirs to fill more at times of low demand and less during the spring and summer.¹⁰ Given the existing capacity of California's

5. See *Planning & Conservation League v. Dep't of Water Res.*, 100 Cal. Rptr. 2d 173, 179, 189–191 (Cal. Ct. App. 2000).

6. Joe Gertner, *The Future Is Drying Up*, N.Y. TIMES, Oct. 21, 2007, § 6 (Magazine), at 68 (quoting Peter Binney, water manager, City of Aurora, Co.), available at <http://query.nytimes.com/gst/fullpage.html?res=9C0C1EFDA103CF932A15753C1A9619C8B63>.

7. DEPARTMENT OF FINANCE, STATE OF CALIFORNIA, E-4 POPULATION ESTIMATES FOR CITIES, COUNTIES AND THE STATE 2001–2008, WITH 2000 BENCHMARK (2008), available at http://www.dof.ca.gov/research/demographic/reports/estimates/e-4_2001-07/.

8. DEPARTMENT OF FINANCE, STATE OF CALIFORNIA, POPULATION PROJECTIONS FOR CALIFORNIA AND ITS COUNTIES 2000–2050, BY AGE, GENDER AND RACE/ETHNICITY (2007), available at <http://www.dof.ca.gov/html/demograp/ReportsPapers/Projections/P3/P3.php>.

9. Based on emission scenarios from the 2000 IPCC Special Report on Emission Scenarios, one study estimates that "by the 2035–2064 period, [Sierra Nevada] snowpack could decrease 12% to 47% from historical levels under the lower [temperature scenarios], and decrease 26% to 40% in the higher [temperature scenarios]." DAN CAYAN ET AL., CALIFORNIA CLIMATE CHANGE CENTER, SCENARIOS OF CLIMATE CHANGE IN CALIFORNIA: AN OVERVIEW 5, 14 (2006), available at <http://www.energy.ca.gov/2005publications/CEC-500-2005-186/CEC-500-2005-186-SF.PDF>. The study found that "[b]y the end of the century, the snowpack could decrease by as much as 90%" under the higher temperature scenarios. *Id.* at 14; CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, CLIMATE ACTION TEAM REPORT TO GOVERNOR SCHWARZENEGGER AND THE LEGISLATURE 28–29 (2006), available at http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF. These findings accord with the impacts on the western United States in general; the California Coastal Range and Sierra Nevada are likely to experience some of the largest changes in timing, type, and amount of precipitation. Jinwon Kim, *A Projection of the Effects of the Climate Change Induced by Increased CO₂ on Extreme Hydrologic Events in the Western U.S.*, 68 *Climatic Change* 153, 153 (2005).

10. CALIFORNIA DEPARTMENT OF WATER RESOURCES, PROGRESS ON INCORPORATING CLIMATE CHANGE INTO MANAGEMENT OF CALIFORNIA'S WATER RESOURCES: TECHNICAL MEMORANDUM REPORT 2-6, 2-15 (2006), available at http://www.climatechange.ca.gov/publications/agencies/2006-07_DWR_CLIMATE_CHANGE_FINAL.PDF; see also CAYAN ET AL., *supra* note 9, at 15–16; CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, *supra* note 9, at 28–29.

reservoirs, capturing the increased winter runoff to offset the decreased spring and summer runoff will be difficult.¹¹

Global warming is also expected to increase the overall variability of precipitation, exacerbating the numerous difficulties facing water managers in meeting water demands.¹² In addition, California is being forced to cut back its use of Colorado River water to 4.4 million acre-feet per annum (afa),¹³ and its allotment may be further reduced in drought times. Moreover, there is the looming specter of a prolonged drought—a scenario that would fit California’s long-term “pattern of alternating cycles of severe drought and heavy precipitation.”¹⁴

With these growing strains on California’s water supplies, Californians are faced with the consequences of the state’s rapid urbanization and agricultural development and the challenge of ensuring adequate water supply in the long run. In addressing these issues, two of the major questions are how much and in what form the availability of water should direct land use development. In the last two decades the California Legislature, state agencies, local governments and the state courts have become increasingly involved in answering these questions.

The California Supreme Court entered into this complicated debate in its recent decision, *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*,¹⁵ by setting standards for water supply analyses¹⁶ done in environmental impact reports (EIRs) under the California Environmental Quality Act (CEQA).¹⁷ In a number of earlier cases, California courts of appeal had interpreted CEQA to impose a reasonable water supply identification requirement during the land use planning process.¹⁸ However, no court had combined the various principles articulated in these cases into a coherent set of standards to determine the adequacy of EIR water supply analyses, and the

11. See CALIFORNIA DEPARTMENT OF WATER RESOURCES, *supra* note 10, at 2-6, 2-15; CAYAN ET AL., *supra* note 9, at 15-16; CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, *supra* note 9, at 29.

12. See, e.g., CALIFORNIA DEPARTMENT OF WATER RESOURCES, *supra* note 10, at 2-15; Kim, *supra* note 9, at 154.

13. See Press Release, U.S. Department of the Interior, Secretary Norton Signs Landmark Colorado River Water Pact (Oct. 16, 2003), available at http://www.doi.gov/news/03_News_Releases/031016b.htm; U.S. DEPARTMENT OF THE INTERIOR, COLORADO RIVER WATER DELIVERY AGREEMENT: FEDERAL QUANTIFICATION SETTLEMENT AGREEMENT 5 (2003), available at <http://www.crss.water.ca.gov/docs/crqs/crwda.pdf>.

14. HUNDLEY, *supra* note 3, at 9-11.

15. 150 P.3d 709, 713 (Cal. 2007).

16. Note that these water supply analyses are distinct from the “water supply assessment” requirement imposed by California Senate Bill 610 (“S.B. 610”). See discussion *infra* Part I.

17. CAL. PUB. RES. CODE §§ 21000-21177 (West 2006).

18. See, e.g., *Cal. Oak Found. v. City of Santa Clarita*, 35 Cal. Rptr. 3d 434 (Cal. Ct. App. 2005); *Santa Clarita Org. for Planning the Env’t v. County of L.A.*, 131 Cal. Rptr. 2d 186 (Cal. Ct. App. 2003); *Napa Citizens for Honest Gov’t v. Napa County Bd. of Supervisors*, 110 Cal. Rptr. 2d 579 (Cal. Ct. App. 2001); *Stanislaus Natural Heritage Project v. County of Stanislaus*, 55 Cal. Rptr. 2d 625 (Cal. Ct. App. 1996); *Santiago County Water Dist. v. County of Orange*, 173 Cal. Rptr. 602 (Cal. Ct. App. 1981).

water supply identification requirement was sometimes not interpreted very stringently.¹⁹

With the court's enunciation of these standards, the question becomes whether and how developers and land use planners will alter the way they conduct water supply analyses. In this Note, I argue that the court's decision in *Vineyard* will spawn increasing reliance on urban water management plans (UWMPs) in CEQA water supply analyses. And, with some important caveats, increasing reliance on UWMPs should have the concomitant effect of deepening the connection and communication between land use planners, water providers, and developers.

However, UWMPs are by no means a panacea. Even with all the potential benefits from added reliance on UWMPs, many other tools will need to be used to prevent catastrophe in the face of future droughts and protect the public and wildlife from worsening water quality. Thus, after assessing the overall value of urban water management plans and discussing how to obtain maximum benefits from them, I briefly discuss one of the many measures that are necessary to ensure sustainable land use that does not outstrip California's limited water supplies—a policy of mandating curtailment of new development where water supplies are shown to be unavailable or sufficiently uncertain. In all, the time is long overdue for water availability to take center stage in shaping growth in California.

I. *VINEYARD* AND ITS LEGISLATIVE AND JUDICIAL CONTEXT

Historically, there has been little voluntary coordination between land use planners and water purveyors,²⁰ and even less mandated coordination. There are a number of reasons for this disconnect. For one, water purveyors have historically not been required to consider land use and population growth aside from determining how much more demand they must meet. Instead, water suppliers have “traditionally understood themselves to be subject to a ‘duty to serve’ new development,” and take this duty “very seriously.”²¹ Additionally, until the early 1990s, local governments had no statutory obligation to consult with water suppliers in making decisions regarding new land use developments and faced no penalties for failing to consult.²² Furthermore, the prodigious

19. See, e.g., *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 25 Cal. Rptr. 3d 596 (Cal. Ct. App. 2005), *rev'd*, 150 P.3d 709 (Cal. 2007).

20. For the purposes of this Note, water purveyors include larger regional water agencies, such as the Metropolitan Water District and the East Bay Municipal Utility District, smaller water districts serving only a portion of a particular jurisdiction, and localities that provide their own water service. I do not mean to include people who pump their own water or other very small-scale providers.

21. JOHNSON & LOUX, *supra* note 3, at 66, 14–15; see also CAL. WATER CODE §§ 22075, 31020 (West 2006).

22. See CAL. GOV'T CODE §§ 65302.2, 65302(d), 65352, 65352.5 (West 2006); JANE BROWN ET AL., WATER AND LAND USE PLANNING: ASSESSING THE EFFECTS OF SB 221 (KUEHL, 2001) & SB 610 (COSTA, 2001) 6-7 (2003) (background policy paper for the October 15, 2003 joint hearing of the Senate

number of water supply and management entities, their divergent mandates, timelines and management styles, and their jurisdictional discontinuities with land use planning agencies, along with the professional differences between land use and water supply planners, have also made collaboration difficult.²³

Essentially, water supply planning has followed land use planning, and water providers historically have not had much of a role in shaping the form or extent of growth and development. However, owing to a “growing concern that new development was often approved with less than reliable water service,”²⁴ the legislature, the courts, local planning agencies, and even water suppliers²⁵ have begun to rethink the relationship between land use and water supply planning. Many of these entities are now encouraging more communication between land use planners and water purveyors and increasingly predicating approval of development on availability of sufficient water supplies. *Vineyard* represents another step forward in the general legislative and judicial trend towards requiring coordination of land use and water supply planning.

A. Legislative Context

Since the 1980s, the California Legislature has passed a number of acts designed to increase the coordination of land use and water supply planning. The most prominent acts specifically addressing this issue are discussed below.

Agricultural and Water Resources Committee and the Senate Local Government Committee). Now, in developing or amending their general plans, cities and counties are required to use the urban water management plans of the relevant water purveyors as source documents and to work with those water purveyors to develop the “conservation element,” one of the seven required elements. CAL. GOV'T CODE §§ 65302.2, 65302(d). In addition, local governments are directed to refer proposed general plan amendments to certain water purveyors, § 65352, who are in turn required to provide them with specific information and documents on water supply and demand. § 65352.5. However, local governments are only directed to consult with those water purveyors that serve water to customers within their jurisdiction and have three thousand or more total service connections. § 65352. In addition, local governments face no direct consequences if they fail to refer their proposed actions to the water providers. § 65352(c)(1). Because of these limitations and for other reasons, some argue that the “statutory structure for coordination between land use and water planning agencies” is still weak, as it “relies heavily on the good faith of the parties involved.” Ryan Waterman, Comment, *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?*, 31 *ECOLOGY L.Q.* 117, 142 (2004).

23. See, e.g., JOHNSON & LOUX, *supra* note 3, at 15–18 (describing many of these impediments).

24. *Id.* at 66.

25. For example, in 1992 the Contra Costa County Board of Supervisors (Board) voted to approve the largest housing development in the county's history despite objections from the East Bay Municipal Utility District (EBMUD) that it could not serve the project and that another source of water should be secured. All the Board's approvals, including certification of the EIR for the project, amendment of the general plan, and approval of a specific plan, listed EBMUD as the main water supplier. Once the Board had approved the project, however, EBMUD refused to serve the development and filed suit against the Board to overturn its certification of the EIR for the project. In the end, the developer found another source of water to serve the project. See Waterman, *supra* note 22, at 125–28; see also *Santiago County Water Dist. v. County of Orange*, 173 Cal. Rptr. 602 (Cal. Ct. App. 1981).

These acts provide a significant part of the context for both the court's ruling in *Vineyard* and the response of planners, developers and water purveyors to it.

1. *The Urban Water Management Planning Act*

The Urban Water Management Planning Act (UWMPA),²⁶ enacted in 1983 and later amended, was the first in a series of legislative attempts to coordinate land use and water supply planning. In the UWMPA, the Legislature announced that "[t]he conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level."²⁷

The UWMPA requires that all urban water suppliers providing services to more than three thousand customers or providing more than three thousand acre-feet create an urban water management plan.²⁸ UWMPs must plan for twenty years into the future²⁹ and must be updated every five years.³⁰ One of the main goals of the UWMPA is for water purveyors to ensure water supply reliability "sufficient to meet the demands of its various categories of customers in normal, dry, and multiple dry water years."³¹

In an UWMP, water purveyors must address a wide range of issues. First, California Water Code section 10631 requires UWMPs to describe and discuss a host of conditions and constraints related to the demand on the water purveyor's supplies, including population forecasts, and the quantity, reliability and source of those supplies, existing and planned.³² Section 10634 adds to that a requirement to discuss the water quality of the supplier's existing water supplies and how it affects water management and reliability.³³ Among other things, the plan must also provide an urban water shortage contingency analysis that discusses actions to be undertaken in the event of an up to 50 percent water supply reduction.³⁴

Before adopting or amending an UWMP, the UWMPA requires water purveyors to give notice to any locality to which it delivers water,³⁵ coordinate "with other appropriate agencies in the area,"³⁶ and hold a public hearing.³⁷ In

26. CAL. WATER CODE §§ 10610–10657 (West 2006).

27. *Id.* § 10610.2(a).

28. *Id.* §§ 10617, 10620(a). The UWMPA applies to both publicly and privately owned water suppliers.

29. *Id.* § 10631(a).

30. *Id.* § 10621(a).

31. *Id.* § 10610.2(a)(4).

32. *Id.* § 10631. Section 10633 further requires the plan to discuss recycled water as a source of supply.

33. *Id.* § 10634.

34. *Id.* § 10632.

35. *Id.* §§ 10621(b), 10642.

36. *Id.* § 10620(d)(2). Water purveyors and relevant local agencies must coordinate "to the extent practicable." *Id.* In addition, Government Code sections 65302, 65302.2, 65352 and 65352.5 require

addition, once they have prepared and adopted their UWMPs, water providers must submit them to DWR or face significant consequences.³⁸

2. Senate Bill 610

Senate Bill 610 (S.B. 610),³⁹ signed into law in 2001, primarily strengthens and expands upon Senate Bill 901 (Costa) (S.B. 901), an earlier and ultimately not very successful⁴⁰ attempt to link large-scale land use development to water supply availability.⁴¹ S.B. 610 requires that local governments either prepare themselves or obtain from the relevant “public water system[s]”⁴² a water supply assessment⁴³ for any large land use project subject to CEQA, and incorporate the assessment into any CEQA document prepared for the project (not just an EIR as with S.B. 901).⁴⁴ Among other things, the assessment must identify any “existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and [describe] the quantities of water received in prior years.”⁴⁵ Even more detail is required where the identified water supply for a proposed project includes groundwater.⁴⁶ If the preparer of the assessment concludes that there are inadequate supplies to meet the demands of the project and all other existing and planned future uses in normal, single-dry and

planning agencies and water purveyors to coordinate in the general plan creation or update process. *See* note 22, *supra*. Although local governments are not required to have a water element in their general plans, water management-related issues must be addressed in the general plan elements where water is discussed. CAL. GOV'T CODE §§ 65302(a), (d), (e), 65560–65567 (West 2006).

37. CAL. WATER CODE § 10642.

38. *Id.* § 10656. This section prohibits water purveyors subject to the UWMPA from receiving certain state funding if they fail to “prepare, adopt, and submit” their UWMPs to DWR in accordance with the Act.

39. S.B. 610, 2001–2002 Reg. Sess. (Cal. 2001) (amending CAL. PUB. RES. CODE § 21151.9 and CAL. WATER CODE §§ 10631, 10656, 10657, 10910–10912, 10915; repealing § 10913; adding § 10657).

40. A 2000 study by EBMUD found that very few jurisdictions followed the law, with only 2 percent of the 119 developments subject to S.B. 901 between 1996 and 2000 complying with all five of the law's project-specific requirements. *See, e.g.,* Waterman, *supra* note 22, at 129; JOHNSON & LOUX, *supra* note 3, at 66.

41. S.B. 901, 1995–1996 Reg. Sess. (Cal. 1995), *available at* http://info.sen.ca.gov/pub/95-96/bill/sen/sb_0901-0950/sb_901_bill_951016_chaptered.pdf.

42. Defined as “a system for the provision of piped water to the public for human consumption that has 3000 or more service connections.” CAL. WATER CODE § 10912(c) (West 2006).

43. The water supply assessments required by S.B. 610 are not the same as the water supply analysis required by CEQA, though water supply assessments, where required, can and should be relied on in CEQA analysis.

44. *Id.* § 10910.

45. *Id.* § 10910(d)(1). The required contents of a water supply assessment are actually quite similar in many respects to the contents of UWMPs, and as such, if the relevant “public water system's” UWMP considers the proposed project, then the water provider can use the UWMP information to complete the assessment.

46. *Id.* § 10910(f).

multiple-dry years within a twenty year projection, then it must provide its plans for procuring additional water supplies.⁴⁷

However, there are a number of constraints on the usefulness of water assessments. For one, the term "planned future uses" is not defined in the Act, and could be defined very narrowly by an assessment preparer to create the illusion of a smaller than actual gap between future supply and demand.⁴⁸ It is also difficult to base water assessments on groundwater since it is less easily quantifiable than surface water and groundwater rights do not perfect until actual withdrawal.⁴⁹ Additionally, the Act does not require any actual collaboration between water purveyors and land use planners. Moreover, S.B. 610 is still generally limited in application to very large projects.⁵⁰ Nonetheless, one study found that not only has compliance with the law been high, local governments have also been applying it voluntarily to smaller projects.⁵¹

3. *Senate Bill 221*

Senate Bill 221 (Kuehl) (S.B. 221) was signed into law the same day as S.B. 610 and is, in large part, a failsafe to ensure both compliance with S.B. 610 and that the data presented in water supply assessments is correct and supports the conclusions drawn from it. S.B. 221 requires that approval of any tentative subdivision map for a residential development of more than 500 units⁵² be conditioned on written verification that a sufficient water supply is available as defined in S.B. 610.⁵³ The local permitting agency must either obtain this written verification from the relevant public water system, or, if there is no public water system, produce the verification on its own.⁵⁴

The verification must include analysis of a number of specific factors, and must be based on substantial evidence in the record, which can include a prior water supply assessment done pursuant to S.B. 610 and the current UWMP of

47. *Id.* §§ 10910(b)–(c), 10911(a).

48. *See id.* § 10910(c)(3)–(4); *see also* Waterman, *supra* note 22, at 155–56.

49. *See City of Pasadena v. City of Alhambra*, 207 P.2d 17, 28–29 (Cal. 1949); Waterman, *supra* note 22, at 156. Of course, this is not a problem unique to water supply assessments; it pervades all attempts at assured water supply planning.

50. For S.B. 610 to apply, a project must generally exceed any one of seven size thresholds, such as being a residential use of more than 500 units or a retail use of more than 500,000 square feet. CAL. WATER CODE § 10912(a) (West 2006). However, S.B. 610 also applies to projects, to be served by "public water systems" with less than 5,000 service connections, that would "account for an increase of 10 percent or more in the number of the public water system's existing service connections." *Id.* § 10912(b).

51. ELLEN HANAK, WATER FOR GROWTH: CALIFORNIA'S NEW FRONTIER 66–69 (2005).

52. Or, if the relevant "public water system . . . has fewer than 5,000 service connections," any development that would "account for an increase of 10 percent or more in the number of the public water system's existing service connections." CAL. GOV'T CODE § 66473.7(a)(1) (West 2006).

53. *Id.* § 66473.7(b)(1).

54. *Id.* § 66473.7(b).

the public water system.⁵⁵ Furthermore, where projected supplies are relied on, the verification must be based on written contracts or other similarly concrete showings.⁵⁶ Where the verification indicates that there will be insufficient water supplies to meet the demands of the project and other existing and planned use, then the permitting agency “may work in conjunction with the project applicant and the public water system,” if there is one, to secure sufficient water supplies.⁵⁷

While S.B. 221 requires a practically assured water supply and explicitly allows for (though does not require) collaboration between land use planners, water purveyors and project applicants, its usefulness is still limited by the same constraints as S.B. 610, discussed above.

B. CEQA and the Judicial Context

1. CEQA

The California Environmental Quality Act was enacted in 1970 on the heels of the National Environmental Policy Act.⁵⁸ CEQA is largely an informational and procedural statute, but also has a very important substantive component.⁵⁹ It requires the lead permitting or funding agency for a non-exempt discretionary “project” to go through a hierarchical process of environmental review. When there is substantial evidence that the project may have a significant environmental impact, the agency is required to prepare an EIR.⁶⁰

The fundamental purpose of an EIR is to “identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.”⁶¹ Among other things, EIRs must identify and describe all the “[d]irect and indirect significant effects of the [proposed] project on the environment . . . giving due consideration to both the short-term and long-term

55. *Id.* § 66473.7(a)(2), (c).

56. *Id.* § 66473.7(d).

57. *Id.* § 66473.7(f).

58. National Environmental Policy Act of 1969, Pub. L. No. 91-190, §§ 101–207, 83 Stat. 852, 852–56 (1970) (codified as amended at 42 U.S.C. §§ 4321–4370f (2006)).

59. Most importantly, CEQA substantively prohibits agencies from approving projects for which one or more significant environmental impacts have been identified in an environmental impact report if there are “feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects.” CAL. PUB. RES. CODE § 21002 (West 2006). To overcome this prohibition the agency must find, based on substantial evidence in the record, that alternatives and mitigation measures that would reduce the project’s environmental effects are infeasible and that the benefits of the project outweigh the significant environmental impacts. *Id.*; *id.* §§ 21081(a)(3), 21081(b), 21081.5; *see also* CAL. CODE REGS. tit. 14, §§ 15091, 15093 (2008).

60. CAL. PUB. RES. CODE § 21080(d) (West 2006).

61. *Id.* § 21002.1(a).

effects.”⁶² This includes analyzing the effects of furnishing water to the project.⁶³ Thus, CEQA necessitates that the project, and its source of water supply, be reasonably well defined.⁶⁴ In fact, courts have held that “an accurate, stable, and finite project description is the *sine qua non* of an informative and legally sufficient EIR.”⁶⁵

The main issue before the court in *Vineyard* was “what level of uncertainty regarding the availability of water supplies can be tolerated in an EIR for a land use plan.”⁶⁶ Neither CEQA nor its guidelines address this question and the California Supreme Court had not yet considered it.⁶⁷ California courts of appeal had addressed the issue, but failed to articulate a consistent standard. Nevertheless, there was an emerging trend among the courts towards requiring EIRs for land use projects to identify long-term water supplies for the projects with some degree of certainty.

2. Previous Appellate Decisions Regarding the Sufficiency of CEQA Analyses of Future Water Supplies

One of the first cases to hold an EIR for a development project inadequate because of a deficient water supply analysis was *Santiago County Water District v. County of Orange*.⁶⁸ Among other things, the EIR for the proposed mining project in that case was silent about how the local water district could provide water to the project and what impact it would have on the delivery of water elsewhere in the water district’s jurisdiction.⁶⁹ Without any “facts from which to evaluate the pros and cons of supplying the [needed] amount of water” to the mine, the Fourth District Court of Appeal held the EIR inadequate.⁷⁰

In *Stanislaus Natural Heritage Project v. County of Stanislaus*,⁷¹ the Fifth District Court of Appeal held inadequate an EIR for the specific plan of a residential community and resort slated to be built over twenty-five years. While the EIR identified a firm water source for the first five years of development, it did not provide a stable source of water for later phases of the project.⁷² Instead, the EIR listed several possible sources, but did not evaluate the environmental impacts of those sources or the likelihood that they would

62. CAL. CODE REGS. tit. 14, § 15126.2(a).

63. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 150 P.3d 709, 718 (Cal. 2007).

64. See CAL. CODE REGS. tit. 14, § 15124.

65. *County of Inyo v. City of Los Angeles*, 139 Cal. Rptr. 396, 401 (Cal. Ct. App. 1977).

66. *Vineyard*, 150 P.3d at 719.

67. *Id.*

68. 173 Cal. Rptr. 602 (Cal. Ct. App. 1981).

69. *Id.* at 607–09.

70. *Id.* at 607.

71. 55 Cal. Rptr. 2d 625 (Cal. Ct. App. 1996).

72. *Id.* at 632.

materialize, deferring such analysis to future environmental review of water acquisitions or future phases of development.⁷³ The court held that this type of tiering approach is not appropriate in water supply analyses because the environmental impacts of providing water to a project are readily determinable at the first-tier programmatic level.⁷⁴ In that same vein, the court held that the impacts of unknown water sources may not be mitigated by merely stating that future phases of the project will not be built if water proves unattainable, because an EIR “must address the project and assumes [it] will be built.”⁷⁵

In addressing the related issue of contingency supplies in *Napa Citizens for Honest Government v. Napa County Board of Supervisors*,⁷⁶ the First District Court of Appeal found an EIR for an industrial development inadequate because it assumed that the identified water purveyor would be able to purchase water to meet the project’s long-term demands even though such purchase was uncertain.⁷⁷ The court held that the EIR should have disclosed and analyzed the environmental impacts of possible alternative water sources.⁷⁸ Likewise, in *Friends of the Eel River v. Sonoma County Water Agency*, the same court set aside a water purveyor’s water development plan because it ignored the possibility that its sole source of increased supply—summer flows from the Russian River—might decline if historic diversions to that river from the Eel River were curtailed to protect the latter’s imperiled salmon.⁷⁹

As to what constitutes an uncertain water source, the Second District Court of Appeal held in *Santa Clarita Organization for Planning the Environment v. County of Los Angeles*⁸⁰ that unrealistic allocations of water, or “paper water,” are not sufficiently certain and thus cannot support an EIR water supply analysis.⁸¹ In *California Oak Foundation v. City of Santa Clarita*,⁸² the same court held that when there are legal uncertainties regarding the water supply for a project, the EIR must explain why the water source is reliable despite the uncertainties or identify additional water supplies to serve the project.⁸³ The Third District Court of Appeal later made clear, however, that an EIR need not identify a “guaranteed” source of water; if it were required to do so, “then no EIR would ever be sufficient.”⁸⁴

73. *Id.* at 632–33.

74. *Id.* at 635.

75. *Id.* at 640.

76. 110 Cal. Rptr. 2d 579 (Cal. Ct. App. 2001).

77. *Id.* at 601–02.

78. *Id.* at 602.

79. 134 Cal. Rptr. 2d 322, 331–32 (Cal. Ct. App. 2003).

80. 131 Cal. Rptr. 2d 186 (Cal. Ct. App. 2003).

81. *Id.* at 190–91.

82. 35 Cal. Rptr. 3d 434 (Cal. Ct. App. 2005).

83. *Id.* at 446–47.

84. *W. Placer Citizens for an Agric. & Rural Env’t v. County of Placer*, 50 Cal. Rptr. 3d 799, 813 (Cal. Ct. App. 2006).

Together, these cases provided the *Vineyard* court with the foundation for the set of standards it announced for assessing water supply analyses. Instead of creating a new standard, the *Vineyard* court for the most part culled existing principles from these decisions and put them together in a comprehensive fashion.

C. The Vineyard Decision

At issue in *Vineyard* was the final environmental impact report (Sunrise Douglas FEIR or FEIR) prepared by the County of Sacramento to assess the environmental consequences of implementing the Sunrise Douglas Community Plan and SunRidge Specific Plan and making other associated land use approvals for the large mixed-use Sunrise Douglas development project (the project). Fully built, the project would encompass more than six thousand rural acres and contain schools, parks, office and commercial space, and more than twenty-two thousand residential units, housing as many as sixty thousand people.⁸⁵

On July 17, 2002, Sacramento County and the Sacramento County Board of Supervisors issued nine approval documents for the project including a general plan amendment, adoption of the SunRidge Specific Plan, adoption of the Sunrise Douglas Community Plan, and a Notice of Determination under CEQA.⁸⁶ Vineyard Area Citizens for Responsible Growth, Inc., Environmental Council of Sacramento and two individuals (the plaintiffs or petitioners) subsequently brought suit against the Sacramento County Board of Supervisors and Sacramento County (the respondents).⁸⁷ The plaintiffs alleged that the respondents had abused their discretion by preparing and certifying the FEIR in violation of CEQA and approving the project in violation of the California Planning and Zoning Law, the public trust doctrine and the California Code of Civil Procedure.⁸⁸ The trial court denied the plaintiffs' petition for writ of mandate and the court of appeal affirmed.⁸⁹

The plaintiffs then petitioned the California Supreme Court to review the court of appeal's opinion on three issues⁹⁰ and the court granted review. The

85. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 150 P.3d 709, 713 (Cal. 2007).

86. Opening Trial Brief, *Vineyard Area Citizens for Responsible Growth, Inc. v. Sacramento County Bd. of Supervisors* at 2, Civ. No. 02CS01214 (Cal. Super. Ct. 2003), *rev'd*, *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 150 P.3d 709 (Cal. 2007).

87. *Id.*

88. *Id.* at 3.

89. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 25 Cal. Rptr. 3d 596 (Cal. Ct. App. 2005), *rev'd*, 150 P.3d 709 (Cal. 2007).

90. Besides the main issue addressed by the court and discussed in this paper, the two other issues raised by the petitioners were "the standard of review for an appellate court in a mandamus case challenging agency action under CEQA" and whether the potential impacts on migratory fish in the Cosumnes River, listed cursorily in the FEIR but not in the DEIR, should have been incorporated in a

main question addressed by the court was “what level of uncertainty regarding the availability of water supplies can be tolerated in an EIR for a land use plan.”⁹¹ Before discussing the case, the court reviewed some of the existing case law and statutes regarding water supply and land use development and set forth four basic principles for analyzing the adequacy of future water supplies under CEQA.

1. Four Basic Principles Announced for Assessing the Adequacy of EIR Analyses of Future Water Supplies.

First, EIRs cannot “simply ignore[] or assume[] a solution to the problem of supplying water to a proposed land use project.”⁹² Instead, EIRs must provide a sufficient quantity of facts to allow the decision makers “to evaluate the pros and cons of supplying” water to the project.⁹³

Second, water supply analyses for large, multi-phase projects cannot be limited to the first phase or first few years of development. “CEQA’s demand for meaningful information ‘is not satisfied by simply stating information will be provided in the future,’” and the identified water sources for a land use project and the impacts of using them “are not the type of information that can be deferred for future analysis.”⁹⁴ An EIR for a proposed land use development “must assume that all phases of the project will eventually be built and will

revised draft EIR and recirculated for public comment. Petitioners’ Opening Brief on the Merits at 1–2, 6–8, *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 150 P.3d 709 (Cal. 2007) (No. S132972). While the court did not explicitly mention that it had granted review on the first issue, it did so implicitly, as it set forth the standard of review argued for by petitioners, reversing the court of appeal on that ground. *Vineyard*, 150 P.3d at 722–23. The court held that “[a]n appellate court’s review of the administrative record for legal error and substantial evidence in a CEQA case, as in other mandamus cases, is the same as the trial court’s: The appellate court reviews the agency’s action, not the trial court’s decision; in that sense appellate judicial review under CEQA is de novo.” *Id.* at 717. The court reiterated that where the issue is procedural, courts are to determine de novo whether correct procedures were followed, “scrupulously enforce[ing] all legislatively mandated CEQA requirements.” *Id.* at 722–23 (internal quotations omitted). Where the issue is factual, courts are to assess whether the agency’s findings and conclusions are supported by substantial evidence in the record, a slightly more deferential standard than for review of procedural issues. *Id.* at 723. The court explicitly granted review as to the second issue and again agreed with petitioners, holding that the “draft EIR must be revised and recirculated for public comment on the newly disclosed potential impact [of groundwater pumping] on Cosumnes River fish migration.” *Id.* at 713. The court held that “the County’s failure to address loss of Cosumnes River stream flows [and the potential impacts on anadromous fish] in the draft EIR ‘deprived the public . . . of meaningful participation’ in the CEQA process.” *Id.* at 732 (quoting *Laurel Heights Improvement Ass’n of S.F., Inc. v. Regents of the Univ. of Cal.*, 864 P.2d 502, 512 (Cal. 1993)).

91. *Vineyard*, 150 P.3d at 718.

92. *Id.* at 720.

93. *Id.* (quoting *Santiago County Water Dist. v. County of Orange*, 173 Cal. Rptr. 602, 607 (Cal. Ct. App. 1981)).

94. *Id.* (quoting *Santa Clarita Org. for Planning the Env’t v. County of L.A.*, 131 Cal. Rptr. 2d 186, 192 (Cal. Ct. App. 2003)).

need water, and must analyze . . . the impacts of providing water to the entire proposed project.”⁹⁵

Third, the water supplies relied on in an EIR must have a likelihood of actually becoming available; “speculative sources and unrealistic allocations (‘paper water’) are insufficient bases for decisionmaking under CEQA.”⁹⁶ An EIR for a proposed land use development must analyze the impacts of likely future water sources and must discuss the factors affecting the odds of the water becoming available.⁹⁷ In addition, while the court “emphasize[d] that the burden of identifying likely water sources for a project varies with the stage of project approval involved,”⁹⁸ it also asserted that identification of an assured water supply early in the planning process was not prohibited⁹⁹ and in fact would be beneficial for agencies and developers by saving them time and resources in conducting later analysis.¹⁰⁰

Fourth, when, despite a full discussion, uncertainty remains regarding future water supplies, CEQA requires that the EIR acknowledge the uncertainty, discuss reasonably foreseeable replacement sources or alternatives, and disclose and develop mitigation measures for the significant foreseeable impacts of each alternative.¹⁰¹ CEQA’s “informational demands may not be met . . . simply by providing that future development will not proceed if the anticipated water supply fails to materialize.”¹⁰² However, when an EIR makes “a sincere and reasoned attempt to analyze the water sources the project is likely to use” and acknowledges the remaining uncertainties and identified alternative sources, “a measure for curtailing development if the intended sources fail to materialize may play a role in the impact analysis.”¹⁰³

95. *Id.* (citing *Stanislaus Natural Heritage Project v. County of Stanislaus*, 55 Cal. Rptr. 2d 625, 640 (Cal. Ct. App. 1996)).

96. *Id.* (citing *Santa Clarita*, 131 Cal. Rptr. 2d at 190–91)).

97. *Id.* (citing *Cal. Oak Found. v. City of Santa Clarita*, 35 Cal. Rptr. 3d 434, 453 (Cal. Ct. App. 2005)).

98. *Id.* at 722. Here, the court’s pronouncement that more specific planning phases require greater specificity of water supplies is based on its reading of S.B. 901, S.B. 610, and S.B. 221, which, as described above, require identification of more assured water supplies at the tentative subdivision map approval stage (S.B. 221) than at the general or specific plan approval stage (S.B. 610).

99. *Id.* at 721 (discussing the S.B. 221 water supply verification requirement and stating that nothing in the California Government Code prohibits the local legislative body from obtaining a verification or making a finding of assured water supply before the subdivision approval stage).

100. *Id.* at 720 n.7. In discussing the adequacy of the FEIR’s near-term water supply, the court reiterated the fact that, while a first-tier EIR for a land use project need not identify assured water supplies, if the identified water sources change or become unavailable at a later stage, additional CEQA analysis would be required before the project could be approved. *Id.* at 724–25. Thus, developers are encouraged to find assured water supplies early in the development process.

101. *Id.* at 720–22.

102. *Id.* at 721.

103. *Id.*

2. *The Court's Application of the Principles to the Project's FEIR*

After setting forth the four basic standards, the court applied them to the Sunrise Douglas FEIR. The court split its analysis between the FEIR's discussion of near-term groundwater supplies, which would be used to supply the first phase of the project, and the FEIR's analysis of the long-term surface water supplies intended to meet the rest of the project's water demand at full build-out.¹⁰⁴

a. *Analysis of Near-Term Water Supplies*

The FEIR identified groundwater to be provided by the Sacramento County Water Agency (Water Agency) from the undeveloped North Vineyard Well Field as the sole near-term water supply for the project.¹⁰⁵ With other existing and expected demand that might also be satisfied by the well field, none of its capacity would be reserved for any specific users. Instead, it would be available on a first-come, first-served basis. Despite this weakness, the court upheld the FEIR's near-term water supply analysis. In finding that the FEIR satisfied CEQA, the court noted: (1) there was no evidence that the competing demands could not be satisfied by another source; (2) the already entitled development in the following six years was only expected to use 3,000 of the well field's 10,000 afa production; (3) the initial phase of well field construction, producing about 2,265 afa, would "include a pipeline connecting the wells to the [] project's water distribution system and to [an on-site] storage tank;" and (4) the well field would not be connected to the Water Agency's larger regional water system until the second phase of well field construction.¹⁰⁶

The court noted that though the FEIR did not "demonstrate a level of certainty regarding future supplies comparable to that required for subdivision approval [under S.B. 221], CEQA does not demand such certainty at the relatively early planning stage involved here."¹⁰⁷ However, the court emphasized that neither the Sunrise Douglas project nor any other project could receive more specific, final approvals without securing an essentially assured water supply that had undergone environmental review. If the water supply identified in a first-tier EIR were to become unavailable, or the developer were to switch water sources, then changes in the project, surrounding

104. It should be emphasized that "near-term" refers to the amount of water required to serve, on a *continuing* basis, the development that would occur in the first few years of the project; it does not merely refer to the amount of water that the project would require over the first few years. Thus, the near-term water demand plus the long-term water demand combine to equal the total water demand of the project at full build-out.

105. *Id.* at 714; *see also* Petitioners' Opening Brief on the Merits, *supra* note 90, at 38–42.

106. *Vineyard*, 150 P.3d at 724.

107. *Id.*

circumstances, or available information would exist under California Public Resources Code section 21166, requiring further CEQA analysis.¹⁰⁸

b. Analysis of Long-Term Supplies

With regard to the long-term supplies, the FEIR relied extensively on the water supply planning done under the auspices of the Water Forum, and on the new assured and potential surface water sources identified in the Water Forum proposal to be delivered by the Sacramento County Water Agency.¹⁰⁹ The FEIR acknowledged that the project did not have legal rights to any surface water and did not identify any water supply intended to be delivered specifically to the project; instead, the FEIR relied on the Water Agency providing water to the project “as part of its system for a larger area of [Sacramento] County known as zone 40,” which includes the project area.¹¹⁰ Thus, the FEIR, relying mostly on the EIR for the Water Forum proposal, attempted to identify sufficient water for the project by showing that there would be enough total new water supplies to meet the anticipated new demand from planned growth in zone 40 and replace contaminated groundwater there. However, for a number of reasons, the court found this discussion wholly inadequate in showing “a *likelihood* water would be available over the long term, for this project” as required by CEQA.¹¹¹

First, the FEIR, relying on the Water Forum proposal, provided inconsistent estimates of future water supplies and demand in the zone 40 area, leaving the “reader—and the decision makers—without substantial evidence for concluding that sufficient water is, in fact, likely to be available for the [] project at full build-out.”¹¹² Nowhere did the FEIR explain the “divergence between its estimates and those in the Water Forum proposal, or even the FEIR’s own use of divergent new surface water supply figures in different portions of its discussion.”¹¹³ And nowhere did it explain how the available water supply would be able to meet zone 40 demand over the long term.¹¹⁴

108. *Id.* at 725. See discussion *supra* Part I.C.1 and note 100.

109. *Vineyard*, 150 P.3d at 714. The Water Forum is “a group of public and private ‘stakeholders’ . . . including the County, the City of Sacramento, other water providers, business groups and [two] environmental organizations” (including one of the plaintiffs in the *Vineyard* lawsuit, the Environmental Council of Sacramento), that “undertook long-term planning to meet increased demand for American River water through the year 2030.” *Id.* The end result of these negotiations was the Water Forum agreement, which includes plans for increased surface water diversions, groundwater management, conjunctive use, fisheries and ecosystem management, and conservation, among other things. *Id.* at 714–15. For more information on the Water Forum agreement and process see JOHNSON & LOUX, *supra* note 3, at 189–94 and the Water Forum home page (Water Forum, <http://www.waterforum.org>).

110. *Vineyard*, 150 P.3d at 714.

111. *Id.* at 727.

112. *Id.* at 725.

113. *Id.* at 726.

114. *Id.*

The only explanation given in the FEIR was that new surface water supplies would be used conjunctively with existing groundwater supplies.¹¹⁵ However, this explanation was too vague to be adequate as the parameters of the conjunctive use program were not finalized and a full analysis of the program was awaiting environmental review of the Sacramento County Water Agency's zone 40 master plan update.¹¹⁶ The court held that Sacramento County could not "avoid full discussion of the likely water sources for the Sunrise Douglas project by referring to a not yet complete comprehensive analysis in the zone 40 master plan update. CEQA's information purpose 'is not satisfied by simply stating information will be provided in the future.'"¹¹⁷

Additionally, the court found fault with much of the FEIR's discussion of the environmental impacts of using those long-term surface water supplies that were adequately identified and their associated mitigation measures. Much of the FEIR's discussion of impacts and mitigation measures relied on information in the FEIR for the Water Forum proposal. Reliance on previous EIRs can be acceptable under CEQA, but only if the material relied on is properly incorporated into the FEIR at bar.¹¹⁸ The court held that "[b]ecause the FEIR failed to explicitly incorporate the impacts and mitigation discussion in the Water Forum proposal's final EIR, it lacks, contrary to CEQA's requirements, enforceable mitigation measures for the surface water diversions intended to serve the Sunrise Douglas project."¹¹⁹

Lastly, the court held that these inadequacies were not cured by the FEIR's mitigation measure, which provided that future development would not proceed "without firm proof of available water supplies."¹²⁰ Such a mitigation measure can be used to supplement an otherwise adequate analysis of the water sources a project is likely to use, but will not save an inadequate one.¹²¹

3. *Epilogue*

Despite ruling in the petitioners' favor and reversing the court of appeal, the California Supreme Court failed to set aside the project approvals challenged in the case. Thus, in the absence of a previous lower court injunction, the developer commenced construction of the project without

115. *Id.*

116. *Id.*

117. *Id.* at 726–27 (quoting *Santa Clarita Org. for Planning the Env't v. County of L.A.*, 131 Cal. Rptr. 2d 186, 192 (Cal. Ct. App. 2003)).

118. *Id.* at 728.

119. *Id.* at 729.

120. *Id.*

121. *Id.*

waiting for further decision on remand. By the end of May 2008, about 1,700 out of the 22,500 planned units had been built.¹²²

On May 29, however, the Sacramento County Superior Court finally issued a Judgment After Appeal¹²³ and a Peremptory Writ of Mandate.¹²⁴ In the Peremptory Writ of Mandate, Judge Lloyd Connelly ordered the City of Rancho Cordova to (1) “set aside the certification of those portions of the FEIR . . . that the California Supreme Court . . . held to be procedurally and factually inadequate;” (2) “rescind the approvals of the project comprised of the Sunrise Douglas Community Plan and the SunRidge Specific Plan” (except any tentative subdivision maps already approved in the project area); and (3) prepare a revised draft EIR for public comment that sufficiently analyzes the long-term water needs of and supplies for the project, the impact of the project on Cosumnes River flows and fish migration (from the North Vineyard Well Field groundwater pumping), and the impacts of the project on the public trust resources within the project areas.¹²⁵ Thus, completion of the project is now on hold indefinitely.

4. *Guidance Going Forward*

While the *Vineyard* court did not create an exact formula for how certain the identified water sources for a land use project must be, it did develop a set of standards for analyzing EIR water supply analyses. Including and expanding on the four principles set forth by the court and its application of those principles to the water supply analyses in the Sunrise Douglas FEIR, a number of analytical guideposts can be distilled:

An EIR for a proposed land use development “must assume that all phases of the project will eventually be built and will need water, and must analyze, to the extent reasonably possible, the impacts of providing water to the entire proposed project,” not just to the first phase of development.¹²⁶

An EIR’s discussion of the environmental impacts of supplying the identified water (including from any alternative sources) to a land use development may not be postponed until future analyses are done. Tiering to future environmental documents is improper as “CEQA’s information purpose

122. Telephone Interview with Stephan C. Volker, Law Offices of Stephan C. Volker (May 21, 2008).

123. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, No. 02CS01214, Judgment After Appeal (Sac. County Super. Ct. May 29, 2008).

124. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, No. 02CS01214, Peremptory Writ of Mandate (Sac. County Super. Ct. May 29, 2008).

125. *Id.* at 2.

126. *Vineyard*, 150 P.3d at 720 (citing *Stanislaus Natural Heritage Project v. County of Stanislaus*, 55 Cal. Rptr. 2d 625, 640 (Cal. Ct. App. 1996)).

'is not satisfied by simply stating information will be provided in the future.'"¹²⁷

The water supplies relied on in an EIR must have a likelihood of actually becoming available.¹²⁸ "An EIR for a land use project must address the impacts of *likely* future water sources, and the EIR's discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water's availability."¹²⁹

While a first-tier EIR for a land use project need not identify assured water supplies, if the identified water sources change or become unavailable, additional CEQA analysis would be required before the project could be approved.¹³⁰

When it is uncertain whether the primary identified water sources will eventuate, the EIR must identify *reasonably foreseeable* alternatives, not merely conjectural sources,¹³¹ and discuss and develop mitigation measures for the significant environmental impacts of utilizing those replacement sources.¹³²

When named water supplies are uncertain, CEQA's "informational demands may not be met, in this context, simply by providing that future development will not proceed if the anticipated water supply fails to materialize."¹³³

An EIR must be internally consistent and clear. Factual discrepancies and lack of clarity can preclude a judicial finding that an EIR's factual conclusions are supported by substantial evidence.¹³⁴ Similarly, an EIR must make its relationship with other documents sufficiently clear and "state that it is tiered from or incorporates parts of the earlier document[s]."¹³⁵

An EIR for a land use project must provide a sufficient quantity of facts to allow the decision makers "to evaluate the pros and cons of supplying" water to the project.¹³⁶ When conjunctive use programs are employed, the EIR must discuss how much groundwater and surface water exists, how much will be used, and in what combinations the two sources will be used in both wet and dry years.¹³⁷

127. *Id.* at 726–27 (quoting *Santa Clarita Org. for Planning the Env't v. County of L.A.*, 131 Cal. Rptr. 2d 186, 192 (Cal. Ct. App. 2003)).

128. *Id.* at 720.

129. *Id.*

130. *Id.* at 724–25.

131. *Id.* at 721–22.

132. *Id.* at 722.

133. *Id.* at 720–21.

134. *Id.* at 725.

135. *Id.* at 728.

136. *Id.* at 720 (quoting *Santiago County Water Dist. v. County of Orange*, 173 Cal. Rptr. 602, 607 (Cal. Ct. App. 1981)).

137. *Id.* at 726.

An EIR must contain some discussion of the long-term cumulative impacts of the land use development on water supply, including at least some analysis of total supply and demand in the region served by the water provider for the project at issue.¹³⁸

In addition to these guidelines, the court identified some “analytical paths” that could be used to adequately identify water supplies in EIRs for land use developments.¹³⁹ To be sure, these methods only relate to identification of sufficient water supplies. Even when satisfactorily applied, the methods do not relieve local agencies of the duty to analyze the environmental impacts of providing projects with the identified water supplies and develop appropriate mitigation measures.¹⁴⁰

The first analytical approach is for an EIR to show that “total water supply and demand are or will be in balance in” the region surrounding a project (or at least the region served by the water provider for the project).¹⁴¹ This approach will likely apply mostly to large, multi-phase projects that require additional water supplies for each subsequent phase, but could be used for smaller, single-phase projects that do not have a definite source of water. This is the approach that the Sunrise Douglas FEIR took, albeit unsuccessfully, in its analysis of long-term water supplies.

A second approach is for EIRs to demonstrate “a reasonable likelihood that water will be available for the project from an identified source,” as was satisfactorily done to determine near-term water supplies in the Sunrise Douglas FEIR.¹⁴² Depending on the circumstances, this approach likely requires a showing of some combination of legal water rights, existing or planned conveyance and/or storage facilities, financing plans for the facilities, and exclusivity of use.¹⁴³ When, however, it cannot be shown with certainty that the primary identified water sources will eventuate, a third approach is for EIRs to fully disclose the uncertainty, identify reasonably foreseeable replacement sources, analyze the impacts of using the alternative sources and develop appropriate mitigation measures.¹⁴⁴

Lastly, the court noted that “long-term local water planning is not a burden that must be taken up anew, for CEQA purposes, each time a development is proposed; rather, cities and counties may rely on existing urban water

138. *Id.* at 727.

139. *Id.*, n.11; *see also id.* at 730–31. The court set forth these pathways in response, at least in part, to concurring and dissenting Judge Baxter’s assertion that the court’s decision would “hold Sunrise Douglas and other developments ‘hostage to a balancing of supply and demand for all conceivable development that is not prohibited by the County’s general plan.’” *Id.* at 730.

140. *See id.* at 722.

141. *Id.* at 730–731.

142. *Id.* at 731.

143. *See id.* at 724 (discussing why the FEIR’s identification of near-term water supplies is adequate).

144. *Id.* at 731.

management plans, so long as the expected new demand of the development was included in the water management plan's future demand accounting."¹⁴⁵ However, relying on an existing UWMP should not by itself satisfy CEQA's requirement that an EIR for a land use project demonstrate a likelihood that water will be available for the project. Regardless of the how a project's water supplies are identified, the project EIR must also offer sufficient certainty that the supplies will eventuate to enable meaningful environmental review.¹⁴⁶ Thus, where uncertainty exists in an UWMP as to whether water will be available for a project, the EIR for the project should not pass muster if it simply incorporates the UWMP without showing adequate availability of the water supply or identifying replacement sources and analyzing the impacts of using them.

II. VINEYARD'S IMPACT ON LAND USE AND WATER SUPPLY PLANNING IN CALIFORNIA

Vineyard is certain to impact land use and water supply planning in California. First, the fact that the court granted review in *Vineyard* highlights the increasing importance of water issues in the state. Moreover, by setting high standards for CEQA water supply analyses, *Vineyard* should cause new land use developments, the EIRs for those projects and UWMPs to be subjected to greater scrutiny in court and in the media.¹⁴⁷ As a result, developers and land use planners will need to pay more heed to water supply issues associated with new developments, collaborate more with water purveyors in planning for growth, and attempt to garner more assured water supplies before pursuing those projects.

A. *Why Developers and Land Use Planners Are Likely to Change the Way They Approach Development in Light of Vineyard*

There are two primary reasons developers and land use planners are apt to change their behavior in light of *Vineyard*. First, land use project EIRs and their water supply analyses are now more likely to be challenged in court. This is so because, by deciding *Vineyard*, the court indicated that water supply issues are very important and worthy of judicial review,¹⁴⁸ and that water supply analyses are a large potential weak spot for land use project EIRs. At least, even if

145. *Id.*

146. *Id.* at 722.

147. This will be especially true when the public's attention is already focused on water supply issues due to drought, increased water prices, mandated water rationing, large population increases or for other reasons.

148. That the court granted review in *Vineyard* is particularly notable since it rarely hears CEQA cases. See, e.g., Paul Shigley, *Court Emerges as CEQA Enforcer: State Supreme Court Rejects Housing Project's Water Analysis*, CAL. PLAN. & DEV. REP., Mar. 1, 2007.

Vineyard does not cause more EIRs to be challenged in the first place, it will encourage plaintiffs to focus their challenges on EIRs' water supply analyses.

The second main reason *Vineyard* will have a major impact on developers and land use planners is that the water supply analysis standards announced by the court are not only more stringent than any one of their elements standing alone, they are unquestionably mandatory precedent for every court in California.¹⁴⁹ The higher standards place developers' and local governments' EIRs at greater risk if challenged. This is especially true because, as James Moose, an attorney representing real parties in interest in the *Vineyard* litigation, stated, "there are [not] too many EIRs out there that would pass [the *Vineyard*] test."¹⁵⁰ And Mr. Moose's assertion is supported by the fact that the water supply analysis at issue in *Vineyard*, including the analysis of long-term supplies, is regarded by some as being the most complete and thorough water supply analysis to have been held inadequate by an appellate court in California, and one of the best EIR water supply analyses ever done for a large land use development.¹⁵¹

In sum, land use project EIRs—or at least their water supply analyses—are now more likely to be both challenged in court and held inadequate.¹⁵² As a result, planners and developers will need to change they way they approach development in order to avoid increasing legal costs and the negative publicity that often accompanies lawsuits. However, this change will probably occur more where large projects are proposed and in areas where lots of population growth and land use development are occurring, such as in Placer, Riverside, Imperial, San Bernardino, and Orange counties.¹⁵³ Additionally, in some cases,

149. Even though each of the six districts of the California Court of Appeal ordinarily follows the decisions of the other districts, like the appellate decisions relied on by the court in *Vineyard*, they are not explicitly required to do so. *See, e.g.,* *Greyhound Lines, Inc. v. County of Santa Clara*, 231 Cal. Rptr. 702, 704 (Cal. Ct. App. 1986).

150. Shigley, *supra* note 148.

151. Telephone Interview with Michael H. Zischke, Partner, Cox, Castle & Nicholson (Nov. 30, 2007); Telephone Interview with Jeff Loux, Dir., Land Use & Natural Res. Program, UC Davis Extension (Oct. 24, 2007).

152. A large sample of actions filed and cases decided is not yet available, and decisions thus far that have applied the *Vineyard* standards are not necessarily representative of the success that challenges to EIRs—and specifically their water supply analyses—are likely to have.

153. *See generally* DEPARTMENT OF FINANCE, STATE OF CALIFORNIA, *supra* note 8 (providing population estimates by county through 2050). One reason that change is more likely to occur where large projects are proposed is that larger projects are more prone to legal challenge than smaller ones, even though *Vineyard* also applies to projects smaller than those subject to S.B. 610 and S.B. 221. Larger projects are more apt to be challenged because, as projects increase in size, it becomes more likely that the project proponent will need to obtain additional local planning approvals, comply with S.B. 610 and S.B. 221, and do environmental review under CEQA. Additionally, the larger the project the more people will be affected in some way, and the higher the chances are that someone will challenge the project. The more people who are affected by a project, the greater the likelihood that project opponents will be able to organize an opposition group, better enabling them to garner media attention, sway public opinion and fundraise for litigation expenses.

the threat of litigation will be insufficient to alter planners' and developers' behavior and change may depend on actual litigation or an actual water supply crisis.

B. How Developers and Land Use Planners Are Likely to Change the Way They Approach Development in Light of Vineyard

When and where developers and land use planners change their approach to development, the main question becomes how they will respond to *Vineyard*. For both large and small projects, developers and land use planners will likely give more forethought to how water will be supplied to new developments so as to avoid litigation. More specifically, however, one of the major changes that should occur is increased reliance on urban water management plans in water supply analyses for land use development EIRs, especially for larger projects.¹⁵⁴ A large number of water purveyors in California are already required to prepare UWMPs, and many had completed at least some form of an UWMP by 2000,¹⁵⁵ including purveyors in areas experiencing tremendous population growth.¹⁵⁶ As Stephan Volker, counsel for the plaintiffs in the *Vineyard* litigation, put it, "where the rubber meets the road is in the urban water management plan."¹⁵⁷

Relying entirely, or even in part, on an existing UWMP saves the developer time and money because she does not have to "prepare an analysis from scratch," at least as far as the water supply identification and discussion of cumulative water supply impacts go.¹⁵⁸ Additionally, where the UWMP is sound, reliance on it should reduce the likelihood of the project EIR being challenged on water supply analysis grounds. Moreover, increasing reliance on UWMPs should lead to better UWMPs because water purveyors will invest in preventing their water planning documents and techniques from being sullied in

154. This appears to be a common sentiment. See, e.g., Shigley, *supra* note 148; Robert B. Hodil, *Leading Water to the Horse: Practical Guidance for CEQA Water Supply Analysis in the Wake of Vineyard* Area Citizens, MORRISON & FOERSTER, LEGAL UPDATES, Mar. 2007, <http://www.mofo.com/news/updates/files/9040.html>; Telephone Interview with Michael H. Zischke, Partner, Cox, Castle & Nicholson (Nov. 30, 2007); Telephone Interview with Jeff Loux, Dir., Land Use & Natural Res. Program, UC Davis Extension (Oct. 24, 2007); Mary Grace Pawson, P.E., Presentation at the San Francisco Bay Area Program Series for Environmental Professionals, November 2007 Program: Water Supply Considerations for Planning Professionals (Nov. 14, 2007); Michael Zischke & Bradley Brownlow, *State Supreme Court Provides Guidance on Water Supplies and CEQA*, W. CITY, Sept. 2007, (Legal Notes), at 69.

155. OFFICE OF WATER USE EFFICIENCY AND TRANSFERS, CAL. DEP'T OF WATER RES., SUMMARY OF URBAN WATER MANAGEMENT PLANS SUBMITTED FOR 2000 (2002) (2000 UWMP SUMMARY), available at <http://www.owue.water.ca.gov/docs/UWMPStatusSummary.pdf>.

156. See *id.*; see generally DEPARTMENT OF FINANCE, STATE OF CALIFORNIA, *supra* note 8 (providing population estimates by county through 2050).

157. Shigley, *supra* note 148.

158. *Id.*

court.¹⁵⁹ In fact, this may even lead water purveyors to expand their efforts to find additional water sources.¹⁶⁰ With water purveyors putting more effort into planning for growth, EIR water supply analyses that rely on UWMPs will be better able to withstand legal challenge.

Thus, if an adequate UWMP includes the expected demand of a new development in its accounting, the developer would save time and money and receive more project security by relying on the UWMP, as sanctioned by the court in *Vineyard*. Even using a less than adequate UWMP as an analytical starting point for an EIR water supply analysis would have some of these same benefits. And, where an UWMP suggests that there is not enough water for a proposed development, the project proponents would still reap benefits by being informed earlier in the development process about the water supply issues. Being informed of water supply constraints earlier in the development process would allow the developer and the local government to halt investment in the development or search for new water supplies at an earlier stage, thereby saving them time and money.

In many cases, then, developers would obtain greater cost and time savings and increased project security by relying on UWMPs than by going down the *Vineyard* court's other "analytical paths."¹⁶¹ Thus, developers are likely to increase their reliance on UWMPs in identifying sources of water supply for their projects and, to a lesser extent, in examining the environmental impacts of supplying that water. However, at least for the time being, reliance on UWMPs should be bolstered by additional independent water supply analysis since relying entirely on someone else's data and conclusions can be risky and UWMPs are not required to contain all the same analyses as EIRs. For one, while EIRs must analyze the environmental impacts of providing projects with the identified water supplies and develop appropriate mitigation measures, neither the UWMPA¹⁶² nor CEQA¹⁶³ require water purveyors to develop such analyses or mitigation measures in their UWMPs. Nonetheless, UWMPs stand to take on much greater significance.

159. *See id.*

160. Telephone Interview with Jeff Loux, Dir., Land Use & Natural Res. Program, UC Davis Extension (Oct. 24, 2007). Of course, this is likely to happen on its own as the development pressures and demand for water increase, and some existing water supplies become more uncertain as a result of, among other things, global warming. Thus, while this could be a growth-inducing impact, it will not necessarily be so in the long-term.

161. *Vineyard*, 150 P.3d at 727 n.11; *see also id.* at 730–31. For example, identifying a "rough balance," *id.* at 730, between regional water supply and demand can be very onerous and complicated for the developer to do independently, as the *Vineyard* dissent notes. *Id.* at 734–36 (Baxter, J., concurring and dissenting). Identifying fairly assured water supplies is certainly desirable, but can likewise be difficult, especially for large, multi-phase projects, since this approach likely requires a showing of legal water rights, existing or planned conveyance and/or storage facilities, financing plans for the facilities and exclusivity of use. *See id.* at 724 (majority opinion).

162. CAL. WATER CODE §§ 10610–10657 (West 2006).

163. UWMPs are exempt from CEQA. *Id.* § 10652.

III. RELIANCE ON URBAN WATER MANAGEMENT PLANS SHOULD INCREASE, BUT THE BENEFITS OF INCREASED RELIANCE WILL NOT OCCUR AUTOMATICALLY

A. *Potential Benefits of Increased Reliance on UWMPs*

1. *More Communication and Collaboration Between Land Use Planners, Developers, and Water Providers*

The potential benefits of increased reliance on UWMPs are many. One of the primary benefits, from which multiple subsidiary benefits would flow, is increased communication and collaboration between planners, water purveyors and developers. As developers and planners rely more on UWMPs, greater communication and collaboration should occur naturally. This is especially so given that, in most cases, developers, land use planners and water providers would all benefit from the increased interaction. Developers and land use planners would benefit from cost and time savings, and all parties would benefit from increased certainty about when each project needs water, and when, whether, and whence that water can be delivered. In addition, increased collaboration would almost assuredly strengthen water providers' UWMPs, making them better able to inform long-term planning discussions as well as better able to withstand judicial scrutiny (either in the form of a CEQA water supply analysis or on its own merits under the UWMPA).

2. *Increased Certainty and County of Amador v. El Dorado County Water Agency*

Increased certainty about local growth and water supplies would be particularly useful to water purveyors, local governments, and developers in light of *County of Amador v. El Dorado County Water Agency*, where the Third District Court of Appeal disapproved an EIR for a large-scale water project because it based the need for the project on the demand projections in a draft, unadopted general plan.¹⁶⁴ The court clarified the nature of the problem by noting that “[u]nder the present scenario, no entity has contemplated the interrelationship of growth and water sources.”¹⁶⁵ Thus, water purveyors are subject to legal challenge if they prepare water supply plans before a land use agency approves a growth and development plan (e.g. a general plan). Arguably, under this holding, local governments are also subject to legal challenge if they approve development plans without considering the available water supplies and plans, a conclusion bolstered by *Vineyard*. By increasing collaboration, local governments and water providers would be able to plan

164. 91 Cal. Rptr. 2d 66, 78 (Cal. Ct. App. 1999).

165. *Id.*

more accurately, informatively and concurrently for both new development and how to supply water to it, and consequently be less subject to legal challenge.

3. *Increased Public Involvement in Water Supply Planning*

Ideally, if local governments and water providers start collaborating more, they will begin preparing their respective planning documents (e.g., general plans and UWMPs) at similar times using the same factual bases (e.g., population growth projections¹⁶⁶), which would provide a much more intimate link between land use and water supply planning.¹⁶⁷ A greater link between land use and water supply planning would not only increase the involvement of land use planners and developers in the water planning process, it would also make water supply planning more visible publicly and would likely induce greater public involvement. Such involvement has generally been meager¹⁶⁸ and in some cases limited by the water purveyors themselves.¹⁶⁹

Together, the input of all these groups would result in increased scrutiny of existing UWMPs, hopefully leading water supply providers to shore up the facts, methodology, and analysis in their plans.¹⁷⁰ Increased public involvement would also bring to the fore issues that water purveyors had not yet addressed in their plans, whether required to or not, such as environmental justice concerns. Furthermore, it would likely increase public pressure to conserve water and/or obtain additional water supplies through conjunctive use and other alternative programs instead of from increased surface water diversions. Moreover, if the slow-growth push in California in the past few decades¹⁷¹ is any indication, increased public awareness of and participation in the water supply planning process would also increase the pressure on water providers to limit acquisition of new supplies and stand firm against new

166. Water purveyors are not required to use the same population growth projections in developing their UWMPs as the local governments within their service area. *See* § 10631(a).

167. Of course, the extent to which UWMPs and land use planning documents could be prepared in sync depends in large part on the number of local governments a given water provider serves, and, vice versa, the number of water providers that serve a given locality. This potential obstacle is discussed in more detail in Part III.B.1, *infra*.

168. Telephone Interview with Jeff Loux, Dir., Land Use & Natural Res. Program, UC Davis Extension (Oct. 24, 2007).

169. For instance, in March, 2007, various concerned and affected groups and individuals brought suit over the adequacy of Sonoma County Water Agency's 2005 UWMP, alleging, among other things, that the agency did not provide enough opportunity for public comment before approving the final plan, giving the public just four weeks to comment on the entire draft plan. Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief at 1, 28, *Sonoma County Water Coal. v. Sonoma County Water Agency*, Civ. No. SCV 240367 (Cal. Super. Ct. filed March 19, 2007) (on file with author).

170. *See, e.g., HANAK, supra* note 51, at 41–42.

171. *See generally* WILLIAM FULTON, *GUIDE TO CALIFORNIA PLANNING* 189–201 (2d ed. 1999) (discussing growth management and growth control in California).

development when supplies are slim.¹⁷² Lastly, with greater public involvement, the water providers would have more opportunities to allay public concerns.¹⁷³

4. *Increased Drought Preparedness*

Another benefit of increased reliance on UWMPs and greater collaboration between land use and water supply planners is that local governments and water providers would be more prepared for droughts. First, water purveyors and land use planners would have similar information about the amount of water supplies actually available now and forecasted into the future. In addition, by obtaining a better working relationship, the two groups would be better equipped to work together in the case of a drought. Moreover, as water purveyors are increasingly relied on to create UWMPs that are legally defensible in the context of CEQA water supply analyses, they will likely strive to secure more reliable water sources, or at least identify more potential, though uncertain, sources,¹⁷⁴ and develop better drought contingency plans.

B. *Obstacles to Obtaining the Benefits and Other Limitations of UWMPs*

1. *Obstacles to Obtaining the Benefits*

Many of the aforementioned benefits will not fully accrue until UWMPs are made factually, methodically and analytically sound and complete. Data on the UWMPs submitted during the 2000 update round shows that a significant number of water providers required to submit UWMPs did not do so and that a greater number of these failures were in areas of new housing.¹⁷⁵ Furthermore, many of the plans that were submitted were factually suspect or otherwise insufficient for use in an EIR.¹⁷⁶ For example, many water providers reported water supply surpluses from the time they drafted the UWMP through 2020.¹⁷⁷ However, given the total amount of available water supply in California, at

172. See HANAK, *supra* note 51, at 41–42. In my view, this is a benefit. It is folly to think we can keep growing indefinitely, especially in the arid western United States, where the historical record contains evidence of huge, in fact catastrophic, droughts. See, e.g., HUNDLEY, *supra* note 3, at 9–11. Of course, a big challenge here is to limit growth and water use without greatly exacerbating environmental justice problems caused by, among other things, increased housing and water costs.

173. See HANAK, *supra* note 51, at 96.

174. This stems from the idea that, under *Vineyard*, a sufficient water supply for a land use development can still exist for CEQA purposes where there is some uncertainty as to its availability and reliability, just as long as alternative sources are identified and their impacts analyzed and mitigated to the extent possible. In most circumstances, these alternative sources would logically be less certain, because if they were more certain they would probably have been identified as a primary source.

175. HANAK, *supra* note 51, at 34–35; see also 2000 UWMP SUMMARY, *supra* note 155.

176. See HANAK, *supra* note 51, at 47–48.

177. *Id.*

least one study has concluded that much of the reported surpluses must be paper water.¹⁷⁸ Not much data is available on the 2005 round of UWMP submissions, but it is likely that many of these issues remain unresolved.

Another obstacle to obtaining the benefits of increased UWMP reliance is that water providers are not required to seek out proposed developments and include them in their UWMPs. Among other consequences, if the “expected new demand of the development was [not] included in the water management plan’s future demand accounting,”¹⁷⁹ then it will be more difficult for developers and planners to rely on the UWMP in the EIR water supply analysis for the project.

Overall, until all water providers required to prepare UWMPs do so, and until the factual errors and omissions in the existing UWMPs are corrected, increased reliance on UWMPs cannot confer maximum benefits, as some developers and planners will have no UWMP to rely on and others will not want to risk relying on inaccurate UWMPs. Furthermore, if inadequate UWMPs are relied on, such reliance will be subject to legal challenge and will not facilitate accurate long-term planning.

Moreover, if local governments rely on UWMPs that project greater water supplies than actually exist, through reliance on paper water or otherwise, they run the risk of spurring greater growth than would otherwise occur. This same problem can also occur where water providers, under pressure to provide sufficient water to meet projected growth, seek access to more water than is necessary to fulfill the growth, or seek enough water to meet artificially inflated project growth numbers. While we do not want water demand to outstrip supplies, it is an equally bad idea for water supplies (projected or guaranteed) to substantially outpace demand.¹⁸⁰ In a state where water supplies are already extremely constrained, encouraging more growth with the prospect, let alone illusion, of surplus water supplies could prove an irreversible mistake.

Lastly, collaboration may be especially difficult where a locality is served by large numbers of water purveyors, or where a water provider provides services within multiple local government jurisdictions. In these types of situations, the extent to which UWMPs and land use planning documents can be prepared together is often limited. However, this is not an insurmountable obstacle. For instance, the scope of the collaboration between the various land use and water supply planners could be expanded. While time consuming and

178. *See id.*

179. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 150 P.3d 709, 731 (Cal. 2007).

180. This is the conclusion that the Third District Court of Appeal reached in *County of Amador v. El Dorado County Water Agency*, 91 Cal. Rptr. 2d 66, 78 (Cal. Ct. App. 1999). In fact, the court noted that making additional water supplies available for consumptive use beyond the amount needed to meet the future demand indicated in the existing relevant general plan would “remove[] a major barrier to growth and [could] virtually ensure development.” *Id.*

potentially more difficult, this expansion is definitely possible. In fact, regardless of the situation, expanded, regional collaboration should be encouraged for all water purveyors and local governments. Formation of integrated regional water management plans (IRWMPs) can be very useful in these situations.¹⁸¹

2. *Other Limitations of UWMPs*

There are also a host of inherent limitations to the use of UWMPs. First, only relatively large water purveyors are required to prepare UWMPs.¹⁸² While, as of the 2000 round of UWMPs, water providers subject to the UWMPA served over 86 percent of California's population, a substantial amount of housing growth is occurring in relatively undeveloped areas not served by large enough water providers.¹⁸³

Second, when describing the population growth and other demographic factors affecting water demand, water purveyors are not required to conform their estimates to the projections of local governments within the purveyor's service district.¹⁸⁴ This policy can give rise to factual disconnects between water providers and local governments in planning for future growth. While the rationale behind this policy is valid, to give water providers discretion to determine the best and most accurate projections, a better result would be had if local governments and water providers cooperated and came up with mutually agreeable projections.

181. In 2002, Governor Schwarzenegger signed into law the Integrated Regional Water Management Planning Act as CAL. WATER CODE Sections 10530–10546. *See* S.B. 1672, 2001–2002 Reg. Sess. (Cal. 2002). Essentially, the Act authorizes regional management groups to adopt IRWMPs that address the implementation and operation of various programs and projects related to water supply that are under their authority. For example, IWMPs may address UWMPs, groundwater management plans, levee maintenance projects, or the preparation of water supply assessments under S.B. 610. CAL. WATER CODE § 10540 (West 2006).

182. *Id.* §§ 10617, 10620(a).

183. HANAK, *supra* note 51, at 34–35. Of course, by serving additional growth many water purveyors that are currently not subject to the UWMPA will become large enough to trigger its application. In the interim, local government planners and small water purveyors in those areas of rapid growth, and any large regional water purveyors, should collaborate as much as possible to determine available reliable water supplies and limit growth based on that availability. Where it appears there is a shortage of water, water purveyors must remember that they can put a moratorium on new service connections, and arguably have a duty to their existing customers, if not to the public in general, to do so. *See, e.g.*, §§ 350, 353. However, private water purveyors subject to regulation by the California Public Utilities Commission (“CPUC”) must first obtain approval from the CPUC before instituting a moratorium. WATER DIV., CAL. PUB. UTILS. COMM’N, STANDARD PRACTICE U-40-W: INSTRUCTIONS FOR WATER CONSERVATION, RATIONING AND SERVICE CONNECTION MORATORIA (2007), *available at* <http://www.cpuc.ca.gov/PUC/Water/Available+Documents/StdPractices/>. *See* discussion on limiting growth *infra* Part IV.A.

184. *See* § 10631(a).

Third, UWMPs are exempt from CEQA.¹⁸⁵ This may present a problem in that new water projects identified in UWMPs will not be certain to come to fruition until they have undergone CEQA analysis and received any other associated approvals. This might create some problems for project proponents seeking to rely on UWMPs in EIRs if judges deem the new sources too speculative. However, this problem could be alleviated in many cases by postponing development until the new water source on which the UWMP relies has undergone CEQA review. Additionally, the water supply section of the land use development EIR and the water project EIR could be done together.

A final limitation is that UWMPs by themselves do not dictate a specific substantive result. While they have huge potential to assist coherent long-term planning, which *Vineyard* encourages, developers and land use planners are nonetheless not required to rely on them. Furthermore, there is no explicit requirement, as there should be, that “[i]f the plan shows that there is not enough water to supply expected growth, then building should be halted until new supplies are identified.”¹⁸⁶ With the implementation of such a policy, growth would be directed to where water is available.

*C. To Maximize the Benefits from UWMPs,
the Documents Need to Be Accurate and Robust*

To overcome some of the obstacles and limitations outlined above and maximize the benefits from UWMPs, there are a number of basic yet crucial steps that water providers must take.¹⁸⁷ Most of these steps are, in fact, required or suggested by the UWMPA itself.

First, as an overarching concept, water purveyors should strive to increase the timespan of their UWMPs from twenty years to as much as fifty or one hundred years. While this may seem like a large timeframe, an extended planning horizon is already required in a number of other places. For instance, in New Mexico regional water plans often have forty-year horizons.¹⁸⁸

Second, it is very important that UWMPs have accurate water demand projections that are either developed in coordination with local and regional governments within the water providers’ service districts or, at the very least, based on mutually agreeable and uniform population growth and land use

185. *Id.* § 10652.

186. Shigley, *supra* note 148. See Parts III.C. and IV.A, *infra*, for further discussion of this proposition.

187. Note that this discussion is not exhaustive and does not list every requirement of the UWMPA.

188. N.M. INTERSTATE STREAM COMM’N, REGIONAL WATER PLANNING HANDBOOK (1994), available at <http://www.ose.state.nm.us/doing-business/water-plan/rwp-handbook.html>; see also Ellen Hanak & Margaret K. Browne, *Linking Housing Growth to Water Supply: New Planning Frontiers in the American West*, 72 J. AM. PLAN. ASS’N 154, 156 (2006) (noting that some Colorado counties that rely on groundwater require water supply availability for a 300-year horizon).

projections. It is both required¹⁸⁹ and essential that this process include demand modeling of various user groups. By modeling projected demand by discrete sectors, water providers are better able to observe water use trends within the various sectors and model what the impacts on overall water demand would be if certain water efficiency measures were implemented.

Third, it is essential that UWMPs have accurate water supply projections and provide the public with the supporting documents, or at least citations to them, and calculations from which the water providers developed the projections. This requires that water purveyors do an extensive inquiry into the reliability of their existing and assured future sources, and include a detailed discussion in their UWMPs of the factors affecting the likelihood that planned future sources will become available and how reliable they would be. It is critical that water providers do not simply assume, without discussion and visible factual support, that planned water supplies will become available.

For an UWMP to have a meaningful discussion of water supplies the water provider should identify all the original sources from which it obtains (or will/would/could obtain) its water supplies, including the legal, physical and contractual origins of the water. The water purveyor should also identify all transfers (contractual and physical) that occur before the water reaches the purveyor's consumers. While this level of detail is not explicitly required by the UWMPA, it is essential to identifying the possible nodes of constraint on or curtailment of the purveyor's water supplies.

Relatedly, the water provider should also enumerate, as implied in the UWMPA,¹⁹⁰ the potential curtailments of its existing and planned future water supplies due to environmental, contractual, or other issues. To be most useful, this enumeration should include a discussion of the various entities with authority to mandate curtailments to the provider's water supplies. Furthermore, the water purveyor should assess climatic factors, such as global warming and drought, and other environmental factors, such as groundwater overdraft and potential for groundwater contamination, in determining how reliable its existing and planned future sources will be over the period covered in the UWMP.

Fourth, where there is "any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors," the water purveyor must include in its UWMP a description of "plans to supplement or replace that source with alternative sources or water demand management measures."¹⁹¹ Where alternatives are slim or not feasible, the UWMP should make this explicitly clear. And, where the water purveyor

189. See CAL. WATER CODE § 10631(e) (West 2006).

190. *Id.* § 10631(c).

191. *Id.*

identifies water demand management measures,¹⁹² whether as alternatives to physical supplies or otherwise, it should include in its UWMP descriptions of the measures what their projected effects would be and how its water supplies would harden as a result (which is not explicitly called for in the UWMPA, but is vitally important to any analysis of drought resiliency).

Fifth, in developing their UWMPs water purveyors should communicate and collaborate with the various entities having control over curtailment of their water sources¹⁹³ and other “relevant public agencies,”¹⁹⁴ such as local governments and other water providers within the water purveyors’ service districts. Similarly, water purveyors should utilize a robust public input process to identify and rectify inaccuracies and discrepancies in their UWMPs, and the data they rely on, before the final UWMPs take effect.

Finally, water providers must make projected water supply shortfalls explicitly clear in their UWMPs.¹⁹⁵ Not only do local governments, their land use planners, and the public at large deserve to have this information, but glossing over water supply shortfalls, or worse, pretending they do not exist, threatens the viability of the communities that rely on the water providers’ supplies. As the Fifth District Court of Appeal pointed out in *Friends of the Santa Clara River v. Castaic Lake Water Agency*:

Without a reliable analysis of the availability of water, the UWMP is fatally flawed. The public and the various governmental entities that rely on the UWMP may be seriously misled by it and, if the wrong set of circumstances occur, the consequences to those who relied on the UWMP, as well as those who share a water supply with them, could be severe.¹⁹⁶

As a corollary, water providers should refuse to extend service to new projects when it appears, as indicated in their UWMPs, that they will not have enough supplies in the future to serve new growth reliably, or worse yet, existing uses. The East Bay Municipal Utility District (EBMUD) estimably took this very approach in 1992 when it refused to serve a large development in Dougherty Valley in Contra Costa County, citing insufficient water supplies to meet both the existing demands within its service area and the future demands to be created by the project.¹⁹⁷

192. *Id.* § 10631(f)–(g).

193. To name a few entities frequently exercising some control in this arena: the Federal Energy Regulatory Commission, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration’s fisheries division, the Bureau of Reclamation, the U.S. Army Corps of Engineers, the California State Water Resources Control Board, the California Department of Water Resources, and others.

194. *Id.* § 10620(d)(2).

195. This is implied by the UWMPA. *See id.* § 10631(c).

196. 19 Cal. Rptr. 3d 625, 634 (Cal. Ct. App. 2004) (footnote omitted).

197. *See* Waterman, *supra* note 22, at 129; *see also* Santiago County Water Dist. v. County of Orange, 173 Cal. Rptr. 602 (Cal. Ct. App. 1981).

Litigation will likely be necessary in some cases to force the intransigent water providers with faulty or nonexistent UWMPs to comply with the UWMPA,¹⁹⁸ but when they do they should strive to follow these steps and look for additional guidance in EBMUD's current 2005 UWMP.¹⁹⁹

IV. MANY OTHER TOOLS MUST ALSO BE USED TO SUFFICIENTLY LINK LAND USE AND WATER SUPPLY TO ENSURE A MODICUM OF SUSTAINABLE GROWTH IN CALIFORNIA

More is needed beyond CEQA, urban water management plans, S.B. 601 and S.B. 221 to ensure sustainable development in California that does not outpace the ability of the state's water supplies to support it in the long term. In the interest of space I cannot discuss in detail the additional measures, statewide, regional and local, that should be continued, expanded or implemented anew to meet this goal.²⁰⁰ However, I will briefly discuss one such measure, which is both necessary and inevitable despite currently being politically unpalatable. That measure is to mandate growth and development restrictions where water supplies are insufficient or uncertain to meet existing demands and the demands new development would cause.

A. *Limiting Growth Based on Water*

Local governments have the power to condition future development on the existence of adequate and reliable water supplies.²⁰¹ Similarly, water providers

198. To date, not many lawsuits have been brought challenging the adequacy of UWMPs in their own right, and there is only one published appellate case on the issue, *Friends of the Santa Clara River v. Castaic Lake Water Agency*, 19 Cal. Rptr. 3d 625 (Cal. Ct. App. 2004). However, a number of lawsuits have recently been filed to force water agencies to comply with the UWMPA. See, e.g., Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, *Cal. Water Impact Network v. City of Tulare*, Civ. No. 07--224381 (Cal. Super. Ct. filed July 2, 2007) (on file with author); Verified Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, *supra* note 169.

199. WATER RES. PLAN. DIV., E. BAY MUN. UTIL. DIST., URBAN WATER MANAGEMENT PLAN 2005 (2005), available at http://www.ebmud.com/water_&_environment/water_supply/urban_water_management_plan/.

200. Among other things, these measures include adding water elements to general plans, encouraging water providers and local governments to create regional groups and develop integrated regional water management plans, metering all urban water use and instituting inverted block and other fee structures for urban water use that incentivize conservation, impose stricter water efficiency standards for buildings, landscaping, appliances and agriculture, and reduce sprawl and utilize the concepts of smart growth.

201. Overall, an estimated 14 percent of California's cities and counties have at some time imposed full or partial moratoria on "new meter hook-ups." Hanak & Browne, *supra* note 188, at 159. The power to impose such moratoria on growth derives from the police power, which is the power delegated by the state to local governments to "make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws." CAL. CONST. art. XI, § 7. The basic test for whether an ordinance falls within the police power is whether it is reasonably related to the public welfare. *Associated Home Builders of the Greater Eastbay, Inc. v. City of Livermore*, 557 P.2d 473, 487 (Cal. 1976); see also *County Sanitation Dist. No. 2 of L.A. County v. County of Kern*, 27 Cal. Rptr. 3d 28, 80 (Cal. Ct. App. 2005). Where a land use restriction "significantly affects residents of surrounding

have the power to put a moratorium on new service connections in their service areas when water supplies are slim.²⁰² However, neither is required to do so. The UWMPA should be amended to require that a water supplier subject to it put a moratorium on new connections if the analysis of supply and demand in its UWMP shows that there is not enough water to supply expected growth.

While such action is politically unpalatable, it would not lead to any greater inequities than currently exist, especially since local governments and water purveyors already have the power to curtail growth in one way or another. Instead, amending the UWMPA as suggested—and/or requiring local governments and other water providers to curtail growth in the case of a water shortage—would help ensure that we prevent the even greater social and economic consequences that could occur if the state's water demand is allowed to surpass the ability of the state's water supplies to sustain it. Moreover, growth curtailment measures would only be necessary if other conservation and efficiency measures are unsuccessful in bringing about a long-term balance of water supply and demand in an area.²⁰³

There is still the possibility that local governments and water providers would tweak their water supply and demand estimates to either impose or avoid imposing growth control measures. However, a public notice and hearing process prior to imposition of such controls, and a petition process for concerned parties who think controls should be imposed, could help alleviate these potential dangers. Additionally, enhanced local, regional and statewide collaboration between local government planners and water providers would help ensure the accuracy of water shortage assessments.

In the meantime, there are a number of tools we can use to help prevent inequities if and when growth controls are implemented. One of the potential

communities, the constitutionality of the restriction must be measured by its impact not only upon the welfare of the enacting community, but upon the welfare of the surrounding region." *Associated Home Builders*, 557 P.2d at 483. Ordinances that restrict future development unless sufficient water supplies are available to serve it will almost always affect residents of surrounding communities to the extent that development pressures may intensify in those communities. However, this does not mean that such restrictions are unconstitutional, for allowing growth to exceed the ability of a region's water supplier to provide it with water can be extremely injurious to the public welfare, both in the localities where the growth occurs and elsewhere. Furthermore, in areas where growth is allowed to proceed without adequate water, surrounding communities would likely still experience added development pressure in the longer run as residents of the water-strapped areas, unhappy with water rationing or worse, seek better places to live.

202. See, e.g., CAL. WATER CODE §§ 350, 353, 357 (West 2006); see also *Swanson v. Marin Mun. Water Dist.*, 128 Cal. Rptr. 485 (Cal. Ct. App. 1976) (upholding the water district's determination that a water supply emergency existed); see also note 183, *supra*.

203. However, water conservation leads to a concomitant hardening of water supplies. Thus, depending on the locality or water provider, its water sources and the potential for further conservation, water conservation by itself should not necessarily be viewed as creating water supplies for new growth. Before new water-demanding growth is allowed, localities and water purveyors should ensure that they have an adequate water supply buffer (consisting of either reserve water or additional conservation measures that could be imposed) to protect their water users in times of drought.

negative impacts of growth controls is increasing home prices, which can act to exclude lower-income people.²⁰⁴ One way to combat this is to make approval of and provision of water to low-income housing projects easier than for other types of residential developments. The California Legislature has already made inroads on this front with S.B. 1087 (Florez),²⁰⁵ which was signed into law in 2005. The new law makes it easier for affordable housing projects to obtain water and sewer service by restricting the ability of water providers to limit or deny them services except in extenuating circumstances, for instance where there is a pronounced water shortage.²⁰⁶

In the end, however, while we must strive to prevent inequitable impacts on any one community, the primary concern needs to be protecting California's natural resources. We cannot allow population growth and new development to continue without regard for the sustainability of such growth. California's water and other natural resources are limited, and without them the state could not sustain anybody, whatever their income. While controlling development will have some negative impacts, the impacts of a large-scale tragedy of the commons would be much greater and more widespread.

CONCLUSION

Californians are faced with the consequences of the state's rapid urbanization and agricultural development and the challenge of ensuring that water supplies can meet demand in the long run. In addressing these issues, two major questions are how much and in what form the availability of water should shape and control land use development. In the last two decades, the California Legislature, state agencies, local governments, and the California courts have become increasingly involved in answering these questions. In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*²⁰⁷ the California Supreme Court entered this complicated debate by setting forth standards for EIR water supply analyses for land developments under CEQA.

In the long run, the court's decision in *Vineyard* should spawn increasing reliance on UWMPs in EIR water supply analyses for land use developments. And, with some important caveats, increasing reliance on UWMPs should have the concomitant effect of deepening the connection and communication

204. It should be noted that impacts on lower-income communities are likely to result from any action taken to bring water supplies and demand into balance in the long run beyond pure conservation. For instance, if urban water supplies are not cut, we will see more water transfers from agricultural users to urban users, which will likely have the concomitant effect of decreasing agricultural production and ultimately employment for many lower-income farm workers.

205. S.B. 1087, 2005–2006 Reg. Sess. (Cal. 2005) (amending CAL. GOV'T CODE § 65589.7 and CAL. WATER CODE § 10631.1).

206. CAL. GOV'T CODE § 65589.7.

207. 150 P.3d 709, 713 (Cal. 2007).

between land use planners, water providers, developers and the public. However, UWMPs are by no means a panacea. Even if added reliance on improved UWMPs increases collaboration between land use planners and water purveyors, many other tools will need to be used to prevent catastrophe in the face of future droughts, including limiting growth where water supplies are inadequate to meet existing and/or new demand. Reducing water usage and limiting growth will be difficult and contentious, but is change ever easy?

Even though we have already developed large urban areas in inopportune places with very little rainfall and few substantial bodies of freshwater, we do not have to continue on such a precarious course. We are not inexorably bound to absorb more people into a state that is already struggling to supply enough water to its existing population and land uses. There is a lot of truth in the aphorism “if in doubt, we can always learn from our mistakes.”