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Conservation of What?: An Introduction to the Issue

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CONSERVATION OF WHAT?: AN INTRODUCTION TO THE ISSUE

PAUL STANTON KIBEL & ANTHONY A. AUSTIN***

In the field of environmental and natural resources law and policy, there is often talk of "conservation." When it comes to discussions about the linkage of land use development approvals and water supply entitlements to serve such development, however, the term "conservation" can be deployed in very different ways.

On the one hand, there are those persons that emphasize the need to conserve adequate freshwater for fisheries and water quality. For these persons, the core objective of the linkage between land use and water supply is to conserve instream flow and aquatic ecosystems by curtailing over-diversion and degradatation. For these persons, proposals to secure additional water supplies for new land use development through measures (enhanced off-stream storage, conjunctive use of aquifers, lining of earthen canals) that do not jeopardize instream resources are acceptable solutions. The potential environmental impacts of the new land use development – scenic degradation, air pollution, terrestrial habitat loss – are not a primary concern.

On the other hand, there are those persons whose underlying concern is reducing new land use development and metropolitan sprawl, to avoid the above-mentioned scenic degradation, air pollution, terrestrial habitat loss. These persons may also seek to avoid degradation of instream resources through land use-water supply linkages, but their environmental concerns do not end there.

These contrasting notions of what is to be conserved through land use-water supply linkages have similarly played out in regard to conflicting interpretations of the emerging term "wet growth." In its most

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basic form, the term "wet growth" suggests the need for actual or real water supply availability and entitlements for proposed development, as proposed to mere "paper" water. In his introduction to the Environmental Law Institute's 2005 book *Wet Growth: Should Water Law Control Land Use?*, Professor Craig Anthony Arnold writes:

> There is a need for a concept of "wet growth": integration of concerns about water quality and the availability of water supply into the density, form, pattern and location of land development. This "wet growth" idea – that growth and land use should be sustainable with respect to aquatic ecosystems and water resources – may simply be an aspect of a broad smart growth agenda (or even broader sustainability agenda). . .[1]

This particular view was also noted by Professor Barton Thompson (in his chapter titled *Water Management and Land Use Planning: Is It Time for Closer Coordination?* (in the above-noted 2005 *Wet Growth* book)), who observed:

> In practice, growth opponents have spearheaded many efforts to integrate water management and land use planning. Unable to block growth through more direct means, opponents have sought to use water scarcity as a means to slow down or block new housing development.[2]

Although Professor Arnold and those identified by Professor Thompson may perceive of the concept of wet growth as a component of a larger anti-sprawl policy framework, there is evidence that others may not share this broader perspective. Others appear to view the concept of wet growth as merely requiring that additional secure water supplies be found, wherever and however they can, so that sprawl type development can continue. As Professor Lincoln Davies opined in a 2007 article titled *Just a Big Hot Fuss? Assessing the Value of Connecting Suburban Sprawl, Land Use and Water Rights Through Assured Supply Laws*:

> Assured supply laws appear to prompt additional conservation, but it also appears that they do not yield the other environmental benefits their advocates often tout.

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[1] Craig Anthony Arnold, *Introduction: Integrating Water Controls and Land Use Controls: New Ideas and Old Obstacles, in* WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 23 (Craig Anthony Arnold ed., 2005).

[2] Barton Thompson, *Water Management and Land Use Planning: Is It Time for Closer Coordination?, in* WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 97.

> Perhaps most important, it is clear that assured supply laws will not stop sprawl. By definition, of course, assured supply measures do not restrict sprawl per se. They do not tell developers where they can build, they impose no density limits, and they do not expressly require infill development in already urbanized areas. On the contrary, assured supply laws typically only restrict subdivision development to the extent that sufficient water supplies are not available. Thus, if water is available, the assured supply law does not purport to be a barrier to sprawl. Moreover, if water is not available in the immediate vicinity of a project, that does not mean it will be available elsewhere.
>
> . . . .
>
> Because assured water supply laws are unlikely to actually prevent sprawl, environmentalists' attempts to invoke these laws carry a real risk of frustrating their own objectives – backfiring through backlash. Employing a law in a way that will not work, for a purpose for which it was not intended, is exactly the concern that developers repeatedly express when assured supply laws are considered for enactment. . .[3]

Similarly, Professor Dan Tarlock, in his chapter titled *We Are All Water Lawyers Now: Water Law's Potential But Limited Impact on Urban Growth* (also from the above-noted 2005 *Wet Growth* book) has commented:

> Today, there is much editorial and other talk about the need for cities and regions to recognize the natural limits of growth. This talk is not new. There is a long futile history of trying to adapt settlement to the perceived limits of reality, but the reality is that the era of reallocation will not deter the net amount of market-driven urban growth. The initial principal impacts of the post-Big Dam era are primarily to raise the cost of urban growth and to shift greater responsibility to cities and state to find the water necessary to support growth.[4]

The analysis set forth by Professors Davies and Tarlock raise points that merit closer scrutiny. Although Professor Davies may be correct that water supply assurance laws do not prohibit sprawl outright, might such laws nonetheless provide effective economic incentives for less water-

[3] Lincoln L. Davies, *Just a Big Hot Fuss? Assessing the Value of Connecting Suburban Sprawl, Land Use and Water Rights Through Assured Supply Laws*, 34 ECOLOGY LAW QUARTERLY 1217, 1274, 1277 (2007).

[4] A. Dan Tarlock, *We Are All Water Lawyers Now: Water Law's Potential But Limited Impact on Urban Growth Management, in* WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 69.

intensive urban infill development? Although Professor Tarlock may be correct that water supply assurance laws will not deter the amount of "market-driven" urban growth, by forcing developers and (and therefore home buyers) to internalize significant water supply costs upfront does this cost internationalization itself affect the "market" for sprawl-type development? And to the extent that environmental stakeholders supported water supply assurance legislation for the express objective of reducing metropolitan sprawl then why is it inconsistent for such stakeholders to now use such water supply assurances laws to scale back proposed sprawl-type development?

Any attempt to answer these questions forces us again to clarify what in fact is the fundamental objective behind the idea of "wet growth" and to articulate more precisely what is intended to be "conserved" in the context of land use-water supply linkages. These are the points we take up in this special symposium edition of the Golden Gate University Environmental Law Journal – *Real Water: California's Land Use-Water Law Turns Ten*. The focus of the *Real Water* symposium edition is on Senate Bills 221 and 610, California's controversial and innovative "wet growth" legislation that went into effect in 2001.

In our lead article, Dan Tarlock, Professor of Law at Chicago-Kent College of Law, traces the development of California's aptly named linkage laws from the classic public utility model of water supply duties to the passage of S.B. 901 in 1995. Tarlock explains how urban development in California evolved from early doctrines supporting unlimited growth and water supply, to the introduction of growth management strategies in select cities, and culminating in the passage of S.B. 901, a defining moment in the "linking" of land use and water supply planning.

Next, James Moose, Senior Partner at Remy, Thomas, Moose & Manley in Sacramento, examines the interdependency of land use and water supply planning through the lens of the California Environmental Quality Act (CEQA), particularly analyzing how the courts have dealt with water supply issues in land use environmental impact reports. The article recounts a series of appellate court cases that recently culminated in the 2007 California Supreme Court case, *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova*, and created a significant body of case law to complement California's assured water supply laws.

Ellen Hanak, Director of Research and Senior Fellow at the Public Policy Institute of California (PPIC) in San Francisco, follows with a review of the relationship between the Urban Water Management Planning Act (UWMPA) and S.B. 221 and 610, which were designed to coordinate with the earlier UWMPA. Relying on first-hand surveys of

land use authorities and water utilities, Hanak examines the effectiveness of California's effort to impose water supply planning safeguards on a highly decentralized planning system, proffering suggestions to address the weaknesses that still exist in this process.

In our fourth article, Barry Epstein, Partner and Chair of the Land Use, Environment, and Natural Resource Group at Fitzgerald, Abbott & Beardsley in Oakland, presents a case study of a proposed development in California that required greater scrutiny of the water rights entitlement to the proposed water supply. Epstein tells the story of the River Ranch Estates development in Madera County through the briefs of the parties to the lawsuit that arose after the county approved the project. The article highlights the issue of whether federal holding contracts can sufficiently establish water rights entitlement for purposes of a water supply assessment under S.B. 610.

Next, Kevin O'Brien, Partner at Downey Brand in Sacramento, explores the preparation of water supply assessments, as required under S.B. 610, in the context of subsurface water supplies. The article presents many issues that arise given that the level of scientific and legal certainty required under S.B. 610 often does not exist when dealing with subsurface water supplies. Ultimately, O'Brien suggests that, despite those issues, given the substantial discretion afforded to public water systems in determining the sufficiency of subsurface water supplies, these systems operators must effectively exercise such discretion to ensure that new developments occur with reliable water supplies.

Randele Kanouse, Special Assistant to the General Manager at the East Bay Municipal Utility District (EBMUD), and Douglas Wallace, Environmental Affairs Officer for EBMUD, follow with an analysis of one of the nation's first water-neutral residential projects that involved four developers and EBMUD and arose at the same time that S.B. 221 and 610 were being finalized. The article explains how the linking of water supply and land use planning played out in the Camino Tassajara development project between land developers and the Oakland-based public water agency. In discussing the future of California's water, Kanouse and Wallace conclude by highlighting the importance of early communication with developers at the plan reviewing stage in order to include the most water efficient measures.

In our final article, Lincoln Davies, Associate Professor of Law at the University of Utah, S.J. Quinney College of Law, analyzes five western states' assured supply laws in determining whether these types of laws actually advance sustainability. In coming to his determination, Davies first examines the costs and benefits of assured supply laws and how they function. He then deconstructs what sustainability means in

order to place these assured supply laws in the proper context before answering that pivotal question. Though he concludes that these laws do promote sustainability, it is often only in limited instances, focusing on one aspect of the larger sustainable development scheme.

With ten years of collective experience now under our belt, the time is ripe for an assessment of whether S.B. 221 and SB 610 have lived up to the hopes of those who supported the legislation and the fears of those who opposed it.

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Article 3

January 2010

How California Local Governments Became Both Water Suppliers and Planners

A. Dan Tarlock

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ARTICLE

HOW CALIFORNIA LOCAL GOVERNMENTS BECAME BOTH WATER SUPPLIERS AND PLANNERS

*A. DAN TARLOCK**

I. INTRODUCTION: THE DEVOLUTION OF WATER SUPPLY PLANNING RESPONSIBILITY IN AN ERA OF STRESSED SUPPLIES

The paradox of California is that growth is concentrated in arid southern California but most of the state's water supply, with the exception of the Colorado and Owens Rivers, originates in the north. This has meant that the state has had to bring massive amounts of water to the south to support the state's celebrated continued population growth in order to compensate for California's "bad hydrology."[1] From 1940 to 2007, California's population increased from 6,950,000 to 37,786,000,[2] and that growth has stressed the state's capacity to meet the demand for water.[3] Predicting the future is impossible, but the most conservative working assumption (at least before the deep current recession) is that the state's climate and landscape will continue to hold and attract people.

* Professor of Law, Chicago-Kent College of Law. A.B. 1962, LL.B. 1965, Stanford University.

[1] John Briscoe, Water Security: Why It Matters and What To Do About It, 4 INNOVATIONS 3 (2009).

[2] CAL. DEP'T OF FIN., DEMOGRAPHIC RESEARCH UNIT, TABLE B-1, *available at* www.dof.ca.gov/HTML/FS_DATA/STAT-ABS/documents/B1.pdf.

[3] After a survey of the historic drought record and the likely impacts of climate change, the National Research Council concluded that "[a] future of increasing population growth and urban water demands in a hydroclimatic setting of limited--and likely decreasing--water supplies presents a sobering prospect for elected officials and water managers." NATIONAL RESEARCH COUNCIL, COLORADO RIVER BASIN WATER MANAGEMENT: ADJUSTING TO HYDROCLIMATIC VARIABILITY 153 (2009).

The 2009 Update to the California Water Plan displays three growth scenarios out to 2050. The Blueprint Projection holds the state's population at a more or less constant level, but the Current Trends and Expansive Growth scenarios project a population that ranges from 50,000,000 to 70,000,000.[4]

Until the last two decades, California was able to overcome bad hydrology through science, technology, and money.[5] State and federal water planners and public officials proceeded on the assumption that climate and water supply imbalances should never be a constraint on agricultural and urban growth. This assumption rested on the belief that it was possible to supply the Central Valley and Southern California by capturing, storing and delivering the Sierra Nevada and Trinity Alps snowpack to supplement other supplies and thus meet all of the state's present and future needs. This assumption no longer holds, and California can no longer afford to base its water policy on the assumption that there are no hydroclimatic limits to supplying all human and nonhuman claims. The 2009 California Water Plan Update states the new reality clearly:

> California is facing one of the most significant water crises in its history—one that is hitting hard because it has so many aspects. Growing population and reduced water supplies are exacerbating the effects of a multi-year drought. Climate change is reducing our snowpack storage and increasing floods. Court decisions and new regulations have resulted in the reduction of Delta water deliveries by 20 to 30 percent. Key fish species continue to decline. In some areas of the state our ecosystems and quality of underground and surface waters are unhealthy. The current global financial crisis will make it even more difficult to invest in solutions.[6]

[4] CAL. DEP'T OF WATER RES., CALIFORNIA WATER PLAN UPDATE 2009: INTEGRATED WATER MANAGEMENT (Jan. 2009), *available at* www.waterplan.water.ca.gov/cwpu2009/index.cfm.

[5] The federal and state water suppliers typically engaged in "urban water supply over-planning" to ensure that growing cities had adequate future supplies. Pia Maria Grimes, Urbanization and Water Supply in the Northern San Joaquin Valley 100 (2001) (Masters Thesis in Civil and Environmental Engineering, University of California, Davis), *available at* cee.engr.ucdavis.edu/faculty/lund/students/PiaGrimesMSThesis.pdf. The 1989-1990 drought "forced a rethinking of the entire question of water allocation, and of equal importance, the relationship of water to growth and conservation . . . . [although] how deeply conservation awareness penetrated the collective consciousness of California during drought years remains a matter of debate." KEVIN STARR, COAST OF DREAMS: CALIFORNIA ON THE EDGE, 1990-2003 505-06 (2004).

[6] CAL. DEP'T OF WATER RES., *supra* note 4, Vol. 1, at 4-29. The news continues to get worse. In late 2009, University of California at Davis researchers reported that a study of Sierra Nevada cave minerals showed evidence of past mega-droughts, one lasting almost a century and

In short, California and the West generally must learn to live with a relatively fixed or decreasing water budget.

There are three primary reasons for this new reality. The first is the end of the Reclamation or "Big Dam" era. The era ended the late 1960s as a result of the environmental movement, the fiscal pressures faced by the federal government, and congressional loss of interest in promoting regional development in the South and West through subsidized water development. However, it took the western states two more decades to appreciate that they would have to live with the legacy infrastructure, and that water to meet new demands was likely to come more from the reallocation of existing agricultural supplies than from traditional forms of supply augmentation. In short, agriculture is the reservoir for new urban and environmental supplies.

The second reason is that new carry-over storage facilities will be harder to construct because of environmental constraints. Much of the environmental movement's initial fury was directed against large dams, and many dams were subsequently stopped. The broader consequence of the movement's antipathy to dams is the rejection of the very idea of hydrologic modification in the name of optimization. Although the federal government quickly ceased dam building in the late 1960s, the two major water agencies, the U.S. Army Corps of Engineers and the Bureau of Reclamation (BuRec), were left in place to manage their legacy projects. Instead of fundamental reform, Congress simply imposed ad hoc environmental protection mandates, such as the Endangered Species Act,[7] over older, pre-environmental era regulatory structures that subordinated any notion of environmental protection to development.[8]

Environmentalism has taught us to appreciate rivers as integral parts of a landscape, as natural systems that can provide valuable ecosystem services along with the historic benefits, and as parts of our wilderness heritage.[9] The Endangered Species Act and other environmental laws have allowed the selective implementation of this alternative vision of a river. Starting in the 1960s more water has been allocated to *in situ* uses

one-half, connected to rapid warming. Mark Grossi, UC Davis Researchers Find Evidence of Past Mega-Droughts, THE SACRAMENTO BEE, Nov. 24, 2009.

[7] 16 U.S.C. §§ 1531-1599 (Westlaw 2010).

[8] *See* Robin Kundis Craig, Climate Change, Regulatory Fragmentation, and Water Triage, 79 U. COLO. L. REV. 825 (2008).

[9] *See generally* DAVID LEWIS FELDMAN, WATER POLICY FOR SUSTAINABLE DEVELOPMENT 53-56 (2007).

to maintain minimum flows[10] and existing dams subject to environmental operating conditions, and we have now moved to river restoration experiments. Climate change may trigger a second dam building era as demand continues to exceed supply and fears of reduced supplies mount, but any new storage facilities that may be built in the future are likely to be smaller and smarter than the large state and federal subsidized multiple-purpose projects constructed in the last century.[11]

The third development is global climate change. A cascade of climate change studies continue to predict that arid and semiarid areas such as the American West face the risk of permanently decreased water budgets as precipitation declines and temperatures increase.[12] Depending on the temperature rise projection, the scenarios range upward (and the confidence in them becomes ever more speculative) from the desertification of much of the West, to abandoned coastal cities, to a largely uninhabitable planet.[13] Given its bad hydrology and vulnerable climate and landscape, California has had to be the leader in

[10] In the San Joaquin Valley, 48% of the total use, some 5.6 acre feet, is devoted to instream flows, although much of these flows are in the headwaters, and the water is available for downstream consumptive use. CAL. DEP'T OF WATER RES., CALIFORNIA WATER PLAN UPDATE 2005, Vol. 3, at 7-13, *available at* www.waterplan.water.ca.gov/docs/cwpu2005/vol3/v3ch07.pdf.

[11] Increased runoff capture is on the climate change agenda, and this includes the revival of building new carry-over storage. In May of 2007, Governor Arnold Schwarzenegger tried to jump-start a new dam building era by calling for the construction of two new hydroelectric dams to help meet the state's ambitious greenhouse-gas emission targets. Bonner Cohen, *Global Warming Creates Need for New Dams: Schwarzenegger*, ENVIRONMENT & CLIMATE NEWS, May 1, 2007, *available at* www.heartland.org/policybot/results/20949/Global_Warming_Creates_Need_for New_Dams_Schwarzenegger.html.

[12] *E.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE AND WATER (IPCC Technical Paper VI, 2008), *available at* www.ipcc.ch/pdf/technical-papers/climate-change-water-en.pdf (summarizing the studies that predict a decline in irrigated acreage and withdrawals in the United States due to higher temperatures). A 2010 National Research Council Report, CLIMATE STABILIZATION TARGETS: EMISSIONS, CONCENTRATIONS, AND IMPACTS OVER DECADES TO MILLENNIA (2010), concludes that each 1ºC temperature rise in the southwest will reduce rain by 5-10%. Other important studies for the West include NATIONAL RESEARCH COUNCIL, supra note 3; NATIONAL RESEARCH COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS (2001), *available at* www.gcrio.org/OnLnDoc/pdf/ClimateChangeScience.pdf; BARRY NELSON ET AL., NATURAL RESOURCES DEFENSE COUNCIL, IN HOT WATER: WATER MANAGEMENT STRATEGIES TO WEATHER THE EFFECTS OF GLOBAL WARMING (July 2007), *available at* www.nrdc.org/globalWarming/hotwater/hotwater.pdf; and STEPHEN SAUNDERS, CHARLES MONTGOMERY & TOM EASLEY, THE ROCKY MOUNTAIN CLIMATE ORGANIZATION AND NATURAL RESOURCES DEFENSE COUNCIL, HOTTER AND DRIER: THE WEST'S CHANGED CLIMATE (March 2008), *available at* www.nrdc.org/globalWarming/west/west.pdf.

[13] Alok Jha, *Copenhagen Climate Submit: Five Possible Scenarios for Our Future Climate*, THE GUARDIAN, Dec. 18, 2009, *available at* www.guardian.co.uk/environment/2009/dec/18/copenhagen-five-climate-scenarios.

incorporating climate change scenarios into state water planning.[14] But this is only the first step. Climate change adaptation will require cooperation and coordination among all levels of government and water suppliers and users.

One reflection of this coordination is the growing linkage between water supply and land use planning. The law is moving from the classic public utility model of water supply duties, which dominated local water supply planning, to the integration of land and water planning and regulation.[15] Large urban water suppliers have always played an active role in ensuring that the necessary storage and delivery projects were financed and constructed. However, they did this on the assumption that they could either develop sufficient supplies or that the state or federal government would build the carry-over storage to provide the necessary supplemental water. Water supply planning and land use planning were therefore able to operate on separate tracks.[16] Today, this historic disconnect is no longer sustainable for the reasons articulated above.

To correct this disconnect, the California Legislature has evolved new responsibilities for assuring a realistic, secure, long-term, and drought-proof supply to local governments and developers. These laws, as interpreted by the courts through the lens of the California Environmental Quality Act (CEQA),[17] require risk-based water supply planning by local governments before new growth can be approved.[18] California and the West's cities are unlikely to stop growing, as we still accept growth as inevitable;[19] the linkage adds a new dimension to the long-running debates about the limits aridity imposes on growth.[20] As a leading student of water and growth wrote, "[i]n taking the first step and thinking more deliberately about water demands of growth, assured-supply laws represent an important step toward living sustainably in this

[14] CAL. DEP'T OF WATER RES., MANAGING AN UNCERTAIN FUTURE: CLIMATE CHANGE ADAPTATION STRATEGIES FOR CALIFORNIA'S WATER. VOL. 4 (Oct. 22, 2008) *available at* www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf.

[15] Professor J.B. Ruhl includes this linkage among the top ten new legal developments that the incorporation of climate change adaptation into environmental law will produce. J.B. Ruhl, Climate Change Adaptation and the Structural Transformation of Environmental Law, 40 ENVTL. L. 363 (2010).

[16] *See* A. Dan Tarlock & Lora A. Lucero, Connecting Land, Water, and Growth, 34 URB. LAW. 971 (2002), for an analysis of the reasons for and consequences of this separation.

[17] CAL. PUB. RES. CODE §§ 21000-21006 (Westlaw 2010).

[18] CAL. GOV'T CODE § 66473 (Westlaw 2010).

[19] *See* A. Dan Tarlock, A Brief Examination of the History of Persistent Debate About Limits to Western Growth, 10 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 155 (2004).

[20] *See id.*

spectacular—and fundamentally dry—western landscape."[21] At a minimum, linkage will make continued growth accommodation more difficult and expensive than it has been in the past. For example, in early 2008, a water district in Riverside County decided that it could not guarantee the supply for two new large commercial and retail developments.[22]

No new law, no matter how radical, comes from the sky. California's linkage laws are a product of the convergence of three developments that began in the now mythic 1960s as the state had to come to grips with the impact of exponential suburban growth on the landscapes that make California so unique and special. The developments are: (1) the exit of the federal government from subsidizing regional development and the decreasing inability of the state to finance large-scale public works projects; (2) the rise of the environmental movement; and (3) the legal success of growth management land use regulations in suburban northern California. The need for climate change adaptation, which may force cities to adapt through aggressive water conservation and denser, public transit oriented urban development,[23] reinforces these developments.

This introductory Article traces the evolution of California's linkage laws from the time that cities operated under the public utility model, which viewed local governments as unconstrained suppliers, to the first linkage law, enacted in 1995. The following excellent Articles in this symposium carry the story forward and illustrate that in the Post-Reclamation, Global Climate Change Era, local governments in California and throughout the country are now active rather than passive participants in water supply planning and regulation and climate change mitigation and adaptation.

II. THE PUBLIC UTILITY MODEL AND WESTERN WATER LAW SUPPORT UNLIMITED URBAN GROWTH

For most of the twentieth century, California's cities and special districts saw themselves as subject to a firm duty to supply the water

[21] Sarah Bates, *Watering the West*, SCIENCE PROGRESS (June 17, 2008) (emphasis added), www.scienceprogress.org/2008/06/watering-the-west/.

[22] Jennifer Bowles & Dan Lee, Water Troubles Put Inland Developments in Limbo, THE PRESS-ENTERPRISE, Jan. 24, 2008.

[23] *E.g.*, John R. Nolon, The Land Use Stabilization Wedge: Shifting Ground To Mitigate Climate Change, 34 WM. & MARY ENVTL. L. & POL'Y REV. 1 (2009), *available at* 204.12.38.203/archives/34/nolon.pdf.

necessary to support the glorious influx of people into the state.[24] Municipal water suppliers are generally either public utilities or municipalities regulated by state law or subject to the historic service duties that courts impose on monopolies. Because they are natural monopolies, public utilities have a duty to serve all customers within their service area who can afford to pay the water tariff.[25] Service must be provided to residents even if the cost of service exceeds the expected revenue provided that the system could absorb the cost. The Constitution guarantees public utilities only a reasonable rate of return on the system as a whole.[26] A leading California case extended a water provider's duty to serve to include a duty to acquire the necessary supplies to meet projected demand.[27]

Growing cities must plan ahead to secure the necessary rights to meet projected future demands, and often they must hold water rights for long periods of time before wet water is delivered to new residents. In theory, the acquisition of water rights for future supplies is inconsistent with the agrarian-based beneficial use doctrine. Water is to be put to use within a relatively short period of time after a right is claimed and is to be continuously applied to a productive and non-wasteful use.[28] The continuous-use requirement is based on an anti-speculative, anti-monopoly policy embedded in the law. The tension between the need to create firm water rights and the need to make water widely available to the farmers of a largely empty West was reconciled by the beneficial use doctrine, which prevents a user from hoarding water that should be open to other users. Since prior appropriation was initially rooted in the vision of western settlement through small farms, there has always been a strong anti-monopoly rhetoric in the law.[29]

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[24] The positive impact on the welfare of the state and its citizens from endless growth is one of the themes of the historian Kevin Starr's grand survey of California history. *E.g.*, KEVIN STARR, INVENTING THE DREAM: CALIFORNIA THROUGH THE PROGRESSIVE ERA (1985); KEVIN STARR, MATERIAL DREAMS: SOUTHERN CALIFORNIA THROUGH THE 1920S (1990); KEVIN STARR, GOLDEN DREAMS: CALIFORNIA IN AN AGE OF ABUNDANCE: 1950-1963 (2009).

[25] The history of the doctrine is traced in CHARLES M. HAAR & DANIEL W. FESSLER, THE WRONG SIDE OF THE TRACKS 21-33 (1986).

[26] Mkt. St. Ry. Co. v. R.R. Comm'n, 324 U.S. 548, 557, 569 (1945).

[27] Lukrawka v. Spring Valley Water Co., 169 Cal. 318, 325 (1915) (holding that municipal water supplier had duty "to keep in view the prospective and probable increase in population of the municipality and the necessarily increasing demand for a water supply which would be consequent therefrom . . . [and] to take reasonable measures to have under its control a sufficient supply of water . . . to meet the reasonable demands for water by the growing community").

[28] *See* Imperial Irrigation Dist. v. State Water Res. Control Bd., 225 Cal. App. 3d 548 (Ct. App. 1990).

[29] *See* David B. Schorr, Appropriation as Agrarianism: Distributive Justice in the Creation of

To support and encourage urban growth in an under-populated region in the early twentieth century, western water law incorporated the public utility model into the doctrine of prior appropriation and exempted cities from any possible anti-speculative control limitations. Courts announced a progressive-growth doctrine. Initially created to allow irrigators to claim rights to acreage not yet in production,[30] the doctrine was soon extended to allow cities to perfect and hold water rights for long periods of time based on the expected need for the water.[31] Cities enjoy an even larger exemption from the anti-speculation principle under the growing-cities doctrine, which—like the progressive-growth doctrine—allows a city to perfect a water right to the amount of water that it will need to meet reasonably anticipated future growth or to meet the anticipated future capacity of its system.[32]

Apart from the "super-urban preference,"[33] the federal government took the sting out of any possibility that the law of prior appropriation would limit urban growth. During the first two decades of the twentieth century, conservationists developed a vision of water management as efficient, integrated river basin development that fully harnessed rivers and, if possible, allowed no drop of water to reach the sea.[34] In the Great Depression, this vision was implemented to put people to work, and California was the primary beneficiary of federal dam building

Property Rights, 32 ECOLOGY L.Q. 3, 65-66 (2005).

[30] *E.g.*, St. Onge v. Blakely, 76 Mont. 1 (1926); State *ex rel.* State Eng'r v. Crider, 78 N.M. 312 (1967).

[31] *E.g.*, City of Thornton v. Bijou Irrigation Co., 926 P.2d 1, 29-30 (Colo. 1996); City & County of Denver v. N. Colo. Water Conservancy Dist., 130 Colo. 375 (1954); City & County of Denver v. Sheriff, 105 Colo. 193 (1939); Reynolds v. City of Roswell, 99 N.M. 84 (1982); State, Dep't. of Ecology v. Theodoratus, 135 Wash. 2d 582, 614-17 (Wash. 1998) (Sanders, J. dissenting); *see* Janis E. Carpenter, Water for Growing Communities: Refining Tradition in the Pacific Northwest, 27 ENVTL. L. 127 (1997); Dennis J. Herman, Note, Sometimes There's Nothing Left To Give: The Justification for Denying Water Service to New Consumers To Control Growth, 44 STAN. L. REV. 429 (1992). *See* Malcolm Lindsey, *Legal Problems in City Water Supply*, 22 U. COLO. L. REV. 356 (1950), for a discussion of the evolution of the adaptation of the Colorado law of municipal water rights to Eastern Slope growth.

[32] *Theodoratus*, 135 Wash. 2d at 614-17 (Sanders, J. dissenting). For another example of judicial willingness to limit water rights to actual use, *see* Reid Dev. Co. v. Parsipanny-Troy Hills Tp., 10 N.J. 229 (1952).

[33] *See* A. Dan Tarlock, We Are All Water Lawyers Now: Water Law's Potential but Limited Impact on Urban Growth Management, *in* WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 57 (Craig Anthony (Tony) Arnold ed., 2005).

[34] In Progressive Conservation Era, "water resources planning was expected to maximize hydrologic control, not maximize net benefits. The rational plan was one in which an integrated set of water projects would eliminate the 'waste' of water and control the vagaries of nature." NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES, U.S. ARMY CORPS OF ENGINEERS WATER RESOURCES PLANNING: A NEW OPPORTUNITY FOR SERVICE 38 (2004).

largesse.[35] The Central Valley Project, Hoover Dam, and later the State Water Project backstopped agricultural and urban water rights and allowed urban growth to accelerate along with the expansion of irrigated agriculture.[36] California's cities faced little risk of the application of the anti-speculation doctrine; prior appropriation allowed water to be moved long distances from the watershed of origin and facilitated the state's population growth. As the leading historian of California water, Norris Hundley Jr., has observed, "[t]he availability of Colorado River water beginning in the 1940s . . . . obliterated any sense of restraint about Los Angeles' capacity to absorb ever more people and industries."[37]

Cities did face a possible threat that arose from legislation designed to prevent another Owens Valley,[38] the dewatering of a remote, rural area. In 1931, before Baker v. Carr mandated one person, one vote, the "cow county"-dominated legislature passed an area-of-origin protection law that gave headwaters counties an absolute priority to make future claims of water and thus displace the claims of the areas of import.[39] However, the legislation took most of the possible risk out of the protection because the area of origin is the county where the rain or snow falls. Thus, the thinly populated mountain counties, not the more populated and growing foothill counties were the beneficiaries of the law, even though they had few claims to make.

III. THE END OF THE "BIG DAM" ERA IN CALIFORNIA AND WHAT IT MEANT FOR URBAN WATER SUPPLIERS

In California, the Big Dam era extended through the 1970s, but the powerful environmental reaction against it brought about consequences that fundamentally changed the politics of water in the state. The most relevant change for linkage laws is that the resulting scramble for new

[35] The water historian Donald Pisani has traced this development through the career of the legendary Commissioner of the Bureau of Reclamation, Floyd Dominy. During his tenure (1959-1969), he presided over the construction of major dams on the Colorado River and in California. The passage of the Central Arizona Project in 1968 marked the effective end of the Big-Dam Era, although the western states clung to the idea into the 1980s. Donald J. Pisani, Waterhistory.org, *Floyd E. Dominy*, www.waterhistory.org/histories/dominy/dominy.pdf (last visited July 28, 2010).

[36] NORRIS HUNDLEY, JR., THE GREAT THIRST: CALIFORNIANS AND WATER, A HISTORY 234-76 (rev. ed. 2001).

[37] *Id.* at 231.

[38] The story of Los Angeles' efforts to supplement its modest local supplies by bringing water from the eastern slope of the Sierra Nevada Mountains is well told in HUNDLEY, *supra* note 36, at 123-71.

[39] CAL. WATER CODE §§ 10505, 10505.5 (Westlaw 2010); *see* Gary D. Weatherford, Legal Aspects of Interregional Water Disputes, 15 UCLA L. Rev. 1299 (1968).

supplies linked coastal urban areas to the watershed of origin and thrust suppliers into the new politics of environmentalism. Initially, the end of the Big Dam Era did not seem to be of great consequence for California. Not only did the state have the legacy of the Central Valley Project and Hoover Dam, but also the State Water Project and more federal largesse. The San Luis Reservoir was completed in 1967;[40] the Oroville Dam, which supplies the State Water Project, was completed in 1968;[41] and the federal New Melones Dam was completed in 1979.[42] However, the environmental movement's rapid rise to power quickly changed this, as it substituted an ethic of sustainable management and stewardship for the traditional view of nature as a treasure chest of valuable commodities to be rapidly exploited.[43] An immediate consequence of the rise of "fish power" was the protection of many major north-coast rivers in 1972.[44]

In addition to the defeat of new dam proposals and the protection of wild and scenic rivers, it was no longer for cities to take the water and run, as the East Bay Municipal Utility District (EBMUD) learned when it tried to shore up its Mokelumne River supplies with American River water. In 1970 EBMUD contracted with BuRec for 150,000 acres of Central Valley Project water, which would be diverted from Nimbus Dam on the American River and conveyed through the Folsom South Canal. These plans were immediately challenged by various environmental groups, which argued that downstream fisheries and instream values would be adversely impacted.

In 1977, the California Supreme Court ruled that the State Water Resources Board should decide whether EBMUD had to seek an alternative source of supply—reclaimed sewage water—before taking its BuRec entitlement.[45] In 1990, a superior court ruled that EBMUD could take its entitlement but had to adhere to a physical solution that required minimum flow releases. The court further ruled that EBMUD could supply water only to customers within its service area. This litigation added a major new risk element to water-rights permits. Harold Raines, an EBMUD attorney who negotiated the Mokelumne River contract,

[40] HUNDLEY, *supra* note 36, at 320.

[41] *Id.* at 279-80.

[42] *Id.* at 366-73.

[43] *See* JOHN PASSMORE, MAN'S RESPONSIBILITY FOR NATURE 28-40 (1974); Gilbert White, Reflections on Changing Perceptions of the Earth, 19 ANN. REV. ENERGY & ENV'T 1, 13 (1994).

[44] CAL. PUB. RES. CODE § 5093.54 (Westlaw 2010). The eel was protected under the federal Wild and Scenic Rivers Act, 12 U.S.C. § 1271 et seq., in 1981. *See* HUNDLEY, *supra* note 36, at 308-13, 360-78.

[45] Envtl. Def. Fund, Inc. v. E. Bay Mun. Util. Dist., 20 Cal. 3d 327 (1977), vacated, 439 U.S. 811 (1978), and remanded, 26 Cal. 3d 183 (1980).

nicely summed up the changed political and legal environment. "In my day . . . when you got a permit it meant what it says: you got water. Since then, the environmental movement has forced—forced is the right word—but at least has encouraged the development of different ideas about water rights. . . . A permit now is just a hunting license for water."[46] The 1983 Mono Lake decision[47] cemented the city-watershed linkage and led to the more radical idea of dam removal. The removal of O'Shaughnessy Dam, which supplies San Francisco, north of Yosemite National Park,[48] and even removal of the mighty Glen Canyon Dam on the Colorado,[49] have been seriously proposed.

IV. ENVIRONMENTALISM AND GROWTH MANAGEMENT: THE ORIGINS OF LINKAGE LAWS

A. PHASED GROWTH AND UTILITY SERVICE CONCURRENCY

As environmentalists were successfully opposing all new dams, more affluent cities in the path of growth began to ask themselves a new question that led directly to the current linkage between water supply and

[46] Interview by Germaine LaBerge with Howard Raines, EBMUD Attorney, East Bay Municipal Utility District, Water Rights on the Mokelumne River and Legal Issues at the East Bay Municipal Utility District, 1927-1966 (1995), *available at* ia331307.us.archive.org/3/items/watermokelumne00rainrich/watermokelumne00rainrich.pdf.

[47] Nat'l Audubon Soc'y v. Superior Court of Alpine County, 33 Cal. 3d 419 (1983).

[48] O'Shaughnessy Dam in the Hetch Hetchy Valley in Yosemite National Park supplies the city of San Francisco with water and power. The decision to build the dam was one of the great natural-resource fights of the Conservation Era and played a major role in splitting the movement into the utilitarian, multi-use and preservation wings and still resonates in California. *See* RICHARD WHITE, "IT'S YOUR MISFORTUNE AND NONE OF MY OWN": A NEW HISTORY OF THE AMERICAN WEST 413 (1991). California environmentalists have long dreamed of restoring the valley to John Muir's vision of it, as the "flow of nature." MICHAEL COHEN, THE PATHLESS WAY: JOHN MUIR AND THE AMERICAN WILDERNESS 330 (1984). *See* SPRECK ROSEKRANS ET AL., ENVTL. DEF. FUND, PARADISE REGAINED: SOLUTIONS FOR RESTORING YOSEMITE HETCH HETCHY VALLEY (2004) for a comprehensive effort to simulate a removal debate. In 1987, President Reagan's Secretary of the Interior, Donald Hodel, was the first high-ranking official to suggest removal. Environmentalists viewed the suggestion as a ploy to split green northern California. In 2007, the Bush II Administration proposed a $7,000,000 removal feasibility study, but Senator Diane Feinstein, the former mayor of San Francisco and Hetch Hetchy defender, was not amused.

[49] Scott K. Miller, Undamming Glen Canyon: Lunacy, Rationality, or Prophecy? 19 STAN. ENVTL. L.J. 121 (2000), reviews proposals to take down Glen Canyon Dam. The issues raised by dam removal are beyond the subject of this Article. *See* THE HEINZ CENTER, DAM REMOVAL RESEARCH: STATUS AND PROSPECTS (H.J. William Graf ed., 2002); Symposium, *A Special Section on Dam Removal and River Restoration*, BIOSCIENCE, Vol. 52, No. 8, at 653-747 (2002), *available at* caliber.ucpress.net/toc/bisi/52/8.

land use planning. The question, simply put, was: must we accept the market demand for new construction in our area in light of high and immediate infrastructure costs and the loss of open space? When gas prices were low, small and medium sized rural communities north of Marin County and in the Livermore Valley to the west experienced rapid growth as people traded longer commutes for lower-cost housing. Since the 1920s, California had led the way in the creation of an automobile-based, endlessly expanding suburban society.[50] During the post-World-War-II golden era of the state (1945-1968), the prevailing assumptions were that growth was inevitable and good, and that the state should and could build the education, transportation, and water infrastructure to serve this blessing.[51] The planning choice was between minimal controls and efforts to accommodate the growth more rationally through regional planning and governance.[52] The state opted for the initial efforts to pursue the second strategy.

Post-World-War-II California also illustrates that for every action, there is a reaction. As new suburbs expanded into farming areas near older urban areas, concern about the loss of "open space" emerged as a "hot" local and regional political issue.[53] By the 1960s, as the environmental movement was breaking, some local governments – generally smaller, affluent suburbs – decided that they did not need to accept the rate of growth as inevitable and did not need to accommodate all growth.[54] Although the national movement was primarily concerned with air and water, suburban local environmental movements had a strong growth control and management component. In response, these areas began to adopt aggressive growth management strategies.

As generally practiced today, growth management is little more than

[50] The rise of California's automobile-obsessed culture and lifestyle is richly chronicled in STARR, GOLDEN DREAMS: CALIFORNIA IN AN AGE OF ABUNDANCE: 1950-1963 (2009).

[51] *See id.* for a portrait of the state in the time when California led the nation in building the public infrastructure to support what seemed like endless growth in the name of providing all its citizens the good life.

[52] ELISA BARBOUR, PUB. POLICY INST. OF CAL., METROPOLITAN GROWTH PLANNING IN CALIFORNIA, 1900-2000 (2002), is an excellent history of California's efforts to promote institutions to accommodate growth.

[53] Much of the history of this movement can be traced in the pages of the magazine of the conservation organization California Tomorrow, which published CRY CALIFORNIA from 1965 to 1982.

[54] For a history of the anti-sprawl movement in Los Angeles, *see* MIKE DAVIS, CITY OF QUARTZ: EXCAVATING THE FUTURE OF LOS ANGELES (1990), excerpted as Mike Davis, *The New Urban Environmentalism*, *in* GREEN VERSUS GOLD: SOURCES IN CALIFORNIA'S ENVIRONMENTAL HISTORY 384 (Carolyn Merchant ed., 1998).

a sophisticated unlimited growth accommodation strategy.[55] Cities commonly accept growth levels as a given and seek to accommodate them by timing them and channeling development within urban growth boundaries and by using subdivision exactions to force new residents to pay directly for the costs of new public services. The law of growth management supports the long history of Americans' persistent market preference for low-density development.[56] However, growth management opened the door to alternative growth scenarios and to the linkage of land and water planning.

Environmentalists have long argued that the best way to channel and even limit growth is to tie utility service to land use objectives.[57] No water, no growth. However, many planners have been skeptical of this strategy.[58] Two legal constraints drive this skepticism. First, stopping growth can be challenged as a Fifth Amendment taking of property without due process of law. Stopping raw-land conversion is an unnatural regulatory act. Second, service denials are inconsistent with the public utility-law principle that a utility must serve all paying customers unless service extension will deny the utility its constitutionally guaranteed reasonable rate of return. In addition, California's most ambitious effort to use water service to drastically limit growth was a failure.[59] However, the mere idea of linking utility service with phased growth was first pioneered in the famous Ramapo, New York, ordinance.[60] The town, on the fringe of urban northern New Jersey, faced rapid growth; it adopted an ordinance that stretched the projected build-out of the town to eighteen years by basing development approvals on a

[55] GABOR ZOVANYI, GROWTH MANAGEMENT FOR A SUSTAINABLE FUTURE: ECOLOGICAL SUSTAINABILITY AS THE NEW GROWTH FOCUS FOR THE 21ST CENTURY 53 (1998).

[56] *See* KENNETH T. JACKSON, THE CRABGRASS FRONTIER: THE SUBURBANIZATION OF THE UNITED STATES (1985).

[57] *E.g.*, DAVID CARLE, DROWNING THE DREAM: CALIFORNIA'S WATER CHOICES IN THE MILLENNIUM (2000). Christine Klein, Water Transfers: The Case Against Transbasin Diversions in the Eastern States, 25 UCLA J. ENVTL. L. & POL'Y 249, 278 (2006-2007), argues that water transfers should not be used in the eastern United States because they promote unsustainable urban growth at the expense of third-party impacts in the watershed of origin.

[58] Lincoln L. Davies, Just a Big,"Hot Fuss"? Assessing the Value of Connecting Urban Sprawl, Land Use, and Water Rights Through Assured Supply Laws, 34 ECOLOGY L.Q. 1217, 1245-1246 (2007).

[59] Santa Barbara County contracted for State Water Project water, but voters initially refused to approve the bonds to finance a canal from the aqueduct to the county, but the droughts of the late 1980s resulted in a 1 to 991 vote to finance the hookup, which was completed in 1997. HUNDLEY, *supra* note 36, at 519-21.

[60] The system was upheld against an *ultra vires* challenge in Golden v. Planning Bd. of Ramapo, 30 N.Y. 2d 359 (1972).

point system.[61] The more infrastructure a developer provided, the more points it earned. The Ramapo approach came to California in the North Bay growth corridor and provided the legal and political precedents for the state's current assured water supply laws.

One of the first communities to time growth was Petaluma, the egg capital of California, which went from a bit of a joke to a rapidly growing exurban San Francisco Bay Area community in the 1960s. Rapid growth outpaced the ability of property tax revenues to support urban services and led to efforts to moderate it. To match growth to service capacity, Petaluma boldly capped new residential construction at 500 units per year and awarded development unit permits by an elaborate point system to encourage competition among developers for amenities. The plan survived an exclusionary zoning and Commerce Clause challenge,[62] though it never was implemented as envisioned.[63] However, the Ninth Circuit's decision in that case legitimated a number of widely adopted concurrency programs that timed growth to service availability and opened the door to other planning techniques.[64] Some cities used moratoria to freeze development.[65] The apple-growing city of Sebastopol borrowed the British idea of ringing cities with greenbelts to confine growth and adopted an urban growth boundary in 1994.[66] The combination of the legality of Petaluma's plan and the courts' receptivity to truly temporary water-service moratoria[67] ultimately led to the erosion

[61] The author of the ordinance tells the story of the rise and fall of the plan, in ROBERT A. FREILICH, FROM SPRAWL TO SMART GROWTH: SUCCESSFUL LEGAL, PLANNING, AND ENVIRONMENTAL SYSTEMS (1999).

[62] Constr. Indus. Ass'n v. City of Petaluma, 522 F.2d 897 (9th Cir. 1975).

[63] ERIC DAMIAN KELLY, MANAGING COMMUNITY GROWTH POLICIES, TECHNIQUES, AND IMPACTS 55 (2004).

[64] *See* FREILICH, *supra* note 61.

[65] Livermore adopted a moratorium on growth by a referendum until adequate education, sewer and water services were available. The California Supreme Court upheld the ordinance against federal constitutional challenges in Associated Home Builders v. City of Livermore, 18 Cal. 3d 582, 610-11 (1976), although the court adopted a weak public-welfare limitation of municipal power.

[66] Greenbelt Aliance, *Greenbelt Alliance Origins: Drawing the Line on Sprawl*, NEWSWIRE, Vol. 2, Issue No. 10 (Oct. 2003), *available at* www.greenbelt.org/resources/newswire/2003october/history94to97.html.

[67] A growth moratorium is a long-established land use planning device to freeze development for a limited period of time to allow a city to formulate permanent land use plans for an area slated for development. The extra time is supposed to allow the city to secure water supplies, obtain financing, and construct the necessary infrastructure. Diane Albert, Building Moratoria: Strategies and Tools for Governing Bodies, WATER RESOURCES IMPACT, Vol. 7, No. 6, at 16 (Nov. 2005). Cities may impose moratoria on water service, Swanson v. Marin Mun. Water Dist., 56 Cal. App. 3d 512, 520-21 (Ct. App. 1976); McMillan v. Goleta Water Dist., 792 F.2d 1453, 1457 (9th Cir. 1986), but this power is limited to denying service to customers until adequate facilities are available. *See*

of the public utility model, a crucial legal step for assured water supply laws.

The immediate origins of the modern link between land use and water planning can be found in Oregon's bold and widely studied centralization of land use planning and in the 1980 Arizona Ground Water Management Act. In 1973, Oregon adopted legislation that required that all local plans have common elements, mandated that local decisions be consistent with adopted plans, and created the Land Conservation and Development Commission to enforce the mandate.[68] The primary objective of the law was to force cities to adopt urban growth boundaries to preserve prime agricultural land as urban greenbelts. Water availability for urban growth in Oregon is not the problem that it is in California, yet most Oregon local governments have included water-availability assessments in their plans. However, the specificity and rate of enforcement varies widely,[69] and the courts and the Land Use Board of Appeal have been very deferential to local governments that have approved developments with uncertain supplies.[70] Nonetheless, Oregon's law helped establish the idea that communities have an affirmative obligation to provide adequate water to existing and new residents.

Arizona was the first state to require local governments to guarantee a secure long-term supply. It was forced to do so by the federal

San Mateo Coastal Landowners' Ass'n v. County of San Mateo, 38 Cal. App. 4th 523, 556-57 (Ct. App. 1995). If a moratorium is a *de facto* permanent freeze on development, the city may be held responsible for an unconstitutional taking of property. Lockary v. Kayfetz, 917 F.2d 1150, 1155-56 (9th Cir. 1992); *see* Dennis J. Herman, Note, Sometimes There's Nothing Left To Give: The Justification for Denying Water Service to New Consumers To Control Growth, 44 STAN. L. REV. 429, 443-46 (1992). Moratoria became constitutionally suspect in the 1980s when the U.S. Supreme Court began to apply Takings doctrines to constrain urban development. In 1987, the Supreme Court held in First English Evangelical Lutheran Church v. County of Los Angeles, 482 U.S. 304, 321 (1987), that a landowner could recover damages for a temporary taking of property and suggested that courts must now distinguish between unconstitutional temporary takings and "normal delays" in obtaining development permissions. But in 2002, the Supreme Court returned to the view that reasonable time-limited moratoria are legitimate planning tools and thus constitutional. Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302 (2002), refused to apply a categorical rule to moratoria. Instead, the Court characterized the potential taking as regulatory rather than a physical taking, and applied a balancing test to uphold a 32-month moratorium as a proportional, reasonable, and good-faith response to threats to a community posed by development. Thus, the First English compensation rule only applies after a court has determined that the moratorium is not a Tahoe-Sierra. *See* Matthew G. St. Amand & Dwight H. Merriam, Defensible Moratoria: The Law Before and After the Tahoe-Sierra Decision, 43 NAT. RESOURCES J. 703 (2003).

[68] *See* Davies, *supra* note 58, at 1257-59.

[69] *Id.* at 1259.

[70] *E.g.*, Durig v. Washington County, 177 Or. App. 227, 243 (Or. Ct. App. 2001).

government.[71] The price for congressional funding of the Central Arizona Project, which brings water from the Colorado River to the center of the state, was that Arizona had to stop mining groundwater.[72] To achieve this goal, the state forced cities to stop relying exclusively on groundwater. The 1980 Groundwater Management Act shifted direct responsibility to local governments to guarantee the availability of water for new developments.[73] It states that no development can be approved unless there will be "sufficient groundwater [or] surface water . . . continuously available to satisfy the water needs of the proposed use for at least one hundred years."[74]

B. SANTA ROSA AND THE FALL OF THE PUBLIC UTILITY MODEL

The duty to serve came under increasing criticism as cities aggressively began to control growth rates. The duty was out of step with the cases that allowed cities to control the rate and location of new development short of totally deflecting it to other communities in the region. Initially, these cases had no impact on the law. In the 1970s, two widely noted cases held that the duty to serve could not be subordinated to a land use plan because a city had to have "utility-based reasons" for refusing service.[75] California, however, followed its historic practice of adapting old rules to new conditions and breaking with long-established doctrines. The City of Santa Rosa and Sonoma County adopted a policy that prohibited leapfrog development to encourage compact growth. After the city refused to extend sewer service to a property outside the city limits but adjacent to its trunk line, the developer challenged the denial.[76]

The court of appeal held that the duty to serve does not prohibit service denials consistent with an adopted anti-sprawl plan, because such

[71] Desmond D. Connall Jr., *A History of the Arizona Groundwater Management Act*, 1982 ARIZ. ST. L.J. 313.

[72] *Id.*

[73] ARIZ. REV. STAT. ANN. § 45-411 *et seq*. (Westlaw 2010).

[74] ARIZ. REV. STAT. ANN. § 45-576 (Westlaw 2010).

[75] Robinson v. City of Boulder, 190 Colo. 357 (1976); Delmarva Enters., Inc. v. Mayor & Council of Dover, 282 A.2d 601 (Del. 1971). Both cases involved service denials to property outside city limits. Boulder squarely raised the issue of whether a city could subordinate the duty to serve to consistency with an adopted joint city-county comprehensive plan, but the court sidestepped the issue by holding that the development complied with the county's zoning ordinance, and the county, not the city, had the power to approve the development.

[76] Dateline Builders, Inc. v. City of Santa Rosa, 146 Cal. App. 3d 520 (Ct. App. 1983).

a plan is "a proper exercise of police power."[77] The result was clearly grounded in the increasing reaction to suburban sprawl, as the opinion noted that "[u]nfortunately, the experience of many communities in this state has been that when planning is left to developers, the result is urban sprawl."[78] Today, courts routinely hold that a city has the power to refuse service until an area is ready for development and to deny subdivision approvals for new subdivisions with water and sewer service that are inconsistent with a county's land use plan.[79] However, in the unlikely event that California recognizes a human right to water,[80] courts might be forced to reevaluate Santa Rosa.

V. EBMUD AND DOUGHERTY VALLEY: THE LINKAGE OF LAND USE AND WATER SUPPLY PLANNING

Service concurrency is an important step in promoting more efficient urban settlement patterns but it still assumes that there will be

[77] *Id.* at 532. The result has precedent in an early Kentucky case that faded in importance as cities developed sufficient revenue to support rapid growth. Moore v. City Council of Harrodsburg, 32 Ky. L. Rptr. 384 (1907) ("In the absence of fraud, corruption, or arbitrary action, the judgment of the city officials as to [extension of water service] is beyond judicial control.").

[78] *Dateline Builders*, 146 Cal. App. 3d at 265, 266 (citing Associated Home Builders v. City of Livermore, 18 Cal. 3d 582 (1976)). The *Dateline Builders* court signed off with the "smack down" that "[b]uilders' argument that only zoning may be used for planning sits poorly in its mouth as they never sought to rezone the property or meet any of the County's other conditions." *Id.* at 266.

[79] In Serpa v. County of Washoe, 111 Nev. 1081, 1083-85 (1995), the court held that Washoe County (Reno) can prohibit five-acre or less subdivisions "until a new water source is available," and the county's action did not impair state water rights, because the power to define rational growth "includes the ability of a county government to determine water availability for itself." In Schofield v. Spokane County, 96 Wash. App. 581, 588-89 (Ct. App. 1999), it was held the county had the power to deny rezoning for riparian land, because no central sewer system existed to serve the proposed ranchettes. A state order to a financially strapped city to improve its antiquated sewage system was sufficient reason to terminate previously extraterritorial service in City of Attalla v. Dean Sausage Co., 889 So.2d 559, 569 (Ala. Civ. App. 2003).

[80] In recent years, environmentalists have advocated the recognition of a human right to water, which would require cross-subsidization between wealthy and poor urban users. This issue arose in Soweto, Johannesburg, South Africa, when the city guaranteed all units a small amount of water and then required prepaid meters for additional amounts. Wealthy areas were served by the conventional post-use billing. South Africa's constitution provides a right to water, but the Constitutional Court refused to apply it to this case. In 2009, the California Legislature passed AB 1242, which declared as the "established policy of the state that every human being has a right to clean, affordable, and accessible water for human consumption, cooking, and sanitary purposes, that is adequate for human health and well-being of the individual and family." A.B. 1242, 2009-10 Reg. Sess. (Cal. 2009). Governor Schwarzenegger supported the premise but vetoed the bill because it would lead "to potentially costly and constant litigation." *See* Press Release, Community Water Center, Governor's Water Priorities All Wrong; He Fails To Recognize Basic Water Needs While Pushing Billions for Pet Water Projects (Oct. 13, 2009), *available at* www.communitywatercenter.org/files/press_release_1242_FINAL.pdf.

sufficient water to meet a community's development needs at the location that the community chooses. A fight between EBMUD and Contra Costa County over the approval of a new development of 11,000 new homes near Dublin took the legacy of Petaluma, Santa Rosa and Livermore to the next level by questioning the wisdom of growth, not just delayed service, in water short areas.[81] In 1990, environmental candidates captured four of the seven seats on EBMUD's board, and as a result, the District urged Contra Costa County to reject the proposed development because it lay outside its service area. Seeing the potential for new property-tax revenues, the County approved it and listed the District as the source of water in the project's Environmental Impact Report (EIR).

EBMUD refused to play the development game and refused to extend service to the area, which was outside the service area of any utility, claiming that it lacked sufficient supplies for its service area. To block the project, the District filed suit to declare that the county's EIR was inadequate. A superior court judge ruled that approving a project "without knowing whether water is, or will be, available to serve the project fails to achieve the fundamental purpose of the California Environmental Quality Act to inform the public and responsible officials of the environmental consequences of their decisions before they are made."[82]

The action shifted from the Contra Costa County court to the state legislature because many in the Upper San Joaquin Valley were concerned about the continuing urban sprawl from the ever expanding Bay Area into one of the world's great agricultural districts. Fringe cities such as Tracy were bumping up against the limits of their available water supplies,[83] and the loss of prime agricultural land had long been an issue in the state.[84] A Fresno Democrat introduced S.B. 901, which formally linked water supply and land use planning. California passed the legislation in 1995, prohibiting approval of tentative subdivision maps, parcel maps, or development agreements for a subdivision of more than

[81] This section is drawn from Ryan Waterman, Addressing California's Uncertain Water Future by Coordinating Long-Term Land Use Planning: Is a Water Element in the General Plan a Next Step?, 31 ECOLOGY L.Q. 117, 125-29 (2004).

[82] *Id.* at 127. The Building Industry Association of Northern California contributed enough money to defeat the green candidates in 1994, and the Board settled the suit and committed itself to obtain American River water, a controversial effort that continues to the present.

[83] Grimes, *supra* note 5, at 106.

[84] HUNDLEY, *supra* note 36, at 521-25.

500 units unless there is a "sufficient water supply."[85] The legislation also required cities and counties to prepare detailed "water supply assessment reports"[86] for various types of large development. The 1995 law was weak because the threshold was too high, and it did not require cities to deny approvals for covered projects without an adequate water supply. Thus, it was largely ignored. However, as the courts began to use CEQA to probe water supply projections,[87] local governments and developers soon realized that the law had exposed the "dirty little secret" of California water law: that if you develop land, water will follow as night follows day.[88] In response, the weaknesses of S.B. 901 were corrected in 2001 with the state's much tougher "show me" laws, which opened a new chapter in California water history.[89]

[85] CAL. GOV'T CODE § 66473.7 (Westlaw 2010).

[86] CAL. WATER CODE §§ 10910, 10911(Westlaw 2010).

[87] The first major case was *Stanislaus Natural Heritage Project v. County of Stanislaus*, 48 Cal. App. 4th 182 (Ct. App. 1996). *See also* Santa Clarita Org. for Planning the Env't v. County of L.A., 106 Cal. App. 4th 715 (Ct. App. 2003). The necessity for a full articulation of all the assumptions and risks in a water supply assurance was confirmed by the California Supreme Court in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal. 4th 412 (2007).

[88] HUNDLEY, *supra* note 36, at 524.

[89] ELLEN HANAK, PUB. POL'Y INST., WATER FOR GROWTH: CALIFORNIA'S NEW FRONTIER (2005), *available at* www.ppic.org/content/pubs/report/R_705EHR.pdf.

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ARTICLE

THE RELATIONSHIP BETWEEN WATER SUPPLY AND LAND USE PLANNING: LEADING CASES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

*JAMES G. MOOSE**

I. INTRODUCTION

In the last fifteen years or so, the relationship between land use planning and water supply development has received considerable attention in the California Legislature and in California Supreme Court and court of appeal decisions interpreting the California Environmental Quality Act ("CEQA").[1] The relevant legislation and case law direct cities and counties, when acting as CEQA lead agencies for substantial land use projects, to work with water suppliers to assess the availability of water for such projects in light of other anticipated demands. As California struggles to contend with both its growing human population and its increasing environmental challenges, local agencies must be careful not to approve new development at levels that cannot be

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[1] CAL. PUB. RES. CODE, § 21000 *et seq.* (Westlaw 2010).

adequately served with dependable long-term water supplies.

In 1995, in legislation commonly known as "SB 901," the Legislature created a process whereby cities and counties approving certain types of large development projects were required to seek "water supply assessments" (WSA) from the "public water systems" responsible for serving such projects with water. These assessments were intended to inform the preparation of the environmental documents for the development projects.[2] In 2001, in legislation commonly known as "SB 610," the Legislature closed some of the perceived loopholes in the original WSA mechanism and altered some of the procedures created by SB 901.[3] At the same time, the Legislature, through parallel legislation known as "SB 221," created what has been called a "fail-safe" procedure mandating that, before a city or county can approve a final subdivision map for a residential project that will include more than 500 dwelling units, the city or county must first receive from the applicable water supplier a written verification of the availability of a water supply for the project.[4]

Even before the Legislature created water supply assessment and verification requirements,[5] the courts began to grapple with how land use and water supply planning should be coordinated through the adjudication of CEQA cases related to substantial development projects. These cases have created a body of law that complements, but is independent of, the requirements of SB 610 and SB 221.

The most significant judicial event on the subject of CEQA and water supply in recent years was the California Supreme Court's issuance in early 2007 of its decision in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*.[6] In its first opinion since 1988 addressing the adequacy of an environmental impact report

[2] 1995 Cal. Stat. 6701.

[3] *See* CAL. WATER CODE §§ 10910-10915 (Westlaw 2010); CAL. PUB. RES. CODE § 21151.9; CAL. CODE REGS. tit. 14, § 15155 (2010).

[4] Although "subdivision," for purposes of this requirement, generally means a subdivision creating more than 500 dwelling units, in situations in which a water supplier ("public water system") is a relatively small entity, the requirement applies to "any residential 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) (Westlaw 2010). Furthermore, in-fill and low-income housing projects are excluded from the requirement, regardless of the number of units involved. *Id.* § 66473.7(i).

[5] *See* CAL. PUB. RES. CODE § 21159.1; CAL. WATER CODE §§ 10910-10915; CAL. GOV'T CODE § 66473.7.

[6] Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412 (2007).

(EIR), the high court set forth a set of principles, derived from over a decade of court of appeal case law, governing the manner in which cities and counties must address water-related issues in land use EIRs.

This Article will survey and analyze this 2007 California Supreme Court decision and the key appellate court cases leading up to and following it, all of which address the relationship between land use planning and water supply planning under CEQA. The Article will also address a subsequent California Supreme Court decision addressing the adequacy of the EIR for one of the most significant water supply programs in recent decades, the so-called CALFED Record of Decision, which reflected, as of the year 2000, a long-term strategy for addressing ecological problems occurring in the Sacramento-San Joaquin River Delta while increasing the reliability of southbound water exports from that water body.[7] Lessons from the case law as it currently exists may be broadly described as follows:

> 1) According to CEQA case law (as opposed to SB 610 and SB 221), EIRs for substantial development projects should analyze the availability of existing or realistically available water supplies for proposed development, and cannot get by simply by identifying theoretical water rights or contract rights that may be very difficult to translate into actual water for human use within any foreseeable time frame. "CEQA's informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to 'evaluate the pros and cons of supplying the amount of water that the [project] will need.'" [8] The focus of the analysis should be on whether particular supplies "bear a likelihood of actually proving available; speculative sources and unrealistic allocations ('paper water') are insufficient bases for decisionmaking under CEQA."[9]
>
> 2) "If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable

[7] *In re* Bay-Delta Programmatic Envtl. Impact Report Coordinated Proceedings, 43 Cal. 4th 1143 (2008).

[8] *Vineyard Area Citizens for Responsible Growth*, 40 Cal. 4th at 431 (quoting Santiago County Water Dist. v. County of Orange, 118 Cal. App. 3d 818, 829 (Ct. App. 1981)).

[9] *Id.* at 432 (quoting Santa Clarita Org. for Planning the Env't v. County of Los Angeles (*SCOPE I*), 106 Cal. App. 4th 715, 720-23 (Ct. App. 2003)).

alternatives—including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases—and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact."[10]

3) EIRs for substantial development projects should also analyze or disclose the physical impacts associated with obtaining new water supplies for development projects.[11]

4) Finally, EIRs for land use plans should formulate mitigation measures that prevent physical development from occurring before water supplies are physically available for delivery, though land use plans may be approved without all of the water necessary for build-out being immediately available. However, "[t]he law'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. But when an EIR makes a sincere and reasoned attempt to analyze the water sources the project is likely to use, but acknowledges the remaining uncertainty, a measure for curtailing development if the intended sources fail to materialize may play a role in the impact analysis."[12]

II. LEADING CEQA CASES INVOLVING WATER SUPPLY AND LAND USE PLANNING

The first notable appellate court decision to address the interplay between CEQA and water supply issues was *Santiago County Water District v. County of Orange*, decided in 1981, involving a proposed sand-and-gravel mining project.[13] There, the court considered a project-level EIR that contained limited analysis of the project's water supply needs and impacts.[14] Fifteen years later, the court of appeal decision in *Stanislaus Natural Heritage Project v. County of Stanislaus* dealt with water supply issues in a broader land use planning context.[15] Five years after that decision, another appellate court in *Napa Citizens for Honest*

[10] *Vineyard Area Citizens for Responsible Growth*, 40 Cal. 4th at 434.

[11] *Id.* at 431 (citing Stanislaus Natural Heritage Project v. County of Stanislaus, 48 Cal. App. 4th 182, 206 (Ct. App. 1996)).

[12] *Vineyard Area Citizens for Responsible Growth*, 40 Cal. 4th at 432.

[13] *Santiago County Water Dist.*, 118 Cal. App. 3d 818.

[14] *Id.*

[15] *Stanislaus Natural Heritage Project*, 48 Cal. App. 4th 182.

Government v. Napa County Board of Supervisors added nuances to the discussion in *Stanislaus Natural Heritage Project*.[16]

In addition to grappling with the *timing* of water supply and land use planning, courts have also been forced to address the *uncertainties* inherent in California water law, drought supplies, and delivery infrastructure, as well as the impacts of these and other uncertainties on effective water supply planning and environmental review.[17] For instance, the decisions in *Santa Clarita Organization for Planning the Environment v. County of Los* Angeles *(SCOPE I*) and *California Oak Foundation v. City of Santa Clarita* involved water suppliers' reliance on uncertain State Water Project ("SWP") "entitlements," and, more specifically, a single water transfer for the annual contract rights to up to 41,000 acre-feet of water from the SWP, some portion of which was "paper water."[18] These cases teach that, at least in some instances, EIRs for development projects partly dependent on SWP supplies must disclose the fact that SWP "entitlements" are not the same as actual supplies.[19]

In early 2007, the California Supreme Court finally weighed in on all of these points, issuing the landmark opinion in *Vineyard Area Citizens for Responsible Growth*.[20] In its decision, the court reviewed and considered the prior court of appeal case law and drew together the different strands into a single set of principles governing the preparation of water supply analyses in land use EIRs.[21] In late 2007, the court of appeal decision in *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (*SCOPE II*), applying standards announced in *Vineyard Area Citizens for Responsible Growth*, handed the first published appellate victory to a respondent agency in the series of cases involving the above-referenced 41,000-acre-feet water transfer.[22]

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[16] Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors, 91 Cal. App. 4th 342 (Ct. App. 2001).

[17] *See, e.g.,* Santa Clarita Org. for Planning the Env't. v. County of Los Angeles (*SCOPE I*), 106 Cal. App. 4th 715 (Ct. App. 2003); Cal. Oak Found. v. City of Santa Clarita, 133 Cal. App. 4th 1219 (Ct. App. 2005).

[18] *See id.*

[19] *Id.*

[20] Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412 (2007).

[21] *Id.*

[22] Santa Clarita Org. for Planning the Env't v. County of Los Angeles (*SCOPE II*), 157 Cal. App. 4th 149 (Ct. App. 2007); *see also* Friends of the Santa Clara River v. Castaic Lake Water Agency, 95 Cal. App. 4th 1373 (Ct. App. 2002) (setting aside EIR for 41,000 acre feet transfer);

Finally, in June 2008, the California Supreme Court issued its long-awaited decision entitled *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings*, in which the court upheld a program EIR for a thirty-year program for various actions associated with the Sacramento-San Joaquin River Delta.[23] Although this last decision addresses an EIR for a water supply/ecosystem restoration program rather than an EIR for a land use plan,[24] the decision is nevertheless relevant to the interplay between water supply planning and land use planning.

Each of these precedent-setting cases is discussed in detail below.

A. SANTIAGO WATER DISTRICT V. COUNTY OF ORANGE

In *Santiago Water District v. County of Orange*,[25] a county water district challenged the approval of an EIR for a proposed sand and gravel mining operation.[26] The EIR contained no information demonstrating that any water supplier had agreed to provide water to the project, and no analysis regarding the environmental effects of any such water delivery and usage.[27] The respondent county nevertheless found the EIR to be adequate and approved the project subject to the condition that the operator subsequently establish an adequate water supply for the project.[28]

The court of appeal found merit in the petitioner's challenge, stating that in general, an EIR "'should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.'"[29] Here, the EIR failed to provide sufficient information about the delivery of water to the proposed mining site, and it did not include any description of the facilities that would

SCOPE I, 106 Cal. App. 4th 715 (setting aside EIR for land use plan reliant on same transfer); *Cal. Oak Found.*, 133 Cal. App. 4th 1219 (setting aside another EIR for land use project reliant on transfer). *But cf.* Planning & Conservation League v. Castaic Lake Water Agency, 180 Cal. App. 4th 210 (Ct. App. 2009) (upholding second EIR for proposed transfer, prepared on remand from *Friends of the Santa Clara River*, 95 Cal. App. 4th 1373).

[23] *In re* Bay-Delta Programmatic Envtl. Impact Report Coordinated Proceedings, 43 Cal. 4th 1143 (2008).

[24] *Id.*

[25] Santiago Water Dist. v. County of Orange, 118 Cal. App. 3d 818 (Ct. App. 1981).

[26] *Id.* at 822.

[27] *Id.* at 830-32.

[28] *Id*. at 828.

[29] *Id.* at 831 (quoting CEQA Guidelines, CAL. CODE REGS. tit. 14, § 15150).

have to be constructed to deliver water to the project.[30] The court noted that, because the construction of additional water-delivery facilities was "undoubtedly one of the significant environmental effects of the project," "a description of the necessary construction had to be included if the EIR was to serve its informational purpose."[31] Also, while the EIR did state that a large quantity of water would be consumed by the project, the EIR did not include any discussion of the environmental impacts of supplying such a large quantity of water.[32] Nor did the document address the effects of that delivery on water service elsewhere in the water district's jurisdiction.[33] For these reasons, the court concluded that the EIR was inadequate.[34]

B. STANISLAUS NATURAL HERITAGE PROJECT V. COUNTY OF STANISLAUS

In *Stanislaus Natural Heritage Project v. County of Stanislaus*,[35] the court of appeal not only addressed the need for local agencies to identify future water supply sources before approving large new development projects, but also announced principles requiring such agencies to consider the *environmental effects* of developing new supply sources.[36] In this respect, the opinion goes beyond the requirements of SB 610 and SB 221 and creates CEQA obligations that apply to a universe of projects that includes, but extends further than, the kinds of projects subject to that legislation.[37]

In *Stanislaus Natural Heritage Project*, the court of appeal invalidated an EIR for a specific plan because the document had not adequately dealt with the environmental consequences associated with acquiring a long-term water supply for the proposed development.[38] The specific plan would allow 5,000 residential units on 29,500 acres to be built in four phases over twenty-five years.[39] The EIR evaluated the

[30] *Santiago Water Dist.*, 118 Cal. App. 3d at 829.

[31] *Id.*

[32] *Id.*

[33] *Id.* at 830-32.

[34] *Id.* at 829.

[35] Stanislaus Natural Heritage Project v. County of Stanislaus, 48 Cal. App. 4th 182 (Ct. App. 1996).

[36] *Id.*

[37] *Id.*

[38] *Id.* at 187.

[39] *Id.* at 186.

effects related to providing water during the first five years of the fifteen-year first phase, but it did not address impacts that would occur beyond that initial period.[40] Instead, the document treated the potential long-term water supply shortfall as a significant and unavoidable impact, but it identified as "mitigation" a commitment that further construction, beyond the first increment, could not occur unless adequate water supplies could be found.[41] The EIR also stated that additional environmental review would be required in connection with future water-acquisition projects serving such future development.[42]

In holding that the EIR was inadequate, the court stated that "the County's approval of the project under these circumstances defeated a fundamental purpose of CEQA: to 'inform the public and responsible officials of the environmental consequences of their decisions before they are made.'"[43] The court rejected the respondent agency's argument that, because the EIR was only a "first tier" document, to be augmented in the future with additional negative declarations or EIRs, the county was not required to analyze long-term water supply impacts to the degree advocated by the petitioners.[44] The court explained that:

> a decision to "tier" environmental review does not excuse a governmental entity from complying with CEQA's mandate to prepare, or cause to be prepared, an environmental impact report on any project that may have a significant effect on the environment, with that report to include a detailed statement setting forth "[a]ll significant effects on the environment of the proposed project."[45]

Even though the respondent and applicant recognized, in effect, that large portions of the project might not be built should water supplies not be forthcoming, the willingness to bear that risk was no substitute for proper CEQA compliance.[46] The approval of a specific plan embodies a decision to encourage or permit the full complement of development contemplated by the plan.[47] The EIR for such a specific plan should therefore look at water issues assuming full build-out:

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[40] *Id.* at 194-95.

[41] *Id.* at 195.

[42] *Id.*

[43] *Id.* (quoting Laurel Heights Improvement Ass'n of San Francisco, Inc. v. Regents of the Univ. of Cal., 6 Cal. 4th 1112, 1123 (1993)).

[44] *Id.* at 197.

[45] *Id.* (quoting CAL. PUB. RES. CODE § 21100).

[46] *Id.* at 199.

[47] *Id.*

> No matter what subsequent environmental review might take place, and no matter what additional mitigation measures might be adopted to ameliorate adverse environmental impacts on each of the four "phases" of planned development, the project was going to need water from some source or sources. To defer any analysis whatsoever of the impacts of supplying water to this project until after the adoption of the specific plan calling for the project to be built would appear to be putting the cart before the horse.[48]

The court made the following statements regarding what steps the respondent would have to take to comply with CEQA:

> We are not concluding respondent must first find a source of water for the "project" before an EIR will be adequate. We are concluding that an EIR for this project must address the impact of supplying water for the project. It is not mitigation of a significant environmental impact on a project to say that if the impact is not addressed then the project will not be built. The decision not to build may well rest upon the absence of a suitable or adequate water source. However, the decision to approve the EIR of this project does require recognition that water must be supplied, that it will come from a specific source or one of several possible sources, *of what the impact will be if supplied from a particular source or possible sources and if that impact is adverse how it will be addressed*. While it might be argued that not building a portion of the project is the ultimate mitigation, it must be borne in mind that the EIR must address the project and assumes the project will be built.[49]

Notably, like SB 610,[50] the *Stanislaus Natural Heritage Project* decision stops short of prohibiting legislative land use approvals in the absence of a guaranteed water supply sufficient for full buildout. Furthermore, the decision required that a specific plan EIR address the *environmental impacts* associated with developing whatever new water sources would be needed to serve the planned development.[51]

This latter directive, though perhaps arguably always implicit in CEQA principles, required a departure from prior standard practice, as witnessed by the author in the decade preceding the decision. Before the *Stanislaus Natural Heritage Project* decision was issued in 1996, land

[48] *Id.* at 199-200.

[49] *Id.* at 205-06 (emphasis added).

[50] CAL. WATER CODE § 10911 (Westlaw 2010).

[51] *Stanislaus Natural Heritage Project*, 48 Cal. App. 4th at 205-06.

use EIRs had very seldom gone beyond merely identifying potential water sources. In the aftermath of the decision, however, land use EIRs, at least in some instances, were required to focus on the question of whether the use of surface water or groundwater in new development could harm distant fisheries or aquifers.[52]

C. NAPA CITIZENS FOR HONEST GOVERNMENT V. NAPA COUNTY BOARD OF SUPERVISORS

In *Napa Citizens for Honest Government v. Napa County Board of Supervisors*, [53] petitioners challenged a Final Subsequent EIR ("FSEIR") and specific plan prepared by Napa County to facilitate the industrial development of an unincorporated area south of the City of Napa.[54] Petitioners alleged, among other things, that the FSEIR failed to adequately analyze and mitigate identified significant impacts regarding water distribution.[55] The court agreed.[56]

The court characterized as follows the manner in which the FSEIR dealt with water issues:

> [T]he FSEIR assumes that water to the Project area will be supplied in the future, as it is supplied now, by [the City of] American Canyon. American Canyon receives water from the State Water Project via the North Bay Aqueduct. The FSEIR reports that at present, American Canyon uses less than one-half of the amount of water allocated to it, but it appears that by the year 2015, the combined needs of the city and the Project will exceed American Canyon's aqueduct allotment. The FSEIR further reports that American Canyon is in the process of reaching an agreement with the City of Vallejo that will permit American Canyon to purchase additional water from a water treatment facility in that nearby town. The FSEIR assumes that this water will prevent the anticipated shortfall. It therefore concludes that the Project's demand for water will not result in a significant effect.[57]

The court then discussed the applicable legal principles derived from prior case law:

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[52] *See, e.g.*, *Stanislaus Natural Heritage Project*, 48 Cal. App. 4th 182.

[53] Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors, 91 Cal. App. 4th 342 (Ct. App. 2001).

[54] *Id.*

[55] *Id.* at 354.

[56] *Id.* at 375.

[57] *Id.* at 372.

> It has been held that an EIR is inadequate if it fails to identify at least a potential source for water. In *Stanislaus Natural Heritage Project v. County of Stanislaus*, (1996) 48 Cal.App.4th 182, for example, the failure to identify a source of water beyond the first five years of development rendered the EIR inadequate, although the developer was pursuing several possible sources. It also has been held that an EIR is inadequate if the project intends to use water from an existing source, but it is not shown that the existing source has enough water to serve the project and the current users. (*Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818.) On the other hand, it has been held that an EIR is not required to engage in speculation in order to analyze a "worst case scenario." (*Towards Responsibility in Planning v. City Council* (1988) 200 Cal.App.3d 671 (hereafter *TRIP*).) In that case, the court held that an EIR was not required to analyze the effects that would result from the construction of a sewage treatment facility, when (1) all indications suggested that the facility would never be needed, and (2) the facility – if it was constructed – would be subjected to its own environmental review.[58]

The court then applied these precedents to the situation before it:

> The present situation falls somewhere between that at issue in *TRIP* on the one hand, and those in *Stanislaus* and *Santiago*, on the other. In *TRIP*, affected cities had entered into agreements designed to provide service sufficient to meet the project's needs. In the present case, the necessary agreements have not yet been reached, and as the Project has no control over those agreements, it cannot ensure that they will be reached. Unlike the EIR in *Santiago*, the FSEIR does consider the impact of the Project's needs on the area's resources and the ability of those resources to meet the demands of other users. Unlike the situation in *Stanislaus,* the FSEIR has identified sources for water and facilities for the treatment of wastewater, although their availability has not been absolutely established. Moreover, the FSEIR analyzes the capacities of the existing systems and concludes that the anticipated resources, if available, will be able to handle the Project area's needs for water and disposal of wastewater.
>
> It follows that a compromise between the positions adopted in those cases is in order. We concluded that the FSEIR need not identify and analyze all possible resources that might serve the Project should the anticipated resources fail to materialize. Because of the uncertainty surrounding the anticipated sources for water and wastewater

[58] *Id.* at 372-73.

> treatment, however, the FSEIR also cannot simply label the possibility that they will not materialize as "speculative," and decline to address it. The County should be informed if other sources exist, and be informed, in at least general terms, of the environmental consequences of tapping such resources. Without either such information or a guarantee that the resources now identified in the FSEIR will be available, the County simply cannot make a meaningful assessment of the potentially significant environmental impacts of the Project.[59]

After explaining why the FSEIR had a flawed approach in its treatment of water supply impacts, the court next addressed the kind of "mitigation" that would have been appropriate under the circumstances:

> [A]s we have found that the FSEIR is inadequate in failing either to identify new sources or to report that none is available, the FSEIR also is inadequate in failing to identify and analyze appropriate mitigation measures related to the alternative sources, if any. *In theory, at least, the FSEIR also could state a mitigation measure that would prevent development if the identified sources fail to materialize*.[60]

The language italicized immediately above provides important guidance to local lead agencies faced with a temporary water supply shortfall at the time of project approval. A mitigation measure "prevent[ing] development" until "identified sources" of water "materialize" is a form of "phasing" of development. Well established in other contexts,[61] such a strategy should ensure that actual physical development does not occur until such time as there is adequate water to serve it. Thus, where a city or county has identified a *possible* water source for new development, but that source is not yet certain to be available at the time of discretionary project approval, the city or county may approve the project subject to a mitigation measure that permits actual development only as water supplies become certain and reliable.[62]

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[59] *Id.* at 373-74.

[60] *Id.* at 374 (emphasis added).

[61] *See, e.g.*, Mira Dev. Corp. of San Diego v. City of San Diego, 205 Cal. App. 3d 1201, 1215-16 (Ct. App. 1988); Dateline Builders, Inc. v. City of Santa Rosa, 146 Cal. App. 3d 520, 529-32 (Ct. App. 1983).

[62] The *Napa Citizens* court's enthusiasm for phasing as a legitimate form of mitigation provides a counterbalance to the seemingly sweeping language in *Stanislaus Natural Heritage Project* to the effect that "[i]t is not mitigation of a significant environmental impact on a project to say that if the impact is not addressed then the project will not be built." Stanislaus Natural Heritage Project v. County of Stanislaus, 48 Cal. App. 4th 182, 205 (Ct. App. 1996). Read together, *Napa Citizens* and *Stanislaus Natural Heritage Project* should be understood to treat phasing as a

D. SANTA CLARITA ORGANIZATION FOR PLANNING THE ENVIRONMENT V. COUNTY OF LOS ANGELES (SCOPE I)

"An environmental impact report for a housing development must contain a thorough analysis that reasonably informs the reader of the amount of water available." [63] With that succinct statement, the court in *Santa Clarita Organization for Planning the Environment v. County of Los* Angeles *(SCOPE I*) cemented the CEQA requirement that an EIR for a substantial development project must address the adequacy of the water supply for the project. Further elucidated in *Vineyard Area Citizens for Responsible Growth*, this requirement is independent of statutory mandates requiring water suppliers to provide information to land use planning agencies.[64]

The project at issue in *SCOPE I* was a mixed residential and commercial development composed of 2,545 dwelling units, 180,000 square feet of commercial retail space, and 46 acres of community facilities.[65] The Valencia Water Company ("Valencia"), a water retailer supplied by the Castaic Lake Water Agency ("Castaic"), a water wholesaler, was to provide water to the project.[66] The EIR estimated that project would demand 2,194 acre-feet per year (AFY).[67]

Castaic's current supply was reported to be between 97,700 and 106,700 AFY.[68] The sources of Castaic's supply included groundwater, recycled water, and 54,200 AFY of "current entitlements" from the SWP.[69] Because Castaic's water demand at that time was only 48,858 AFY, the draft EIR concluded that there was sufficient water to meet the Project's demand.[70] Valencia was also reported to have sufficient water

legitimate form of mitigation but an inadequate substitute, by itself, for an EIR's failure to identify and analyze the likely sources of water for a proposed development project. *See also* Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412, 432 (2007) ("[A] measure for curtailing development if the intended sources fail to materialize may play a role in the impact analysis."); Santa Clarita Org. for Planning the Env't. v. County of Los Angeles (*SCOPE I*), 106 Cal. App. 4th 715, 723 (Ct. App. 2003) (holding that a mitigation measure requiring a showing of adequate water supplies prior to tract map recordation does not obviate the need for an EIR to fully analyze a project's impacts on water supply).

[63] Santa Clarita Org. for Planning the Env't v. County of Los Angeles (*SCOPE I*), 106 Cal. App. 4th 715, 717 (Ct. App. 2003).

[64] *Vineyard Area Citizens for Responsible Growth*, 40 Cal. 4th at 428, 432.

[65] *SCOPE I*, 106 Cal. App. 4th at 718.

[66] *Id.*

[67] *Id.*

[68] *Id.*

[69] *Id.*

[70] *Id.*

to supply the Project.[71]

In the discussion of cumulative impacts, however, the Draft EIR disclosed that buildout in the entire Santa Clarita Valley would result in a water shortage.[72] The Draft EIR further claimed, though, that Castaic had the opportunity to purchase additional entitlements under the so-called "Monterey Agreement" between the California Department of Water Resources (DWR) and its contractors, and that these additional entitlements, along with water banking and other storage, would provide enough water for growth in the valley.[73] The Draft EIR also determined that there would be no significant and unavoidable cumulative impacts because each project would be required to demonstrate water availability prior to construction.[74]

Plaintiffs challenged the EIR's adequacy, claiming that the EIR did not "state accurately the amount of water available."[75] As explained below, the court of appeal agreed.

The court began its analysis by referring to passages in an earlier appellate decision, entitled *Planning & Conservation League v. Department of Water Resources,*[76] explaining the difference between SWP paper "entitlements" and the amount of real water the SWP can actually deliver.[77] In relevant part, the *SCOPE I* court noted that, because the SWP has never been completed, "there is a huge gap between what is promised [to holders of entitlements] and what can be delivered."[78]

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[71] *Id.* at 719.

[72] *Id.*

[73] *Id.*

[74] *Id.* at 719.

[75] *Id.* at 720.

[76] Planning & Conservation League v. Dep't of Water Res., 83 Cal. App. 4th 892, 908 (Ct. App. 2000).

[77] *SCOPE I*, 106 Cal. App. 4th at 720-21.

[78] *Id*. at 721 (quoting *Planning & Conservation League*, 83 Cal. App. 4th at 908). *Planning & Conservation League* involved the efforts of DWR and several of its large customers (water contractors) to modify the operations of the massive (but only partially completed) SWP. These agencies' goals included making the SWP more efficient, and thus more dependable as a source of long-term water supplies for its vast service area, by eliminating standard contract provisions requiring agricultural contractors to forgo water deliveries during drought conditions before urban contractors were required to do so, and facilitating water transfers from agricultural to urban contractors. The proposed SWP operational modifications were embodied in the "Monterey Agreement."

Because the proposed Monterey Agreement was a project subject to CEQA, an EIR was necessary. Interestingly, the court of appeal, in finding the EIR inadequate, focused not on the impacts of the Monterey Agreement itself, but on impacts that might occur if it were *not* implemented. Specifically, the No Project Alternative was inadequate for failing to spell out the potential negative environmental consequences that might occur if DWR carried out the pre-existing

The court then explained that the purpose of an EIR "is to inform the public and its responsible officials of the environmental consequences of decisions before they are made."[79] "To be adequate, the EIR must include sufficient detail to enable those who did not participate in its preparation to understand and 'meaningfully' consider the issues raised by the proposed project."[80]

The EIR in this case relied heavily on SWP entitlements to demonstrate the sufficiency of water supplies for the project.[81] The EIR made no attempt, however, "to calculate or even discuss the differences between entitlement and actual supply."[82] Further, the EIR did not provide any evidence to support the assertion that the SWP could supply 100 percent of entitlements in wet years, and 50 percent in extreme drought years.[83]

The real party in interest in this case attempted to show that there was sufficient information regarding the availability of SWP entitlements by pointing to various documents in the record, including a report in an appendix and information submitted by project opponents, but without

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arrangements for allocating water shortages. These arrangements, the court explained, would carry forward the fiction that actual water molecules were available to support the full SWP "entitlements" mentioned in various water supply agreements between DWR and its contractors:

> Paper water always was an illusion. "Entitlements" is a misnomer, for contractors surely cannot be entitled to water nature refuses to provide or the body politic refuses to harvest, store, and deliver. Paper water represents the unfulfilled dreams of those who, steeped in the water culture of the 1960's, created the expectation that 4.23 maf of water could be delivered by a SWP built to capacity. . . . DWR and the contractors have forsaken their expectation that the SWP facilities will be built as planned and will deliver 4.23 maf of water annually. . . . Indeed, fiscal and environmental pressures militate against completion of the project.
>
> . . . .
>
> . . . [L]and use decisions are appropriately predicated in some large part on assumptions about the available water supply. There is certainly the possibility that local decision makers are seduced by contractual entitlements and approve projects dependent on water worth little more than a wish and a prayer.

Planning & Conservation League, 83 Cal. App. 4th at 914-15 & n.7 (emphasis added).

In making the pronouncements quoted above, the court of appeal, in effect, warned land use planners across California – particularly in areas, such as much of Southern California, currently served by the SWP – that they must not be "seduced" by SWP "paper water" that may never become available. Thus, although the holding of the *Planning & Conservation League* decision will not affect day-to-day land use planning, the *Planning & Conservation League* decision nevertheless demands local agencies' attention. These agencies ought not plan for new development based on paper water supplies that may never materialize.

[79] *SCOPE I*, 106 Cal. App. 4th at 721.

[80] *Id.*

[81] *Id.*

[82] *Id.* at 722.

[83] *Id.*

serious response.[84] The court reasoned, however, that "[i]t is not enough for the EIR simply to contain information submitted by the public and experts. Problems raised by the public and responsible experts require a good faith reasoned analysis in response."[85] The EIR in this case did not contain such good-faith reasoning. According to the court, "[w]ater is too important to receive such cursory treatment."[86]

The court also briefly explained that the fact that a project may not record a tract map until an adequate supply of water is demonstrated did not excuse the inadequacies in the EIR itself.[87] Again, the court noted that "[a]n EIR's purpose is to inform," and emphasized that this purpose "is not satisfied by simply stating information will be provided in the future."[88] Even if supplies will be obtained in the future, the EIR must contain adequate information about supplies currently available, as well as disclose the likelihood of the actual availability of future supplies.

As is evident from the preceding discussion, the court's analysis focused on the fact that SWP entitlements played a significant role in the EIR's consideration of water supply for the project. A quirk of history and California water supply planning resulted in a situation where many water suppliers hold "paper water."[89] The opinion concluded with the observation that:

> [T]he EIR fails to undertake an adequate analysis of how much water the SWP can actually deliver in wet, average and dry years. Without such information, the general public and its responsible officials cannot make an informed decision on whether to approve the project. The County's approval of the West Creek EIR is not supported by substantial evidence.[90]

The court's holding in *SCOPE I* could, therefore, be read narrowly to require only that, for projects dependent on SWP supplies, EIR preparers must fully disclose the fact that paper SWP "entitlements" are not the same as actual water supplies and must provide specific evidence regarding the availability of real SWP water. A somewhat broader interpretation can be drawn, however, from the court's statement, at the

[84] *Id.*
[85] *Id.* at 723.
[86] *Id.*
[87] *Id.*
[88] *Id.*
[89] *Id.* at 721.
[90] *Id.* at 724.

very beginning of the opinion, that "[a]n environmental impact report for a housing development must contain a thorough analysis that reasonably informs the reader of the amount of water available."[91] Even this statement, however, could be narrowly construed to suggest that such analysis is necessary only for projects that both (i) propose housing and (ii) require an EIR.[92]

While the facts in *SCOPE I* involve the unique nature of SWP entitlements, the court's reasoning could be understood to apply by analogy to other situations in which vagaries of climate, infrastructure limitations, or quirks of California water law make water supplies unreliable or questionable. Language within the opinion supports a broader interpretation, as do the policies underlying CEQA and, more importantly, the later pronouncements of the California Supreme Court in *Vineyard Area Citizens for Responsible Growth*.

The statement quoted above, for example, that an EIR must contain a "thorough analysis that reasonably informs the reader of the amount of water available" did not specifically limit such analysis to the amount of water available from SWP entitlements.[93] Indeed, the court stressed that "[t]o be adequate, the EIR must include sufficient detail to enable those who did not participate in its preparation to understand and 'meaningfully' consider the issues raised by the proposed project."[94] Notably, SWP entitlements are not the only area of California water law that involves a degree of uncertainty.

Riparian and overlying rights, for example, have been described as major sources of uncertainty in California law.[95] As explained by the California Supreme Court:

> [a] riparian owner has no right to any mathematical or specific amount of the water of a stream as against other like owners. He has only a right in common with the owners to take a proportional share from the stream — a correlative right which he shares reciprocally with the other riparian owners. No mathematical rule has been formulated to determine such a right, for what is a reasonable amount varies not only with the circumstances of each case but also varies from year to year

[91] *Id.* at 717.
[92] *Id.*
[93] *Id.*
[94] *Id.* at 721.
[95] *In re* Waters of Long Valley Creek Stream Sys., 25 Cal. 3d 339, 354-55 (1979).

and season to season.[96]

Rights to groundwater are also correlative and are thus subject to similar limitations.[97] According to the logic of the court's decision in *SCOPE I*, an EIR that relies on such uncertain sources must explain the uncertainty and provide substantial evidence for any assumptions regarding supply availability.[98] This broader interpretation is consistent with CEQA policies requiring that an EIR include sufficient detail to permit informed decisionmaking.[99] More importantly, though, this broader interpretation accords with the principles set forth in *Vineyard Area Citizens for Responsible Growth*, which are discussed in detail below, after consideration of the one other intervening CEQA water supply case.

E. CALIFORNIA OAK FOUNDATION V. CITY OF SANTA CLARITA

The next installment of the Castaic Lake Water Agency's water saga was reported in *California Oak Foundation v. City of Santa Clarita*.[100] In that case, the court found that the EIR for the proposed project was inadequate because the document failed to disclose that the project's prospective water supply was uncertain, failed to describe the nature and extent of the uncertainty, and—perhaps most importantly—failed to realistically analyze the availability of water to serve the project given these uncertainties.[101]

Before reaching the merits, the court summarized a series of published decisions from the courts of appeal that it considered highly relevant to water supply issues in this case. First, in *Planning & Conservation League v. Department of Water Resources*,[102] the court

[96] Prather v. Hoberg, 24 Cal. 2d 549, 559-60 (1944).

[97] Tehachapi-Cummings County Water Dist. v. Armstrong, 49 Cal. App. 3d 992, 1001 (Ct. App. 1975).

[98] *SCOPE I*, 106 Cal. App. 4th at 721-24; *see also* Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors, 87 Cal. App. 4th 99, 131-34, 143 (Ct. App. 2001) (remanding EIR for housing project for, among other things, further discussion of alleged "subterranean riparian water rights" claimed by applicant).

[99] *See, e.g.*, CAL. PUB. RES. CODE § 21061 (Westlaw 2009) ("The purpose of an [EIR] is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.").

[100] Cal. Oak Found. v. City of Santa Clarita, 133 Cal. App. 4th 1219 (Ct. App. 2005).

[101] *Id.* at 1244.

[102] Planning & Conservation League v. Dep't of Water Res., 83 Cal. App. 4th 892 (Ct. App. 2000).

struck down the EIR for the Monterey Agreement, which revised allocations of water from the SWP between agricultural and urban contractors and allowed for voluntary transfers of water "entitlements."[103] The court made several comments, essentially in dicta, that have been frequently cited by other courts and thus have proven to be key concerns for water purveyors using SWP water. The court said that SWP "entitlements" were established on the assumption that the entire SWP would be constructed to enable delivery of about 4.2 million acre-feet of water per year.[104] In fact, though, the SWP was never completed, is not expected to be completed, and can only deliver about half of that amount.[105] As such, SWP "entitlements" are essentially half water and half "paper."[106]

Second, in *Friends of the Santa Clara River v. Castaic Lake Water Agency* (*Friends of the Santa Clara River I*),[107] Castaic Lake Water Agency ("Castaic") certified an EIR and entered into an agreement to purchase 41,000 acre-feet per year (AFY) from the Kern County Water Agency pursuant to the Monterey Agreement.[108] Ultimately, the court struck down the EIR because it "tiered" off the Monterey Agreement EIR that had been invalidated by the court in *Planning & Conservation League*.[109] The court allowed Castaic to use the water from Kern County—apparently on Castaic's declaration that the 41,000 AFY was absolutely needed to serve existing water supply demands—but left open, until Castaic properly complied with CEQA, the question whether such supplies might be relied on to approve new development.[110]

Third, in *SCOPE I*,[111] the court held the EIR for a mixed-use project in the Santa Clarita Valley was inadequate because the water supply analysis relied on "paper water" from the SWP, a fiction criticized by the *Planning & Conservation League* court.[112] In *SCOPE I*, the EIR failed to undertake an adequate analysis of the amount of water the SWP could

[103] *Id.* at 897-98.

[104] *Id.* at 908 n.5.

[105] *Id.*

[106] *Id.*

[107] Friends of the Santa Clara River v. Castaic Lake Water Agency, 95 Cal. App. 4th 1373 (Ct. App. 2002).

[108] *Id.* at 1375.

[109] *Id.* at 1375-76.

[110] Cal. Oak Found. v. City of Santa Clarita, 133 Cal. App. 4th 1219, 1238 nn.15 & 16 (Ct. App. 2005).

[111] Santa Clarita Org. for Planning the Env't v. County of Los Angeles (*SCOPE I*), 106 Cal. App. 4th 715 (Ct. App. 2003).

[112] *Id.* at 721.

actually deliver in wet, average, and dry years.[113]

Fourth, in *Friends of the Santa Clara River v. Castaic Lake Water Agency* (*Friends of the Santa Clara River II*),[114] the court held that the urban water management plan ("UWMP") prepared by Castaic did not comply with the statutory requirements for such a plan because the document did not adequately describe the reliability of groundwater supplies in light of perchlorate contamination located in groundwater.[115] While the UWMP mentioned that a groundwater cleanup plan was being developed, the document did not discuss whether the plan had been completed, or the date when the plan would be completed and implemented.[116] Moreover, the UWMP did not state how fast the perchlorate contamination was spreading, or how any uncertainty on timing issues would affect the reliability of the supply of groundwater.[117]

These cases form the legal backdrop of the court's decision in *California Oak Foundation*. In that case, the respondent city certified an EIR for a 161-acre industrial park.[118] The industrial park would be constructed on previously undeveloped property and would require about 386 AFY of water.[119] The EIR identified Newhall County Water District as the agency that would serve the project with water.[120] Newhall, however, is only a water retailer; it gets its water from the Castaic, which in turn gets its water from the SWP and from groundwater.[121] Castaic claims entitlements to about 95,200 AFY of water from the SWP; additionally, it claims groundwater supplies of between 8,000 AFY and 85,700 AFY.[122] Castaic estimated that over the next twenty years, water demand in the area would be about 75,100 AFY.[123] Assuming that groundwater was available only at the lower figure, 8,000 AFY, Castaic estimated that it would have a water supply surplus of about 28,100 AFY in the twenty-year planning horizon.[124] According to the draft EIR, the project's demand of roughly 386 AFY would easily be accommodated

[113] *Id.* at 724.

[114] Friends of the Santa Clara River v. Castaic Lake Water Agency, 123 Cal. App. 4th 1 (Ct. App. 2004).

[115] *Id.* at 14.

[116] *Id.* at 12-13.

[117] *Id.* at 13.

[118] Cal. Oak Found. v. City of Santa Clarita, 133 Cal. App. 4th 1219, 1225 (Ct. App. 2005).

[119] *Id.* at 1224, 1231.

[120] *Id.* at 1232.

[121] *Id.* at 1227.

[122] *Id.* at 1229, 1230-31 n.11.

[123] *Id.* at 1230-31.

[124] *Id.*

within Castaic's "surplus" supply.[125]

Petitioners argued that the EIR was inadequate because it did not fairly describe the actual water supply available to serve the project. Specifically, petitioners argued that the EIR was defective because (1) it failed to acknowledge that 41,000 AFY of Castaic's SWP "entitlements" were entangled in litigation and might not be available in the future, (2) it failed to acknowledge that half of Castaic's entire 95,200 AFY SWP "entitlements" was merely "paper water" rather than actual water likely to be available for delivery to serve the project, and (3) it failed to acknowledge the extent to which groundwater supplies would be unavailable due to perchlorate contamination.[126] The court agreed with the first two contentions.[127]

One of the prevailing themes in the opinion is that water supply vulnerabilities must be fully disclosed in an EIR, and the effect of that vulnerability on supply reliability must be evaluated. The court explained that one of the primary purposes of an EIR "is to reveal to the public 'the basis on which its responsible officials either approve or reject environmentally significant action,' so that the public, 'being duly informed, can respond accordingly to action with which it disagrees.'"[128] "[T]o be adequate, the EIR must include sufficient detail to enable those who did not participate in its preparation to understand and 'meaningfully' consider the issues raised by the project."[129] "This standard is not met in the absence of a forthright discussion of a significant factor that could affect water supplies."[130] "[T]he EIR is intended to serve as an informative document to make government action transparent. Transparency is impossible without a clear and complete explanation of the circumstances surrounding the reliability of the water supply."[131]

The court first addressed the reliability of the 41,000 AFY of SWP entitlements, which Castaic acquired, indirectly, from the Kern County Water Agency.[132] Petitioners argued that the EIR was inadequate

[125] *Id.* at 1231.

[126] *Id.* at 1236, 1241-42.

[127] *Id.* at 1244.

[128] *Id.* at 1237 (quoting Laurel Heights Improvement Ass'n of San Francisco, Inc. v. Regents of the Univ. of Cal., 47 Cal. 3d 376, 392 (1988)).

[129] *Id.* at 1237 (quoting Santa Clarita Organization for Planning the Env't v. County of Los Angeles (*SCOPE I*), 106 Cal. App. 4th 715, 721 (Ct. App. 2003).).

[130] *Id.* at 1237.

[131] *Id.* at 1237-38.

[132] *Id.* at 1236.

because the EIR, without analysis or discussion, relied on Castaic's 41,000 AFY entitlement to SWP water despite the fact that the EIR for Castaic's purchase of the entitlement was decertified[133] in *Friends of the Santa Clara River I*[134]. The court agreed: "the EIR does not 'directly address' the issue, which arose when [*Friends of the Santa Clara River I*] was decided in January 2002, contemporaneously with circulation of the draft EIR. The final EIR contains an inadequate discussion—in fact, no discussion at all—of the uncertainty surrounding the transfer of the 41,000 AFY entitlement. The text of the EIR does not mention the decertification of the EIR for the Castaic purchase . . . ."[135]

The court went on to note that an appendix buried at the end of the final EIR did to some degree address these issues, but the court held this discussion was inadequate.[136] Acknowledging in an appendix to the final EIR that the 41,000 AFY was in doubt, and that, absent this water, supplies might not be sufficient, was "too little and too late . . . . We are troubled by the fact that the only discussion in the EIR of the uncertainty created by the decertification of the EIR for the Castaic purchase appears in an appendix added to the final EIR shortly before certification. The seriousness of water supply issues . . . merits discussion in the text of the EIR, where it is most readily accessible."[137] At a minimum, the court held, the information should have been contained in an appendix that was actually referenced in the text of the EIR.[138] The court further chided the City for failing to explain the possible limitations on the water entitlements because of ongoing legal challenges: "Without a discussion of the nature of the limitations, . . . it is impossible to know the contours of the potential limitation on the water supplies."[139] In other words, the City had to go beyond simply acknowledging the deficiency; the City had to take the additional step of discussing the likelihood of the deficit and alternative sources of water supply to meet the deficit.[140]

Moreover, while the final EIR appendix acknowledged uncertainty as to whether the 41,000 AFY purchased from Kern would be available, the final EIR concluded supplies would nevertheless be adequate for the

[133] *Id.*

[134] Friends of the Santa Clara River v. Castaic Lake Water Agency, 95 Cal. App. 4th 1373, 1388 (Ct. App. 2002).

[135] *Cal. Oak Found.*, 133 Cal. App. 4th at 1236.

[136] *Id.* at 1239.

[137] *Id.*

[138] *Id.*

[139] *Id.* at 1238.

[140] *Id.* at 1239.

project because Castaic held entitlements for 56,800 AFY of SWP water, independent of the water it obtained from the Kern County Water Agency.[141] The court was troubled that the draft EIR gave "no hint" that SWP entitlements cannot be taken at face value.[142] While the final EIR acknowledged elsewhere that the SWP entitlements would be available at a 50% level 80% of the time and at a 37% level about 20% of the time, the EIR failed to discuss the import of these admissions.[143] Moreover, the EIR appendix made misleading comments that contradicted these admissions.[144] As noted above, the final EIR appendix reasoned that the 56,000 AFY of SWP entitlements exceeded by 18,844 AFY Castaic's existing demand for 35,356 AFY of water.[145] These figures assumed that the full entitlement would be delivered. In fact, employing the agency's own estimates, Castaic could expect only about 28,000 AFY of its entire 56,000 AFY entitlement to be delivered the majority of the time.[146] Thus, absent the 41,000 AFY from the Kern County Water Agency, Castaic would already be seriously short of water to meet even its existing demand.[147]

The court concluded that the final EIR contained no substantial evidence or analysis indicating that there was adequate water to serve the project "in light of the uncertainty flowing from the decertification of the EIR for the Castaic purchase."[148] The absence of this information undermined the information functions of the EIR for the project and required decertification of the EIR: "[W]ithout the 41,000 AFY entitlement, substantial evidence of sufficient water supplies simply does not exist."[149]

The court upheld, however, the EIR's discussion of perchlorate contamination of groundwater.[150] The draft EIR had not mentioned perchlorate contamination; however, it did rely on and incorporate by reference Castaic's UWMP, which noted that the discovery of such contamination could affect groundwater supply availability.[151] The court

[141] *Id.* at 1233.
[142] *Id.* at 1238.
[143] *Id.* at 1239.
[144] *Id.*
[145] *Id.*
[146] *Id.* at 1239.
[147] *Id.*
[148] *Id.* at 1240.
[149] *Id.* at 1242.
[150] *Id.*
[151] *Id.*

concluded that the City had discretion to rely on the information in the UWMP, in large part because the court's ruling in *Friends of the Santa Clara River II*,[152] which found the plan deficient under the Water Code, came after the EIR was certified.[153] The court described the City's victory on this issue as Pyrrhic, however, because the court's ruling on the 41,000 AFY transfer from the Kern County Water Agency had "the practical effect of requiring the City to come to grips with the perchlorate issue as well, because reliance on groundwater supplies will acquire additional significance if less imported water is available" from the SWP.[154]

F. VINEYARD AREA CITIZENS FOR RESPONSIBLE GROWTH, INC. V. CITY OF RANCHO CORDOVA

In a landmark decision addressing the intersection of CEQA and water supply analysis for major development projects, the California Supreme Court pulled together the threads of court of appeal case law discussed above.[155] In doing so, the high court created a very significant precedent that now represents the single most significant EIR case for CEQA practitioners to study carefully.

Factually, the Supreme Court held that the EIR for the "Sunrise Douglas Community Plan" and the "SunRidge Specific Plan" in what was now the City of Rancho Cordova contained an adequate analysis of near-term water supplies.[156] The court also held, however, that the EIR did not provide an adequate analysis of long-term supplies needed to serve the community plan, together with other anticipated development in the area.[157] The court also held the agency should have recirculated the Draft EIR to disclose impacts from groundwater pumping on listed species.[158] A detailed discussion of the facts of *Vineyard* will help to understand the legal principles announced in the opinion.

A coalition of landowners proposed to develop 6,000 acres in southeastern Sacramento County, in an area subsequently annexed to the

[152] *See generally* Friends of the Santa Clarita River v. Castaic Lake Water Agency, 123 Cal. App. 4th 1, (Ct. App. 2004). Parenthetical explantion is encouraged after *see generally*

[153] *Cal. Oak Found.*, 133 Cal. App. 4th at 1243.

[154] *Id.*

[155] Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412 (2007).

[156] *Id.* at 421.

[157] *Id.* at 444-45.

[158] *Id.* at 448-49.

City of Rancho Cordova.[159] The Sunrise Douglas Community Plan proposed 22,000 residential units, as well as office, industrial and public uses.[160] The coalition also proposed the SunRidge Specific Plan – a subset encompassing 2,600 acres and 9,886 residential units to be developed as an initial phase of the project.[161] The County prepared an EIR analyzing the impacts of implementing both plans.[162] The County Board of Supervisors certified the EIR and approved the plans.[163] A coalition of citizens' groups (the "Citizens") sued, and the trial court and court of appeal denied the petitions.[164] The California Supreme Court granted a petition for review on two issues: (1) the adequacy of the EIR's water supply analysis, and (2) impacts of groundwater pumping on the Cosumnes River.[165]

The Supreme Court's discussion of the County's water supply analysis focused on two distinct aspects of the EIR: (1) the analysis of near-term water supplies needed to serve the Specific Plan, and (2) the analysis of long-term supplies necessary for the entire Community Plan.[166]

To serve the initial phase of the project, as embodied in the Specific Plan, the EIR stated that the project would rely on a newly developed "North Vineyard Well Field" located southwest of the project area.[167] This well field could safely yield up to 10,000 acre-feet annually.[168] The Sacramento County Water Agency would make this water available on a first-come-first-served basis to the SunRidge and Sunrise Douglas areas, and to other anticipated development in the area.[169] The record showed this new well field would initially connect solely to the project area, whose developers would pay a fee to compensate any nearby well owners harmed by pumping; and other near-term development would require only 3,000 AFY, leaving the balance – 7,000 AFY – to meet the anticipated demand of 5,500 AFY from the SunRidge Specific Plan

[159] *Id.* at 421.
[160] *Id.* at 422.
[161] *Id.*
[162] *Id.*
[163] *Id.*
[164] *Id.* at 421.
[165] *Id.*
[166] *Id.* at 436, 438.
[167] *Id.* at 423.
[168] *Id.*
[169] *Id.* at 436.

area.[170] Thus, the court observed, "[w]hile much uncertainty remains, . . . the record contains substantial evidence demonstrating a reasonable likelihood that a water source the provider plans to use for the Sunrise Douglas project . . . will indeed be available at least in substantial part to supply the Sunrise Douglas project's near-term needs."[171] The EIR did not defer analysis of the impacts of developing these supplies, or rely on demonstrably illusory supplies.[172] Nor did the EIR need to demonstrate certainty regarding the project's future water supplies.[173] To the extent anticipated water supplies did not materialize, or the agency proposed new or different supplies, the agency could perform supplemental analysis to address changes to the project or to the circumstances surrounding the project.[174]

With respect to long-term water supplies intended to serve the Community Plan as a whole, the court found that the record contained substantial evidence supporting the County's conclusion that up to 15,000 AFY in new surface-water diversions from the American River – so-called "Fazio water" – would be available to serve the project.[175] The problem, however, was that the Final EIR's discussion of total long-term water supply and demand in the broader region "leaves too great a degree of uncertainty regarding the long-term availability of water for this project. Factual inconsistencies and lack of clarity in the FEIR leave the reader—and the decision makers—without substantial evidence for concluding that sufficient water is, in fact, likely to be available for the Sunrise Douglas project at full build out."[176]

The EIR's analysis stated that long-term water demand in "Zone 40" – a large swath of southeastern Sacramento County that included the Community Plan area – would be approximately 113,000 AFY at build-out of the general plan.[177] Another EIR prepared to analyze the impacts of increased diversions from the American River – the "Water Forum EIR" – had estimated Zone 40 demand at 87,000 AFY at build-out.[178] The Sunrise Douglas EIR did not explain the reason for this

[170] *Id.* at 436-37.
[171] *Id.* at 437.
[172] *Id.*
[173] *Id.*
[174] *Id.* at 438.
[175] *Id.*
[176] *Id.* at 439.
[177] *Id.*
[178] *Id.*

discrepancy.[179]

On the supply side, the Sunrise Douglas EIR stated that surface-water deliveries would total roughly 64,000 AFY; elsewhere, the same EIR estimated new surface-water deliveries at 45,000 AFY.[180] The Water Forum EIR stated that up to 78,000 AFY in new surface water would become available.[181] Again, the Sunrise Douglas EIR did not explain why these numbers differed.[182] In adopting findings approving the Community Plan, the County used the Final EIR's estimated demand of 113,000 AFY and estimated surface-water supply of approximately 64,000 AFY, but it did not explain the differing estimates.[183] Although such an explanation might have existed, it did not appear in the Final EIR.[184]

Nor did the EIR explain how the this gap – 113,000 AFY in Zone 40 demand, versus approximately 64,000 AFY in new surface-water supplies – would be bridged.[185] When commentators pointed out this gap, the Final EIR responded that "new surface water supplies are to be used conjunctively with groundwater supplies."[186] This explanation, however, was too "vague and unquantified" to be relied upon, because it did not explain how groundwater and surface water would be managed during wet and dry years to bring long-term demand and supply into balance.[187]

The Final EIR stated a full analysis of the conjunctive use program would be included in the environmental analysis prepared for the Water Agency's Zone 40 Master Plan Update, which was pending at the time the County released the Sunrise Douglas Final EIR.[188] The court rejected this approach, stating that the County could not avoid its obligation to analyze the likely water sources for the Sunrise Douglas Community Plan by referring to a future report; rather, the County either had to include its analysis in the Sunrise Douglas EIR, or had to await the completion of the master plan updated analysis, and then tier off it.[189]

[179] *Id.*
[180] *Id.*
[181] *Id.*
[182] *Id.*
[183] *Id.* at 439-40.
[184] *Id.* at 440.
[185] *Id.*
[186] *Id.*
[187] *Id.*
[188] *Id.*
[189] *Id.* at 440-41.

Nor was it apparent how the 10,000 AFY in new groundwater would bridge the gap between surface-water supplies and anticipated demand, even using the most optimistic numbers from the Sunrise Douglas and Water Forum EIRs.[190]

The County did not need to demonstrate with certainty that the total anticipated water supply would be sufficient to meet total demand at build-out.[191] "But CEQA did require that the FEIR show a *likelihood* water would be available, over the long term, for this project. Without an explanation that shows at least an approximate long-term sufficiency in total supply, the public and decision makers could have no confidence that the identified sources were actually likely to fully serve this extraordinarily large development project."[192]

The real parties in interest pointed to a discussion in the Water Forum proposal for additional details regarding how the conjunctive use program would be implemented.[193] The Sunrise Douglas EIR, however, did not spell out how the EIR related to, incorporated by reference, or tiered off the Water Forum proposal or accompanying EIR.[194] Thus, the EIR did not provide an adequate road map to the information or analysis drawn from other documents.[195] Nor did the EIR expressly incorporate the impacts and mitigation measures identified in the Water Forum Proposal's EIR.[196]

The real parties also pointed to the Final EIR's "mitigation measure WS-1."[197] This measure stated that entitlements for development within the Sunrise Douglas Community Plan would not be granted without "firm proof of available water supplies" at each phase of development.[198] According to the court, a measure of this sort could serve to supplement an EIR's water supply analysis.[199] Under CEQA, however, it could not substitute for such an analysis. Indeed, in order to rely on such a measure, the EIR would have to "discuss the probability that the intended water sources for later phases of development will not eventuate, the environmental impacts of curtailing the project before completion, and

[190] *Id.* at 441.
[191] *Id.*
[192] *Id.* (footnote omitted).
[193] *Id.* at 442.
[194] *Id.* at 442-43.
[195] *Id.* at 443.
[196] *Id.*
[197] *Id.* at 444.
[198] *Id.*
[199] *Id.*

mitigation measures planned to minimize any such significant impacts."[200] The Sunrise Douglas EIR was inadequate because it did not include such an analysis.[201]

The court provided the following summary of the requirements for an adequate water supply analysis for a large-scale, long-term development project:

> (1) The EIR must contain information on planned long-term development in the area and identify the competing water demands associated with such development.[202]
>
> (2) The EIR must demonstrate a reasonable likelihood of adequate long-term supply by showing "a rough balance between water supply and demand."[203] If, "despite a full discussion, it is impossible to confidently determine that anticipated future water sources will be available, CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies."[204] The estimate of demand must include not only the proposed project, but also other planned development in the area.[205]
>
> (3) To the extent the EIR relies upon water-supply analyses prepared for other projects (such as the Water Forum EIR in this case), the EIR must adhere to the rules governing tiering and incorporation by reference. Among other things, the EIR for the development project must incorporate and adopt the mitigation measures identified in the EIR that is being relied upon.[206]
>
> (4) Although an agency may rely on a provision calling for curtailing the later stages of development if water supplies do not materialize, the EIR must disclose or propose mitigation for "the environmental effects of such truncation."[207]

The court then turned to the recirculation issue. The so-called Revised Recirculated Draft EIR, which the County prepared after the

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[200] *Id.*
[201] *Id.*
[202] *Id.* at 445.
[203] *Id.* at 445-46.
[204] *Id.* at 432
[205] *Id.*
[206] *Id.* at 446.
[207] *Id.* at 447.

first proposed well field ran into regulatory problems and was replaced by a different proposed well field, stated that the Cosumnes River was located south of the second proposed well field but did not otherwise analyze impacts of groundwater extraction on river flows or habitat.[208] Several agencies and other commentators expressed concern that groundwater extraction would decrease summertime flows in the river and have an adverse impact on steelhead and Chinook salmon migration through the area.[209] The Final EIR responded to these comments by stating that the change in groundwater elevations in the area would be no more than two feet.[210] The Final EIR concluded that the resulting impact on river flows would be restricted to low-flow periods, would be limited to changing the timing and areal extent of the dewatering of the river, and would not be significant.[211] The County adopted this conclusion in its findings approving the project.[212]

The court held that substantial evidence did not support this finding because the Final EIR disclosed a potentially significant impact associated with reduced river flows on aquatic species, including migrating salmon.[213] The Final EIR's response conceded groundwater extraction during low-flow periods could lengthen the period during which the Cosumnes River was dewatered and thus could hinder fish migration.[214] Moreover, the migratory reach of the river overlapped with the area potentially affected by project-related pumping.[215] For this reason, the response did not constitute substantial evidence that the loss of stream flows would have no adverse impact on salmon migration, and the County should have recirculated the analysis in the Final EIR to address this issue.[216]

Justice Baxter concurred with the majority's opinion that the EIR contained an adequate analysis of the SunRidge Specific Plan's near-term water supply.[217] He dissented, however, from the majority's opinion regarding the EIR's analysis of long-term water supplies.[218] In Justice

[208] *Id.* at 424.
[209] *Id.* at 425.
[210] *Id.* at 425-26.
[211] *Id.* at 426.
[212] *Id.* at 448.
[213] *Id.*
[214] *Id.*
[215] *Id.*
[216] *Id.* at 449.
[217] *Id.* at 450.
[218] *Id.* at 451.

Baxter's view, the majority erred by requiring the EIR to analyze long-term water supplies not merely for the project, but also for all conceivable development in the region.[219]

G. SANTA CLARITA ORGANIZATION FOR PLANNING THE ENVIRONMENT V. COUNTY OF LOS ANGELES (SCOPE II)

In *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (*SCOPE II*),[220] the court of appeal reviewed the new EIR prepared on remand from the decision in *SCOPE I* in light of *Vineyard Area Citizens for Responsible Growth*.[221] Still not satisfied with the new EIR, the Santa Clarita Organization for Planning the Environment ("SCOPE") had sued again. The trial court had denied the petition, and SCOPE had appealed.[222]

SCOPE challenged the adequacy of the new EIR's water supply analysis as it related to a water-transfer agreement between the Castaic Lake Water Agency and the Kern County Water Agency (the "Kern-Castaic transfer").[223] The new EIR indicated that this transfer would provide 41,000 acre-feet per year, a significant portion of the supplies needed for the various projects slated for the Santa Clarita Valley, including the West Creek project.[224] The court of appeal evaluated this claim in light of four principles articulated by the California Supreme Court in *Vineyard Area Citizens for Responsible Growth*. The court distilled those principles as follows:

> (1) The EIR must contain sufficient information to allow decisionmakers to "evaluate the pros and cons of supplying the amount of water" that the project will need.[225]
>
> (2) The EIR for a large land use plan, to be built out over the course of years, cannot limit its water-supply analysis to initial phases. Although tiering principles can be used to defer some details to future phases, the analysis of future phases cannot be entirely avoided at the

[219] *Id.* at 452-53.

[220] Santa Clarita Org. for Planning the Env't v. County of Los Angeles (*SCOPE II*), 157 Cal. App. 4th 149 (Ct. App. 2007).

[221] *See generally id.*

[222] *Id.* at 152.

[223] *Id.* at 154.

[224] *Id.*

[225] *Id.* at 158.

outset.[226]

(3) "[T]he future water supplies identified and analyzed must bear a likelihood of actually proving available; speculative sources and unrealistic allocations ('paper water') are insufficient." The EIR must include a discussion of the circumstances affecting the likelihood of the water's availability.[227]

(4) "Where, despite a full discussion, it is impossible to confidently determine that anticipated future water sources will be available," the EIR must identify and analyze the impacts of developing replacement or alternative sources of water.[228] The agency can include a measure curtailing development in the event water sources do not materialize.[229] Such a measure, however, cannot substitute entirely for analyzing alternative sources.[230]

The court held the EIR prepared for the West Creek project adhered to these principles.[231] First, the EIR did not ignore or assume a solution to the problem of supplying water to the project. Rather, the EIR identified specific water sources, including the Kern-Castaic transfer.[232] Second, the EIR did not limit its analysis to the first development phase, but considered the Kern-Castaic transfer as part of the permanent supply for the entire project.[233]

With respect to the third principle, SCOPE argued that uncertainties surrounding the Monterey Agreement litigation threatened the reliability of the Kern-Castaic transfer.[234] That litigation had resulted in invalidating the EIR for the Monterey Agreement between the Department of Water Resources and various water districts to allocate water from the State Water Project.[235] That litigation, in turn, resulted in invalidating an EIR that tiered off the Monterey Agreement EIR that was prepared to analyze the impacts of Kern-Castaic water transfer.[236] Since

[226] *Id.* at 158-59.
[227] *Id.* at 159.
[228] *Id.*
[229] *Id.*
[230] *Id.*
[231] *Id.*
[232] *Id.*
[233] *Id.*
[234] *Id.*
[235] *See* Planning & Conservation League v. Dep't of Water Res., 83 Cal. App. 4th 892 (Ct. App. 2000).
[236] Friends of the Santa Clara River v. Castaic Lake Water Agency, 95 Cal. App. 4th 1373,

then, the parties to the *Planning & Conservation League* litigation had entered into a settlement agreement.[237] In addition, the Castaic Lake Water Agency had prepared and certified a new EIR for the Kern-Castaic transfer, which had provoked another lawsuit.[238]

The EIR responded to this uncertain state of affairs by noting that, even if the litigation resulted in setting aside the Monterey Agreement, a court was unlikely to require the parties to unwind other agreements (such as the Kern-Castaic transfer agreement, which had not been set aside in the aftermath of *Friends of the Santa Clara River I*).[239] Existing law and contracts authorized the transfer, even without relying on the Monterey Agreement.[240] Although the settlement agreement arising out of the Monterey Agreement litigation did not identify the Kern-Castaic transfer as a permanent transfer, nothing suggested that the parties to the Agreement considered the transfer to be temporary.[241] Nor did the record contain evidence suggesting that the Department of Water Resources opposed the transfer.[242]

SCOPE argued the West Creek EIR improperly tiered off a future EIR – in this case, the new EIR to be prepared for the Monterey Agreement after the old one was invalidated in the *PCL* litigation.[243] The court disagreed, noting that the West Creek EIR did not tier off future Monterey Agreement environmental documents; rather, the West Creek EIR's water supply analysis was based on the premise that the Monterey Agreement litigation was unlikely to affect the Kern-Castaic transfer.[244] Thus, the record contained substantial evidence demonstrating a reasonable likelihood that water from the Kern-Castaic transfer would be available for the project's near- and long-term needs.[245]

As to the fourth principle, SCOPE argued that West Creek EIR failed to analyze the project's water supply in the absence of the Kern-

1388 (Ct. App. 2002).

[237] Planning & Conservation League v. Castaic Lake Water Agency, 180 Cal. App. 4th 210 (Ct. App. 2009).

[238] *See SCOPE II*, 157 Cal. App. 4th at 154; Planning & Conservation League v. Castaic Lake Water Agency, 180 Cal. App. 4th 210.

[239] *SCOPE II*, 157 Cal. App. 4th at 160; *see Friends of the Santa Clara River*, 95 Cal. App. 4th at 1388.

[240] *SCOPE II*, 157 Cal. App. 4th at 160.

[241] *Id.*

[242] *Id.*

[243] *Id.* at 161-62.

[244] *Id.* at 162.

[245] *Id.*

Castaic transfer.[246] Under *Vineyard*, the EIR had to acknowledge such uncertainty, regardless of the reason for it; thus, legal uncertainty had to be considered.[247] As the court noted, however, "[t]he water is now available, and for years has been available for the project under executed agreements. The [West Creek] EIR notes that the Kern-Castaic transfer can legally occur without the Monterey Agreement. Suffice it to say, however the Monterey Agreement litigation is eventually decided, the Kern-Castaic transfer will likely not be affected. Per the fourth principle, we can confidently determine that the water will be available."[248]

Turning to groundwater, SCOPE argued the West Creek EIR was deficient because it did not discuss the impact of inadequate funding to remediate contaminated water wells.[249] The EIR stated some water would be supplied from two local aquifers tapped by 67 wells.[250] The record showed that six of these wells were contaminated with perchlorate, and the estimated cost of remediation was $500,000 per well.[251] The EIR did not identify a source of funding to carry out the remediation.[252] The EIR did state, however, that due to the high value of this water, local water purveyors had placed a high priority on installing wellhead treatment.[253] Nothing suggested remediation was illusory, notwithstanding its cost.[254]

H. IN RE BAY-DELTA PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT COORDINATED PROCEEDINGS

In another major decision dealing with the intersection of water supply and CEQA, the California Supreme Court upheld the CEQA analysis for the so-called "CALFED project." [255] The high court's

[246] *Id.*

[247] *Id.*

[248] *Id.* at 162-63. Notably, more than two years after publication of the *SCOPE II* decision, the court of appeal for the same appellate district – the Second – upheld the adequacy of the second EIR prepared by Castaic for the 41,000 AFY transfer, retroactively validating the optimism reflected in the EIR at issue in *SCOPE II*. *See* Planning & Conservation League v. Castaic Lake Water Agency, 180 Cal. App. 4th 210 (Ct. App. 2009).

[249] *SCOPE II*, 157 Cal. App. 4th at 163.

[250] *Id.*

[251] *Id.*

[252] *Id.*

[253] *Id.*

[254] *Id.*

[255] *In re* Bay-Delta Programmatic Envtl. Impact Report Coordinated Proceedings, 43 Cal. 4th 1143 (2008).

opinion in *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* addressed consolidated CEQA challenges to the CALFED Programmatic Environmental Impact Statement and Environmental Impact Report ("PEIS/R").[256] In summary, the Supreme Court held that the CALFED PEIS/R was not required to include an analysis of a possible project alternative that, by reducing existing water exports from the southern part of the Sacramento-San Joaquin River Delta to agricultural and urban users in the San Joaquin Valley and Southern California, would not have met one of the project's primary objectives of water supply reliability.[257] The court also held that generalized analyses of the environmental effects of both various potential additional long-term water supply sources and the "Environmental Water Account" ("EWA") were sufficient in light of the programmatic, first-tier character of the document.[258]

The Bay-Delta estuary is created by the convergence of California's two largest rivers, the Sacramento and the San Joaquin, which terminate in the San Francisco Bay.[259] As the court noted, "the Bay-Delta's watershed encompasses 37 percent of the state's surface area, and its average annual in-flow is 22 million acre-feet of water . . . ."[260] The Bay-Delta supplies water throughout California via two major water-diversion projects, the Central Valley Project ("CVP") and the State Water Project ("SWP").[261] The two projects export an average of 5.9 million acre-feet of water each year, primarily for agricultural and urban uses.[262]

The Bay-Delta faces significant water supply and water quality challenges in addition to broader environmental degradation.[263] More specifically, the ecology of the estuary has long been in decline; water exports have grown increasingly unreliable due to these environmental concerns; the water quality of exports is not optimal; and levees throughout the Delta could collapse in an earthquake, creating a water supply crisis for much of California, as export pumps would be inundated with brackish water.[264]

In 1994, the CALFED program was established as a cooperative

[256] *Id.* at 1152.
[257] *Id.* at 1143, 1152.
[258] *Id.* at 1169.
[259] *Id.* at 1151.
[260] *Id.* at 1152.
[261] *Id.* at 1154.
[262] *Id.* at 1154-55.
[263] *Id.* at 1156.
[264] *Id.*

effort of eight California agencies and ten federal agencies to develop and implement long-term solutions to the problems facing the Bay-Delta.[265] The program was divided into three phases. Phase I defined the problems facing the Bay-Delta and analyzed a wide range of alternatives for potential solutions.[266] Phase II added further "program elements" to the previously identified potential alternatives analysis and was the subject of two draft PEIS/Rs.[267] In the summer of the year 2000, at the end of Phase II, the lead agency on the project, the California Resources Agency, certified the final PEIS/R, and the CALFED agencies together issued a Record of Decision for the program.[268] As envisioned at the time, Phase III would implement the preferred alternative identified in the final PEIS/R.[269]

Two lawsuits were filed challenging the CALFED PEIS/R for alleged noncompliance with CEQA and were subsequently consolidated in Sacramento County Superior Court.[270] The trial court ruled that the CALFED PEIS/R satisfied the requirements of CEQA; the court therefore denied the two petitions for a writ of mandate.[271] The Third District Appellate Court reversed that judgment, however, and instructed the trial court to issue a peremptory writ of mandate due to what the appellate court considered to be three violations of CEQA.[272] First, according to the court of appeal, the PEIS/R improperly failed to include a full discussion of an alternative to the CALFED Program that would reduce water exports from the Bay-Delta to CVP and SWP facilities to the south.[273] Second, the court thought that the PEIS/R lacked an adequate analysis of the environmental impacts of diverting (and exporting) additional water from various potential sources.[274] And third, the PEIS/R, the intermediate court said, did not include sufficient information detailing impacts associated with the EWA.[275] The Supreme Court reversed and held that the CALFED final PEIS/R for the Bay-

[265] *Id.*
[266] *Id.* at 1157.
[267] *Id.* at 1159.
[268] *Id.* at 1160.
[269] *Id.*
[270] *Id.* at 1160-61.
[271] *Id.* at 1161.
[272] *Id.*
[273] *Id.*
[274] *Id.*
[275] *Id.*

Delta complied with CEQA as to all three of these issues.[276]

One of the primary objectives of the CALFED project was to improve water supply reliability by reducing the mismatch between supply and demand for Bay-Delta water (most water in California comes from streams flowing into the Delta, while most of the water demand occurs in areas far to the south).[277] Even so, CALFED studied a reduced exports alternative during Phase I of the project.[278] This reduced export alternative was not carried over into Phase II, however, and thus was not included in the formal alternatives analysis portion of the PEIS/R.[279] This omission reflected the CALFED agencies' conclusion that a reduced export alternative would not meet the water supply objective of the project.[280] These agencies instead opted, as part of the strategy for meeting CALFED's water supply objective, to include a water-use-efficiency program in each of the alternatives that were carried forward in the PEIS/R.[281]

The Supreme Court held that "CALFED properly exercised its discretion when it declined to carry the reduced export alternative over for detailed study in the final PEIS/R after concluding that such an alternative would not achieve the CALFED Program's fundamental purpose and thus was not feasible."[282] In support of its conclusion, the court relied on the "rule of reason," which provides that an EIR need only analyze "those alternatives necessary to permit a reasoned choice."[283] The rule of reason also allows lead agencies to eliminate from consideration alternatives that would not "feasibly obtain most of the basic objectives of the project."[284] Here, the court determined the exclusion of the reduced export alternative was consistent with the rule of reason in light of CALFED's finding that such an alternative would not achieve the water supply reliability objective, which the court considered a "basic goal" of the project.[285]

The Supreme Court also determined that, in finding a need for a reduced export alternative, the court of appeal had erroneously given too

[276] *Id.* at 1152.
[277] *Id.* at 1157.
[278] *Id.* at 1164.
[279] *Id.* at 1164-65; *see* CAL. CODE REGS. tit. 14, § 15126.6 (2010).
[280] *In re Bay-Delta*, 43 Cal. 4th at 1164.
[281] *Id.*
[282] *Id.* at 1166.
[283] *See* CAL. CODE REGS. tit. 14, § 15126.6(f) (2009).
[284] *Id.*
[285] *In re Bay-Delta*, 43 Cal. 4th at 1166.

much weight to *preexisting* adverse environmental conditions in the Bay-Delta.[286] The Supreme Court pointed out that the purpose of the EIR under CEQA is to analyze the environmental effects of the proposed project.[287] Regardless of how severe they may be, preexisting environmental conditions are considered part of the baseline conditions against which the effects of the project are assessed, and such existing problems must be distinguished from the new effects that a project may cause.[288] The court of appeal reasoned that the reduced export alternative may have been the best alternative to address preexisting environmental conditions and thus should have been included in the PEIS/R.[289] In contrast, the Supreme Court found that those preexisting conditions would continue regardless of the CALFED program and were therefore part of the baseline under CEQA.[290] Notably, however, the high court acknowledged that laws other than CEQA (e.g., the state and federal endangered species acts) might someday lead to diminished exports:

> As the CALFED PEIS/R itself recognizes, Bay-Delta ecosystem restoration to protect endangered species is mandated by both state and federal endangered species laws, and for this reason *water exports from the Bay-Delta ultimately must be subordinated to environmental considerations*. The CALFED Program is premised on the theory, as yet unproven, that it is possible to restore the Bay-Delta's ecological health while maintaining and perhaps increasing Bay-Delta water exports through the CVP and SWP. If practical experience demonstrates that the theory is unsound, Bay-Delta water exports may need to be capped or reduced. At this relatively early stage of program design, however, we conclude that CALFED properly applied the rule of reason when it decided to consider in the PEIS/R only alternatives that have the potential to both achieve ecosystem restoration goals and meet current and projected water export demands, and that will provide balanced progress in all four of the program areas.[291]

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[286] *Id.* at 1167.

[287] *Id.*

[288] *Id.*

[289] *Id.*; *see also* CAL. CODE REGS. tit. 14, § 15125(a).

[290] *In re Bay-Delta*, 43 Cal. 4th at 1168.

[291] *Id.* at pp. 1168-69 (emphasis added). There is no indication that the Supreme Court shared the court of appeal's view that a reduction of exports would necessarily translate, as an empirical matter, into reduced population growth in California. On that subject, the Third District Court of Appeal had said the following:

> In order to meet the water supply reliability objective of the Program, all of the alternatives proposed in the PEIS/R call for increased exports of water to areas south of the Delta, or at

The final consideration with regard to the missing reduced export alternative related to the adverse environmental effects associated with water-storage facilities and dam construction.[292] On that subject, the Supreme Court held that "although the PEIS/R did not analyze a reduced exports alternative, it did analyze no-additional-storage alternatives that would avoid any adverse environmental consequences of constructing new dams or enlarging existing ones. Under CEQA, this was sufficient."[293] The court also explained that no new water-storage facilities were included in the CALFED project as of the completion of Phase II, emphasizing that any proposed facilities would be subject to

> least no reduction in the amount of water exported. . . . However, a reasonable alternative to this approach would be to reduce the amount of water exported south of the Delta, thereby reducing the amount of water that must be redirected from other users or impounded in new or existing reservoirs. Although such an alternative would not completely satisfy the CALFED goal of reducing the mismatch between Bay-Delta water supplies and beneficial uses, it could satisfy the other Program goals.
>
> The feasibility of such a reduced exports alternative is clear, notwithstanding the projected population growth that undergirds the commitment not to reduce exports. As stated previously, it is projected that the state's population will grow from 30 to 49 million by the year 2020, and that half of this growth will be in Southern California. Such population growth requires water. However, if there is no water to support the growth, will it occur as projected? Population growth is not an immutable fact of life. Stable populations have been established in such states as New York, Pennsylvania, Connecticut, and Rhode Island. Inflow of new residents to California continues to exceed outflow because conditions in the State are conducive to population growth. One aspect of these conditions is the availability of water. However, as the State reaches the limit of available water and must seek other sources such as desalination, water will become more expensive to obtain and California's appeal will lessen.
>
> Years ago some argued that people should follow the water, not vice versa. While it is not the function of this court to advocate one position or the other, this argument nevertheless points out a glaring defect in the PEIS/R. CALFED conducted its environmental analysis by assuming certain population growth in the State over the next 15 years and then finding ways to provide water to that population. But CALFED appears not to have considered, as an alternative, smaller water exports from the Bay-Delta region which might, in turn, lead to smaller population growth due to the unavailability of water to support such growth. Taking an assumed population as a given and then finding ways to provide water to that population overlooked an alternative that would provide less water for population growth leaving more for other beneficial uses. CALFED apparently assumed that the California population would grow as projected regardless of the availability of water and did not consider whether, if less water was supplied, population growth would be affected accordingly, leading to less demand.

In re Bay-Delta Programmatic Envtl. Impact Report Coordinated Proceedings, 34 Cal. Rptr. 3d 696, 774 (Ct. App. 2005) (citation omitted), *rev'd,* 43 Cal. 4th 1143 (2008).

[292] *In re Bay-Delta*, 43 Cal. 4th at 1168.

[293] *Id.*

later, lower-tier environmental review.[294]

The CALFED PEIS/R included a general discussion of the potential sources of water that the project would require.[295] The document did not undertake, however, detailed environmental-impact analysis of diverting water from each of the potential sources (e.g., "enlarging Shasta Lake, expanding the Los Vaqueros reservoir, and constructing an in-Delta storage facility").[296] Rather, the PEIS/R stated that specific analyses of the water sources would be included in second-tier environmental reviews and were not appropriate at this stage of planning.[297] The court of appeal found that deferring the identification and CEQA analysis of specific sources of water violated CEQA, citing the *Stanislaus Natural Heritage Project* decision.[298] The Supreme Court disagreed, stating that "at the first-tier program stage, the environmental effects of obtaining water from potential sources may be analyzed in general terms, without the level of detail appropriate for second-tier, site-specific review. The CALFED PEIS/R satisfies these requirements."[299]

CALFED is a multi-stage program that will be implemented over a thirty-year period.[300] The specific sources of water to supply the project have not yet been identified.[301] Distinguishing the facts at issue in *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova*, the court held that it was appropriate for CALFED to defer detailed analysis of the environmental effects until CALFED has identified the specific sources of water that will someday augment existing exports from the CVP and SWP.[302] Because detailed environmental review at the Phase II stage would be speculative and inefficient, the CALFED agencies properly chose to defer site-specific review of the potential water sources to second-tier environmental documents.[303]

Moving on to the final issue it addressed, the court noted that the

[294] *Id.*

[295] *Id.* at 1169.

[296] *Id.* at 1168 n.8.

[297] *Id.*

[298] *Id.* at 1171.

[299] *Id.* at 1169; *see also* Rio Vista Farm Bureau Ctr. v. County of Solano 5 Cal. App. 4th 351 (Ct. App. 1992) (cited with approval in *In re Bay-Delta*, 43 Cal. 4th at 1171-72).

[300] *In re Bay-Delta*, 43 Cal. 4th at 1172.

[301] *Id.*

[302] *Id.* at 1170.

[303] *Id.* at 1172.

EWA is a part of CALFED's ecosystem restoration strategy.[304] The EWA allows the agencies to "acquire, bank, transfer and borrow water" to protect fish habitat without reducing deliveries to water users.[305] CALFED identified the EWA as a second-tier project and thus discussed its environmental effects only in general terms in the PEIS/R.[306] The EWA was discussed in greater detail in a document entitled "California's Water Future: A Framework for Action" ("Action Framework").[307] The Action Framework was released before the certification of the PEIS/R.[308] The court of appeal held that, because the PEIS/R did not discuss the EWA in what it considered to be sufficient detail, the document failed to comply with CEQA.[309]

The Supreme Court disagreed and found that the PEIS/R had adequately addressed the EWA by discussing its effects in general terms and deferring a more detailed analysis to a second-tier CEQA document.[310] The EWA is a statewide program that will eventually require various water-acquisition projects that, as of the year 2000, had not yet been identified. Thus, until specific water-acquisition projects were identified, the general discussion of the EWA in the PEIS/R was sufficient to satisfy CEQA.[311] Furthermore, the court held, the specific details discussed in the Action Framework were not required in a first-tier CEQA analysis.[312] As the court explained, "[t]he PEIS/R fulfills the function of a first tier document because it analyzes the environmental impacts of the mechanisms that will establish and develop the EWA – water transfers (including purchases from willing sellers), reservoirs, groundwater storage, and more flexible operations of water projects."[313]

In summary, the court upheld the PEIS/R against three broad-based attacks, in each instance emphasizing the programmatic character of the document and the fact that, under applicable legal standards, the kind of detailed analysis demanded by the various petitioners was simply not necessary in order to meet applicable CEQA standards.

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[304] *Id.* at 1173-74.
[305] *Id.* at 1174.
[306] *Id.* at 1173.
[307] *Id.* at 1174.
[308] *Id.*
[309] *Id.*
[310] *Id.* at 1175.
[311] *Id.*
[312] *Id.*
[313] *Id.*

III. CONCLUSION

As California's population has continued to grow, creating an ever-greater demand for development, the Legislature and courts have struggled with addressing the nexus between water supply and land use planning. This effort has been no simple feat and has occurred against the backdrop of ever-increasing uncertainties about the reliability of water supplies in the state.

Nevertheless, after over two decades of appellate decisions dealing with EIR challenges for substantial development projects, the California Supreme Court weighed in, announcing a set of legal principles and requirements that local agencies should follow in addressing water supply issues within EIRs for such projects. Although the *Vineyard Area Citizens for Responsible Growth* decision helped to clarify principles previously found only within a sometimes confusing array of court of appeal decisions, the rules announced by the Supreme Court are easier to articulate than to satisfy in practice. Without doubt, the water-related challenges facing California after the first decade of the twenty-first century will likely continue to tax the creativity and intelligence of the environmental consultants and planners charged with preparing EIRs, of agency decisionmakers faced with demands for new development, and of members of the public. The coming years will see a reduction in water resources, due to a reduced snowpack resulting from climate change, as well as the continuing deterioration of aquatic ecosystems attributable to past societal failures to sufficiently account for environmental concerns in the design of major water storage and delivery systems. Water issues will only grow more complex as water resources become less plentiful.

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Show Me the Water Plan: Urban Water Management Plans and California's Water Supply Adequacy Laws

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ARTICLE

SHOW ME THE WATER PLAN: URBAN WATER MANAGEMENT PLANS AND CALIFORNIA'S WATER SUPPLY ADEQUACY LAWS

*ELLEN HANAK**

I. INTRODUCTION

In 2001, California adopted two landmark pieces of legislation – Senate Bills (SB) 221 and 610 – that require local land use authorities to demonstrate long-term water supply availability before approving new, large development projects.[1] The details of these bills, which quickly became known as the "show me the water" laws, are distinct: SB 610 requires a "water supply assessment" at the relatively early stage of environmental review and covers residential, commercial, and industrial projects (a "project" is typically a development of more than 500 residential units, or a similarly large commercial or industrial development), while SB 221 requires a final check on water availability (a "written verification") for residential projects of this same size

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[1] S.B. 221, ch. 642, 2001 Cal. Stat. 88; S.B. 610, ch. 643, 2001 Cal. Stat. 94.

threshold at the later stage of subdivision map approval.[2] Despite these differences, the intent behind both laws is similar: they aim to forge an often missing link in California's local planning process. Under these laws, cities and counties generally cannot make the determination of adequate water supplies on their own, but must instead obtain this documentation from the local water utility that would be serving the project.[3]

SB 221 and 610 are part of a broader state effort to impose water supply planning safeguards on a highly decentralized planning system. The proximate targets were the state's fifty-eight counties and more than 475 incorporated municipalities that have local land use authority – forcing them to coordinate with the local water utilities to ascertain whether adequate supplies are available to support new development.[4] However, California's urban water supply is also highly decentralized, with hundreds of utilities serving these diverse communities. The effectiveness of SB 221 and 610 depends on the quality of the planning efforts of these utilities.

State efforts to impose some planning norms on water utilities began with the passage of the Urban Water Management Planning Act in 1983.[5] The Act required all large urban utilities (defined as those serving

[2] For smaller communities, the laws apply to projects that would increase the number of the public water system's existing service connections by 10% (or the equivalent for non-residential projects under SB 610). For details on the laws and an account of the legislative history, MCCORMICK, KIDMAN & BEHRENS, ASS'N OF CAL. WATER AGENCIES, WATER SUPPLY AND DEVELOPMENT: A USER'S GUIDE TO CALIFORNIA STATUTES INCLUDING SB 221 (KUEHL) AND SB 610 (COSTA) (2002); *see also* CAL. DEP'T OF WATER RES., GUIDEBOOK FOR IMPLEMENTATION OF SENATE BILL 610 AND SENATE BILL 221 OF 2001 TO ASSIST WATER SUPPLIERS, CITIES, AND COUNTIES IN INTEGRATING WATER AND LAND USE PLANNING (2003).

[3] CAL. DEP'T OF WATER RES., *supra* note 2, at 5, 44.

[4] Indeed, the impetus for the legislation came from the East Bay Municipal Utilities District (EBMUD), a large San Francisco Bay Area Utility, which objected to local development approvals occurring without consultation. EBMUD pushed for this legislation after finding that compliance with a 1995 law it had sponsored requiring water supply assessments, SB 901, was very low. *See* MCCORMICK, KIDMAN & BEHRENS, *supra* note 2. Randele Kanouse & Douglas Wallace, *Optimizing Land Use and Water Supply Planning: A Path to Sustainability*, 4 GOLDEN GATE UNIV. ENVTL. L. J. 145 (2010).

California has fifty-seven counties with unincorporated areas over which the county government has land use authority. In late 2009, the state had 480 incorporated municipalities (including San Francisco, whose boundaries are coextensive with those of the County of San Francisco). Four of these became incorporated after the passage of SB 221 and 610. *See* League of California Cities: Incorporation Dates of California Cities, www.cacities.org/index.jsp (search for "Incorporation dates of California Cities"). Although a small number of these incorporated entities go by the label "town," they will all be referred to as "cities" in this Article.

[5] ELLEN HANAK, PUB. POLICY INST. OF CAL., WATER FOR GROWTH: CALIFORNIA'S NEW FRONTIER 31 (2005), *available at* www.ppic.org/content/pubs/report/R_705EHR.pdf.

at least 3,000 retail connections or supplying at least 3,000 acre-feet of water per year) to develop long-term plans for water supply and demand in their service areas, to be updated at least every five years, in years ending in zeros and fives.[6] The list of required elements in these Urban Water Management Plans (UWMPs) has been updated numerous times, reinforcing the core purpose: to provide an assessment of the extent to which current and future water supply sources will be adequate to meet water demand at an appropriate level of reliability in normal years as well as during single or multi-year droughts.[7]

By and large, SB 221 and 610 were crafted to be in sync with the law governing utility planning. Water supply adequacy to support new development needs to be demonstrated over a twenty-year horizon, the minimum planning horizon for a UWMP.[8] A utility's UWMP can be used to demonstrate water availability under both SB 221 and 610, as long as the plan accounts for the increased water demand associated with the proposed development project.[9]

In keeping with California's strong "home rule" tradition, these planning laws rely largely on citizen enforcement rather than direct regulatory oversight by the state. Thus, the laws provide the opportunity for citizens to challenge the responsible local agencies in civil suits.[10] Courts can invalidate the planning documents (UWMPs, water supply assessments, or written verifications), thereby holding up development approvals. SB 610 also introduced financial incentives to water utilities to submit UWMPs. Since 2002, only agencies with "complete" plans are eligible for state financial support for local projects.[11] This change gave

[6] CAL. WATER CODE §§ 10617, 10620(a), 10621(a) (Westlaw 2010).

[7] *See id.* at §§ 10610.2, 10631(c). For a list of all required elements for the plans due in December 2005, *see* CAL. DEP'T OF WATER RES., GUIDEBOOK TO ASSIST WATER SUPPLIERS IN THE PREPARATION OF A 2005 URBAN WATER MANAGEMENT PLAN (2005), *available at* www.water.ca.gov/urbanwatermanagement/. S.B. X7-7, ch. 4, 2009 Cal. Stat. 93, extends the reporting deadline for the 2010 UWMPs for retail utilities to July 1, 2011. The department expects to issue a guidebook for this next round in late 2010. *See* www.water.ca.gov/urbanwatermanagement/ (last visited Feb. 20, 2010).

[8] CAL. DEP'T OF WATER RES., at 8.

[9] A UWMP can be used as a source document for preparing a water supply assessment under SB 610. A UWMP can also be used to furnish substantial evidence required for the written verification under SB 221. *See* MCCORMICK, KIDMAN & BEHRENS, *supra* note 2.

[10] In the following cases, private plaintiffs sued to enforce Government Code provisions introduced by SB 610 and SB 221, and the courts recognized that the plaintiffs had valid causes of action: Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412 (2007); Gray v. County of Madera, 167 Cal. App. 4th 1099 (Ct. App. 2008); Friends of the Santa Clara River v. Castaic Lake Water Agency, 123 Cal. App. 4th 1 (Ct. App. 2004).

[11] This provision of SB 610 expired on January 1, 2006. *See* CAL. WATER CODE § 10657

the California Department of Water Resources (DWR) the mandate to assess the plans for completeness but not for quality. In sharp contrast to climate change policy, where the California Attorney General has pressured local governments to bring their plans into compliance with state laws aimed at limiting greenhouse-gas emissions, the state has not actively sought to enforce the water supply adequacy laws though the judicial process.[12]

This Article reviews the effectiveness of California's strategy of using enabling legislation and passive enforcement to encourage more integrated local water and land use planning. To shed light on the effectiveness of the current policy framework, the Article begins with a critical overview of the Urban Water Management Planning process, drawing on a detailed analysis of plans submitted in the early 2000s.[13] It then evaluates how water supply assessments are proceeding, with a particular emphasis on steps used to identify adequacy, drawing on telephone surveys of land use authorities and water utilities conducted by the author in 2004 and 2009. A concluding section highlights shortcomings in the current system and suggests steps that could improve California's planning process.

II. URBAN WATER-MANAGEMENT PLANNING: DECENTRALIZATION CHALLENGES IN A GROWING STATE

For most water utilities – at least those of any appreciable size – long-term planning is a standard operating procedure. Utilities are in the business of delivering a service to end users, and the investments needed to provide that service – treatment plans, underground distribution networks, and assorted infrastructure to deliver fresh water to customers in the service area – are typically costly and take time to implement. These characteristics encourage planning, if only to chart out the desired

(repealed Jan. 1, 2006), but other funding contingencies for plan components, including those for drought assistance, are still in effect. *See* CAL. WATER CODE § 10656. DWR continues to condition grants and loans on having a complete plan. Telephone interview with David Todd, DWR (Mar. 9, 2010).

[12] The California Attorney General has filed suit against several jurisdictions whose general plans were deemed out of compliance with the California Environmental Quality Act regarding cumulative impacts of greenhouse-gas emissions and has submitted comments to many others, all with the goal of encouraging modifications of the plans. *See* ag.ca.gov/globalwarming/ceqa /generalplans.php (last visited Feb. 15, 2010).

[13] *See generally* HANAK, *supra* note 5; ELLEN HANAK, DECENTRALIZED GROWTH PLANNING: EVALUATING WATER UTILITY PERFORMANCE (2009), www.econ.ucsb.edu/~neira/11 calworkshop_files/Hanak.pdf.

time path of investments and the strategy for funding them. Thus, when the state introduced the requirement to develop UWMPs in 1983, it was building on established traditions. To this day, many utilities develop plans other than those required by the law, such as water master plans, groundwater-management plans, and integrated water-resource plans.[14] For some utilities, these other documents may be more useful than UWMPs as blueprints for action.

What sets UWMPs apart is the goal of setting some minimum, uniform statewide standards for long-term water planning.[15] The requirements of the UWMPs also aim to stretch utilities to consider elements they might not normally include in the traditional infrastructure-planning process. Traditionally, water managers have tended to focus on expanding supplies of surface water and native groundwater to meet projected demands, without considering the potential for demand management (which can free up supplies) or alternative sources, such as recycled water and transfers of water rights from other users.[16] As new surface and groundwater reserves have become increasingly scarce, the state has encouraged utilities to consider the alternatives.[17]

This intent to make the planning process more comprehensive is reflected in the amendments to the law over time. For instance, in 1991, at the height of a multi-year drought, the act was amended to require that utilities include a water shortage contingency plan (Assembly Bill (AB) 11X) and to provide detailed reporting on demand-management measures (AB 1869).[18] Detailed reporting on recycled water use – a resource with considerable untapped potential – was first required for the plans due in December 2000, and reporting on desalination for the plans due in December 2005.[19]

The law also aims to address some of the coordination issues that

[14] HANAK, *supra* note 5, at 31.

[15] Numerous revisions and updates to the law have made it a somewhat unwieldy document, with planning requirements interspersed throughout several dozen sections. To assist utilities in plan preparation, the California Department of Water Resources has developed model plans, guidebooks, and worksheets, and it holds workshops on how to comply with the law in the year prior to the plan-submission deadline. CAL. DEP'T OF WATER RES., *supra* note 7. For a copy of worksheets for the 2005 plans, *see* www.water.ca.gov/urbanwatermanagement/ (follow "UWMP Review Sheets" hyperlink) (last visited Apr. 2, 2010).

[16] *See generally* Ellen Hanak, *Finding Water for Growth: New Sources, New Tools, New Challenges*, 43 J. AM. WATER RESOURCES ASS'N 1024 (2007).

[17] *See id.* at 1027.

[18] A.B. 11X, 1st Ex. Sess., 1991 Cal. Stat. ch. 13; A.B. 1869, 1991 Cal. Stat. ch. 938.

[19] *See* A.B. 2853, ch. 366, 1994 Cal. Stat. 2171; S.B. 318, ch. 688, 2004 Cal. Stat. 96.

arise in a decentralized management system. "To the extent practicable," utilities are required to coordinate the preparation of the plan with other local water agencies, including those sharing a common water source, and must notify cities and counties within their service areas of the opportunity to submit comments.[20] SB 610 added new reporting requirements on groundwater availability – reflecting concerns about broader aquifer-management problems, and the fact that utilities might not be adequately considering the potential for competition for the same resources when identifying available supplies. In the same spirit, in 2002, SB 1384 added a requirement that retail and wholesale utilities share information on projected water demands and supplies.[21]

The effectiveness of the UWMP law in encouraging more comprehensive local planning depends on utility compliance with the spirit as well as the letter of the law, but the law is not structured to shed light on performance. Utilities are required to submit the plans to DWR,[22] but the department has a very limited review mandate. It can assess whether the plans include all the required elements, but not whether the information contained in the plans is sound.[23] Department staff inform utilities when they judge a plan to be incomplete, but the state does not monitor or analyze fundamental issues such as whether the reported groundwater supply sources are really available, or whether the conservation plans are sufficiently aggressive.[24]

For the UWMPs that were due in December 2000, the author was able to evaluate the overall performance of the system, by combining a database of plan content compiled by DWR staff with other information on utility and service-area characteristics.[25] This analysis revealed a number of weaknesses in the UWMP planning process, including basic compliance problems (failure to submit altogether or to include essential planning data) as well as coordination problems (such as failure to consider competing uses of the same water supplies). These findings, summarized here, have implications for the effectiveness of UWMPs as a planning tool, and, by extension, for the effectiveness of the "show me the water" laws.

In 2000, 418 utilities were large enough to meet the law's definition

[20] CAL. WATER CODE §§ 10620, 10621.

[21] S.B. 1384, ch. 969, 2002 Cal. Stat. 93.

[22] CAL. DEP'T OF WATER RES., *supra* note 2, at xiii.

[23] *Id.*

[24] HANAK, *supra* note 5, at 3, 33, 103.

[25] *Id.* at vi.

of "urban water supplier," and thereby required to submit a plan.[26] This included twenty-six agencies providing only wholesale services (supplying other utilities) and 392 retail agencies (supplying households and commercial and institutional establishments), nineteen of which doubled as wholesalers.[27] Although many more small utilities operate in the state, those required to submit plans had a combined service area including the vast majority of the state's population (86%).[28] Coverage was slightly lower (79%) for the new homes built between 1990 and early 2000, reflecting faster growth in the state's less developed areas, where utilities are less likely to meet the size threshold.[29] Coverage of the population was also lower in several regions with smaller towns and more rural development patterns where utilities also tend to be smaller – the Central Coast (66%), the San Joaquin Valley (65%) and the rural counties located outside of the state's metropolitan areas (53%).[30]

Although the potential coverage of the UWMP law is fairly good, compliance problems translate into a somewhat less positive picture. By mid-2003, a full two and a half years after the due date, all twenty-six of the pure wholesale agencies had submitted a plan,[31] but eighteen percent of the agencies with retail services had not done so, bringing the population actually covered by plans down to seventy-seven percent.[32] Between July 2003 and August 2004, another nine eligible utilities submitted plans, raising coverage to eighty-four percent of eligible retailers and seventy-eight percent of the population.[33] In the rural counties and the fast-growing San Joaquin Valley, low submission rates meant that only a third of the population was actually covered by a plan.

Among the submitters, there were significant gaps in the provision of required information and analysis. On average, the plans were missing information on seven of the fifty-six required elements.[34] These gaps were particularly severe for essential quantitative information,

[26] *Id.* at 34.
[27] *Id.*
[28] *Id.*
[29] *Id.* at 34-35.
[30] *Id.* at 35.
[31] *Id.*
[32] *Id.*
[33] *Id.* at 35 n.4
[34] These elements included information on the process of plan preparation (three), supply and demand planning (seventeen, of which ten required detailed quantitative information), wastewater and recycling (eleven, of which three required quantitative information), demand management (fourteen), and water-shortage contingency planning (eleven). For a detailed list, *see* HANAK, *supra* note 5, at 115-18.

particularly for water demand: whereas eighty-four percent of those submitting plans provided quantitative information on planned supply sources over a twenty-year horizon, only sixty-three percent did so for projected water use.[35] Quantitative information on supply reliability was also relatively low, with more than a quarter of submitters failing to report estimates of volumes available during single and multi-year dry periods.[36]

Some characteristics of utilities and their service areas appear to have made a difference in how well or how poorly the utilities were complying with the law.[37] Submission of a plan was significantly less likely for utilities that were smaller, operating in isolation (outside of a wholesale distribution network), and constituted either as a municipal water department or under private ownership rather than a special district.[38] Among those utilities that did submit plans, the most significant predictors of poor performance were, once again, organizational structure (with municipal and private utilities performing worse) and isolation (notably, lack of involvement of other agencies and the public in the planning process and lack of joint provision of water and wastewater services).[39] In addition, poor performance was associated with a troubling community characteristic from the standpoint of SB 221 and SB 610 compliance: faster growth.[40]

Data in the plans submitted by the relatively good performers (at least from the perspective of completeness) also reveals some troubling information about the lack of coordination in the state's decentralized water supply planning system.[41] On the whole, utilities were projecting fairly constant levels of per-capita water use out to 2020 – in contrast to the state's own projections that per-capita water use would be trending downward.[42] To accommodate the resulting demand growth, utilities

[35] *Id.* at 43.

[36] *Id.* at 115.

[37] *See* HANAK, DECENTRALIZED GROWTH PLANNING: EVALUATING WATER UTILITY PERFORMANCE, *supra* note 13, at 30-31 tbls. 3, 4.

[38] *See* HANAK, *supra* note 5, at 39-40.

[39] *See id.*

[40] *See id.* at 42.

[41] These statewide estimates are based on available data on supply and demand projections from the plans of a sample of utilities covering about two-thirds of the state's population. *See id.* at 135.

[42] For state estimates, see the demand scenarios in CAL. DEP'T OF WATER RES., CALIFORNIA WATER PLAN UPDATE 2005: BULLETIN 160-05 Vol. 1, ch. 4; Vol. 4 ("Quantified Scenarios of 2030 Water Demand") (2005), *available at* www.waterplan.water.ca.gov/previous/cwpu2005/index.cfm; *see also* HANAK, *supra* note 5, at 19 fig. 2.4. For estimates from the UWMPs, *see* HANAK, *supra*

were projecting substantial increases in water supplies, on the order of 3.4 million acre-feet.[43]

A breakdown of the composition of supply sources reveals some areas of innovation but also major areas of concern. Departures from "business as usual" include a near-tripling of recycled water use from 2000 and an increase in water transfers – together accounting for fifteen percent of the projected supply increase.[44] More problematic: utilities were counting on more than 1.2 million acre-feet of additional groundwater, and 1 million acre-feet of additional supplies from their wholesalers.[45] For these sources, the projections signal coordination failures. Only about a third of the projected increase in groundwater was by utilities drawing from managed basins, where water masters or special management agencies are charged with ensuring recharge. Two-thirds of the pumping increase was projected within the fast-growing Central Valley, where the lack of rigorous basin-management rules raises the specter of uncoordinated withdrawal from basins that already face problems of overdraft.[46] Similarly, the large projected increase in wholesaler supplies (which typically come from surface-water sources) raises red flags, since the retailer plans were generally not closely coordinated with those of their wholesalers.[47]

The prospect of conflict over water resources in communities facing demand growth is also apparent in the fact that the majority of utilities reported excess supplies, under both current and future conditions.[48] Although some margin of comfort is certainly desirable, the magnitudes involved – some 2 million acre-feet per year – suggest that many utilities were counting on using water that is already being used by someone else within the state's water system.

In sum, this review of the UWMPs submitted in the early 2000s suggests a range of factors that are problematic from the standpoint of long-term planning to accommodate population growth. In particular,

note 5, at 45 tbl. 3.2.

[43] HANAK, *supra* note 5, at 45. In 2000, urban water use was estimated at roughly 8.9 million acre-feet. *See* CAL. DEP'T OF WATER RES., *supra* note 42, at 3-9 tbl. 3.1.

[44] *See* HANAK, *supra* note 5, at 46 fig. 3.2.

[45] *Id*. at 135 tbl. B.8.

[46] *See* CAL. DEP'T OF WATER RES., *supra* note 42, at 4-16 on the problems of overdraft, estimated to amount to 1 to 2 million acre-feet annually.

[47] Two exceptions were in Sonoma and Los Angeles Counties, where the wholesale agencies (Sonoma County Water Agency and Castaic Lake Water Agency, respectively) and local retailers presented coordinated UWMPs. *See* HANAK, DECENTRALIZED GROWTH PLANNING: EVALUATING WATER UTILITY PERFORMANCE, *supra* note 13, at 22 n.21.

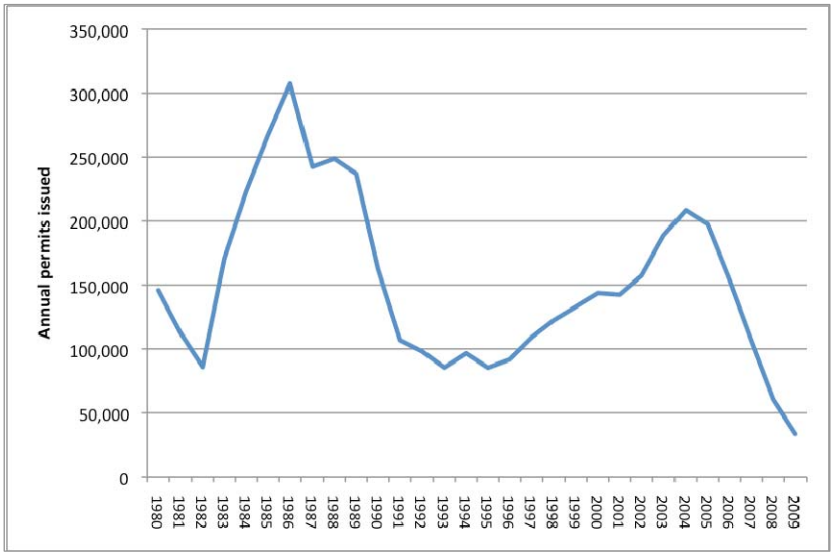
[48] *See* HANAK, *supra* note 5, at 48 fig. 3.3.

compliance was lower in the fastest growing communities, utilities were putting little emphasis on demand management, and there was a general tendency to neglect potential resource management conflicts arising from supply augmentation.

III. WATER SUPPLY ADEQUACY: SB 221 AND SB 610 ON THE GROUND

The "show me the water" laws came into effect in January 2002, in the midst of a housing-construction boom that began in the late 1990s and peaked in the mid-2000s (Figure 1). New housing activity has since plummeted as a result of the economic recession, which coincided with the onset of serious water supply reliability concerns for large parts of the state.[49]

Figure 1. California residential construction permits, 1980-2009



Source: U.S. Census

Hydrologic conditions have been one source of concern, with a multi-year drought leading to calls for voluntary cutbacks and mandatory

[49] *See* JAY LUND ET AL., PUB. POLICY INST. OF CAL., ENVISIONING FUTURES FOR THE SACRAMENTO-SAN JOAQUIN DELTA 7 (2007), *available at* www.ppic.org/content/pubs/report/R_207JLR.pdf.

rationing in numerous service areas across the state.[50] More troubling for many utilities in Southern California and the Bay Area (as well as farmers in the San Joaquin Valley) is the prospect of reduced long-term supply reliability as a result of regulatory cutbacks in surface water supplies conveyed through the Sacramento-San Joaquin Delta. In the early 2000s, the Delta, which serves as a conveyance hub for both the state-run State Water Project and the federally-run Central Valley Project, began to experience sharp declines in several species listed under the federal Endangered Species Act (ESA).[51] In response to lawsuits brought by environmental organizations, a federal court invalidated the Biological Opinions for the two projects required for their incidental take permits under the ESA.[52] The new Biological Opinions, which require significant restrictions on pumping operations in the South Delta, are expected to reduce Delta exports by twenty-five to thirty percent on average.[53] The higher cutbacks in wet years have raised particular concerns for urban utilities, as this limits their ability to replenish managed groundwater basins and local surface storage south of the Delta.[54]

Against this background of shifting conditions in the housing market and long-term water supply reliability, how have local agencies been responding to the new water supply adequacy laws? To shed light on this topic, the author conducted two telephone surveys of communities with development projects subject to review for water availability. The first survey, in the summer of 2004, involved contacting planners in fifty-nine cities and counties that had reported review activity under SB 221 or 610 in a statewide survey conducted earlier that year.[55] Within these jurisdictions, water supply adequacy reviews (mostly under

[50] *See* ASS'N OF CAL. WATER AGENCIES, DROUGHT ACTION BY AGENCY, www.acwa.com/issues/cadrought/report.asp?type=1 (last visited Mar. 2, 2010). As of March 2, 2010, the site reported data from sixty-seven urban suppliers with mandatory conservation programs in place, and another fifty-six with voluntary conservation programs. *Id.*

[51] LUND ET AL., *supra* note 49, at 7, 31.

[52] *See* JAY LUND ET AL., PUB. POLICY INST. OF CAL., COMPARING FUTURES FOR THE SACRAMENTO-SAN JOAQUIN DELTA 2 (2008), *available at* www.ppic.org/content/pubs/report/R_708EHR.pdf.

[53] *Id.* at 3.

[54] Conversations with Southern California and Bay Area water utility officials (Feb. 2010) (discussions guaranteed anonymity).

[55] For the earlier survey, see ELLEN HANAK & ANTONINA SIMETI, PUB. POLICY INST. OF CAL., WATER SUPPLY AND GROWTH: A SURVEY OF CALIFORNIA CITY AND COUNTY LAND-USE PLANNERS (2004), *available at* www.ppic.org/content/pubs/op/OP_304EHOP.pdf.

SB 610) had been completed for ninety-five projects.[56] The second survey, in the fall of 2009, involved contacting city and county planners (and in some cases their water utilities) in 108 jurisdictions that had reported potentially qualifying projects under environmental review to the State Clearinghouse and Planning Unit within the Governor's Office of Planning and Research since 2005.[57] In all, ninety-six jurisdictions had completed water supply assessments for 261 projects in this period.[58] Whereas the first survey provides insights on early review activity under the new laws, the second captures projects for which the linkages envisaged between water supply-adequacy reviews and UWMPs were more likely to be in place, since the UWMPs due in 2005 were the first prepared after the passage of SB 221 and 610.

A. COMPLIANCE IN THE EARLY YEARS (2002-2004)

The first survey revealed a high level of compliance with the new laws, with little evidence that communities were neglecting to review projects or that developers were skirting the laws' requirements by setting project sizes just below the threshold – one of the concerns that had been voiced in the negotiations over the legislation.[59] In all, nine of the ninety-five projects were initially deemed to have insufficient supplies, and in seven of these cases, developers were asked to find additional water supplies or to scale back the projects.[60] For two projects located in outlying areas, the option of augmenting supplies was considered infeasible, and the projects were rejected.[61]

Overall, there was a striking degree of attention to nontraditional

[56] *See* HANAK, *supra* note 5, at 75.

[57] The State Clearinghouse maintains a searchable database of California Environmental Quality Act (CEQA) documents that require state review. *See* www.ceqanet.ca.gov/QueryForm.asp. We searched all projects with the keywords "residential," subdivision," "development," and "project" that had at least 500 residential units or a sizeable expansion of commercial space, or, for smaller communities, projects that had the potential to increase demand by 10%. We excluded four jurisdictions with projects deemed too small to pass the size threshold, four that had not yet begun the review process, and four for which we were unable to obtain sufficient information. We augmented the sample of projects subject to review based on information provided in the interviews. Survey results reported here have not been published elsewhere.

[58] *See id*. Insufficient information was available on another twenty-four projects in these jurisdictions.

[59] *See* HANAK, *supra* note 5, at 66-68, 74-81. For the legislative history, see MCCORMICK, KIDMAN & BEHRENS, *supra* note 2. SB 221 had initially proposed a review threshold of 200 units, but this was adjusted upward in negotiations leading to the bill's passage.

[60] HANAK, *supra* note 5, at 75.

[61] *Id.*

water sources – notably recycled water use and conservation. Three out of ten approved projects were planning to use recycled or raw water for landscaping, adopt landscape conservation strategies, and/or augment indoor conservation with water-saving appliances in existing neighborhoods, and another tenth of the sample was planning to incorporate outdoor conservation policies consistent with general local policies.[62] In some cases, these components were incorporated into project design before review; in others they were added as a condition of approval.

However, there were also signs of the same type of coordination problem witnessed in the review of UWMPs. In areas lacking strong groundwater-basin oversight, some developers were proposing projects using groundwater despite concerns of negative consequences for existing users.[63] Conflicts of this type arose in San Luis Obispo County and in Kern County, both areas with high groundwater dependency and overdraft problems in unadjudicated basins. In both cases, developers were required to implement conservation measures before the projects could go forward.[64] In Kern, the experience led the County to update its General Plan to require high-water-using projects to show supplies in addition to groundwater.[65]

B. COMPLIANCE SINCE 2005

Overall, the second survey reveals many similar findings.[66] Although only one project in the sample was explicitly blocked because of water supply concerns, nearly thirty percent of all projects took special measures to introduce conservation, recycled-water use, or, in at least one case, new water made available through water transfers (Table 1). In addition, many Southern California, Bay Area, and Central Coast communities now have standard measures for water-use efficiency that apply to all new projects. The requirements were least prevalent in the Central Valley, where they were concentrated in a handful of communities: unincorporated Kern County (where the County has continued to impose restrictions on groundwater-based projects) and the City of Fresno (where projects are required to install purple pipes to

[62] *Id.* at 76.

[63] *Id.* at 80-81.

[64] *Id.*

[65] *Id.* at 81.

[66] *See supra* note 57. Unless otherwise indicated, the information in subsections B and C are from the 2009 survey.

accommodate recycled water use). In most cases, these requirements were imposed as part of the approval process, but in several communities where water supply issues are especially contentious, the projects were preemptively designed to be "water smart" to limit controversy. This was the case, for instance, in the Coachella Valley, and in the Santa Clarita area of Los Angeles County, which has been plagued by water and growth controversies for over a decade (including one of the few lawsuits to be filed against a UWMP).[67]

Table 1. Projects with water supply assessments, 2005-2009

	Jurisdictions	Projects	Housing units	Projects with special requirements
Bay Area	28	70	72,412	31%
San Joaquin Valley	18	62	107,927	13%
Southern California	21	65	145,523	42%
Sacramento Metro	9	26	172,154	8%
Central Coast	8	13	18,518	38%
Rural Counties	12	25	25,291	28%
California	96	261	541,825	27%

Source: Author survey, Fall 2009.[68]

The housing slowdown has resulted in numerous reviewed projects being cancelled or put on hold (particularly in the San Joaquin Valley), and it has slowed the pace of new projects under consideration. Were it

[67] *See also* HANAK, *supra* note 5, at 77-80. The lawsuit invalidating the UWMP over failure to address remediation of a contaminated groundwater source was *Friends of the Santa Clara River v. Castaic Lake Water Agency*, 123 Cal. App. 4th 1 (Ct. App. 2004). James Moose, *The Relationship Between Water Supply and Land Use Planning: Leading Cases Under the California Enviromental Quality Act*, 4 GOLDEN GATE UNIV. ENVTL. L. J. 27 (2010).

[68] See text for a description of the sample, drawn from State Clearinghouse (CEQAnet). In all, 177 projects included non-residential construction, of which twenty-eight were exclusively non-residential. The largest residential project is the Master Environmental Impact Report for a general plan update in the City of Sacramento, with 97,000 units.

not for the slowdown, the decreased water supply reliability in areas dependent on the Delta would likely have resulted in many more water-related restrictions on new development. Already, several communities in the Bay Area and Southern California whose utilities contract for Delta water are imposing stricter conditions than those seen in the first survey, including stronger recycling requirements (such as on-site treatment) and conservation offsets. The one project in the sample that was blocked over water supply concerns was in the City of Yucaipa (San Bernardino County), where the community requires all new developments to purchase and store twenty years worth of water before getting approval for a water connection. With the drought and Delta pumping restrictions, the lack of supplemental State Water Project water for purchase has put the project on hold indefinitely. Several respondents indicated that they expected restrictions to increase for new projects, including a rise in requirements for "water neutral" developments, which fully offset their water use through recycling and the funding of conservation retrofits in existing developments. Although there is clearly some potential for additional conservation and recycled water use within the regions dependent on the Delta, strategies relying entirely on offsets are likely to significantly slow the pace of housing growth once the economy recovers.

Meanwhile, a large number of communities within the Sacramento Metro Area, the San Joaquin Valley, the rural counties, and several Bay Area counties (Solano, Contra Costa, and Sonoma) reported no perceived problems of long-term water availability for development. Indeed, several communities north of the Delta foresee large increases in surface water diversions to support growth.[69] When requirements are imposed on new development in these communities, they typically involve paying to sink new wells or otherwise helping to fund new water-related infrastructure. Although this assessment of supply abundance is likely accurate in some cases, the lack of coordinated groundwater management also raises the likelihood of overdraft problems in others.

C. THE ROLE OF UWMPS IN WATER ADEQUACY REVIEWS

In principle, the "show me the water" laws provide a significant

[69] Both Sacramento and West Sacramento plan to increase diversions within their existing water rights. Vacaville expects to use water obtained in a 2003 settlement with DWR over an area-of-origin water rights application. Two Stockton utilities plan to augment supplies with a new surface-water diversion in the Delta.

incentive to produce a solid UWMP, which makes it possible to streamline development approvals. DWR's guidelines and worksheets for the 2005 round of UWMPs included tables to accommodate taking the planning window out to 2030 (five years beyond the mandated twenty-year horizon), so that a plan can be used to cover new development proposed within the five-year window between UWMP updates.[70]

Overall, submissions of plans for the 2005 round were up somewhat from the previous round: DWR estimated that 452 utilities met the size threshold, and by mid-2008 only fourteen percent of the retailers had not yet submitted (down from eighteen percent five years earlier).[71] By October 2009, only eleven percent (forty-two retail utilities) were delinquent.[72] Still, only fifty-three percent of the plans for which DWR had finished its review were deemed complete – suggesting significant gaps in plan quality.

To take a closer look at how the linkages are working, the telephone survey sought information on which utilities were involved in the water adequacy reviews and what type of documentation they used in the water supply assessments. In all, ninety-five utilities were involved in the projects subject to screening, including two new utilities that were to supply rural projects in Sutter and Kern counties. In all, seventy-six utilities (80%) had submitted UWMPs to DWR. All but two of the missing cases involved utilities not considered large enough to be subject to the UWMP law.

Thus, overall compliance was higher than average for the utilities subject to water adequacy screening, with ninety-seven percent having submitted plans, versus only eighty-six percent for all utilities. These utilities were also somewhat more likely to have passed the DWR review for completeness, at sixty-four percent (versus fifty-three percent for all UWMPs). And four out of five of these plans were prepared with projections out to 2030. When available, UWMPs appear to be used routinely as supporting documents for water supply assessments. This is true even in cases where the proposed project was not included in the UWMP demand projections, and supplemental analysis of water supply availability was needed to provide a favorable review. A few utilities use the UWMP as the sole supporting document for water supply availability

[70] CAL. DEP'T OF WATER RES., *supra* note 7, at 8.

[71] Author's calculations using compliance data from Cal. Dep't of Water Res. (received Oct. 22, 2009) (on file with author).

[72] *Id.*

when the project was accounted for in the water plan's projections.[73] The City of Sacramento has developed a short (three-page) water supply assessment form for such projects.[74]

Taken together, this evidence suggests that the introduction of formal linkages between the laws on water supply adequacy and water-management planning is beginning to bear fruit. However, there still appear to be important gaps in the water supply planning process itself that limit the ultimate effectiveness of this decentralized planning system.

Although a detailed examination of the 2005 round of UWMPs is beyond the scope of this analysis, the author was able to examine demand and supply projections contained in the plans of sixty-three of the utilities that conducted water adequacy reviews.[75] Some improvements are apparent relative to the 2000 round of plans. Notably, in compliance with a new requirement introduced with SB 610, the new plans provide a fuller description of groundwater sources used – in many cases including a description of basin overdraft conditions. Supply projections also appear somewhat more diversified than in 2000, with more utilities considering transfers, recycling, and desalination options. Overall, two-thirds of the utilities projected declines in per-capita water demand.[76] There are some inconsistencies in this regard, with some agencies deducting conservation savings from baseline demand projections, and others projecting baseline demands as though conservation were not expected to occur, and then explicitly documenting conservation savings as a new source of supply. Other problems are still apparent in some plans, including missing data, data inconsistencies (e.g., supply sources that do not sum to totals presented elsewhere), and optimistic assumptions about the availability and reliability of some water sources.

One particular area of concern relates to the continued absence of systematic coordination between retailer and wholesaler plans. Although

[73] For instance, this was the case for some projects in San Francisco, Mountain View, and Los Angeles.

[74] *See, e.g.*, www.sacgp.org/documents/AppendixM_WSAandWaterInfo.pdf (last visited July 5, 2010).

[75] Many of the plans deemed complete are available for download on DWR's website. *See* www.water.ca.gov/urbanwatermanagement/UWMP.cfm (follow "UWMPs" hyperlink).

[76] Assessment is based on the author's statistical examination. It is worth noting that per-capita demand reductions might not be a good indicator of conservation efforts in all cases. For instance, if a community is expecting significant commercial or industrial growth, per-capita demand might increase despite water-use-efficiency improvements. However, on balance one should expect to see decreases if utilities are generally working to increase water-use efficiency.

there has been some improvement since 2000, with several fully coordinated plans presented for the 2005 UWMPs, most retailer and wholesaler plans are still prepared separately.[77] One risk, as noted above, is that retailers are in some cases making incompatible projections to augment their draws on wholesaler supplies.[78]

Another problem that has become apparent in the context of water supply adequacy reviews is the lack of consistency in the ways retailers view potential reliability problems when they rely on wholesaler supplies. Some local agencies in Southern California that rely on wholesale sources from the Metropolitan Water District of Southern California and its member agencies have been implementing increasingly aggressive requirements for new developments, and in at least two cases, developments have been put on hold because of recent supply-reliability concerns.[79] Meanwhile, one retail agency in Los Angeles County reported that agency staff did not believe it was their place to make an autonomous decision about water supply availability, since they believed that Metropolitan had projected that supplies would be available. Another retail agency in San Diego County reported that staff would like to require offsets for new development but feel this is beyond their authority, given that Metropolitan and the local wholesaler (San Diego County Water Authority) have said water supply is in surplus. These interpretations of wholesale supply reliability are not consistent with the wholesalers' own positions. (Neither agency promises precise amounts to retail agencies, and neither has gone on record that it will ensure supplies needed for new developments under SB 610 and 221 within its retail network.) They also suggest a misunderstanding of the scope of authority (and responsibility) of retail agencies in the water adequacy-review process.

Of course, the effectiveness of the linkages between the UWMP and water adequacy laws is also limited by the fact that some new development takes place in areas without large utilities. As noted above,

[77] In addition to the Sonoma County Water Agency and Castaic Lake Water Agency and their members, which had submitted regional plans in 2000, regional plans for 2005 were prepared by wholesalers and retailers associated with the Mojave Water Agency and by several agencies in the Hollister area of San Benito County.

[78] *See* HANAK, *supra* note 5, at 47.

[79] This includes the Yucaipa Valley case noted above as well as some projects within the Eastern Municipal Water District Service Area (Riverside County), where will-serve letters were not issued pending an improvement in the water supply outlook in light of the drought and Delta pumping restrictions. *See* Jennifer Bowles & Dan Lee, *Perris-Based Water District First To Postpone Delivery Deals to Major New Developments*, RIVERSIDE PRESS ENTERPRISE, Dec. 11, 2007.

UWMPs tend to be weaker in areas that are experiencing faster growth, and growth also tends to be faster in outlying areas that are not covered by UWMPs at all. (In the sample surveyed here, eleven percent of all projects fell into this category.) In these cases, the onus falls on land use authorities to manage the review process and ensure that supplies are adequate to support growth. Yet these are often the areas where the local governments are least equipped to manage such reviews, and where technical information on supplies such as groundwater is least developed.

IV. UNFINISHED BUSINESS

California's water supply-adequacy laws distinguish themselves from those of other states in the arid southwest, where state engineers directly review water adequacy in a significant number of cases.[80] Indeed, California is an interesting hybrid from the perspective of planning law. The state's "home rule" tradition is strong – with deep-seated notions that both land use and water supply should be managed at the local level. Yet the public's desire to provide regulatory oversight is also strong, particularly in the area of environmental management. The compromise has been a series of state laws that aim to impose some planning norms on local agencies. The regulatory mechanism is a passive one – rather than applying state sanctions for noncompliance, the laws rely on the potential for civil lawsuits as the primary enforcement mechanism.

In principle, one might argue that the incentives under this system are well placed, since local community members have the greatest stake in making sure the laws are upheld. They are, after all, the parties who will bear the brunt of supply shortfalls if the plans overstate water availability. On the other hand, the costs of organizing and developing an adequate technical understanding of local water supply conditions could impede civil action in cases where it might be warranted. Moreover, local planning failures can have negative spillovers on other communities when they result in uncoordinated use of shared resources such as groundwater.

The findings presented here suggest that both the water supply adequacy laws and the law requiring urban water management plans have been honored to a large degree. Nevertheless, there remain some

[80] 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). State engineers play an important role in Arizona, Colorado, Nevada, and New Mexico, for instance.

significant gaps and coordination problems that limit the laws' effectiveness in reliably balancing long-term supplies and demands in a growing state. The linchpin of a sound system is strong long-term water-management plans. One fundamental weakness in California's decentralized planning framework is the lack of comprehensive management of groundwater basins, which encourages competition and unsustainable basin management. But even in areas where basins are fully managed through adjudications or special management districts – as is the case in much of urban southern California – decentralized water-resources planning can result in coordination failures if retail plans are not developed in close conjunction with wholesale water suppliers.

These limitations do not undermine the premise that decentralized planning can effectively respond to the needs of local communities. But they do suggest the need for more state oversight and incentives – regulatory or financial – to encourage water utilities to coordinate within wholesale networks, and more generally, within the same groundwater basin and watershed, in accounting for supply sources.

Although the UWMP law has progressively added new requirements to encourage more comprehensive planning and to address areas of concern such as groundwater use, the fundamental issue of whether the plans make sense collectively – that is, whether they add up – has yet to be addressed. Several reforms are needed to allow the plans to work as intended. First, agencies should be required to classify their level of confidence in projected new supply sources in a standard way, to allow more transparent assessment of the likelihood of the supply becoming available.[81] Second, more explicit coordination within wholesale networks should be required. Ideally, both supply sources and demand projections should be consistent across members and with the wholesale provider. Standardized reporting of new supply sources should

[81] One useful example is the system used by the Metropolitan Water District of Southern California, which classifies local agency supply projects depending on how far along the projects are in the planning process: (1) "existing": projects that are producing water, (2) "under construction": projects that are under construction, (3) "full design and appropriated funds": projects that are designed and have secure funding for construction; (4) "advanced planning (EIR/EIS certified)": projects that have completed environmental impacts report and other approvals; (5) "feasibility": projects that have undergone feasibility studies but have not obtained permits; (6) "conceptual": projects in early planning phases. Metropolitan Water District of Southern California, Integrated Area Study 2007, report #1317, pp. 3-9, 3-10 (Dec. 2007). With projects cleanly identified in this way, it is possible to choose different split points for reliability and be consistent across related agencies. The Integrated Area Study includes the first three categories as the split point. Metropolitan's 2005 UWMP distinguishes between the "existing and committed" categories (Appendix 5) and the rest (Appendix 6). Metropolitan Water District of Southern California, The Regional Urban Water Management Plan, Los Angeles, Cal. (Nov. 2005).

help in this regard, but limits in authority could still make this difficult, for instance if retail and wholesale agencies cannot agree on methods for projecting demand. At a minimum, wholesale agencies need to provide a clear indication of whether they expect to be able to cover projected wholesale demands within their service areas, so that clear contingency plans can be developed in the event of shortfalls. Third, DWR should be authorized to go beyond the current accounting of whether the plans are complete, to an assessment of whether the numbers make sense in the aggregate. To make this possible, it will also be necessary to require more consistent reporting of key data in the plans. In particular, agencies should be required to report savings expected from conservation in a consistent manner, so that it is clear what is included in baseline demand projections.

New concerns about long-term water supply reliability in areas dependent on water conveyed through the Sacramento-San Joaquin Delta also raise questions about the ability of the decentralized water-management structure to effectively plan for growth. Export-water users are currently pursuing a long-term conveyance alternative to improve supply reliability, in a coordinated effort led by the California Natural Resources Agency.[82] But this solution is at best some fifteen years off and could well mean lower overall supplies from the Delta over the long term.[83] Modeling simulations show that urban areas dependent on Delta supplies can adapt to significant cutbacks – or even a complete cessation of exports – and accommodate continued population growth.[84] But such adaptations will require significant changes in the way supplies are managed, including more interconnections to allow agencies to share non-Delta supplies. Effective responses to major shifts in water supply reliability such as this will tax the limits of California's decentralized water-management system, requiring agencies to collaborate more, at a minimum, and possibly also consolidate, to deliver water-management solutions to support the existing population and the growth projected to come.

[82] *See* Bay Delta Conservation Plan, www.baydeltaconservationplan.org/BDCPPages/Partners.aspx.

[83] This is, for instance, a recommendation of the Governor's Blue Ribbon Task Force. *See* PHILIP ISENBERG ET AL., DELTA VISION BLUE RIBBON TASK FORCE, OUR VISION FOR THE CALIFORNIA DELTA 1, 12 (Jan. 29, 2008), *available at* landscape.ced.berkeley.edu/~delta/DV%20general/Delta_Vision_Final.pdf.

[84] LUND ET AL., *supra* note 52, at 76-77.

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Friant Dam Holding Contracts: Not an Entitlement to Water Supply Under SB 610

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ARTICLE

FRIANT DAM HOLDING CONTRACTS: NOT AN ENTITLEMENT TO WATER SUPPLY UNDER SB 610

*BARRY EPSTEIN**

I. INTRODUCTION

Nearly ten years ago, California's Legislature enacted Senate Bill (SB) 610,[1] a new law requiring that any proposed large development project receiving local land use approvals be supported by a Water Supply Assessment demonstrating available water supply to meet the project's 20-year forecast water demand.[2] While some, perhaps most, proposed large development projects are within the service territory of large, public or private municipal water purveyors whose entitlement to the water they deliver is well-established (though not necessarily adequate or secure), developments outside the service territory of such water purveyors can require more scrutiny of the underlying water rights entitlement to the proposed water supply.

This article presents a single case study of one such proposed

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[1] S.B. 610, Ch. 643, 2001 Cal. Stat. 94 (amending CAL. PUB. RES. CODE § 21151.9; CAL. WATER CODE §§ 10631, 10656, 10910, 10911, 10912, 10915; repealing CAL. WATER CODE § 10913; adding and repealing CAL. WATER CODE § 10657).

[2] *Id.* at § 3.

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project, the River Ranch Estates development, which was to be built in a rural agricultural area of Madera County, northeast of Fresno. After reviewing the background of SB 610, the proposed development project, and the proposed source of water supply for the project, the tale of the challenge to the existence of the claimed water rights entitlements is told through the briefs of the parties to the lawsuit that ensued once Madera County approved the project.[3]

II. SB 610

A. IDENTIFICATION OF WATER SUPPLY REQUIRED FOR NEW DEVELOPMENTS

California's SB 610 went into effect in 2002.[4] In enacting SB 610, the California Legislature found that the linkage between water supply and land use planning was "deficien[t]" and expressly set out to "strengthen the process pursuant to which local agencies determine the adequacy of existing and planned future water supplies to meet existing and planned future demands on those water supplies."[5]

Pursuant to SB 610, California law now requires that, before approving a "project,"[6] a city or county must identify any "public water system"[7] that may supply water for the project.[8] SB 610 then requires the

[3] The author represented the Petitioners in the case discussed in this article, but has undertaken here to present (without embracing) the positions of the various parties. The views expressed here are not necessarily those of the author or the Petitioners in the case.

[4] S.B. 610, Ch. 643, 2001 Cal. Stat. 94.

[5] *Id.* § 1(a)(9), (b).

[6] SB 610 defines "project" to include "[a] proposed residential development of more than 500 dwelling units." CAL. WATER CODE § 10912(a)(1) (Westlaw 2010). A "project" also includes "[a] proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space," "[a] proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space," and various other types of facilities exceeding specified thresholds of size, occupancy or water demand. CAL. WATER CODE §10912(a)(2)-(7), (b) (Westlaw 2010).

SB 610's requirements are triggered by the need for compliance with the California Environmental Quality Act (CEQA). *See* CAL. PUB. RES. CODE § 21000 *et seq*. (Westlaw 2010). That is, SB 610 provides that "[w]henever a city or county determines that a project, as defined in Section 10912 of the Water Code, is subject to this division [i.e., is subject to CEQA], it shall comply with Part 2.10 (commencing with Section 10910) of Division 6 of the Water Code." CAL. PUB. RES. CODE § 21151.9 (Westlaw 2010). A corollary provision also was inserted into the Water Code by SB 610: "Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part." CAL. WATER CODE § 10910(a) (Westlaw 2010).

[7] "Public water system" is defined in CAL. WATER CODE § 10912(c) (Westlaw 2010).

preparation of a "water supply assessment" that evaluates whether there are adequate and secure water supplies to the meet the anticipated water demand for the project for a 20-year period.[9] This water supply assessment must contain the following:

> An identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.[10]

Thus, a water supply assessment is required when there is a "project" within the meaning of SB 610 and when review is required for that project under the California Environmental Quality Act (CEQA).

B. SPECIFIC REQUIREMENTS REGARDING WATER ENTITLEMENTS

The legislature not only required that the proposed water supply be identified in the water supply assessment, but also that the claimed availability of that supply be "demonstrated."[11] SB 610 contains an extensive list of mandatory requirements that a Water Supply Assessment must address to demonstrate the availability of the water supply upon which it relies:

> (d) . . . .
>
> > (2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:
> >
> > > (A) Written contracts or other proof of entitlement to an identified water supply.
> > > (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

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[8] CAL. WATER CODE § 10910(b) (Westlaw 2010).
[9] CAL. WATER CODE § 10910(c)(3),(4) (Westlaw 2010).
[10] CAL. WATER CODE § 10910(d)(1) (Westlaw 2010).
[11] CAL. WATER CODE § 10910(d)(2) (Westlaw 2010).

> (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
> (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

> (e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.[12]

Additional requirements apply when the proposed water supply source is groundwater rather than surface water.[13]

III. RIVER RANCH ESTATES PROPOSED PROJECT

A. OVERVIEW OF PROJECT

The River Ranch Estates Project ("RRE Project" or "Project") was a proposed residential, commercial, and institutional development on farmland and open space in Madera County, California, located near the San Joaquin River, approximately four miles northeast of the City of Fresno and approximately three quarters of a mile below Friant Dam.[14] As described in the County's Final Environmental Impact Report ("Final EIR") for the RRE Project:

> The River Ranch Estates development proposes to construct 1,646 dwellings in mixed densities on 548 acres (including streets), 20 acres

[12] CAL. WATER CODE § 10910(d)(2), (e) (Westlaw 2010).

[13] *See* CAL. WATER CODE § 10910(f) (Westlaw 2010).

[14] River Ranch Estates Final EIR, Madera County Planning Department (SCH # 96072055), Aug. 12, 2003, at 1-1, 3-2.

> of parks, an elementary school, fire stations, water and wastewater facilities, and approximately 92,500 square feet of commercial space.[15]

The Central Green Company and affiliated companies (collectively, "Central Green") were the Project's developers.[16]

The only proposed source of potable water supply for the Project was diversions by pumping from the San Joaquin River at a location near the Project site.[17] The proposed water purveyor was the Central Green Mutual Water Company, a captive private water company controlled by the same developer.[18]

B. WATER SUPPLY ASSESSMENT

In connection with the proposed Project, the Central Green Mutual Water Company prepared and submitted to Madera County the Central Green Water Supply Assessment. As the assessment states:

> The Central Green Mutual Water Company (the "Company"), as the proposed operator of the public water system for the Project, has assessed whether its total water supplies will meet the projected demands of the Project, as required by SB 610 (Water Code § 10190(b).
>
> In summary and as discussed in detail below, the Company's Water Supply Assessment concludes that sufficient water supplies will exist to satisfy the projected 20-year Project demands during normal, single-dry, and multiple-dry years, in addition to existing and planned future uses, including agricultural and manufacturing uses.[19]

Section IV(B) of the 2002 Central Green Water Supply Assessment entitled "Water Rights" provides:

> All existing water demands are met with fresh water delivered from the San Joaquin River under the Holding Contracts with the United States Bureau of Reclamation.
>
> All of the land included in the Project is riparian to the San Joaquin

[15] *Id.* at 1-1.

[16] Central Green Portion of North Fork Village: A Portion of the Rio Mesa Area Plan, Water Supply Assessment (Water Code Section 10910 *et seq.*), for the County of Madera, December 2002 (Revised December 23, 2002) [hereinafter Central Green Water Supply Assessment], at 5.

[17] *Id.* at 2.

[18] *Id.* at 5.

[19] *Id.* at 2.

> River and, as a result, has rights to the natural flow of river water that are senior and paramount to all appropriators, including the United States Bureau of Reclamation which constructed and owns Friant Dam. To avoid costly and protracted litigation with riparian water users downstream of Friant Dam, the Bureau of Reclamation entered into a series of "Contracts for Settlement of Certain Former Water Rights from the San Joaquin River." These contracts are commonly called "Holding Contracts." The Project sponsors have three Holding Contracts for the property included in the Project.
>
> . . . .
>
> The Company's legal counsel has opined that the Project sponsors' water rights under California law, which are recognized in the Holding Contracts, are legally sufficient to supply water from the San Joaquin River for all domestic and irrigation uses contemplated by the Project. . . . A copy of the legal opinion is available upon request.[20]

The Central Green Water Supply Assessment also states that "the Holding Contracts are intended to *satisfy* the Project sponsors' *riparian rights* . . . ."[21]

IV. HOLDING CONTRACTS

A. FRIANT DAM

Friant Dam, one of the significant features of the Central Valley Project, stores water in Millerton Lake by impounding water from the San Joaquin River, one of California's major rivers.[22] Construction of the dam affected the holders of water rights in an approximately 60-mile stretch of the San Joaquin River below Friant Dam by impounding substantial quantities of river water that otherwise would have flowed in the river below the dam, and then diverting that water into canals for delivery to water users in a vast area of the San Joaquin Valley and beyond.[23] As noted by the U.S. Supreme Court:

> All of the parties recognized the existence of water rights in the area and the necessity to *accommodate or extinguish* them. The

[20] *Id.* at 5-6 (emphasis added).
[21] *Id.* at 5 (emphasis added).
[22] *See* Dugan v. Rank, 372 U.S. 609, 612-14 (1963).
[23] *Id.* at 612-13.

> principal alternative, as shown by the reports of the United States Reclamation Bureau to the Congress and the subsequent appropriations of the Congress, was to purchase or pay for infringement of those rights. As early as 1939 the Government entered into negotiations ultimately culminating in the purchase of water rights or agreements for substitute diversions *or periodic releases of water from Friant Dam into the San Joaquin River*. As of 1952, the United States had entered into 215 contracts of this nature involving almost 12,000 acres, of which contracts *some 100 require the United States to maintain a live stream of water in the river*.[24]

The contracts involving "periodic releases of water from Friant Dam" in order to "maintain a live stream," as referenced by the Supreme Court, are commonly known as "Holding Contracts." Two of these Holding Contracts were involved in the RRE Project water supply.

B. HOLDING CONTRACTS NOS. 3 AND 6

Holding Contract No. 3[25] begins with three historical Recitals, stating that the United States: (1) has constructed Friant Dam to store and divert a portion of the water from the San Joaquin River; (2) has purchased or otherwise acquired certain water rights to the water of the River; and (3) has changed the points of diversion and places of use of those water rights.[26] The contract then recites that the Contracting Owners owned certain described lands at the time the United States acquired those certain water rights and that "the United States desires to compensate the Contracting Owners of the land to which the certain water rights were appurtenant at the time of acquisition by the United States."[27]

Holding Contract No. 3 then provides for the payment of $665.00 to the Contracting Owners.[28] In return, the "Contracting Owners acknowledge: (a) the right of the United States to control, operate, utilize and maintain Friant Dam . . . so as to interfere with direct and/or control the flow of the [San Joaquin] River . . . . (b) The rights of the United

[24] *Id*. at 613-14 (emphasis added; citations omitted).

[25] Contract for Settlement of Certain Former Water Rights from the San Joaquin River, Contract No. 14-06-200-3220A, January 23, 1967, between the United States of America and J. Robert and Emily V. Barnett, recorded in the Official Records of Madera County, California, Feb. 1, 1967, Book 979, p. 608. The Barnetts are referred to in the Holding Contract as the "Contracting Owners."

[26] *Id.* at 609-10.

[27] *Id*. at 610.

[28] *Id.*

States to use and/or divert . . . and change the place or places of use and/or change the point or points of diversion and/or the purpose or purposes of use of any of the water of the River . . . . (c) Payment provided for herein as full compensation for all claims of the Contracting Owners arising out of the operation of Friant Dam and the Contracting Owners hereby release the United States from all such claims."[29]

Three other provisions of Holding Contract No. 3 are of key interest:

> PROVISION FOR LIVE STREAM
>
> 5. The Contracting Officer[30] will *permit water to pass by or through Friant Dam into the River*, which water, together with the accretions to the River from all sources whatsoever, will maintain a live stream in the River at the control point defined in Article 1 herein.[31]
>
> . . . .
>
> HOW OWNER MAY DIVERT WATER
>
> 7. The United States *does not and will not* so far as it and its successors and assigns are concerned, *object to* any reasonable beneficial use of the water of the River for irrigation and/or domestic purposes exclusively upon the land described in Exhibit "A" . . . .
>
> . . . .
>
> NO WATER OR WATER RIGHTS TO BE SOLD BY CONTRACTING OWNERS
>
> 11. The Contracting Owners shall not sell or attempt to sell or convey *any water or water rights or interest therein from any sources whatever, claimed to be parcel of or attached or appurtenant to or for use upon* the land described in Exhibit "A" or any part thereof, for use elsewhere or upon other land, and any such attempted sale or

[29] *Id*. at 612.

[30] Holding Contract No. 3 defines the "Contracting Officer" to mean "the Secretary of the United States Department of the Interior or his duly authorized representative." *Id*. at 611.

[31] The "control point" is defined to mean "a point in any channel of the River where a live stream, as hereinafter defined, is at any time flowing or would most likely flow where such channel intersects the most southerly boundary line of the said land extended easterly as indicated on Exhibit 'A'." *Id.* That is, in general terms, the "control point" is in the San Joaquin River at the downstream end of the Contracting Owners' property.

conveyance shall be void.[32]

The provisions of Holding Contact No. 6[33] are similar to those of Holding Contract No. 3. Of note, the Recitals of Holding Contract No. 6 include the following:

> 4. WHEREAS, the Contracting Owners are the owners of certain land hereinafter particularly described, and *are the owners of certain rights to the use of water in or affected by or influenced by the water of the River*; and
>
> 5. WHEREAS, project operations at Friant Dam and such change or changes in the places of use and/or points of diversion or water, the right to the use of which is now owned or may hereafter be acquired by the United States, *will be injurious to* the said land, *the water rights* in connection therewith and/or other property or rights *of the Contracting Owners*.[34]

The Contracting Owners under Holding Contract No. 6 received payment in the amount of $506.00.[35] The contract also contains a similar "live stream" provision:

> 10. The United States recognizes that the Contracting Owners *have certain rights* to the use of water from, or influenced by, the River on or in connection with said land, either by appropriation, or by prescription, or as owners of land overlying an underground water supply whether from an underground stream or percolating water, or as owners of land riparian to the River, or otherwise, and *in full satisfaction of said water rights* however acquired, claimed, or enjoyed the United States *will permit water to pass by or through Friant Dam into the River* which water, together with accretions to the River from all sources whatsoever, will *maintain a live stream* in the River in the control point hereinafter defined.[36]

Like Holding Contract No. 3, Holding Contract No. 6 also contains a provision stating that the United States will not object to any reasonable and beneficial use of San Joaquin River water "exclusively"

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[32] *Id*. at 613, 615 (emphasis added).

[33] Contract No. 127159, dated October 10, 1947, between the United States of America and Mary E. Lesher, recorded in the Official Records of Madera County, California, Aug. 23, 1948, Vol. 447, p. 49.

[34] *Id*. at 50 (emphasis added).

[35] *Id.*

[36] *Id*. (emphasis added).

on the Contracting Owner's property for irrigation or domestic purposes and a provision prohibiting the Contracting Owner from selling or conveying any water or water rights connected to the property for use elsewhere.[37]

V. COUNTY APPROVED PROJECT, CEQA AND WATER SUPPLY ASSESSMENT BASED ON HOLDING CONTRACTS

On May 11, 2004, the Board of Supervisors of Madera County approved the RRE Project.[38] In so doing, it certified an Environmental Impact Report for the Project[39] and approved the Central Green Water Supply Assessment prepared and submitted to the County by the Central Green Mutual Water Company.[40] In its approval Findings, the Board noted that:

> The North Fork Village Logical Sub Area Infrastructure Master Plan and Design Guidelines, and Water Supply Assessment plan *to use the existing Holding Contracts to supply water to the proposed development*. . . . The project applicant has provided statements from a registered engineer that the *water is available through holding contracts* with the United States Bureau of Reclamation. Information in the public record is controversial as to interpretation of the holding contracts. However, the applicants' claim to water use are [*sic*] supported by evidence in the public record.[41]

The Board of Supervisors also discussed the Central Green Water Supply Assessment, and in particular, the evidence concerning the claimed water entitlement underlying the proposed source of water supply, at length in the Findings for its resolution approving the Water Supply Assessment:

> *Water Rights*
>
> According to the Water Supply Assessment prepared by the Central Green Mutual Water Company, all existing water demands are met with fresh water delivered from the San Joaquin River under the Holding Contracts with the United States Bureau of Reclamation.

---

[37] *Id*. at 51. The language is nearly identical to the corresponding paragraphs in Holding Contract No. 3.

[38] County of Madera, Cal., Resolution 2004-142, p. 4 (May 11, 2004).

[39] *Id.*

[40] *Id.*

[41] *Id.* at 16-17 (emphasis added).

> . . . The Water Assessment Study indicates that; "the company's legal counsel has opined that the project sponsors' water rights under California law, which are recognized in the Holding Contracts, are legally sufficient to supply water from the San Joaquin River for all domestic and irrigation uses contemplated by the Project.
>
> Several water districts and related agencies have questioned the use of holding contract water to serve the proposed development (see final EIR and planning commission background), recommending that additional legal opinions be sought. County Counsel has indicated that the legal and factual base for using river water come from the holding contracts, which allow use of the water for irrigation and or domestic purposes. No opinions or correspondence from affected agencies alter the terms of those contracts. The concern by some is that perhaps someone could challenge the contracts in the future. While this is correct, it was also stated that this is true of any right. If independent opinions were provided, it would remain true. Significantly, no one, not an irrigation district or any other commentator, has indicated that the contracts are not valid and binding.
>
> . . . .
>
> During the EIR process there was substantial evidence presented relative to the project's right to use water from the San Joaquin River for all project uses. The sources of that evidence include but are not limited to the following: The Rio Mesa Area Plan and the Rio Mesa Area Plan EIR, the Denslow Green opinion letters, the project's water company legal opinion, the County staff's report on the meeting with the Bureau of Reclamation and the water agencies, comments from John Renning (the Bureau of Reclamations person most knowledgeable on Central Green's Holding Contracts), and the Holding Contracts themselves.
>
> The items submitted and reviewed during the EIR process and additional evidence submitted during the Board Hearing by the applicant demonstrated to the Board's satisfaction the project's right to use water from the San Joaquin River for all the uses contemplated by the project.[42]

This resolution, accompanied by two other resolutions and a rezoning ordinance,[43] constituted the final action by Madera County with respect to the Central Green Water Supply Assessment and the EIR for

[42] *Id.* at 64-65 (emphasis added).

[43] County of Madera, Cal., Ordinance 525-580; County of Madera, Cal., Resolutions 2004-143, 2004-144.

the RRE Project.

VI. LITIGATION CHALLENGE

Six separate lawsuits were filed in Madera County Superior Court challenging the County's approval of the Project. One suit – on which this article is focused – was filed jointly by the Madera County Farm Bureau, Chowchilla Water District, Dennis Meisner, Jr., and Madera Irrigation District (the "Petitioners" in the "MCFB Case").[44] The other five suits were brought by: (1) the State of California on behalf of the State Lands Commission; (2) the County of Fresno; (3) the City of Fresno; (4) the San Joaquin River Parkway and Conservation Trust; and (5) the Friant Water Authority.[45]

A. OVERVIEW OF THE MCFB CASE – CEQA AND SB 610 CLAIMS

In the MCFB Case, the Petitioners challenged the County's approval of the Project on several grounds,[46] alleging violations of CEQA's procedural requirement of recirculation,[47] SB 610,[48] CEQA substantive requirements,[49] the State Planning and Zoning Law,[50] and the County Subdivision Ordinance and the Subdivision Map Act.[51]

[44] Madera County Farm Bureau v. County of Madera, No. MCV023548 (Cal. Super. Ct., County of Madera filed June 10, 2004).

[45] All six cases were transferred to the Stanislaus Superior Court. Thereafter, all six cases were consolidated for purposes of trial and were captioned under the designated Lead Case *County of Fresno v. County of Madera*, Stanislaus Superior Court Case No. 351003. Not all of the other cases challenged the *Central Green Water Supply Assessment*, *see supra* note 16, and the EIR's water supply analysis. Only *Madera County Farm Bureau v. County of Madera*, No. MCV023548 (Cal. Super. Ct., County of Madera filed June 10, 2004), proceeded to trial and decision on the merits.

[46] Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Madera County Farm Bureau v. County of Madera, No. MCV023548 (Cal. Super. Ct., County of Madera filed June 10, 2004) [hereinafter *Petition*].

[47] *Id.* at 11-12. When "significant new information" is added to a draft EIR after it has been circulated for public comment, but prior to final certification, the revised draft EIR must be recirculated for further comment. CAL. PUB. RES. CODE § 21092.1 (Westlaw 2010).

[48] Petition, *supra* note 46, at 13-16.

[49] *Id.* at 17-22.

[50] *Id.* at 22-23; *see also* CAL. GOV'T CODE § 65000 et seq. (Westlaw 2010).

[51] Petition, *supra* note 46, at 23-25; *see also* CAL. GOV'T CODE § 66410 et seq. (Westlaw 2010).

B. SB 610 VIOLATIONS IN RELYING UPON HOLDING CONTRACTS AS A BASIS OF ENTITLEMENT AND FAILURE TO DEMONSTRATE THAT THE PROJECT PROPERTY HAD RIPARIAN RIGHTS

The Petitioners challenged, among other things, the Central Green Water Supply Assessment's reliance upon Holding Contracts and riparian rights as bases of entitlement to the proposed source of water supply for the RRE Project.[52] The Petition alleged:

> 52.The Water Supply Assessment relied upon and approved by the COUNTY relies solely upon water diverted from the San Joaquin River as the source of water supply to the RRE Project. The Water Supply Assessment asserts that the basis of the water entitlement to water diverted from the River arises from a riparian right.
>
> 53.The Water Supply Assessment relied upon and approved by the COUNTY fails to examine the alleged riparian claim or to support the existence of riparian rights for all lands in all portions of the RRE Project area. There is no evidence that all of the parcels comprising the RRE Project that are intended to be served with this water are riparian lands entitled to riparian water rights under California law. There is no evidence that the water proposed to be diverted under riparian claim constitutes natural flow of the San Joaquin River.

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[52] Petitioners also claimed that the *Central Green Water Supply Assessment*, *see supra* note 16, violated SB 610 in other ways, specifically that the assessment failed to include specific information required under SB 610 because:

> It does not include a copy of a capital outlay program for financing the delivery of a water supply that has been adopted by the CENTRAL GREEN MUTUAL WATER COMPANY; it does not contain information demonstrating federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply; it does not contain information demonstrating any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply; and it does not include an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as is relied upon in the Water Supply Assessment. Petition, *supra* note 46, at 13, 14.

Petitioners went on to claim that the assessment relied upon use of Holding Contract water for disallowed purposes because:

> The RRE Project requires the use of water diverted from the San Joaquin River for other purposes, including industrial, commercial and institutional uses, in addition to irrigation and domestic purposes. Use of River water pursuant to the Holding Contracts is not allowed for such other purposes. Accordingly, the Water Supply Assessment does not provide a basis for concluding that sufficient water is available from the San Joaquin River to provide the water supply needs of the RRE Project and is therefore inadequate. Petition, *supra* note 46, at 13, 14.

There is no evidence that any of the land within the RRE Project has established a riparian right pursuant to California law.

54. The Water Supply Assessment relied upon and approved by the COUNTY relies on two contracts, known as "Holding Contract No. 3" and "Holding Contract No. 6," between the BuRec and prior owners of property including some portion or all of the RRE Project area, to support its conclusions as to the availability of sufficient water from the San Joaquin River to be diverted for the RRE Project. Under these Holding Contracts, the BuRec agreed to release certain water from its Friant Dam project, located on the San Joaquin River upstream of the RRE Project property, and agreed that the BuRec "will not. . .object" to diversions pursuant to these Holding Contracts for certain purposes on certain lands under certain conditions.

. . . .

57. The Holding Contracts do not and cannot grant a water right or modify California water rights law. Diversions of water from the San Joaquin River for use on the RRE Project property under the Holding Contracts must still meet all requirements of California riparian water rights law. To the extent that the Water Supply Assessment relies upon the Holding Contracts to demonstrate an entitlement to water diverted from the River for use on the RRE Project property independent of California riparian rights, the Water Supply Assessment is inadequate.

. . . .

60. Accordingly, the Water Supply Assessment does not provide a basis for concluding that sufficient water is available from the San Joaquin River to provide the water supply needs of the RRE Project and is therefore inadequate.

61. In approving the inadequate Water Supply Assessment, the COUNTY violated its legal duty and prejudicially abused its discretion. Accordingly, the COUNTY's approval of the Water Supply Assessment must be set aside and declared void.

62. The Adequate Water Supply Law [i.e., SB 610] required that the COUNTY independently determine whether projected water supplies will be sufficient to satisfy the demands of the RRE Project, in addition to existing and planned future uses, before making the Project Approvals. The COUNTY failed to make this determination. The COUNTY also failed to make a formal finding that adequate water

> was available to serve all lands within the RRE Project and to meet all uses of water required for the RRE Project. In making the Project Approvals without making these determinations and findings, the COUNTY violated its legal duty and prejudicially abused its discretion.
>
> 63. To the extent that the COUNTY made an informal determination and/or finding that adequate water was available to serve all lands within the RRE Project and to meet all uses of water required for the RRE Project, such determination and/or finding is not supported by substantial evidence in the record.
>
> 64. Accordingly, the Project Approvals must be set aside and declared void, the COUNTY must be prohibited from taking any further actions with respect to the Project Approvals until it has complied with the Adequate Water Supply Law, and the other Defendants and Respondents must be enjoined from undertaking any portion of the RRE Project until the COUNTY has fully complied with these legal requirements.[53]

Once the Administrative Record was prepared and certain procedural issues were addressed, the MCFB Case proceeded to briefing on the merits, with Petitioners filing an Opening Brief[54] and a Reply Brief,[55] and the Respondent County and the Real Parties in Interest filing a joint Opposition Brief,[56] together with supporting documents accompanying those briefs.

C. PETITIONERS' POSITION

Petitioners' briefing challenged the water entitlement propositions of the Water Supply Assessment on two primary bases. First, Petitioners asserted that the Holding Contracts themselves were not water rights at all. To the extent that the County had believed that the Holding Contracts

[53] *Id*. at 13-16.

[54] Opening Brief of Madera County Farm Bureau, Chowchilla Water District, Dennis Meisner, Jr. and Madera Irrigation District in Support of Petition for Writ of Mandate and Complaint for Declaratory Relief and Injunctive Relief, City of Fresno v. Madera County Bd. of Supervisors, No. CV351003, (Cal. Super. Ct., County of Stanislaus filed Dec. 16, 2005) [hereinafter Opening Brief].

[55] Reply of Madera County Farm Bureau Et Al. to Joint Opposition to Petition for Writ of Mandate and Complaint for Declaratory Relief, City of Fresno v. Madera County Bd. of Supervisors, No. CV351003, (Cal. Super. Ct., County of Stanislaus filed Mar. 17, 2006) [hereinafter Reply Brief].

[56] Joint Opposition to Petition for Writ of Mandate & Complaint for Declaratory Relief, City of Fresno v. Madera County Bd. of Supervisors, No. CV351003, (Cal. Super. Ct., County of Stanislaus filed Jan. 10, 2006) [hereinafter Opposition Brief].

themselves provided an entitlement to divert water from the San Joaquin River to the Project, that belief was simply incorrect. Second, Petitioners asserted that there was no evidence in the Administrative Record to support the proposition that all of the land on which the Project was to be built had riparian rights.

Section IV(B) of the *2002 Water Supply Assessment* entitled "Water Rights" provides that "**[a]ll of the land included in the Project is riparian to the San Joaquin River** and, as a result, has rights to the natural flow of river water" and that the Holding Contracts "are intended to satisfy the Project sponsors' **riparian rights**." In fact, however, there is **no** evidence in the record to support the bald assertion that all of the RRE Project area has riparian rights. To the contrary, as shown below, documents in the Record demonstrate the absence of any analysis showing that all of the RRE Project area has riparian water rights:

> . . . [I]t is important to note that the Holding Contracts do not create any water rights. Riparian water rights are creatures of state law, and the Holding Contracts – contracts between the landowners and the federal Bureau of Reclamation – do not *create* riparian rights (or any other water right), because the federal government has no authority to create or grant water rights, which are matters of state real property law. California Oregon Power Company v. Beaver Portland Cement Company (1935) 295 U.S. 142, 163-164; see, United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 106; Carpenter, Pacific Mut. Life Ins. Co. of Cal. v. City of Santa Monica (1944) 63 Cal.App.2d 772, 784-786. This proposition has been explicitly recognized by the U.S. Congress. See, e.g., 43 U.S.C. §383 (Reclamation Act of 1902); 43 U.S.C. §661 (Act of July 26, 1866).[57]

In support of the argument that the Holding Contracts did not themselves provide a water right, the Petitioners referred to the express language of the two Holding Contracts upon which the Central Green Water Supply Assessment had relied:

> In fact, the Holding Contracts do not even purport to create or even recognize water rights that the landowners may have. Rather, the Holding Contracts simply provide for the Reclamation Bureau to release a certain amount of water from Friant Dam into the San Joaquin River (". . . the United States will permit water to pass by or through Friant Dam into the River. . .") and provide that "[t]he United

[57] Opening Brief, *supra* note 54, at 12. References to the Administrative Record or other compilations of authority as submitted to the trial court have been omitted from quotations throughout this article.

> States does not and will not . . . object to any reasonable beneficial use of the water of the River for irrigation and/or domestic purposes." (*See* Holding Contract Nos. 3 and 6.)[58]

The Petitioners also pointed to opinion letters by counsel for Central Green to support their position that Holding Contracts do not provide a water right:

> Moreover, the limited role of the Holding Contracts has been explicitly recognized by water rights counsel for the Project Proponents:
>
> > [W]e recognize that the [Holding] Contracts do not 'create a water right' in the Contracting Owners under California Law. . . . This is not a 'water right' under California law, but it is a 'contractual right to receive water'. . . ." *June 18, 1997 letter to Roger K. Patterson, Reclamation Bureau, from Denslow Green, Esq.*
> >
> > The Holding Contracts . . . provide that in return for that damage, the United States has given the landowners a contractual right in perpetuity to all water to be released from Friant Dam that can be placed to beneficial use upon their lands. While **this is not a riparian, overlying or appropriative water right under California law**, it is a contractual right to receive water appurtenant to the lands recognized by both State and Federal law." *June 13, 2003 Letter to Larry Freels, Central Green Company, from Denslow Green, Esq. [emphasis added]*.
> >
> > [T]he Holding Contracts commit the United States to forbear <u>in perpetuity</u> from objecting to any 'reasonable beneficial use of water of the River' by contracting landowners as long as the water is diverted only at specified points. . . . [The purpose of the 'live stream' requirement is] [t]o ensure the availability of water for the prior rights. . . . The Holding Contracts are, therefore, settlement agreements . . . [and] were designed to procure the relinquishment of any claim for additional compensation from the landowners as a result of the acquisition by the United States of all of the **unvalidated, unquantified and, potentially, uncertain, water rights of the downstream landowners**." *May 22, 2003 letter to Larry L. Freels, Central Green Mutual Water*

[58] *Id.* at 13.

Company, from Warren P. Felger, Esq. [emphasis in original].[59]

As to the assertion that the Project lands had riparian rights, Petitioners began by pointing out that the Water Supply Assessment relied upon riparian rights as the only basis of California water rights:

> The *2002 Water Supply Assessment* does not even purport to identify any potential water rights (such as appropriative water rights) other than alleged riparian rights to diverted San Joaquin River water to the RRE Project lands. Hence, the entire water supply analysis in the *2002 Water Supply Assessment* is based on the core **assumption** that all of the 793-acre RRE Project area (as well as in the larger 1,722-acre North Fork Village Logical Sub-Area) is riparian and has riparian water rights under California law. However, that assumption is unsupported (and unsupportable).[60]

Petitioners argued that there was no evidence in the Administrative Record (including the Water Supply Assessment) to support that assertion. First, Petitioners described the essential elements of the riparian right – that the right "only attaches to natural flow," only to land within the "watershed of the watercourse from which the water is taken," only to land "contiguous to the watercourse," only to the "'smallest tract held under one title in the chain of title leading to the present owner,'" and that water diverted under the riparian right cannot be seasonally stored.[61] Petitioners argued that:

> Although the *2002 Water Supply Assessment* asserts that "All of the land in the Project is riparian," the document does not provide **any** information establishing that all of the RRE Project land is riparian. There is no showing that all of the parcels have "contiguity" to the River or that all parcels meet the "source of title" requirement. Similarly, there is no showing that any of the other, above-listed requirements for valid riparian rights exist, although under the law **all** of the requirements must be satisfied. The Administrative Record contains letters from attorneys representing the RRE Project developers in which RRE Project lands are referred to as "riparian" but these letters do not include facts, maps, law or analysis to support this otherwise bald claim. These passing references to the alleged "riparian" status of RRE Project lands are merely unsubstantiated characterizations without any evidentiary basis.

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[59] *Id.* at 12-13.
[60] *Id.* at 13.
[61] *Id.* at 14-15.

> The absence of **any** evidence demonstrating that all of the RRE Project land is riparian means that there was also not **substantial** evidence upon which Madera County could adopt the assumption and conclusion in the *2002 Water Supply Assessment* that all of the land in the RRE Project area held riparian water rights. Without such substantial evidence upon which to rely, Madera County's approval here constituted an abuse of discretion.[62]

Petitioners went on to argue that the Administrative Record actually underscored the lack of evidence that the Project land had riparian rights:

> In fact, the Administrative Record not only lacks evidence that all of the RRE Project area has riparian rights but, instead, contains extensive evidence that expressly underscores the absence of any support for the bald assertion in the *2002 Water Supply Assessment*. Again, in the words of lawyers representing the RRE Project proponents:
>
> > The purpose of the Holding Contracts was to compensate for damage from Friant Dam to the "landowners' right to receive water for the riparian **and overlying rights**. . . . In negotiating the Holding Contracts it was recognized both by the United States and the landowners that the reduction in flows below Friant Dam would decrease the quantity of water entering into the groundwater aquifers from the River. For this reason **the area embraced in the Holding Contracts included not only land which was riparian to the River, but lands which had overlying water rights to the groundwater furnished by the River**. *June 13, 2003 letter to Larry Freels, Central Green Company, from Denslow Green, Esq. [emphasis added]*. (bold added.)
> >
> > [T]he riparian right extends only to the smallest tract under one title in the chain of title leading to the present owner. . . . Diverted water must, however, be used only on riparian land. . . .

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[62] *Id.* at 15-16. The opening brief states that:

> There may be good reason why the Central Green Water Supply Assessment did not include the type of detailed analysis of the riparian rights upon which a water supply assessment properly would be based: A review of the original Land Patents for the parcels encompassing the RRE Project area would have clearly shown that slightly over one-half of the RRE Project area cannot possibly have riparian rights because the original Patents were never contiguous to the San Joaquin River, so that the "'source of title"' requirement is not met. *Id.* at 16 n.2.

> **Many of the parties entering into Holding Contracts were claimants to a variety of water rights, not just riparian water rights**. . . . [N]one of the water rights of any party entering into a Holding Contract was adjudicated during the District Court trial in *Rank v. United States* or thereafter in any appellate court. . . ." *May 22, 2003 letter to Larry L. Freels, Central Green Mutual Water Company, from Warren P. Felger, Esq.* (bold added.)
>
> [The Bureau of Reclamation's position] made it clear that not only had riparian rights been partially taken, but that underground supplies had been damaged and that the landholding described in the contract consisted of both riparian and overlying land. The contract does not describe the landowner's water right which was damaged as being riparian, indeed the contract covers any rights the landowner has to divert water from the river **and** any right the landowner has to divert water from the underground. . . . The contract does not describe the land in Exhibit 'A' as being riparian, it described it as land to which the 'United States acquired certain water rights appurtenant thereto.' These rights would include riparian, appropriative, prescriptive or overlying groundwater rights which were supplied from the river." *June 21, 1995 letter to James Turner, Esq., Bureau of Reclamation, from Denslow Green, Esq.* (bold in original, underscore added.)
>
> As defined in California, riparian land is land within the watershed which touches the water course. . . . What is determinative in the **investigation of contiguity** is the nature of the original tract." *December 23, 1983 letter to Burke Giles, Bureau of Reclamation, from Jeffrey G. Boswell, Esq.* (bold added.)

The above comments, all made by partisan attorneys for the RRE Project proponents, confirm that the mere fact that land is subject to a Holding Contract is **not** evidence that the land has riparian rights. Yet the Record, at most, suggests that the entire RRE Project area is covered by Holding Contracts; the Record is completely devoid of the "investigation of contiguity" that the Project proponents' own attorneys acknowledge is necessary even to meet one of the five tests needed to demonstrate riparian rights.

Indeed, even the *2002 Water Supply Assessment* acknowledges that "the Holding Contracts are intended to **satisfy** the Project sponsors' riparian rights." (A.R. 004663; bold added). Following this analysis, to be able to lawfully divert and use water released from Friant Dam pursuant to the Reclamation Holdings Contracts, a potential downstream diverter must first have a pre-existing riparian water right

under California water law.

Finally, the Court should also take note of the United States Supreme Court's holding in Dugan v. Rank (1963) 372 U.S. 609 (NCA, Ex. K). It was this case, which was brought to resolve San Joaquin River water claims concerning Friant Dam, that provided the legal impetus and backdrop for the Holding Contracts. In Dugan v. Rank, the United States Supreme Court held: "[I]t is appropriate that we make clear that we do not in any way pass upon or indicate any view regarding the validity of respondents' water right claim." Id. at 626.

Madera County's approval of the *2002 Water Supply Assessment* was premised entirely on the unsupported (and unsupportable) assumption that all of the RRE Project area has riparian water rights, but the Assessment itself did not provide **any** evidence or information to support this claim. Madera County's approval of the *2002 Water Supply Assessment* in the absence of such information constituted an abuse of discretion.[63]

D. RESPONDENT COUNTY'S AND REAL PARTIES' ARGUMENTS

In their Opposition Brief, Madera County and the Real Parties (Central Green and the Central Green Mutual Water Company) argued strenuously that the Central Green Water Supply Assessment's water-supply entitlement analysis was adequate. As seen from their briefing, quoted below, the County and Real Parties maintained that: (1) the Holding Contracts *do* provide a water entitlement; and (2) apart from the Holding Contracts, no separate water right is necessary for Central Green to divert water from the San Joaquin River, so that the lack of evidence that the Project lands had riparian rights was "irrelevant."[64]

The [Water Supply Assessment] and the environmental documents also explain that the Project's water demands will be met through water delivery under federal water contracts (*i.e.,* the "Holding Contracts") held by Central Green – Holding Contracts Nos. 3 and 6 – which *permit the use of San Joaquin River water* for Project purposes. The Holding Contracts originated in the late 1940s, shortly after the completion of Friant Dam, and were negotiated between the U.S. Bureau of Reclamation (the "Bureau") and landowners along the San Joaquin River. As explained by the United States Supreme Court:

[63] *Id.* at 16-17.

[64] Opposition Brief, *supra* note 56, at 10-13, 17.

> From the very beginning it was recognized that the operation of Friant Dam and its facilities would entail a taking of water rights below the dam. Indeed, it was obvious from the expressed purpose of the construction of the dam – to store and divert to other areas the waters of the San Joaquin – and the intention of the Government to purchase water rights along the river.

(Dugan v. Rank (1963) 372 U.S. 609, 623.) The Holding Contracts are therefore essentially settlement agreements between the Bureau and the water users downstream of Friant Dam, which were designed to allow the United States to avoid expensive and protracted litigation concerning the adjudication and valuation of the water rights of downstream water users, regardless of whether the users' underlying water rights were riparian, appropriative, or otherwise recognized under California law.

Each Holding Contract, including the Holding Contracts at issue here, provide that (i) landowners have certain rights to the waters of the San Joaquin River; (ii) in recognition of those rights, the United States will permit diversions from the River for "any reasonable beneficial use of the water of the River for irrigation and/or domestic purposes" on the property subject to the contract; and (iii) to ensure an adequate supply, the United States will release sufficient water stored behind Friant Dam to maintain a flow of 5 cfs at Gravelly Ford (which is downstream of the Project site). The United States' obligations to release water under the Holding Contracts are avoidable only in the event of an "Act of God" or other events beyond the control of the United States.

. . . As a part of the negotiations surrounding the Holding Contracts, the United States Bureau of Reclamation released a document in question and answer format explaining the effects of the Holding Contracts:

> Question 2. Will this settlement of water rights protect the individual owner's riparian right against the United States?
>
> Answer. The lands for which the settlements are to be made have been to some extent injured by the operations of Friant Dam. These lands, for the most part, are either riparian to the San Joaquin River or overlie underground waters which are fed by percolation from the river. Where these lands are now being irrigated, it is being done either from the river or from an underground water supply fed from the river. . . .

> The proposed settlements are for the purpose of compensating the owners of these lands for the invasion of their rights and to assure them that sufficient water will pass the dam to maintain a live stream below the dam between Friant, and Gravelly Ford and to permit the continued reasonable and beneficial use of water on these lands.
>
> ***The Friant to Gravelly Ford contracts with the United States are the best assurances of a water right that the landowners can obtain anywhere.***

Thus, through the Holding Contracts, the landowners essentially "gained a perpetual contract right for all of the water they can put to beneficial use on their land, a right which has become appurtenant to their land." ([June 13, 2003 Opinion Letter of Denslow Green] [citing *Nebraska v. Wyoming* (1945) 325 U.S. 589].)

. . . .

Additionally, because Central Green *is entitled to utilize water from the San Joaquin River as an independent contractual right under the Holding Contracts*, Petitioners' characterization of Central Green's underlying water rights as "riparian," "overlying," or otherwise is *entirely irrelevant*.

. . . .

The Bureau's obligation to provide water for the Project exists regardless of whether Central Green has underlying "riparian" rights (or any other water rights, for that matter). This obligation extends not only to Central Green's current agricultural operations, but also to residential subdivisions.

In sum, the WSA and the administrative record include substantial evidence that Real Parties have the right to procure water sufficient for the Project under the Holding Contracts. Accordingly, this evidence demonstrates that the Project will not have significant effects on water supply because it is not materially affecting the distribution or use of water.[65]

The County and Real Parties reiterated this argument later in their

[65] *Id.* (some emphasis added).

Opposition Brief as well, stating that:

> [C]haracterization of Central Green's underlying water rights is entirely irrelevant, as reiterated by the U.S. Bureau of Reclamation, due to the Bureau's contractual obligations under the Holding Contracts. In other words, because Central Green is *entitled to utilize water from the San Joaquin River as an independent contractual right under the Holding Contracts*, the characterization of Central Green's underlying water rights as 'riparian,' 'overlying,' or otherwise is entirely irrelevant.[66]

In making their arguments, the County and Real Parties did not discuss the viability of their position that the federal Holding Contracts provide a contractual water right recognized as a matter of California water rights law.[67] Nor did they discuss the caselaw Petitioners had cited to the effect that water rights are a matter of state law (and, therefore, cannot be created by a federal contract). They did, however, extensively rely on federal government staff statements interpreting the meaning of the Holding Contracts to support their position:

> These rights were reaffirmed most recently in the January 21, 2004, deposition of John Renning, the U.S. Bureau of Reclamation's Person Most Knowledgeable on, *inter alia,* Holding Contracts Nos. 3, 6.:
>
> Q. And the Bureau, rather than litigating the water rights issue,

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[66] *Id.* at 30-31 (emphasis added).

[67] In various places in the quoted text, the County and Real Parties used different language to describe the basis of the claimed water entitlement. They discussed the Holding Contracts as providing "water *delivery* under federal water contracts," asserted that the Holding Contracts "*permit the use* of San Joaquin River water for Project purposes" and were "a perpetual contract right for all of the water they can put to beneficial use on their land," asserted that they hold "an independent contractual right under the Holding Contracts" and that they are "*entitled to utilize* water from the San Joaquin River as an independent contractual right under the Holding Contracts," described "[t]he Bureau's obligation *to provide* water for the Project," and argued "that Real Parties have the *right to procure* water sufficient for the Project under the Holding Contracts." Opposition Brief, *supra* note 56, at 10-13, 17 (some emphasis added).

Apart from the question of whether the Holding Contract represents a water entitlement regardless of California water law, the County and Real Parties also did not explain how the operative language in the Holding Contracts – that the Bureau "will permit water to pass by or through Friant Dam into the River," "will maintain a live stream in the River at the control point," and "will . . . not . . . object to any reasonable beneficial use of the water of the River . . . upon the [Holding Contractor's] land" – creates a contractual right *to delivery of water* to the Holding Contractor's land. *See supra* nn. 31, 32. Petitioners contended that the language of the Holding Contracts does not even purport to contain a promise by the Bureau to deliver water to the Holding Contractor's land, instead, only containing a promise by the Bureau to release water into the river that could be diverted and to not object to such diversions. Opening Brief, *supra* note 54, at 13.

chose to enter into the contracts and provide water to these properties. Correct?

A. The Bureau agreed to provide water from the San Joaquin River.

Q. And the Bureau allowed these holding contract owners to take that water?

A. We said that we would not object to them taking that water.

Q. Who else could object?

A. There could be other water rights holders, to the extent that there were any on the San Joaquin River, that could object to that.

Q. [D]id the Bureau contemplate who those other water rights holders could be?

A. I said there could be, I don't know of any.

Q. Is what you're saying is that while there could theoretically be folks that might be able to complain about the water diverted by the holding contract owners, you're not aware of any that have that ability?

A. Parties that would complain on the basis of injury to their rights to divert from the San Joaquin River.

Q. Right, and you're not aware of any. Correct?

A. I don't think so.

Q. You don't think they exist?

A. I don't think that there is anyone who is a right holder on the San Joaquin River that would be in a position to object to the exercise of a holding contractor's water rights.
[Quoting testimony of John Renning, Regional Water Rights Officer, U.S. Bureau of Reclamation]

. . . . For example, one of Real Parties' predecessor owners sent a November 18, 1966, letter to the Bureau requesting information regarding her water rights under Holding Contract No. 6:

> This is a request for some information on my riparian rights on the San Joaquin River known as Holding No. 6.
>
> According to Schedule A, under a contract with the Bureau dated October 10, 1947, I have rights on 415 acres. Could you furnish a map showing the boundaries of the water rights?

In response, the Bureau found that the issue of whether the properties had water rights separate from the Holding Contracts was irrelevant because the Bureau was legally obligated to deliver water so long as it was being used for "beneficial" purposes:

> Our Fresno Office has forwarded your November 18, 1966 letter to us and asked us to supply you with the information you requested.
>
> Since the contract specifically provides for: (1) U.S. recognition of your rights to any reasonable and beneficial use of water on the lands described in Schedule A of the contract and outlined on the attached drawing, and (2) the U.S. to provide sufficient flow in the San Joaquin River adjacent to your land to meet these beneficial use requirements, plus the maintenance of a live stream, ***there does not appear to be any need for a determination of whether your rights to use water on the land described in Schedule A are appropriative, prescriptive, riparian, or otherwise.***

[Letter from E.F. Sullivan, Assistant Regional Director, U.S. Bureau of Reclamation] [emphasis added].) The foregoing demonstrates that the Bureau is legally bound to provide water under the Holding Contracts for beneficial uses, irrespective of whether the subject properties have underlying "riparian" (or any other) rights. *(Id.)*

This position was recently reaffirmed by the Bureau itself during Mr. Renning's deposition, wherein he testified concerning the Bureau's response to the November 18, 1966, letter:

> Q. Do you agree with that statement and is that a correct statement of the Bureau's position on these contracts?
>
> A. The only comment that I might have on that particular statement is that I'm not sure that our contract specifically recognizes rights, but it certainly says that we will not object to the use of water under whatever rights the contractor has.

> Q. But the letter also says you didn't need to identify what your rights are?
>
> A. Yes, that's correct.
>
> Q. It doesn't make any difference?
>
> A. Right, ***it's like a moot point.***
>
> [Quoting testimony of John Renning, Regional Water Rights Officer, U.S. Bureau of Reclamation] [emphasis added].)[68]

E. PETITIONERS' REPLY

The Petitioners' Reply Brief set out to counter the County and Real Parties' Joint Opposition Brief:

> Before turning to the legal authority that makes plain that Madera County et al.'s argument here is wrong, and before highlighting the ways in which Madera County et al. have mischaracterized the statements by regional Bureau of Reclamation staff, the Farming Petitioners ask the Court to first take note of what the Opposition Brief did not contest. The Opposition Brief did not present any arguments or allegations suggesting that the EIR, the 2002 Water Supply Assessment or the administrative record contained any evidence showing that all of the RRE Project lands have riparian rights to water, or that the all of the RRE Project lands have any other water rights (such as appropriative rights to San Joaquin River water) recognized under California law. As such, Madera County et al. appears to have conceded that no such evidence was in fact provided. Thus, if Madera County et al.'s claim (that the RRE Project lands need not have any California water rights to divert water from the San Joaquin River for the RRE Project) is flawed, then all of the water supply analysis that underlies the EIR and *2002 Water Supply Assessment* for the RRE Project is also flawed.[69]

The Petitioners then attacked the Reply Brief's primary argument head-on:

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[68] Opposition Brief, *supra* note 56, at 12-14.

[69] Reply Brief, *supra* note 55, at 14-15.

In terms of the law, it is well settled – and long settled – that Bureau of Reclamation water contracts do not by themselves create any right to divert or use water. The rights of diversion and use are created under state water law. Rather, the Holding Contracts are merely obligations by the federal government to *release* certain quantities of water (into rivers) that are being *held* in federally operated reservoirs (such as Friant Dam). The most recent reaffirmation of this principle was provided by the United States Court of Claims in Klamath Irrigation District v. United States ("Klamath Irrigation") (2005) 67 Fed.Cl. 504. In Klamath Irrigation, the Court expressly rejected the claim that Reclamation Bureau contracts establish a party's entitlement to divert and use water when there is no underlying water right under state law:

> "To begin with, there is the statutory language. On its face, section 8 [of the federal Reclamation Act] requires the Secretary [of the Interior Department], in carrying out his responsibilities under the Reclamation Act, to 'proceed in conformity with' **state laws** relating to the "control, appropriation, use, or distribution of water.' It is beyond peradventure that, rather than authorizing the Secretary to acquire his water rights independent of state law, this sections treats the Secretary as an appropriator under the states' appropriation laws, requiring him to obtain his water rights in the same manner as others. Nothing in this language suggests that third parties, including irrigators, could obtain title to appropriative water rights at Bureau projects **other than through state law.** Indeed, while the Reclamation Act indicates that the right to the use of certain water 'shall be appurtenant to the land irrigated,' this language refers only to water 'acquired under the provisions of this Act,' which 'provisions' **require the claimant to obtain those rights in accordance with state law**. Accordingly, **the Reclamation Act does not, as plaintiffs intimate, independently define who owns interests in the water of Bureau projects**. . . . **To the contrary, that question is controlled by state law**. . . ." Id. at 516-517 (bold added).

In Klamath Irrigation, the Court explained that its holding here is firmly rooted in previous United States Supreme Court decisions and the express language of the federal Reclamation Act:

> ". . . the Supreme Court, in California[70], supra, concluded that

[70] Reference here is to Justice Rehnquist's majority opinion in *California v. United States*, 438 U.S. 645 (1978).

> 'the Act [federal Reclamation Act] clearly provided that state water law would control in the appropriation and later distribution of the water.' 438 U.S. at 664, 98 S.Ct. 2985. Writing on behalf of the majority, then Justice, now Chief Justice, Rehnquist emphasized that '[f]rom the legislative history of the Reclamation Act of 1902, it is clear that state law was expected to control in two important respects.' Id. at 665, 98 S.Ct. 2985. 'First,' he noted, 'the Secretary would have to appropriate, purchase or condemn necessary water rights in strict conformity with state law.' Id. Repudiating *dicta* in earlier cases, Justice Rehnquist then dismissed the notion that state law control over the appropriation of water was a mere technicality, in the process making short shrift of the argument that '§8 [of the federal Reclamation Act] merely require[s] the Secretary of Interior to file a notice of his intent to appropriate but to thereafter ignore the substantive provisions of state law.' Instead, he found that the legislative history made it 'abundantly clear that Congress intended to defer to the substance, as well as the form, of state water law.' Id. at 675, 98 S.Ct. 2985; *see also* Nebraska v. Wyoming, 295 U.S. 40, 42-42, 55 S.Ct. 568, 79 L.Ed. 1289 (1935). 'Second,' Justice Rehnquist continued, '**once the waters were released from the Dam, their distribution to individual landowners would again be controlled by state law**.' California, 438 U.S. at 667, 98 S.Ct. 2985.
>
> . . . .
>
> California thus authoritatively teaches that defining the **property rights as to the water in question is a matter of state, not federal law**." Id. at 518-519 (bold added).

In Nebraska v. Wyoming (1936) 295 U.S. 40, the United States Supreme Court held: "The Reclamation Act of the United States authorized the construction of reservoirs in Wyoming for the storage of water to be used for irrigation . . . Reservoirs of large capacity have accordingly been constructed and operated by the United States, **but solely under and subject to the irrigation and appropriation laws of Wyoming**. . ." Id. at 42 (bold added).

In the case of the RRE Project, the above decisions make clear that the Holding Contracts did not (and could not) grant the owners of RRE Project lands any rights of diversion or use because the Bureau

of Reclamation had no such rights of diversion or use to grant.[71]

The Petitioners' Reply Brief also directly addressed the County and Real Parties' use of statements from Bureau of Reclamation staff:

> Madera County et al. rely on a letter from E.F. Sullivan, Assistant Regional Director at the Bureau of Reclamation, in which Mr. Sullivan states that ". . . ***there does not appear to any need for a determination of whether your rights to use water on land described in Schedule A are appropriative, prescriptive, riparian, or otherwise***." (Italics . . . and bold in quote in Opposition Brief, p. 14:8-9; citing to AR 6:001355-56, in which no such italics or bold are used). Mr. Sullivan is absolutely correct − there is indeed no need for the Bureau of Reclamation to make any determination about the nature of RRE Project land water rights, since these are matters of California water law and the only obligation of the Bureau of Reclamation under the Holding Contracts is to release water from Friant Dam. Sullivan's statement lends no support whatsoever to Madera County et al.'s claim that RRE Project landowners do not need a valid state water right to divert and use water from the San Joaquin River.
>
> Madera County et al.'s Opposition Brief then seeks reliance on a January 6, 1997 letter in which a Reclamation Bureau Regional Director that states that "Reclamation will not object to" the use of the holding contract water for the RRE Project. Opposition Brief, p. 15:10-11. It is wholly irrelevant, however, that Reclamation plans not to object since the question of whether or not all of the RRE Project lands are entitled to divert and use San Joaquin River water is a matter of California water rights.
>
> Finally, Madera County et al. makes much of the excerpts it provided to the Board of Supervisors from the deposition of regional Reclamation staff person John Renning. At his deposition, Renning was asked by the RRE Project developers' attorney: "Based on your knowledge of the development proposed for the Central Green project and your knowledge of the holding contracts that Central Green maintains, isn't it true that the Bureau has no objection to the use of the holding contract for water for Central Green's developed as proposed?" Opposition Brief, p. 16: 20-22. John Renning responds: "I think that the way you posed the question. I think that it's perhaps an overstatement, but certainly the language in the [holding] contract is that **we will not object** to use of water that's contemplated in your question." Opposition Brief, p. 16: 23-25 (bold added). Renning's answer offers no support for the claim that the RRE Project landowners have an entitlement to divert and use water from the San

[71] Reply Brief, *supra* note 55, at 15-16.

> Joaquin River. Rather, Renning's answer simply confirms that the question of diversion and use of water released by the Bureau from Friant Dam under a Holding Contract has nothing to do with the Reclamation Bureau because the propriety of that diversion is a matter of state law.[72]

F. ORAL ARGUMENT

The trial on the merits was held over two days on April 6 and 7, 2006.[73] In oral argument, the parties amplified the discussion in the briefing. Petitioners discussed evidence from the Administrative Record, particularly focusing on correspondence from Bureau of Reclamation staff and lawyers for Central Green:

> Here's a letter to the Bureau of Reclamation, Roger Patterson, from Denslow Green, again, the attorney who has been writing most of the letters we've looked at so far. And he states while we recognize that the contracts do not, quote, "create a water right," end quote, in the contracting owners under California law. And then he goes on to explain the contracts impose on the United States the obligation to deliver. And then he again says this is a not a water right under California law.
>
> This is another portion of the letter from Mr. Felger [attorney for Central Green Mutual Water Company] here to Larry Freels [General Partner of Central Green Company] in which he's pointing out none of the holding contracts identifies the specific rights held by downstream landowners. ["]All of the holding contracts committed the United States to forebear in perpetuity from objecting to any reasonable use of water by the river . . . by contracting landowners as long as water is diverted only at specified points.["] And he goes on to confirm that the purpose was to ensure the availability of water for the prior rights.
>
> . . . .
>
> There is also an earlier memo from the Madera County Planning Director . . . in which he reports on a meeting which he initiated at the request of the Planning Commission with the Bureau of Reclamation . . . .
>
> It states Mr. Turner – this is from the Bureau. ["]Mr. Turner

[72] *Id.* at 18-19 (footnote omitted).

[73] Because the case was heard primarily as a writ-of-mandamus case, the trial consisted of oral argument and presentation of evidence from the Administrative Record in the case. There were no live witnesses.

> pointed out that the language in the contract was the U.S.B.R. [Bureau of Reclamation], quote, 'would not object,' end quote. The contract did not create any rights under California water law, but was a settlement contract to allow irrigation and domestic use[] . . . on lands described in the exhibits attached to those contracts. Whatever underlying water rights existed were those established under California law.["]
>
> Then I want to look at one more letter. This is a letter from the Bureau of Reclamation back in 1984 to a landowner. In fact, it is to the predecessor owner to the current property. . . .
>
> In this contract – this is a letter from the Bureau. ["]However, you should recognize that the water rights settlement contract did not grant Mrs. Lesher a water right. The nature and scope of the water rights appurtenant to holding Number 6 must be determined by the State Water Resources Control Board and/or the courts. In other words, even though the United States will not object to use of water from the San Joaquin River on all of the lands described in the contract, other water rights holders may object to use on the portion of the holding without a valid water right.["][74]

Petitioners' oral argument also highlighted that the County and Real Parties had changed their position mid-way through the approval process, initially claiming that the Project lands had riparian rights but later taking the position that the existence of water rights was irrelevant:

> And you may recall . . . that we looked at the Final E.I.R. and saw at one place the County is saying well, this has water supply because of the land has riparian rights, but in another [place] in response to comment, the County is saying actually riparian rights don't matter at all. It's all because of the holding contracts.
>
> . . . .
>
> . . . There is, as I pointed out in the CEQA context, there is no evidence let alone substantial evidence, that the River Ranch Estate project area has – all had riparian rights. Actually, there is no evidence that any of the project area has riparian rights. But here's what the water supply assessment says, quote, "All of the land included in the project is riparian to the San Joaquin River."
>
> . . . .

[74] Transcript of Hearing on Petition for Writ of Mandate, Madera County Farm Bureau v. Madera County Bd. of Supervisors, No. CV351003, at 49-51 (Cal. Super. Ct., County of Stanislaus heard Apr. 6, 2006).

> It's unclear, at least to me, whether the water supply assessment is also somewhere taking the position that the holding contracts somehow create water rights independent of riparian rights to the land. We know that the E.I.R. took that position and in other places took the position that no it was a riparian rights question. But to the extent that that argument is being put forward here, I would point out to the Court we've just looked at one of the holding contracts. The holding contracts do not purport to create California water rights . . . . In fact, the water supply assessment itself . . . confirms that the holding contracts are intended to satisfy the project sponsors' riparian rights. There's no suggestion there at least that the water supply assessment is taking the position that the holding contracts create water rights in some way. That does seem to be the position that the County is now taking. It appears to be the position that they're taking in their opposition brief, for example. They've completely abandoned this riparian theory on which the E.I.R. was based and now seem to be arguing that holding contracts provide the only basis of right that is necessary for the entire River Ranch Estates area.
>
> . . . [T]he best that the County can say [is] that they took two inconsistent positions in the E.I.R. Taking the position now that it's only the holding contracts is somewhat of an after the case explanation because they need to have some explanation to support the conclusion that they reached. But . . . there is no legal basis for the ability of the holding contracts to create water rights independent of state water law. So even if the holding contracts have on their face purported to create California water rights, they can't . . . . The Bureau of Reclamation does not have the power to create California water rights. It's a matter of state law.
>
> So not only do the holding contracts not purport to create a water right or to grant a water right by saying ["]we will release water and we will not object.["] That's all they say. But they couldn't, in any case.[75]

One of the Real Parties' counsel served as the primary representative of the County and the Real Parties at the hearing, first addressing the history that preceded the Holding Contracts:

> [The Bureau] went to each of these [landowners downstream of Friant Dam] and they negotiated a deal with them. And they said look, we don't know what you have. We don't care. We are going to describe the lands that we're going to let you put water our of the river and we're going to give you a contract that's going to say we're

[75] *Id.* at 49, 62-65.

settling your rights and we're going to let you use the water from the river on all of those lands. And since we're going to own all the water of the river, then you're going to have the right to take it and nobody else is going to be able to do anything about it.

One of the things that happened is . . . that after the federal government acquired all of the rights they could, . . . the federal government applied to the state for everything left. They apply in this Water Decision Number D.935 is the State of California saying we're going to give you, the federal government, basically everything we have left, which is whatever remains as appropriative rights because the state – there's correct statements about water rights being determined under state law, but once those rights are given to the federal government it controls them as a matter of contract. The holding contracts don't give you a water right. They give you a contract to the water.

. . . .

. . . The difference in opinion is . . . that the federal government having all the water of the river allows us to take it out.

. . . .

I want to just briefly touch on the testimony of John Renning because he was produced as the Bureau of Reclamation person most knowledgeable regarding the holding contracts. Mr. Renning testified . . . he was unaware of anybody who could object to the water being taken for beneficial uses under the holding contracts . . . What's clear is that the Bureau knew about our development . . . . They never objected to the development. They're the ones providing the water and they're not even here.

. . . .

. . . [The Petitioners] know that we have a [holding] contract. And if the Bureau has water rights, we've got the right to the water. And the Bureau's the only one that can object and they don't, and they haven't and they won't.

. . . .

[The Petitioners'] basis of argument in the reply [brief] is this assertion that the Klammoth [*sic*] and California cases somehow matter. And I will tell the Court, the Court reads the cases you'll clearly understand those cases do not matter. They do not stand for

> the proposition that the Bueay of Reclamation doesn't have the right to let us have the water in contract for that water out of the river. What . . . they stand for is the very general proposition . . . that water law is determined by state law, but if the federal government acquired all of it then it sells is back under contract.[76]

Central Green Mutual Water Company counsel also discussed the history of the Holding Contracts and continued to put forward the position that the Holding Contracts are contracts for delivery of water by the Bureau:

> After Friant Dam was constructed, there were downstream landowners that were quite concerned that the historical flow of the river would impair their rights, whether they be riparian or appropriative rights, to the recharge capability to the underlying aquifer and they sued the federal government . . . . It went up to the Supreme Court.
>
> . . . .
>
> So after the Supreme Court rendered its decision, the Bureau of Reclamation resumed entering into holding contracts. There were settlement contracts. They did not want to determine what was the scope of the taking, let alone the compensation issues, let alone engage in further litigation. So they said in these holding contracts, which are only nine pages long, that whatever rights you have we recognize that we interfered with it and we provide you with a replacement source of water from the project. That source of the water emanates from our, that is, the Bureau of Reclamation's appropriative rights granted by the State Board.
>
> So the issue of whether or not a landowner can today demonstrate whether it has a riparian right, appropriative right it is a nonissue when it comes to the efficacy of the holding contracts.
>
> . . . .
>
> . . . [W]hat is clear is that once the United States obtains all of the water for the Friant project it has the sole prerogative of determining with whom and on what terms it wants to contract.[77]

In reply oral argument, Petitioners responded to County and Real Parties'

[76] *Id.* at 91-93, 99, 102-03.

[77] *Id.* at 153-55.

oral presentation:

> The Petitioners also maintained, of course, that the water supply assessment fails to support the bald assertion that the River Ranch Estate lands all have riparian rights. The County now seems to have conceded that the various statements in the water supply assessment and those statements in the F.E.I.R. that, quote, "all the River Ranch Estate project area has riparian rights," unquote, is not correct.
>
> In fact, . . . it's now being described in oral argument . . . as, quote, "a red herring." This is truly amazing to me. The fact that the F.E.I.R. reports that the basis of right is riparian rights, the water supply assessment only reports that the basis of right is riparian rights, and now we're told that that's a red herring. I find that incredible. How could that be a red herring when that is the sole basis for the right claimed in the water supply assessment and is the primary basis, although there's some confusion . . . in the Final E.I.R. where it dances back and forth between these two different theories. It's a red herring. If it's wrong, so be it. Petitioners think it probably is wrong but that completely then invalidates the water supply assessment in the E.I.R. because that's what they say is the basis of supply.
>
> We also spent a significant amount of time arguing about whether the holding contracts themselves somehow create water rights. And what the County seems to be contending is that the holding contracts provide a water entitlement to the River Ranch Estates project property because there's Bureau of Reclamation appropriative water rights that are being supplied to the landowners and that the Bureau is contracting through the holding contracts just like it contracts with water districts like [Madera Irrigation District] or [Chowchilla Water District] in water service contracts.
>
> Now, there's a number of problems with that argument. First, I know I'm beating a dead horse here but the Final E.I.R. reports in a number of places that the water supply is based on riparian rights, not based on holding contracts, whatever that means. So at best the water supply assessment is completely wrong in its assertion on the basis of right because it only asserts riparian rights and the E.I.R. takes inconsistent positions.
>
> There's also the question of the State Water Resources Control Board Decision 935 . . . . In Decision 935 what the Water Resources Control Board actually says is that the . . . water that the Bureau is letting pass through Friant Dam for holding contracts is not part of the Bureau's water rights . . . .
>
> In fact, what Decision 935 says is that under the Bureau's application case for water rights which this decision awarded for the San Joaquin River, quote, "Certain water rights from Friant Dam to Gravelly Ford are to the satisfied by releases from [the dam]." Note,

quote, "certain water rights," end quote.

That means existing rights that already exist in that region of the river. And note that those existing rights . . . are to be, quote, "satisfied by releases." That is not anything like saying that the Bureau will be delivering water that it appropriates under the newly granted water rights license to those certain water rights holders.

[Real Parties' counsel] also argued that under Decision 935 the United States acquired, quote, "all," end quote, remaining water rights to the San Joaquin River in that decision . . . .

What this decision did is it granted appropriative rights to the Bureau of a specific amount under permits that it approved. There is nothing in this opinion that says all of the rights to the San Joaquin River are being appropriated under this decision. In fact, the decision specifically denied the Bureau's request for additional water rights, including rights . . . for appropriation below Friant Dam in this decision.

And it also held in this decision that the releases from Friant Dam to satisfy the downstream holding contract owners, quote, would not be considered a claim against the 6500 cubic feet per second, that is, the amount being awarded to the Bureau and need not be included in the permits. So the notion that the water being released from the dam is appropriated water under a Bureau . . . [a]ppropriative water right that is then being delivered to holding contract owners is not at all supported by Decision 935. It's inconsistent with what that decision says.

. . . [Real Parties' counsel] characterized the holding contracts as basically the Bureau of Reclamation saying we will give you this right. That was his characterization of what these holding contracts say. And I suggest that just defies the plain reading of the contract language. There is no language of giving or granting rights. The plain language of the agreement doesn't purport to be an obligation on the Bureau to supply water appropriated by it under its water rights to the landowners. Instead, what the agreement says is the Bureau will let water pass through the dam in order to maintain a 5 c.f.s. minimum flow rate at a particular point and the Bureau will not object to people taking that water out of the river if it is used in particular places . . . .

. . . .

Now, the County then moved into another argument quoting a Bureau official in a deposition who said he was unaware of anyone who would object to the use of water on the River Ranch Estates project lands. I think we're getting at the heart of Central Green's position with respect to their water rights. But I want to point out that that position is neither of the positions that were put forward by the

> County for either the E.I.R. or the water supply assessment.
>
> In fact, Central Green's admission is really an admission that they don't have water rights and they're proposing illegal diversions but because there is really nobody to object they can get away with this. That's what their argument really is.
>
> First, this notion that no one will or can object . . . is not the basis for the reasoning in the water supply assessment or in the E.I.R. It's yet a third theory that's popping up for the first time. Secondly, it's not correct. As the Attorney General pointed out in their comment letters [to the County, in the Administrative Record] the State Water Board has jurisdiction over all diversions and has authority to prevent unlicensed diversions.
>
> And, third, [there] very well maybe injured persons from proposed illegal diversions here . . . .[78]

G. TRIAL COURT RULING

On June 29, 2006, the trial court's 11-page decision was filed. With respect to the Holding Contract and related water rights issues, the court concluded that the Water Supply Assessment did violate SB610 for the following reasons: (1) there is insufficient evidence that riparian rights are involved; (2) there is a clear distinction between "diversion" rights and "delivery" rights; and (3) respondents failed to establish by substantial evidence that reclamation Holding Contracts provide diversion rights independent of state water rights.[79]

Further, with respect to CEQA, the court concluded that "The [Central Green Water Supply Assessment] included in the Final EIR is legally inadequate for the reasons outlined in the preceding heading of this decision."[80]

After supplemental briefing on the question of the appropriate remedies, the court ultimately issued a Peremptory Writ of Mandamus directing Madera County "to set aside and void in their entirety the Project Approvals . . . pertaining to the proposed River Ranch Estates Project."[81]

The trial court's decision was not appealed.

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[78] *Id.* at 168-74.

[79] Decision on Petition for Writ of Mandate, Madera County Farm Bureau v. Madera County Bd. of Supervisors, No. CV350927, at 9 (Cal. Super. Ct., County of Stanislaus June 26, 2006).

[80] *Id.* at 10.

[81] Peremptory Writ of Mandamus, City of Fresno v. Madera County Bd. of Supervisors, No. 351003, at 1 (Cal. Super. Ct., County of Stanislaus Nov. 6, 2006).

VII. CONCLUSION

The River Ranch Estates case did not ultimately adjudicate the meaning of the Holding Contracts because such a determination is not required under the standard of review for the challenge to Madera County's approvals in a writ of mandate proceeding. That determination likely will be heard another day. Particularly in light of the trial court's decision, however, one can at least conclude that there is a very substantial question as to whether federal Holding Contracts can be relied upon to establish an entitlement to water for purposes of a Water Supply Assessment under SB 610.

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Alice in Groundwater Land: Water Supply Assessments and Subsurface Water Supplies

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ARTICLE

ALICE IN GROUNDWATER LAND: WATER SUPPLY ASSESSMENTS AND SUBSURFACE WATER SUPPLIES

*KEVIN M. O'BRIEN**

> California is the only western state that still treats surface water and groundwater under separate and distinct legal regimes. The persistence of these alternative regimes inevitably leads to thorny issues of classification and boundary-setting. As the present case illustrates, classification disputes in this field quickly take on an Alice-in-Wonderland quality . . . .[1]

I. INTRODUCTION

In 2001 California enacted legislation (Senate Bill 610, or SB 610) requiring operators of public water systems to prepare water supply assessments (WSAs) that analyze whether water supplies are sufficient

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[1] N. Gualala Water Co. v. State Water Res. Control Bd., 139 Cal. App. 4th 1577, 1590 (Ct. App. 2006) (citation omitted).

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for certain proposed development projects.[2] If the water supply for a proposed project includes groundwater, then the operator must analyze whether groundwater supplies will be sufficient to meet the projected demand associated with the project.[3] The new statutory requirements are thoroughly sensible from a public-policy standpoint; however, their real-world application has been fraught with challenges in the groundwater context. The challenges lie in California's long tradition of decentralized management—its "patchwork quilt" of measurement, management and water rights administration—because this management has been at odds with the Legislature's efforts to inject precision and certainty into water supply and land use planning processes.[4]

The purpose of this Article is to explore the preparation of WSAs in the context of subsurface water supplies. The term "subsurface water supplies" is used here rather than "groundwater" because, as discussed below, the proponent of a development project may propose to utilize a subsurface water supply (such as water produced from beneath the surface of land via a well or a flowing spring) that is not properly classified as groundwater because it falls within the legal definition of subterranean stream flow. In such a case, the supply would be subject to the water rights permitting jurisdiction of the State Water Resources Control Board. A central premise of this Article is that, in the context of subsurface water supplies, the level of scientific and legal certainty required under SB 610-related statutes often does not exist in California. Recent appellate decisions suggest that the courts will afford public water-system operators substantial discretion in determining the sufficiency of subsurface supplies under SB 610. Looking forward, a key question is whether public water systems will consistently exercise such discretion in a manner that ensures the prudent management of the state's groundwater resources.

II. THE IMPORTANCE OF GROUNDWATER AS A SOURCE OF SUPPLY

According to the California Department of Water Resources (DWR), there are 431 groundwater basins delineated in California, underlying forty percent of the surface area of the state.[5] Of those,

[2] S.B. 221, ch. 642, 2001 Cal. Stat. 88; S.B. 610, ch. 643, 2001 Cal. Stat. 94.

[3] *See infra* Part III.

[4] Gregory S. Weber, *Twenty Years of Local Groundwater Export Legislation in California: Lessons from a Patchwork Quilt*, 34 NAT. RES. J. 657 (1994).

[5] CAL. DEP'T OF WATER RES., BULLETIN 118, at 106 (2003), *available at* www.water.ca.gov/pubs/groundwater/bulletin_118/california's_groundwater__bulletin_118_-_update_2003_/bulletin118_entire.pdf [hereinafter *DWR BULLETIN*].

twenty-four basins are subdivided into a total of 108 sub-basins, giving a total of 515 distinct groundwater systems.[6] Attempting to delineate groundwater basin boundaries in the context of a particular development proposal can be a challenging and costly task because the geology typically does not lend itself to the drawing of precise basin boundary lines.[7]

Groundwater is an increasingly important part of California's water supply mix. It provides about thirty percent of the state's water supply in an average year,[8] and in some regions, groundwater provides sixty percent or more of the supply during dry years.[9] While the construction of surface water infrastructure has slowed significantly over the past several decades, groundwater development "continues at a strong pace."[10] Even if new surface-water storage and conveyance projects are eventually constructed, it appears likely that the new supplies will be utilized principally to increase the reliability of existing water uses and to enhance water supplies for public-trust uses, particularly fish. In any event it seems likely that proponents of new development projects will continue to look to groundwater as a key source of supply.

III. STATUTORY REQUIREMENTS: WATER SUPPLY ASSESSMENTS FOR SUBSURFACE WATER SUPPLIES

SB 610 requires public water agencies to prepare WSAs to assess the sufficiency of water supplies for certain proposed development projects in order to assist local governments in deciding whether to approve the projects.[11] An WSA must describe whether the public water agency's "total projected water supplies available during normal, single dry, and multiple dry water years" for a twenty-year period will meet the "projected water demand [for] the proposed project," taking into account the agency's "existing and planned future uses, including agricultural and manufacturing uses."[12] If the water supplies will be provided by a local government (such as a city or county) then the local government must prepare the WSA.[13] The local government must include the WSA in the environmental document for the project and consider it when deciding

[6] *Id.* at 106.
[7] *Id*.
[8] *Id.* at 2.
[9] *Id.*
[10] *Id.* at 27.
[11] CAL. WATER CODE §§ 10910-10915 (Westlaw 2010).
[12] *Id*. § 10910(c)(3).
[13] *Id.* § 10910(b).

whether to approve the project.[14]

When the water supply for the proposed project includes groundwater, the WSA must discuss and analyze specific information pertaining to the groundwater sources and supply.[15] In particular, a WSA that relies in part on groundwater is required to (1) consider information in any urban water-management plan relevant to supplies for the project;[16] (2) describe the groundwater basin or basins that will supply the project;[17] (3) describe and analyze past groundwater pumping by the water supplier from the basin that will supply the project, based on reasonably available information;[18] (4) describe and analyze projected future pumping by the water supplier from the basin, again based on reasonably available information;[19] and (5) conduct an analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the demands of the proposed project.[20]

For a basin in which a court or the State Water Resources Control Board (SWRCB) has adjudicated the rights to pump groundwater, the WSA must include a copy of the order or decree adopted by the court or the Board and a description of the amount of groundwater the public water system, or the city or county as applicable, has the legal right to pump under the order or decree.[21] For a basin that has not been adjudicated, the WSA must include information as to whether the DWR has identified the basin as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, and a detailed description of the efforts being undertaken to eliminate overdraft.[22]

To date there has been one appellate decision interpreting the groundwater provisions of SB 610. In *O.W.L. Foundation v. City of Rohnert Park*, the central issue was the sufficiency of the groundwater analysis contained in a WSA adopted by the City of Rohnert Park (the City was processing approvals for six development projects contemplated in its general plan).[23] The trial court concluded that the

[14] *Id.*
[15] *Id.* § 10910(f).
[16] *Id.* § 10910(f)(1).
[17] *Id.* § 10910(f)(2).
[18] *Id.* § 10910(f)(3).
[19] *Id.* § 10910(f)(4).
[20] *Id.* § 10910(f)(5).
[21] *Id.* § 10910(f)(2).
[22] *Id.*
[23] O.W.L. Found. v. City of Rohnert Park, 168 Cal. App. 4th 568 (Ct. App. 2008).

WSA did not comply with the statute because it did not assess water demands and projected pumping by all other parties taking water from the same groundwater basin.[24] On appeal, the City argued that the statute contains no such requirement but instead allows water suppliers flexibility in determining how to measure groundwater sufficiency for a proposed project.[25] Plaintiffs and respondents (OWL) conceded that it is unrealistic to expect a water supplier to analyze actual pumping by all users in a large groundwater basin but nonetheless argued that a study area selected by the water supplier to assess groundwater sufficiency must be representative of conditions in the basin.[26] OWL contended that the City's relatively small study area was not representative of the subject groundwater basin because its boundaries were defined by a watershed boundary that extended beyond the borders of the groundwater basin.[27]

The Court of Appeal, First Appellate District, held that a WSA need not analyze groundwater pumping by all users in an entire basin and that the statute does not specify a particular methodology for a sufficiency analysis.[28] The court noted the "infeasibility" of conducting a basin-wide analysis of groundwater uses given that the basin in question was large geographically, included several different municipal jurisdictions and had a large number of private wells.[29] Importantly, the court rejected OWL's contention that a substantial evidence standard of review applies.[30] The statute "affords the water supplier substantial discretion in determining how to measure groundwater sufficiency."[31] The court noted that "[i]n technical matters requiring the assistance of experts and the use and interpretation of scientific data, we give substantial discretion to administrative agencies. . . . Our task is limited to determining whether the agency action is arbitrary, capricious, or entirely lacking in evidentiary support."[32] While the discretion afforded to the agency is "not boundless," the court determined that the City acted well within its discretion in adopting the WSA based on a sample study area.[33]

O.W.L. Foundation is important because it establishes the standard

[24] *Id*. at 580.
[25] *Id.* at 574.
[26] *Id*.
[27] *Id*.
[28] *Id*.
[29] *Id*. at 591.
[30] *Id*. at 586.
[31] *Id.* at 574.
[32] *Id*. at 593.
[33] *Id.*

that will apply to the judicial review of WSAs. The deferential standard adopted by the court will provide public water systems with substantial latitude in the selection of methodologies for determining the adequacy of subsurface water supplies. A party challenging the adequacy of a WSA will have a heavy burden to demonstrate that the agency action is "arbitrary, capricious, or entirely lacking in evidentiary support."[34]

IV. AREAS OF UNCERTAINTY IN THE IMPLEMENTATION OF SB 610 IN THE CONTEXT OF SUBSURFACE WATER SUPPLIES

A. CLASSIFICATION OF SUBSURFACE WATER SUPPLIES

Section 1200 of the California Water Code provides that the water right permitting authority of the SWRCB extends to surface water and to "subterranean streams flowing through known and definite channels."[35] Accordingly, subsurface water produced from one or more wells may be susceptible to the argument that the source of supply is subterranean stream flow rather than "percolating" groundwater and that, in order to produce and use the subsurface water, a water right permit from the SWRCB must be obtained or another type of surface water right, such as a riparian right, must be established.

A recent decision of the California Court of Appeal, First Appellate District, brings some clarity to this area of California law. In *North Gualala Water Co. v. State Water Resources Control Board,* the court upheld the SWRCB's assertion that a water company must obtain an appropriative water right permit in order to pump subsurface water from two production wells located near a stream.[36] In that case a water company provided municipal water service in and around the Town of Gualala in Mendocino County.[37] The company developed two production wells in an area adjacent to the North Fork of the Gualala River.[38] Both wells were located approximately two hundred feet from the river.[39] According to the company's engineering consultant, the water produced from the wells was not flowing in a subterranean stream; rather, the subject aquifer was maintained by a combination of deep percolation of surface precipitation during the rainy season and

[34] *Id*. at 594.
[35] CAL. WATER CODE § 1200 (Westlaw 2010).
[36] *N. Gualala Water Co.*, 139 Cal. App. 4th 1577.
[37] *Id*. at 1581.
[38] *Id*. at 1582.
[39] *Id*.

subsurface flow from the underlying bedrock formations into the alluvium during the dry season.[40]

In a 1999 decision, the SWRCB established a four-part test for determining whether subsurface water falls within its permitting authority: (1) a subsurface channel must be present, (2) the channel must have a relatively impermeable bed and banks, (3) the course of the channel must be known or capable of being determined by reasonable inference, and (4) groundwater must be flowing in the channel.[41] In the appellate proceedings in *North Gualala*, the company accepted the SWRCB's four-part test with certain qualifications but argued that groundwater produced from the two wells did not satisfy the test because (1) the only subsurface channel present did not narrow or contract in the direction of the flow as required under a correct application of the four-part test, (2) the second element of the test was not satisfied because there was no actual flow boundary at the interface between the bedrock forming the bed and banks of the alluvial channel and the alluvium, and (3) the groundwater produced by the wells was not flowing "in the channel" but in a direction perpendicular to it.[42]

The court of appeal began its analysis with the observation that California is the only western state that still treats surface water and groundwater under separate legal regimes and that classification disputes in this field quickly take on an "Alice-in-Wonderland quality" because the legal categories "are drawn from antiquated case law and bear little or no relationship to hydrological realities."[43] While ruling that the SWRCB's interpretation of Section 1200 of the Water Code is entitled to only "limited deference," the court concluded that the record contained substantial evidence supporting the SWRCB determination that the four-part test had been satisfied.[44] In reaching this conclusion the court rejected the company's arguments that (1) for a channel to be "defined" its width must be narrowing as the groundwater flows through it; (2) the bed and banks of a subterranean channel must be a "significant boundary" rather than "relatively impermeable"; and (3) the groundwater flow direction must more closely follow the course of the channel than was the case in *North Gualala*.[45] In the author's view, the court's analysis and disposition of the latter issue was suspect; while

[40] *Id*. at 1583.
[41] *In re* Garrapata Water Co., State Water Res. Control Bd. Dec. No. 1639 (June 17, 1999).
[42] *N. Gualala Water Co.*, 139 Cal. App. 4th at 1586.
[43] *Id*. at 1590.
[44] *Id*. at 1604.
[45] *Id*. at 1589.

acknowledging that, in order to fall within the definition of "subterranean stream," the subsurface flow must be in the same general direction as flow in the stream channel, the court accepted as "substantial evidence" an opinion by a Department of Fish and Game expert that purported to explain away, on geologic grounds, the fact that subsurface flow in the vicinity of the subject wells was indisputably perpendicular to the stream channel.[46]

North Gualala is significant in the context of SB 610 because it opens the door to SWRCB assertion of rather extensive jurisdiction over subsurface water. To illustrate this point some historical background may be useful. In the early 2000s, the SWRCB contracted with Professor Joseph Sax of the University of California Berkeley, who rendered a report in 2002 entitled "Review of the Laws Establishing the SWRCB'S Permitting Authority over Appropriations of Groundwater Classified as Subterranean Streams and the SWRCB's Implementation of Those Laws."[47] The "Sax Report" embraced two principal positions. First, it advocated that Water Code § 1200 be read to grant the SWRCB authority over groundwater when the extraction of that groundwater would have an "appreciable and direct impact" on a surface stream.[48] Second, it suggested that the SWRCB possesses and should exercise authority over groundwater, either under the public-trust doctrine or under the waste-and-unreasonable-use doctrine, when the extraction of groundwater may have an adverse impact on environmental resources.[49] To date, neither position has been adopted by the SWRCB. The Sax Report is also significant for its thoughtful discussion of the potential implications of the "subterranean stream" test in relation to SWRCB water right jurisdiction. Professor Sax stated:

> If the Board were to take the view that a channel must fit the definition of being like "a trench, furrow, or groove" or "a tubular passage" [the standard definition of the term from the American Heritage Dictionary]—that is, something essentially long and narrow—it would doubtless be drawn toward the more restricted view of its jurisdiction that some urge, sticking to the immediate confines of the channels of

[46] *Id*. at 1581.

[47] JOSEPH SAX, STATE WATER RES. CONTROL BD., REVIEW OF THE LAWS ESTABLISHING THE SWRCB'S PERMITTING AUTHORITY OVER APPROPRIATIONS OF GROUNDWATER CLASSIFIED AS SUBTERRANEAN STREAMS AND THE SWRCB'S IMPLEMENTATION OF THOSE LAWS (Jan. 2002), *available at* www.waterboards.ca.gov/waterrights/water_issues/programs/hearings/groundwater_classification/docs/substreamrpt2002jan20.pdf

[48] *Id*. at 50.

[49] *Id*.

> surface streams. On the other hand, if a channel can be quite broad and un-furrow-like, so long as it is enclosed by relatively impermeable beds and banks, subterranean stream jurisdiction could be quite extensive.[50]

A WSA that assesses the adequacy of a subsurface water supply should address the legal classification of the supply, applying the standards enunciated in *North Gualala*. In some settings this will require extensive analysis of the geologic and hydrologic nature of the subsurface water source. It is conceivable, in the wake of *North Gualala*, that the SWRCB will become more active in reviewing and commenting on WSAs and related environmental documents in situations where the SWRCB's water right permitting jurisdiction may be implicated. The key question—which remains unanswered—is whether the SWRCB will attempt to utilize *North Gualala* to assert subterranean stream jurisdiction that is "quite extensive," as posited by Professor Sax.

B. WATER SUPPLY ASSESSMENTS IN NON-ADJUDICATED BASINS

According to the California Department of Water Resources, there are nineteen court adjudications of groundwater basins in California, located primarily in Southern California.[51] In most adjudications the court appoints a watermaster to oversee the court judgment.[52] In fifteen of the adjudications, the judgment limits the amount of groundwater that can be extracted by all parties, based on a court-determined safe yield of the basin.[53] If demand for water exceeds supply, and supplemental water is available (for example, through importation of State Water Project water), the judgment will typically include provisions for allocating the costs associated with supplemental water.[54]

Most groundwater basins in California have not been adjudicated.[55] In a non-adjudicated basin, the preparation of a WSA for a proposed development project that will utilize groundwater (in whole or in part) can be quite complicated, requiring an assessment of hydrologic conditions, existing and future demand for groundwater and, in some instances, water right priorities. The following discussion highlights some of the key issues that may arise.

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[50] *Id.* at 49-50 (footnote omitted).
[51] *DWR BULLETIN*, *supra* note 5, at 40.
[52] *Id*.
[53] *Id.*
[54] *Id*.
[55] *Id*.

i. Water Right Priorities

In California, water rights to percolating groundwater are not established under a state-administered permit system; rather, they arise by operation of law.[56] Courts typically classify water rights in a basin as overlying, appropriative, or prescriptive.[57] An overlying right, "analogous to that of the riparian owner in a surface stream, is the owner's right to take water from the ground underneath for use on his land within the basin or watershed; it is based on the ownership of the land and is appurtenant thereto."[58] One with overlying rights has rights superior to those of other persons who lack legal priority, but is nonetheless restricted to a reasonable beneficial use.[59] In contrast to overlying rights, the right of an appropriator depends upon the actual taking of water.[60] If the taking is wrongful, it may ripen into a prescriptive right.[61] Under the doctrine of prescription, pumping from a basin that is in a condition of overdraft fulfills the requirement of "hostility" required for the establishment of a prescriptive right.[62] "An appropriative taking of water which is not surplus is wrongful and may ripen into a prescriptive right where the use is actual, open and notorious; hostile and adverse to the original owner; continuous and uninterrupted for the statutory period of five years; and under claim of right."[63] Even these acquired rights, however, may be interrupted without resort to the legal process if the owners engage in self-help and retain their rights by continuing to pump non-surplus waters.[64]

In determining water right priorities for a proposed new use of water in a non-adjudicated basin, the threshold issue is whether the right to be utilized is overlying in character.[65] Significantly, public use of groundwater is generally not deemed an overlying use; municipalities, for example, typically utilize appropriative rights for purposes of municipal water supply.[66] Thus, if the proposed use will be undertaken

[56] City of Barstow v. Mojave Water Agency, 23 Cal. 4th 1224, 1243 (2000).

[57] Cal. Water Serv. Co. v. Edward Sidebotham & Son, Inc., 224 Cal. App. 2d 715, 725 (Dist. Ct. App. 1964).

[58] *Id.* at 725.

[59] *City of Barstow*, 23 Cal. 4th at 1240.

[60] *Id.*

[61] *Cal. Water Serv. Co*., 224 Cal. App. 2d at 725.

[62] *City of Barstow*, 23 Cal. 4th at 1241.

[63] *Cal. Water Serv. Co.*, 224 Cal. App. 2d at 725-26.

[64] Hi-Desert County Water Dist. v. Blue Skies Country Club, Inc., 23 Cal. App. 4th 1723, 1731 (Ct. App. 1994).

[65] *Id*. at 1727.

[66] City of San Bernardino v. City of Riverside, 186 Cal. 7 (1921).

by a city, county or special district, then, absent prescription, the right will typically be classified as appropriative in nature. If the right to be utilized is appropriative in nature, then it will be necessary to establish that there is an increment of the safe yield of the basin that is surplus to the needs of active overlying users.[67] As discussed below, the SB 610 analysis should also consider whether overlying users who are not currently exercising their rights, known as "dormant" overlyers, may do so in the future.

ii. Dormant Overlying Rights

California law regarding to the nature and extent of the rights held by dormant overlyers is not entirely clear. In *Wright v. Goleta Water District*, the court of appeal found the trial court erred in holding that a water district's appropriative rights had a higher priority than the overlying owners' unexercised rights. [68] The court also held that the trial court could not define or otherwise limit an overlying owner's future unexercised groundwater rights,[69] in contrast to the California Supreme Court's decision in *In re Waters of Long Valley Creek Stream System*, which sanctioned the limitation of unexercised riparian rights. [70] In a recent decision, however, the California Supreme Court suggested in dictum that unexercised overlying rights may be subject to limitation in some contexts:

> Although we do not address the question here, *Wright* does suggest that, in theory at least, a trial court could apply the *Long Valley* riparian right principles to reduce a landowner's future overlying water right use below a current but unreasonable or wasteful usage, as long as the trial court provided the owners with the same notice or due process protections afforded the riparian owners under the Water Code.[71]

For purposes of preparing a WSA, it is necessary to assume, notwithstanding the above-quoted dictum, that dormant overlying rights retain their full entitlement to basin water and to undertake an analysis of whether and to what extent dormant overlyers can be expected to

[67] Wright v. Goleta Water Dist., 174 Cal. App. 3d 74, 82 (Ct. App. 1985).

[68] *Id*. at 74.

[69] *Id*. at 78.

[70] Rowland v. Ramelli (*In Re* Waters of Long Valley Creek Streams Sys.), 25 Cal. 3d 339, 358-59 (1979).

[71] *City of Barstow*, 23 Cal. 4th at 1249.

commence use of basin water in the future. Given the standard of review enunciated in *O.W.L. Foundation*, if the WSA preparer undertakes a reasonable effort to ascertain the nature and extent of future use of groundwater from the basin by currently dormant overlyers, such analysis would likely be sustained in litigation challenging the adequacy of the WSA. However, a WSA that ignores the issue of "springing" dormant rights does so at its own peril.

iii. Water Supply Assessments and Conjunctive Use

There is no single definition of "conjunctive use." In general, the term applies to several different practices and processes employed to coordinate the use of ground and surface waters in order to get the maximum economic benefits from both resources. The California Department of Water Resources defines the term as follows:

> The coordinated and planned management of both surface and groundwater resources in order to maximize the efficient use of the resource; that is, the planned and managed operation of a groundwater basin and a surface water storage system combined through a coordinated conveyance infrastructure. Water is stored in the groundwater basin for later and planned use by intentionally recharging the basin during years of above-average surface water supply.[72]

Conjunctive-use operations occur in many groundwater basins throughout California, and the trend toward conjunctive use of groundwater and surface supplies is likely to accelerate. To the extent that a WSA examines rights to groundwater in a non-adjudicated basin in which conjunctive-use operations are ongoing, thorny water right-priority issues may arise. While a comprehensive examination of this issue is beyond the scope of this Article, the following discussion suggests some of the complexities that may arise.

A key issue in any basin where conjunctive-use operations occur is whether the entity that is conducting artificial recharge operations retains a paramount right to recapture the increment of basin supply attributable to the artificial recharge program. Under the landmark decision in *City of Los Angeles v. City of San Fernando,* the right to recapture artificial recharge is defined as "an undivided right to a quantity of water in the ground reservoir equal to the net amount by which the reservoir is

[72] *DWR BULLETIN*, *supra* note 5, at 215; *see also* Cal. Dep't of Water Res., Groundwater Glossary, www.water.ca.gov/groundwater/groundwater_glossary.cfm (last visited July 5, 2010).

augmented by [imported water]."[73] In non-adjudicated basins where native groundwater and artificial recharge are co-mingled (an increasingly common scenario), quantifying the increment of native water that is available for use by new development projects can be a very challenging task. The potential complexities are virtually limitless. At one extreme, the introduction of artificial recharge may have caused groundwater levels to remain stable on a long-term basis, but the recharge may be masking overdraft of the native safe yield. In such a scenario a would-be developer would need to demonstrate, for purposes of the WSA, either a water right to use a portion of the native safe yield (presumably based on an overlying right) or a contractual entitlement to use a portion of the artificial recharge. At another extreme, the basin may be in surplus condition (native safe yield exceeds current pumping) with or without the introduction of artificial recharge, in which case demonstration of an adequate supply of groundwater should be a simpler task, assuming no unique facts regarding "springing" dormant uses.

V. CONCLUSION

It is likely that proponents of new development projects in California will continue to look to groundwater as a key source of supply. While the water supply planning requirements of SB 610 and related statutes are thoroughly sensible from a public-policy standpoint, their real-world application is fraught with challenges in the groundwater context, because California's longstanding tradition of decentralized management has been at odds with the Legislature's efforts to inject precision and certainty into water supply and land use planning processes. In the author's view, one unintended consequence of SB 610 has been a trend toward more basin adjudications.[74] Basin adjudication, while a lengthy and expensive process, ultimately provides some certainty as to the nature and extent of rights to groundwater, and in many instances adjudication judgments define the nature and extent of financial obligations to secure supplemental water supplies. But the vast majority of groundwater basins will likely remain non-adjudicated, and in such situations the potential complexities that may arise in connection with compliance with SB 610 are virtually limitless. In the end, effective management of groundwater resources by local public agencies is the

[73] City of L.A. v. City of San Fernando, 14 Cal. 3d 199, 262 (1975), *disapproved on other grounds*; *City of Barstow*, 23 Cal. 4th 1224.

[74] *See, e.g.,* City of Santa Maria v. Adam, *appeal docketed*, No. H035056 (Cal. Ct. App., 6th App. Dist. Dec. 11, 2009). This case involved adjudication of the Santa Maria Groundwater Basin in Santa Barbara and San Luis Obispo Counties.

best hope for achieving the perfectly reasonable objective underlying SB 610—that new development occurs on the basis of a reliable water supply.

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ARTICLE

OPTIMIZING LAND USE AND WATER SUPPLY PLANNING: A PATH TO SUSTAINABILITY?

*RANDELE KANOUSE & DOUGLAS WALLACE**

I. INTRODUCTION

On October 9, 2001, Governor Gray Davis signed two landmark bills, SB 221 and SB 610, marking the end of a long legislative march toward better coordination of land use and water supply in the planning process.[1] Although the logic of the bills might appear self-evident today, achieving passage was a hard-fought battle, with the State Senate approving SB 221, originally, by a bare majority.[2] Despite the adamant opposition at the time, the passage of these laws heralded a sea change in how water providers would prepare for the future.

Historically, the prime directive for water managers had been to plan and develop water projects to serve all the customers in their service

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[1] *See* RANI ISAAC, CALIFORNIA RESEARCH BUREAU, ESTIMATED WATER USE ON LARGE PROJECTS IN 2004-2006 1 (2008), *available at* www.policyarchive.org/handle/10207-/bitstreams/11709.pdf.

[2] Cal. S. J., 2001-2002 Reg. Sess., No. 128. In the California legislature, members may switch their votes after the initial vote as long as the original outcome of the bill is not affected. Thus, although the final Senate vote count after Assembly amendments on September 13, 2001, was 25-10, the bill originally only passed by a bare majority. *See* CALIFORNIA STATE ASSEMBLY, OFFICE OF THE CHIEF CLERK, LEGISLATIVE PROCEDURE 23 (2007).

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areas, as determined by the local land use agencies.[3] Playing any role in influencing the land use planning and approval process was viewed by water managers as exceeding the legitimate bounds of their responsibilities.[4] For their part, most city and county officials viewed land use decisionmaking authority as their sole prerogative, certainly not to be shared with water district officials.[5] So long as new water supplies were available to be tapped, this arrangement worked.

The rise of the environmental movement and the growing public embrace of ecological values roughly coincided with the end of the dam-building era. By the 1970s, most of the good sites for dams had already been taken, and those that remained, such as California's North Coast rivers, were increasingly valued as natural and recreational resources that should be permanently protected.[6] At the same time, California's population continued to swell, from under 20 million in 1970 to nearly 38 million today.[7]

How did these trends affect water supply development in California? Among other impacts, the average time a major water supply project took from conception to construction more than doubled.[8] Before the enactment of the major environmental statutes of the 1970s, project planning was far simpler, because the adverse impacts could largely be overlooked.[9] With the advent of environmental impact reports and public involvement, planning water projects became much more complex and time-consuming, as the bar charts below attest.[10] Moreover, the projects that succeeded in getting built added progressively smaller increments of storage to the state's supply, with the hurdles of increasing complexity and expense. As water supply development began to slow down, the prospects for serious rationing became more real.

[3] *See* JEFF LOUX, WATER SUPPLY AND URBAN GROWTH IN CALIFORNIA: FORGING NEW INSTITUTIONAL LINKAGES OR BUSINESS AS USUAL? 3, 7 (2004), *available at* www.des.ucdavis.edu/faculty/handy/ESP171/Loux_paper_on_water_supply.pdf.

[4] *See id.* at 8.

[5] *See id.*

[6] *See id.* at 2.

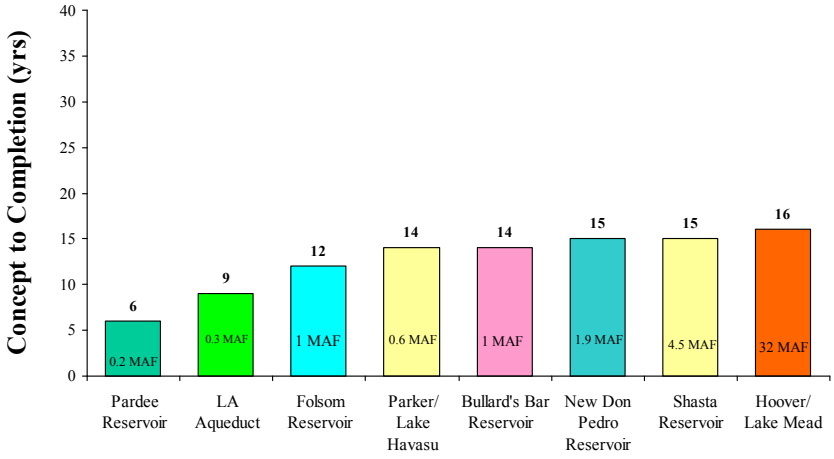
[7] Matt Rosenberg, *California Population: The Population of California, the Most Populous State in the United States*, About.com Guide, Aug. 9, 2009, geography.about.com/od/obtain-populationdata/a/californiapopulation.htm.

[8] RANDELE KANOUSE, SHOW ME THE WATER: QUENCHING CALIFORNIA'S GROWING THIRST 5, 6 (Jan. 22, 2005), www.waterlawsymposium.com/media/Land%20Use%20-%20Kanouse.pdf.

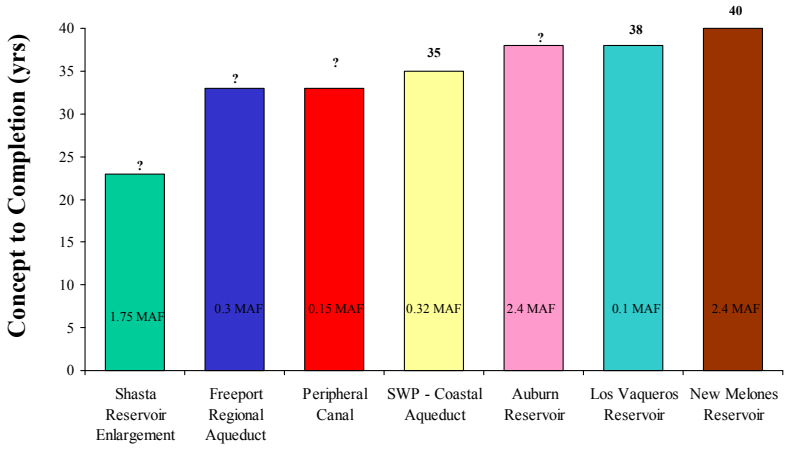
[9] *See id.* at 5.

[10] *See id.* at 6.

Pre-1970s Water Storage Projects: Very Little Controversy



Post-1970s Water Storage Projects: Lacking Political Consensus



? = Projected in-service date unknown

Meanwhile, land use decisionmakers continued to face enormous pressure to approve new developments to meet the growing demand for housing and other construction. Because California had been so successful in developing its water supplies, few considered the need to ensure that adequate water supplies would continue to be available to serve this new growth.[11] The acute drought of 1976-77 signaled the fallibility of this belief; the much more sustained and punishing drought of 1987-92 removed any doubt that abundant water supplies could no longer be taken for granted.[12]

As the multi-year drought was occurring, the East Bay Municipal Utility District (EBMUD), a public water agency based in Oakland, became the unintended standard bearer for legal reforms to link water supply and land use planning.[13] Beginning in the early 1980s, plans began to emerge for the development of the Dougherty Valley, situated near the City of San Ramon.[14] In 1991, Contra Costa County issued a Notice of Preparation for a draft Environmental Impact Report (EIR) for a General Plan Amendment to assume control of the planning for an 11,000-home development covering nearly 6,000 acres.[15] This was a joint project of Shapell and Windemere developers that would ultimately require 5.4 million gallons per day (MGD) for its water supply.[16] From the outset, the County planned that EBMUD should be the water supplier for this development, even though the area was mostly outside the water agency's service area.[17] EBMUD was equally quick to assert that it did not have sufficient water supplies to serve the new customers without imposing a risk of shortages on its existing customers. [18] Nonetheless, in December of 1992 the County Board of Supervisors formally approved the EIR for Dougherty Valley and identified EBMUD as the water

[11] Randele Kanouse, *Water Supply Planning and Smart Growth*, *in* NAVIGATING ROUGH WATERS: ETHICAL ISSUES IN THE WATER INDUSTRY 82 (Cheryl K. Davis & Robert E. McGinn eds., '2003).

[12] KANOUSE, *supra* note 8, at 4.

[13] *See* LOUX, *supra* note 3, at 5.

[14] *See* René Davids, *Development, Topography, and Identity: The Dougherty Valley and the New Suburban Metropolis,* 20 PLACES 58, 60 (2008), *available at* www.escholarship.org-/uc/item/8bv0117x.

[15] Memorandum from Phil Wong, San Ramon City Planning Services Manager, City Council/Planning Commission (Apr. 2, 1991).

[16] Ryan Waterman, *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, 125-26 (2004).

[17] *Id.* at 125.

[18] *Id.* at 125-26.

provider.[19]

In light of its concerns about ensuring firm water supplies for development, EBMUD undertook a survey in 1995 of 110 new major developments in California to determine how the water supplies would be provided to the thousands of new residents and businesses.[20] The report found that, of the EIRs prepared for these proposed projects, almost none of the proposed developments identified a firm water supply beyond a speculative reliance on, for example, the State Water Project. EBMUD's research validated the increasingly common criticism that "paper water" was being widely relied on to "bootstrap" development and water supply, so that the water supplies would be secured only after the development was approved. While this approach had often worked in the past, it often led to adverse impacts on other water users in California.[21]

Earlier that year, EBMUD filed suit against the County's EIR, alleging violations of the California Environmental Quality Act (CEQA).[22] Soon after, the County and the developers filed their own countersuit against EBMUD on the grounds that EBMUD's policies illegally obstructed development.[23] In 1994, the tide began to turn in EBMUD's favor with a ruling by the superior court that the project had failed to achieve the fundamental purpose of CEQA—that is, to inform the public and other agencies in advance about the environmental consequences of such planning decisions.[24]

Over the course of this conflict, many observers characterized the position of EBMUD's Board of Directors as seeking to control growth by refusing to provide water for Dougherty Valley. This perception was reinforced by the election of an "environmental majority" to EBMUD's board in 1990.[25] However, EBMUD's stated purpose in denying service to the new development was motivated out of a concern for consumer protection; the board found it unacceptable to compromise supply reliability and impose the risk of rationing on existing customers by supplying Dougherty Valley.[26]

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[19] *Id.* at 125.

[20] EBMUD "New Towns" Report (1995) (on file with authors).

[21] *See* Paul S. Kibel & Barry H. Epstein, *Sprawl and "Paper Water": A Reality Check from the California Courts*, 20 CAL. REAL PROP. J. 21 (2003).

[22] E. Bay Mun. Util. Dist., EBMUD to Sue Contra Costa over Dougherty Valley Approval, EBMUD News (Jan. 13, 1993) (on file with authors).

[23] Waterman, *supra* note 16, at 126.

[24] *See id.*

[25] *Id.* at 127.

[26] *Id.* at 125-26.

This commitment was underscored when a newly constituted board of directors, minus the environmental majority, maintained this position in the litigation.[27] And in August 1995, just seven months after its new board was sworn in, EBMUD and the County Board of Supervisors settled the suits when the developers agreed to seek a new water supply to serve the new development.[28] A key to achieving this outcome was a long-term transfer of water from the Berrenda-Mesa Water Storage District in the Central Valley, which would provide a firm supply of water to Dougherty Valley.[29]

II. A BRIEF LEGISLATIVE OVERVIEW

The very first bill introduced in California to address the land use and water supply conundrum was AB 455, a one-sentence bill in 1991 authored by then-Assemblyman Dom Cortese. The bill read as follows: "No lead agency shall approve a development project unless the applicant identifies a long-term, reliable supply of water to serve the proposed project."[30] This initial attempt at codifying rules for land use and water supply took place just as the court battle over Dougherty Valley was getting underway.[31] By then, EBMUD had concluded that CEQA was too vague to adequately address the land use and water supply nexus with the necessary specificity. Several other bills would be introduced between 1991 and 1995, but all of them either failed passage or were watered down by legislative compromise to the point where they had little impact.

Senator Jim Costa succeeded in passing SB 901 in 1995, the first assured water supply bill that would directly address the issue.[32] SB 901 required that public water suppliers provide an assessment of water supply reliability for projects subject to the California Environmental Quality Act.[33] However, an EBMUD survey determined that in the six years following passage of SB 901, only two out of 255 projects obtained

[27] *See id.* at 127.

[28] *Id.*

[29] *Id.*

[30] *Id.* at 124-25.

[31] *Id.* at 125.

[32] *See* S.B. 901, ch. 881, 1995 Reg. Sess. (Cal. 1995), *available at* info.sen.ca.gov/pub/95-96/bill/sen/sb_0901-0950/sb_901_bill_951016_chaptered.html.

[33] Lincoln L. Davies, *Just a Big, "Hot Fuss"? Assessing the Value of Connecting Suburban Sprawl, Land Use, and Water Rights Through Assured Supply Laws*, 34 ECOLOGY L.Q. 1217, 1247 (2007).

a thorough water supply assessment.[34] More than half of those projects were not assessed because of loopholes in SB 901 and related laws.[35] "SB 901 also failed to create any obligation for localities to tie project approvals to water availability; simply assessing supplies was sufficient."[36] As a result, local governments paid scant attention and the intent of the bill was derailed.[37]

Recognizing the limits of SB 901, Senator Costa and Senator Sheila Kuehl prevailed, respectively, in passing SB 610 and SB 221 in 2001.[38] These complementary laws sought to accomplish a linkage of land use and water supply planning from two directions.[39] SB 610 effectively strengthened SB 901 by requiring water suppliers to include in the Urban Water Management Plan a description of all water supply projects and programs to meet total projected water use.[40] The bill requires the appropriate local agency, for any project subject to CEQA, to secure a Water Supply Assessment from the local water supplier that identifies the sources of water needed to supply that project, and, if water supplies are insufficient, to prepare plans for acquiring additional water supplies.[41] The bill thus provides an early-warning system for developments by specifying an earlier, more conceptual stage at which specific water supplies have to be identified. SB 221 requires a local agency, at the tentative-map stage of land use planning for any development exceeding a threshold size, to secure a written verification from the local water purveyor that adequate supplies are available.[42] This bill took a different tack than the CEQA-based bills by planting a "stop sign" for developments that could not identify an assured water supply.[43] Among its specific requirements, the bill:

- Requires that proof of the availability of a sufficient water supply be based on a written verification from the applicable public water system;

[34] *See* ASSEMB. COMM. ON WATER, PARKS AND WILDLIFE, S.B. 221 ANALYSIS, Reg. Sess., at 6 (Cal. 2001), *available at* www.leginfo.ca.gov/pub/01-02/bill/sen/sb_0201-0250/sb_221_cfa_20010625_153332_asm_comm.html.

[35] *Id.*

[36] Davies, *supra* note 33, at 1247.

[37] *See* ASSEMB. COMM. ON WATER, PARKS AND WILDLIFE,, *supra* note 32.

[38] Waterman, *supra* note 16, at 152-53.

[39] *See id.*

[40] *Id.* at 154-55.

[41] *Id.* at 152, 154.

[42] *Id.* at 152.

[43] ISAAC, *supra* note 1, at 1.

- Allows a city or county to find that sufficient water supplies will be available, even if the public water system does not provide written verification; and
- Requires that, when a public water system's written verification relies on projected water supplies, the verification be based on written contracts, adopted capital outlay programs, and infrastructure construction permits.[44]

III. WHAT IMPACT HAVE THESE LAWS HAD?

While the opponents of these bills voiced dire predictions about how they would stifle development and add an unnecessary layer of regulation, the track record over the eight years since enactment has not borne them out. The authors are unaware of any systematic survey that has been conducted on the positive or negative impacts of these laws to date, so no final conclusion can be drawn.

The most noteworthy case regarding SB 610 was the 2007 decision by the California Supreme Court, *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova.*[45] The case involved an EIR for a 6,000-acre, master-planned community known as Sunrise-Douglas that would include 22,000 residential units and a future population of approximately 60,000 people near Sacramento.[46] As described by one commentator, the court observed that:

> [N]one of the prior Court of Appeal[] decisions suggests that a guaranteed water supply and delivery facilities is necessary for an EIR to be adequate. Neither, according to the court, do the two 2001 water supply bills (SB 221 and SB 610) require assurances regarding long-term future water[] supplies at an early phase of planning for large land development projects.[47]

The decision established, among other things, that a higher level of supply assurance would be required at a later stage of project development (i.e., under the provisions of SB 221), and that the two bills were mutually reinforcing in the objective of assuring adequate water

[44] Waterman, *supra* note 16, at 152-53, 155.

[45] Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412, 433-34 (2007).

[46] RONALD BASS, THE IMPACT REP, ADDRESSING WATER SUPPLY IN CEQA DOCUMENTS: COPING WITH *VINEYARD AREA CITIZENS FOR RESPONSIBLE GROWTH, INC. V. CITY OF RANCHO CORDOVA* 1 (2008), *available at* www.icfi.com/docs/Vineyard-CEQA.pdf.

[47] *Id.* at 3.

supplies. The court majority averred that, taken together, SB 221 and SB 610:

> demand . . . that "water supplies must be identified with more specificity at each step as land use planning and water supply planning move forward from general phases to more specific phases." The plans and estimates that [SB 610] mandates for future water supplies at the time of *any* approval subject to CEQA must, under [SB 221], be replaced by firm assurances at the subdivision map approval stage.[48]

Davies interpreted the ruling as holding that "while speculative sources and unrealistic allocations ('paper water') are insufficient" under CEQA, the water relied on by a project need not be available as a certainty, but need only "bear a *likelihood* of actually proving available."[49] Further, "the necessary degree of confidence involved for approval of a conceptual plan is much lower than for issuance of building permits."[50]

A 2008 assessment by the California Research Bureau of the two bills considered whether the threshold of 500 residential units should be reduced.[51] The author calculated that if the threshold had been 250 units, the increment of water would have been roughly 19,000-21,000 acre-feet with another 107 projects.[52] In other words, approximately two and a half times as much water use would have been documented if the lower threshold had been in place. From a larger perspective, total new residential development over the three years considered in the assessment study required 243,665 acre feet of water to serve a total of 501,359 new units.[53] So even with a lower SB 221 threshold, less than 15% of the total new residential demand would be documented.[54] This research highlights that the great majority of residential developments in the state are of fewer than 500 units, suggesting that many projects are "escaping the net" provided by SB 221.[55] On the other hand, it signals the importance of the *Vineyard* ruling that all projects subject to CEQA must contain more specificity for water supply planning in later stages of

[48] *Vineyard Area Citizens for Responsible Growth, Inc.*, 40 Cal. 4th at 433-34.
[49] Davies, *supra* note 33, at 1254 (emphasis added).
[50] *Vineyard Area Citizens for Responsible Growth, Inc.*, 40 Cal. 4th at 433-34.
[51] ISAAC, *supra* note 1, at 5-7.
[52] *Id.*
[53] *Id.* at 2.
[54] *Id.* at 3, tbl. 2.
[55] *See id.*

environmental analysis.[56]

Davies identifies five characteristics that an "ideal" assured supply law should have: compulsoriness, stringency, universality, granularity, and interconnectedness (with respect to the jurisdiction's broader planning processes and conservation initiatives).[57] In assessing the two California laws, Davies concludes that their only major weakness is that they are insufficiently "granular," meaning that too many projects escape the provisions of the law because of the high threshold number, at 500 residential units.[58] While there has been movement in the legislature to lower the threshold, it promises to be a difficult task politically, given how hard this issue was fought in 2001.

Several examples in different regions of California shed light on how the laws have encouraged a more holistic and creative approach to land use and water supply planning, with a strong emphasis on demand reduction. In many cases, developers, local agencies, and water suppliers are evaluating and implementing non-traditional solutions to boosting their water supplies – directly as a result of the requirements of SB 221 and SB 610. Each of the water providers described below faced water shortages that posed challenges to compliance with the assured supply laws. In a departure from the water supply paradigm of the 1970s, each of these water suppliers explored new supply options that would not have been contemplated in that earlier era and, furthermore, were not prescribed in the statutes.

The Eastern Municipal Water District in Riverside County put ten separate projects on hold between late 2007 and 2009 due to water supply limitations. As a result of implementing a tiered rate structure, area-specific Geographic Information System-based water budgets, and a strict landscaping ordinance for new development, the District was able to "firm up" its water supplies and approve all projects.[59]

As the largest development ever proposed in Los Angeles County, the Newhall Ranch project has been a hotbed of court battles over growth for over two decades.[60] While the project has been through many iterations (including bankruptcy as of this writing), the current plan is for a new residential and commercial site covering 19 square miles for a

[56] *See* Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412, 433-34 (2007).

[57] Davies, *supra* note 33, at 1262.

[58] *Id.* at 1264.

[59] Telephone interview with Elizabeth Lovested, Senior Civil Engineer, Eastern Municipal Water District (Nov. 18, 2009).

[60] Davies, *supra* note 33, at 1275.

community of nearly 70,000 people.[61] Citizen groups have repeatedly challenged the project on various grounds, including the adequacy of the Urban Water Management Plan prepared by the Castaic Lake Water Agency, the water wholesaler for the area. The Valencia Water Company is an investor-owned water retailer that currently serves the city of Valencia and is the intended future supplier to the Newhall Ranch development. Its Water Smart program anticipates the future new demand by relying primarily on water budgets and tiered rates to help customers meet their water needs with maximum efficiency. In addition, 50% of Newhall Ranch's future demands are planned to be met with recycled water.[62]

Kern County has confronted a number of challenging cases regarding water supply as many of the aquifers in the county have not been mapped or adjudicated, and supplies from the State Water Project have become highly unreliable in recent years. For all developments (not just those of 500 or more units), the County requires developers to bring additional water into the groundwater banks that they intend to use. Any water features, such as artificial lakes, must not rely on existing potable supplies, but bring their own new supply of water such as recycled water.[63] The County has also strongly encouraged small agencies that are anticipated to grow into the requirement to prepare an Urban Water Management Plan in advance of the statutory requirement.[64]

The Tejon Mountain Village is a proposed resort community in the Tehachapi Mountains, which, if approved, will establish strict water budgets for each lot.[65] The developer has been required to secure 30,000 acre-feet in a Kern County water bank for its base supply, and to identify additional water that would be available in a worst-case supply scenario.[66]

IV. EBMUD: THE TEST CASE FOR WATER-NEUTRAL DEVELOPMENT

EBMUD's service area extends over 331 square miles in the mostly

[61] Friends of Santa Clara River, Newhall Ranch, June 2009 Update, www.fscr.org/html/newhall.html.

[62] Telephone interview with Robert DiPrimio, President, Valencia Water Co. (Dec. 23, 2009).

[63] Telephone interview with Lorelei Oviatt, Division Chief of Kern County Special Planning Division (Jan. 4, 2010).

[64] *Id.*

[65] *Id.*

[66] *Id.*

urbanized eastern region of the San Francisco Bay Area.[67] While some growth is anticipated in the coming decades, the service area is urbanized and largely built out. As the requirements of SB 221 are not applicable to urban infill projects, EBMUD's obligations under the two laws have mainly been confined to Water Supply Assessments requested by local agencies for proposed projects under CEQA.[68] The water demands of nearly all the proposed projects are accounted for in the District's projections in its Urban Water Management Plan, pursuant to SB 610.[69]

Notwithstanding the relatively low projected growth rate in the service area population, the future reliability of EBMUD's water supplies is challenged by several factors. EBMUD's water rights on the Mokelumne River, its primary water source, are junior to a number of others that will be increasingly exercised as growth occurs in the Sierra foothill counties.[70] Environmental requirements to restore degraded habitat in the Delta are becoming more stringent and will call for more flow releases by all water users over time.[71] Finally, climate change threatens to inflict more frequent and more intense droughts in California, intensifying the already significant challenges to water supply reliability.[72]

Even as the Dougherty Valley case was still being played out, other projects began to come online in EBMUD's service area that incorporated new solutions to the problem of water supply limits. In the effort to facilitate the approval for the construction, the concept of "water-neutral" development took root, in which no new water supplies would be required for the project, resulting in a "zero water footprint."[73] This would be achieved through developer-paid investments in water-use efficiency, both on-site and off-site.[74]

The first generation of water-neutral residential projects in EBMUD's service area included The Meadows, Wendt Ranch, and Wiedemann Ranch developments in the San Ramon Valley.[75] Like

[67] *See* E. Bay Mun. Util. Dist., Service Area Map, www.ebmud.com/about-ebmud/our-story/service-area-map.

[68] *See* CAL. PUB. RES. CODE, § 21151.9 (Westlaw 2010); CAL. WATER CODE, § 10910 (Westlaw 2010); CAL. CODE REGS. tit. 14, § 15155 (2010).

[69] *See* E. BAY MUN. UTIL. DIST., 2005 URBAN WATER MANAGEMENT PLAN, ebmud.com/sites/default/files/pdfs/20080412%20-%20UWMP%202005%20Final%20Book.pdf.

[70] *Id.* at 2-1.

[71] *Id.* at 2-6.

[72] *See* Waterman, *supra* note 16, at 122.

[73] Interview with William Kirkpatrick, Manager of Distribution Planning, E. Bay Mun. Util. Dist., in Oakland, Cal. (Jan. 11, 2010).

[74] *Id.*

[75] *Id.*

Dougherty Valley, these proposed developments also required annexation into EBMUD's service area; however, they were smaller projects and proposed for parcels already surrounded on several sides by areas served by EBMUD.[76] Nonetheless, any proposed annexations were inherently controversial and strongly opposed by environmental interests. When EBMUD finally agreed to provide water to these projects, it was contingent on implementing water efficiency measures with a 1:1 offset ratio.[77] That is, the estimated water savings would equal the anticipated total water demand of the developments. Recognizing EBMUD's ongoing concerns with securing sufficient supplies to meet existing drought-year demands, the developers readily accepted this condition and agreed to finance the necessary efficiency measures.[78]

In 2001, a consortium of four developers, consisting of Shapell Industries, Braddock and Logan Group, Lennar, and Ponderosa Homes, proposed a large residential development called the Camino Tassajara Integrated Project.[79] This was to be an approximately 1,200-home development, including schools, community centers, and associated buildings, about forty percent of which lay outside of EBMUD's ultimate service boundary.[80] Numerous obstacles lay in the path to approval for this project, not the least of which was the fresh memory of the battle over Dougherty Valley. In addition, EBMUD had only just concluded a decades-long process of securing a supplemental supply for drought years, with its Freeport Regional Water Project on the Sacramento River.[81] The sizing of that project had not accounted for potential new demand outside EBMUD's service area, thus raising the bar to achieve a green light for developments such as Camino Tassajara.

With portions of the project area lying farther outside EBMUD's service area, this proposal was even more highly charged, as Dougherty Valley was still fresh in the public memory, and the court settlement had not been satisfactory to a number of environmental and public-interest groups.[82] In addition, the state legislature was still in the throes of debate

[76] *See, e.g.*, Contra Costa County, Local Agency Formation Commission Resolution 97-5 (Mar. 12, 1997) (annexing the "Wendt Ranch Territory" to EBMUD's service area).

[77] Interview with William Kirkpatrick, *supra* note 73.

[78] *Id.*

[79] *Id.*

[80] *Id.*

[81] Press Release, Senator Dianne Feinstein, "Joint Statement by the Mayor of Sacramento, Chairman of the Sacramento County Board of Supervisors, President of the East Bay Municipal Utility District Board of Directors and the Department of the Interior" (Dec. 8, 2000) (on file with authors).

[82] Interview with William Kirkpatrick, *supra* note 73.

over SB 221 and SB 610. With the ground rules for water supply and land use still in flux, the negotiations over Camino Tassajara proceeded on a parallel track with the progress of the two bills.

After a spirited and lengthy public debate, the EBMUD board annexed this project on the condition that the four developers finance water efficiency features that would achieve a 2:1 offset.[83] In other words, twice as much water would be conserved through various efficiency measures as would be required to serve the development's needs. This higher requirement was intended to provide a stronger guarantee (with commensurate funding) that existing EBMUD customers would not face a higher risk of water shortages as a result of the EBMUD's agreement to serve Camino Tassajara.[84]

The process of achieving the water savings for the offset involved two basic steps.[85] It began with identifying state-of-the-art efficiency measures on-site to minimize the water demand.[86] This included highly efficient water fixtures (such as front-loading washing machines) and irrigation systems, but also turf restrictions and installing recycled water systems for playfields and common areas.[87] This resulted in nearly a 30% reduction from the baseline demand, or almost 30% less water than a typical, comparable development would have required.[88] The revised "project water budget" then had to be offset by a two-to-one factor with other conservation actions implemented off-site.[89] In turn, each lot size was assigned a water budget based on meeting its indoor and irrigation needs after the requisite efficiency features had been factored in.[90]

EBMUD staff identified the number and type of actions needed for this offset, and calculated the cost to accomplish them.[91] This cost became the "Water Demand Mitigation Fee," which would be paid by the developers to finance the off-site actions.[92] The steps in reducing the project's water demand are summarized in the table below, where "MGD" refers to "million gallons per day" of water.

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[83] Randele Kanouse, Special Assistant to the General Manager, E. Bay Mun. Util. Dist., PowerPoint Presentation ("Ensuring Water Neutral Demand in New Developments") at the Planning and Conservation League Legislative Symposium, Sacramento, Cal. (Feb. 7, 2009) (on file with authors).

[84] *Id.*

[85] *Id.*

[86] *Id.*

[87] *Id.*

[88] *Id.*

[89] *Id.*

[90] *Id.*

[91] *Id.*

[92] *See id.*

Table 1.

Baseline Demand	On-Site Conservation Demand Reduction	On-Site Recycled Water Demand Reduction	Project Water Budget	Off-Site Demand Mitigation (2:1)
0.626 MGD	0.035 MGD	0.139 MGD	0.452 MGD	0.904 MGD

Source: Author presentation, 2009.[93]

Completing this evaluation required substantially more time and effort on the part of EBMUD staff than the typical plan review; however, Camino Tassajara was different both in scale and in kind than the urban infill projects that EBMUD customarily reviews. As a result of the planning process, the developers agreed to install the following on-site conservation measures:

- Dual-flush (high efficiency) toilets in every home.
- Front-loading clothes washers.
- Hot-water-on-demand systems for the 90 largest single-family homes.
- Submetering for common area irrigation & multi-family/senior housing.
- Xeriscaping and drip irrigation.
- Self-adjusting (evapotranspiration) irrigation controllers in all landscaped areas.[94]

Recycled water was planned for irrigating common areas and parks, school play fields, and landscape around artificial-turf soccer fields. The recycled water would be provided by the San Ramon Valley Water Recycling Project, a collaborative effort of EBMUD and the Dublin-San Ramon Services District. Providing recycled water to Camino Tassajara offset the baseline demand by an additional 0.139 MGD.[95]

[93] *Id.*
[94] *Id.*
[95] *Id.*

The off-site efficiency measures constitute a major commitment on the part of both the developers and EBMUD. The "Water Mitigation Fee" paid by the developers for a residence with a standard meter is currently $8,680.[96] For its part, EBMUD assumed responsibility for implementing and monitoring a variety of actions in different customer classes. In the residential and commercial sector, the Water Mitigation Fee finances the installation of efficient plumbing fixtures (toilets, showerheads), weather-based irrigation technology, laundry equipment, recycled and gray water systems, and the submetering of new multi-family units.[97] In the food-service and hospitality sectors, additional water savings are achieved with equipment such as self-contained (connectionless) food steamers, commercial dishwashers, pre-rinse spray valves, and air-cooled ice machines.[98] Finally, customers in the health-care sector could be equipped with more efficient X-ray film/photo processors and steam sterilizers.[99] All efficiency measures, whether on-site or off-site, must have measurable results that do not rely solely on customer behavior (e.g., shorter showers) to achieve real savings.

V. COMPLIANCE AND ENFORCEMENT

While the developers were responsible for installing on-site water-efficient features, the homeowners' associations would be responsible for ongoing compliance by homeowners. Ensuring compliance is critical to achieve the projected water savings over time. Without effective enforcement, homeowners could deliberately or passively disable the efficiency features, undermining the assurances EBMUD needs for its other customers that they would not be subject to water rationing as a result of the annexation.

For these reasons, EBMUD and the developers gave very careful scrutiny to designing a reliable and fair compliance mechanism.[100] The parties ultimately agreed that EBMUD should not be responsible for compliance at the development, but rather that this obligation should be assumed by the appropriate homeowners' association (HOA).[101] Under

[96] EBMUD Schedule of Rates and Charges to Customers of the East Bay Municipal Utility District, Schedule N, Water Demand Mitigation Fees, 14-E (adopted Aug. 10, 2009), *available at* ebmud.com/search/ebmud/EBMUD%20Schedule%20of%20Rates%20and%20Charges%20to%20Customers%2C%20Schedule%20N.

[97] Kanouse, *supra* note 82.

[98] *Id.*

[99] *Id.*

[100] *Id.*

[101] Little & Saputo, Declaration of Covenants, Conditions, and Restrictions of Alamo Creek,

state law, each HOA must adopt a body of rules called "Covenants, Conditions, and Restrictions" or CC&Rs.[102] Attorneys from both sides worked intensively to craft water-use efficiency requirements in the CC&Rs that would apply both to the HOAs, particularly regarding the landscaping and irrigation of common areas, and to lot owners. For example, lot owners must use only high-efficiency washing machines, maintain weather-sensitive irrigation controllers, and limit the turf area to twenty-five percent of the landscaping.[103] In practice, however, the water budget, whether for a specific lot or for a common area, is the sole measure by which compliance is gauged.[104] A HOA that maintains *overall* water use within its allotted project water budget is considered to be in compliance. If water consumption exceeds the project water budget by twenty percent in a given year, the HOA would then be required to pay an additional Water Demand Mitigation Fee on the total excess to EBMUD.[105] The CC&Rs for Alamo Creek, Shapell's subdivision within Camino Tassajara, state:

> The Association shall request EBMUD to provide the Association with individual water use information for each water meter that provides service to the Project. By acceptance of a deed to a Lot, each Owner hereby consents to the release of such information by EBMUD to the Association.[106]

Based on this information, the HOA is required to determine which individual lots exceeded their water budget during the year, and whether water usage in the common areas exceeded the water budget. Lot owners who have exceeded their individual water budgets are then subject to Water Surcharge Assessments from the HOA, based on a schedule contained within the CC&Rs.[107] The HOA may also enforce such assessments by liens. An unusual feature of these CC&Rs was that EBMUD was made an express third-party beneficiary such that no changes in the water efficiency provisions could be made without EBMUD's formal consent.[108] For its part, EBMUD has committed to an

40-41 (May 19, 2006) (on file with authors).

[102] *See* Davis-Stirling Common Interest Development Act, CAL. CIV. CODE §§ 1350-1378 (Westlaw 2010).

[103] Little & Saputo, *supra* note 101, at 22.

[104] *Id.* at 40.

[105] *Id.* exhibit D.

[106] *Id.* at 30.

[107] *Id.* exhibit D.

[108] *Id.* at 2, 45.

annual review of the water budgets with each HOA in the development.[109]

It is essential to emphasize that the HOAs, which in many cases have minimal staff, are not expected or required to "police" the various conservation provisions in the CC&Rs. Extraordinary effort was made by all parties in the planning process for Camino Tassajara to "build in" design features that would maximize the chances for ongoing water efficiency. Monitoring compliance with the water budget for each HOA serves as the proxy for ensuring the overall water-conservation objectives of the project.[110]

In conclusion, enforcement that was closest to the site was deemed to offer the best chance of success. In the case of Camino Tassajara, the CC&Rs will ensure that the water savings anticipated from the array of demand mitigation measures will meet EBMUD's fundamental condition for approving the project—that there would be no impact on the water supply of its existing customers. In the effort to facilitate new, sustainable development, it is crucial not to run the risk of relying once again on "paper water" that could be created with unenforceable water-conservation offsets.

VI. LESSONS LEARNED

Camino Tassajara represents a unique partnership in water-conservation offsets, one of the first of its kind in the United States. Targeting less-than-zero net water use provides a cushion for ensuring sustainable water neutrality, and utilizing state-of-the-art measures indicates that on-site water savings of twenty to thirty percent are possible. The developer funding of off-site mitigation programs provides the means to "wring out" additional savings to achieve the target offset, providing benefits both to new and existing customers.

As pioneers in water-neutral development, EBMUD staff "learned by doing" and established several guidelines for similar efforts in the future. Successful negotiations hinge in part on early communication with land use agencies and developers to review all water-efficiency options. The project applicants were also persuaded by EBMUD's emphasis on proven technologies to achieve expected water savings and performance. The time taken to educate the developers about viable options such as high-efficiency devices and drought-tolerant landscaping

[109] Interview with Richard Harris, Manager of Water Conservation, E. Bay Mun. Util. Dist., in Oakland, Cal. (Jan. 10, 2010).

[110] *Id.*

choices produced a successful result. Developers, architects, and consultants all benefited from assistance with reference materials on specifications and sources for products, plants, and other information to meet the water-offset requirement. Recognizing the new ground broken by this project, Land Development Magazine named the Alamo Creek subdivision its "Sustainable Visionary Project of the Year," and other national honors have acknowledged its innovative, sustainable and water-efficient design.[111]

In the wake of the Camino Tassajara experience, EBMUD's recommended "recipe" for similar efforts in the future would likely include these steps:

- Implement a "WaterSmart from the start" principle – early involvement with the developer in project design;
- Avoid or reduce the environmental and economic impacts of providing for new demand;
- Demonstrate water-efficient fixture and landscape features, with lower impact from outset;
- Minimize the need for home retrofits (at higher costs) to get water savings later;
- Improve water conservation cost-effectiveness;
- Optimize recycled water supply; and
- Improve water supply reliability.

Even with the extraordinary investment of time and money in designing Camino Tassajara, success is not guaranteed. As of the time of this writing, the development is only fifty-percent built out, and while EBMUD is working with the HOAs on preliminary review of their individual water budgets, final project water demand and formal compliance with the demand mitigation provisions is not expected to be reached for several years.[112] EBMUD staff continues to inspect the construction sites and interact with the developers to ensure that the terms of water service are being met.

In 2007, EBMUD adopted new requirements that all commercial projects and residential developments of more than two units meet stringent conditions for water service, in order to "build in" water-use efficiency.[113] For example, both toilets and washing machines must be

[111] *Id.*

[112] *Id.*

[113] *See* EBMUD Regulations Governing Water Service to Customers of the East Bay Municipal Utility District, Section 31 Water Efficiency Requirements (revised July 1, 2009),

high-efficiency models that exceed the existing plumbing code. For certain outdoor uses, automatic, self-adjusting irrigation controllers are required, and the turf area is generally limited to twenty-five percent of the irrigated landscape.[114] EBMUD has established a successful track record of working with developers at the plan-review stage, when these design features can be most easily accommodated. In effect, the Camino Tassajara experience has prompted a new approach to planning all development served by EBMUD, with long-term benefits in demand reduction throughout the service area.

VII. THE WAY FORWARD

It may be that California has become a laboratory for experimentation at so many levels out of pure necessity. Few other places in the world have grappled with the same pace of cultural and economic change, matched by an extraordinary endowment of human and natural capital. Arguably, California as we know it would not be possible without the unmatched water supply infrastructure that undergirds the economy. Furthermore, the dual trends of continued growth and water shortages demand a deep reorientation toward sustainability. Water-neutral development in the future may not follow the exact example set by EBMUD and its partners, but this model for development offers a viable alternative in water-short areas, assuming a renewed future demand for new housing.

The California Legislature has taken notice of this trend, with four different bills introduced into the Assembly since 2008[115] that sought to create ground rules for water-neutral development. As of this writing, none has passed the legislature, but much thought has been given to how the "rules of the game" should be framed. Among the key questions that have surfaced so far are the following:

- Which kinds of water efficiency measures qualify as actions that exceed mandatory requirements, taking note that local ordinances may vary in their requirements?
- What is an appropriate offset ratio to ensure that a water supplier's existing customers do not have to sacrifice supply reliability to enable growth as time goes by? Is a 1:1 ratio

available at ebmud.com/sites/default/files/pdfs/water_efficiency_requirements_1.pdf.

[114] *Id.* at 31-A, 31-B, 31-C.

[115] A.B. 2153, 2007-08 Reg. Sess. (Cal. 2008); A.B. 2219, 2007-08 Reg. Sess. (Cal. 2008); A.B. 300, 2009-10 Reg. Sess. (Cal. 2009); A.B. 1408, 2009-10 Reg. Sess. (Cal. 2009). East Bay Municipal Utility District sponsored A.B. 1408, which failed passage.

adequate as a standard, or should this be negotiated on a case-by-case basis? How would potential future adverse impacts to existing communities be addressed via CEQA?

- What is the obligation of the developer to ensure ongoing compliance with the water-savings targets after a project has been built out and the units sold? Should there be a time limit to this obligation?
- What is the best way to inform new homeowners and subsequent buyers of their obligations?
- Should the implementation of off-site conservation measures be confined to the water supplier's service area, or should the benefits be extended to low-income communities elsewhere? If the latter, what is the incentive for a water supplier to participate in such an arrangement?
- How is compliance monitoring best accomplished, and by whom? How will this activity be financed?
- What happens if a development fails to stay within its water budget?
- Most fundamentally, how can we ensure that "paper savings" become real savings?

The issue EBMUD faced squarely beginning in the late 1980s – preventing homes from being built using "paper water" – remains with us today. It will be essential to settle on fair and practical answers to these questions to ensure that provisions for water-offset measures are effective, verifiable, and durable in helping California communities meet their water supply reliability needs.

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ARTICLE

ASSURED WATER SUPPLY LAWS IN THE SUSTAINABILITY CONTEXT

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I. INTRODUCTION

Will environmental law become sustainability law? For more than a decade, calls for such a transformation have been consistent—and frequent.[1] Still, movement in this direction has been slow and incremental.[2] This raises a dual inquiry: Can environmental law become sustainability law and, if so, *how best* do we begin making that transition?

Tackling these issues with any comprehensiveness is beyond the scope of this Symposium.[3] But addressing the questions in a more specific context may provide some illumination for the broader inquiry. Although environmental law clearly has not become something entirely different over the past fifteen years,[4] recent reforms have brought some legal change rooted as much in sustainability as in traditional environmental protection.[5]

One of the foremost examples is the mounting adoption of assured water supply laws: state and local mandates that compel developers to prove they have sufficient water available before they may proceed with

[1] *See generally*, *e.g.*, WILLIAM R. BLACKBURN, THE SUSTAINABILITY HANDBOOK: THE COMPLETE MANAGEMENT GUIDE TO ACHIEVING SOCIAL, ECONOMIC AND ENVIRONMENTAL RESPONSIBILITY (2007); NATHALIE J. CHALIFOUR ET AL., LAND USE LAW FOR SUSTAINABLE DEVELOPMENT (2006); DOUGLAS FISHER, THE LAW AND GOVERNANCE OF WATER RESOURCES: THE CHALLENGE OF SUSTAINABILITY (2010); MARIE-CLAIRE CORDONIER SEGGER & ASHFAQ KHALFAN, SUSTAINABLE DEVELOPMENT LAW: PRINCIPLES, PRACTICES, AND PROSPECTS (2005); John C. Dernbach, *Toward a National Sustainable Development Strategy*, 10 BUFF. ENVTL. L.J. 69, 83 (2003).

[2] *E.g.*, John C. Dernbach, *Making Sustainable Development Happen: From Johannesburg to Albany*, 8 ALB. L. ENVTL. OUTLOOK J. 173, 182 (2004); Nancy P. Spyke, Heeding the Call: Making Sustainability a Matter of Pennsylvania Law, 109 PENN ST. L. REV. 729, 729 (2005).

[3] For more on this larger question, *see*, *e.g.*, sources cited *supra* note 1.

[4] For suggestions for how environmental law should change, *see generally*, *e.g.*, DANIEL A. FARBER, ECO-PRAGMATISM: MAKING SENSIBLE ENVIRONMENTAL DECISIONS IN AN UNCERTAIN WORLD (1999); Robert W. Adler, *The Supreme Court and Ecosystems: Environmental Science in Environmental Law*, 27 VT. L. REV. 249 (2003); James D. Fine & Dave Owen, *Technocracy and Democracy: Conflicts Between Models and Participation in Environmental Law and Planning*, 56 HASTINGS L.J. 901 (2005); Eric T. Freyfogle, *The Ethical Strands of Environmental Law*, 1994 U. ILL. L. REV. 819 (1994); Eileen Gauna, The Environmental Justice Misfit: Public Participation and the Paradigm Paradox, 17 STAN. ENVTL. L.J. 3, 17-31 (1998); John R. Nolon, *In Praise of Parochialism: The Advent of Local Environmental Law*, 26 HARV. ENVTL. L. REV. 365 (2002); A. Dan Tarlock, *The Nonequilibrium Paradigm in Ecology and the Partial Unraveling of Environmental Law*, 27 LOY. L.A. L. REV. 1121, 1140-44 (1994).

[5] Spyke, *supra* note 2, at 729.

new subdivision, commercial, or other residential construction.[6] Despite the multiple reasons given for these measures' adoption,[7] assured supply laws point heavily toward sustainability. They seek to ensure that land development proceeds in a way that can continue over time because it does so within resource limits—that is, they strive to facilitate continued economic progress, but a kind of progress that does not harm future generations, at least from a water perspective.

Certainly there are reasons to reorient environmental law toward sustainability.[8] "Tailoring law more closely to the patterns of human behavior, administration, and enforcement will be more efficient, and environmental law will dovetail with other areas of law, thus strengthening respect for, and the effectiveness of, the law."[9] Sustainability, in other words, offers something that traditional environmental law's focus on public health protection and risk mitigation does not. Sustainability offers a long view that attempts to balance—and synthesize—economic development, environmental protection, and equity.[10] Sustainability holds the promise of more complete governance.

It is this kind of more holistic regulation that assured water supply laws attempt to achieve. They seek to bring land use law and water planning closer together, to coordinate smart use of resources via more efficient environmental regulation. "Land use regulation and planning have taken an 'environmental turn': a pervasive and inescapable attention to the impact of land use and land development on the natural environment."[11] Assured supply laws are very much a part of this trend.

Despite, however, the growing emergence of these laws, and the burgeoning scholarship on their operation and design,[12] the question of

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[6] Lincoln L. Davies, *Just a Big, "Hot Fuss"? Assessing the Value of Connecting Suburban Sprawl, Land Use, and Water Rights Through Assured Supply Laws*, 34 ECOLOGY L.Q. 1217 (2007).

[7] *See infra* Part I.B.

[8] *See* sources cited *supra* note 1.

[9] J. William Futrell, *Law of Sustainable Development*, ENVTL. F., Mar./Apr. 1994, at 16.

[10] *E.g.*, J.B. Ruhl, *Sustainable Development: A Five-Dimensional Algorithm for Environmental Law*, 18 STAN. ENVTL. L.J. 31, 40 (1999).

[11] Craig Anthony (Tony) Arnold, *Introduction: Integrating Water Controls and Land Use Controls: New Ideas and Old Obstacles, in* WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 1, 1 (Craig Anthony (Tony) Arnold ed., 2005).

[12] *See*, *e.g.*, WET GROWTH: SHOULD WATER LAW CONTROL LAND USE?, *supra* note 11; Craig Anthony (Tony) Arnold, *Is Wet Growth Smarter Than Smart Growth?: The Fragmentation and Integration of Land Use and Water*, 35 ENVTL. L. REP. 10,152 (2005); Davies, *supra* note 6; Adam Strachan, Note, *Concurrency Laws: Water as a Land use Regulation*, 21 J. LAND, RESOURCES & ENVTL. L. 435 (2001); Christine A. Klein et al., *Modernizing Water Law: The Example of Florida*, 61 FLA. L. REV. 403(2009); A. Dan Tarlock & Sarah B. Van de Wetering, *Western Growth and Sustainable Water Use: If There Are No "Natural Limits," Should We Worry About Water Supplies?*, 27 PUB. LAND & RESOURCES L. REV. 33 (2006); A. Dan Tarlock & Lora A. Lucero,

whether assured supply laws actually, rather than only conceptually, advance sustainability remains.

This Article takes an initial run at that question. By juxtaposing five western[13] states' existing assured supply laws, it provides a preliminary assessment of whether, and how, assured supply laws can best promote sustainability—and, by extension, make at least one area of environmental law more like sustainability law. The Article reaches three principal conclusions. First, it finds that, as they appear to, assured supply laws in fact promote sustainability. Second, the extent to which assured supply laws likely promote sustainability greatly varies by state, because these laws' policy designs also depend on the state of enactment. Finally, additional work is needed to provide a more concrete assessment of how effective assured supply laws are, both in general and in the context of sustainability.

The Article proceeds in three parts. Part I briefly introduces assured supply laws, including how they function, rationales offered for their adoption, and their apparent benefits and costs. Part II places these laws in a sustainability context, attempting to reformulate how we think of assured supply laws from a sustainability, rather than a traditional environmental, vantage. Part III concludes by contrasting five state regimes through the lens of a possible model for sustainability law. Part III shows that assured supply design very much matters for how well the laws promote sustainability.

II. ASSURED WATER SUPPLY LAWS

Assured water supply laws are relatively new to the environmental regulatory scene. Arizona was the first to take the leap, when it adopted its Groundwater Management Act in 1980.[14] It took time, but other states

Connecting Land, Water, and Growth, 34 URB. LAW. 971, 973 (2002); 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, 190–91 (2004).

[13] By "western," I mean states generally considered relatively arid and west of the Continental Divide. Most of these use prior appropriation doctrine to govern water rights, or some other property-based system of water governance. Most, too, have assured supply laws. *See infra* note 17.

[14] Groundwater Management Act, 1980 Ariz. Laws 4th Spec. Sess., ch. 1 (codified as amended at ARIZ. REV. STAT. ANN. §§ 45-401 to -704 (Westlaw 2010). For more on this enactment, *see generally* Desmond Connall, *A History of the Arizona Groundwater Management Act*, 1982 ARIZ. ST. L.J. 313; Robert Jerome Glennon, *"Because That's Where the Water Is": Retiring Current Water Uses To Achieve the Safe-Yield Objective of the Arizona Groundwater Management Act*, 33 ARIZ L. REV. 89 (1991); Jon L. Kyl, *The 1980 Arizona Groundwater Management Act: From Inception to Current Constitutional Challenge*, 53 U. COLO. L. REV. 471 (1982).

followed. California's passage of a rather rigorous assured supply requirement in 2001 has been perhaps the most hailed of these state enactments,[15] both for its wide application in such a populous state and for its strengthening of what many already saw as a de facto assured supply requirement under California's general environmental review statute.[16] By 2006, nearly two thirds of the contiguous states west of the Missouri River had adopted some form of assured water supply requirement.[17] Western states were not alone. Some eastern jurisdictions also began adopting these laws,[18] and where states did not take action, often localities did.[19]

At one level, assured supply laws can be seen as attempting to correct a market failure.[20] Developers know, or should know, whether a given property has sufficient water available to serve the buyers (homeowners, business owners) to whom they are selling the property. Those purchasers, on the other hand, may not. It may work differently elsewhere, but the common assumption in the United States is that real

[15] *See* S.B. 221, ch. 642, 2001 Cal. Stat. 88; *see also* Jamey Volker, Note, *Water Supplies Finally Take Center Stage in the Land Use Planning Arena*, 35 ECOLOGY L.Q. 573 (2008); Waterman, *supra* note 12.

[16] Cal. Oak Found. v. City of Santa Clarita, 133 Cal. App. 4th 1219 (Ct. App. 2005); Santa Clarita Org. for Planning the Env't v. County of L.A., 106 Cal. App. 4th 715, 720 (Ct. App. 2003); Planning & Conservation League v. Dep't of Water Res., 83 Cal. App. 4th 892 (Ct. App. 2000); Stanislaus Natural Heritage Project v. County of Stanislaus, 48 Cal. App. 4th 182, 194-95 (Ct. App. 1996). The California Supreme Court's decision in Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal. 4th 412, 428-29 (2007), changed this presumption.

[17] 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, 154 n.1 (2006) ("[A]ll but 6 of the 17 states west of the Missouri River in the continental U.S. (Idaho, Kansas, Nebraska, North Dakota, Oregon, and Utah) had some form of state requirement linking subdivision approval to [a] demonstration of adequate water supplies."). A more recent survey showed that nine of the eleven contiguous states west of the continental divide have assured supply laws, the exceptions being Idaho and Utah. BOBBIE KLEIN & DOUGLAS KENNEY, THE LAND USE PLANNING, WATER RESOURCES AND CLIMATE CHANGE ADAPTATION CONNECTION: CHALLENGES AND OPPORTUNITIES (2009), *available at* www.colorado.edu/water_management_and_drought/Land%20use%20water-%20final.pdf.

[18] Mary Jane Angelo, *Integrating Water Management and Land Use Planning: Uncovering the Missing Link in the Protection of Florida's Water Resources?*, 12 U. FLA. J.L. & PUB. POL'Y 223, 235-41 (2001); Kevin M. O'Brien & Barbara Markham, *Tale of Two Coasts: How Two States Link Water and Land Use*, 11 NAT. RESOURCES & ENV'T 3, 5-7 (1996) (discussing Florida); Strachan, *supra* note 12, at 438-42 (addressing Maryland and Vermont). For an initial assessment of whether assured supply laws can work in the context of eastern (i.e., riparian and regulated riparian) water law, *see* Lincoln L. Davies, *East Going West? The Promise of Assured Supply Laws in Modern Real Estate Development*, 43 JOHN MARSHALL L. REV. 319 (2010).

[19] John Roszkowski, *Planning for Growth with Water in Mind*, ELM LEAVES (Elmwood Park, Ill.), July 26, 2006; David Snyder, *A New Direction in Water Law: Frederick Ordinance Resembles Western U.S. Approach*, WASH. POST, Sept. 23, 2002, at B1.

[20] Davies, *supra* note 6, at 1231.

property purchases for habitation come with a sufficient, clean, and safe water stock.[21] The assured supply law thus attempts to ensure that information access is equal in the market, compelling developers to meet the everyday consumer's expectation of sufficient water or, at the least, give the customer notice that the usual expectation does not apply.[22]

From another perspective, the assured supply law is less market-correcting than planning-perfecting. Land use regulation and water planning have been notoriously disjointed historically.[23] Because jurisdiction for each of these activities typically is located in separate agencies, land use regulation and water planning often are at odds:

> [P]lanning and regulatory functions are so compartmentalized that the planning department might be preparing the comprehensive [land use] plan . . . while the . . . utility division is preparing the water utility extension plan. One plan advocates infill and limiting sprawl . . . while the other anticipates where the new water and sewer lines will be extended to accommodate growth . . . . More often than not, none of these plans are connected.[24]

Yet because land and water use are intimately connected, this planning disconnect is problematic.[25] Land use decisions inherently impact both water quality and availability, just as water supply should deeply inform smart land development. Assured supply laws attempt to help put these activities back together. They force land planners to consider water before moving forward.[26]

There is, however, yet another prism through which assured supply laws can be viewed. It is the prism of ultimate objectives. That is, regardless of whether assured supply laws are seen as improving markets or bettering planning, to what end? Why are assured supply laws seeking these corrections? Is it simply to improve governance, or is there a broader normative aim—sustainability, perhaps? The next Part dissects assured supply laws in an attempt to address this inquiry of whether assured supply laws promote sustainability, or sustainability law. First,

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[21] *See infra* note 29 and accompanying text.

[22] Davies, *supra* note 6, at 1231.

[23] *E.g.*, A. Dan Tarlock & Lora A. Lucero, *Connecting Land, Water, and Growth*, 34 URB. LAW. 971, 972 (2002); A. Dan Tarlock & Sarah B. Van de Wetering, *Growth Management and Western Water Law: From Urban Oases to Archipelagos*, 5 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 163, 167 (1999).

[24] Tarlock & Lucero, *supra* note 23, at 973-74.

[25] Arnold, *supra* note 11; Tarlock & Lucero, *supra* note 23, at 972; Tarlock & Van de Wetering, *supra* note 23, at 167.

[26] Davies, *supra* note 6, at 1233-34.

however, a brief assessment of these laws' function is in order.

A. MECHANICS

Assured supply laws' function is straightforward. The core mechanism is a requirement that there be proof of an adequate water supply before a proposed development—generally a subdivision—may receive regulatory approval. Typically, the way this works is that either the developer itself, or the water provider from which the development will take service, will assess the incremental water demand needed by the development and then certify to the land use agency whether there is a sufficient water supply to meet that demand. California's law is representative. "The legislative body of a city or county . . . shall include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available."[27] Colorado's requirement is similar. It commands: "Subdivision regulations . . . shall require subdividers to submit . . . data, surveys, analyses, studies, plans, and designs . . . of the following items: . . . Adequate evidence that a water supply that is sufficient in terms of quality, quantity, and dependability will be available to ensure an adequate supply of water for the type of subdivision proposed."[28]

Although facially uncomplicated, these requirements are notable for at least two reasons. First, by mandating water availability by statute, assured supply laws elevate the importance of water as a resource. Prior to assured supply laws' emergence, common law decisions in many states already imposed an obligation on property sellers that mandated, at least for homes, sufficient water as part of the implied covenant of habitability.[29] In *Elderkin v. Gaster*, for instance, perhaps the leading case on the question, the Pennsylvania Supreme Court ruled that a homebuilder's failure to construct a well providing a safe and adequate water supply breached its obligation to sell only homes "fit for the purpose intended—habitation."[30] Citing the same market-correcting rationale that assured supply laws invoke—that "the builder[] is manifestly in a better position than the normal [purchaser] to guard

[27] CAL. GOV'T CODE § 66473.7(b)(1) (Westlaw 2010).

[28] COLO. REV. STAT. § 30-28-133(3)(d) (Westlaw 2009).

[29] Mazurek v. Nielsen, 42 Colo. App. 386, 387 (Ct. App. 1979); Lyon v. Ward, 28 N.C. App. 446, 449-50 (Ct. App. 1976); McDonald v. Mianecki, 159 N.J. Super. 1, 5-19 (Super. Ct. App. Div. 1978); Jeanguneat v. Jackie Hames Constr. Co., 576 P.2d 761, 762 (Okla. 1978); Willard v. Parsons Hill P'ship, 178 Vt. 300, 310-12 (2005).

[30] Elderkin v. Gaster, 447 Pa. 118, 129-30 (1972).

against defects in the home site"[31]—the court ruled: "While we can adopt no set standard for determining habitability, it goes without saying that a potable water supply is essential to any functional living unit; without drinkable water, the house cannot be used for the purpose intended."[32] It may be obvious that homes cannot function without sufficient water, but the assured supply law elevates that truism to another level. Rather than relying on the common law, which by its nature is subject to change depending on the circumstance, a statutory assured supply requirement renders the expectation universal. And, that effect should not only send a clearer signal, it should foster more efficient governance. Rather than leaving it to judges to address the problem of insufficient water *ex post facto*, the codified assured supply law seeks to prevent the problem from occurring in the first place, *ex ante*.[33]

Second, no matter how straightforward the assured supply mechanism may appear, complications abound nonetheless. Questions of what "assured" means, how to measure it, how long the assurance must last, who must do the assuring, and so on inevitably make the basic assured supply law more complex than it at first seems.[34] Take a single example. Contrast even two states' definition of an "assured," or "adequate," water supply. California defines an adequate water supply as "the total water supplies" needed by the development; it must be "available during normal, single-dry, and multiple-dry years within a 20-year projection."[35] Washington, by contrast, denominates either "a water right permit" or "a letter from an approved water purveyor" or "another form sufficient to verify the existence of an adequate water supply" as satisfying its requirement.[36] If even these two states differ on points as basic as whether mere paper water rights constitute sufficient proof of water availability, or if instead a long-term analysis is necessary, the diversity of possibilities for designing assured supply requirements should be obvious.

Indeed, at times, the prevalence of exceptions to assured supply laws may seem their most unifying feature. Without fail, assured supply laws limit themselves. Arizona's law applies only in dense metropolitan areas; rural development is subject only to a lighter-handed, halfway

[31] *Id.*

[32] *Id.*

[33] Cf. Davies, *supra* note 6, at 1271-72 (noting the potential efficiencies that assured supply laws offer by teeing up potential water disputes sooner than later).

[34] *See id.* at 1279-91.

[35] CAL. GOV'T CODE § 66473.7(a)(2) (Westlaw 2010).

[36] WASH. REV. CODE § 19.27.097(1) (Westlaw 2010).

mandate.[37] California's statute sweeps in only large subdivisions—500 homes or more.[38] Colorado's law is designated only for subdivisions and thus does not apply to many types of residential development, much less commercial ventures.[39]

In short, diversity is the rule, not the exception, for assured supply law design. There are nearly as many policy differences in assured supply laws as there are possible traits. No doubt, this is at least in part due to the variety of reasons states choose to adopt these laws.

B. RATIONALES

Assured supply laws are marked by their multiplicity of goals. Although the most common rationale for their adoption is to limit, or at least direct, growth, numerous other motives have spurred these laws' enactment.

Most fundamentally, assured supply laws have been put forward as a modern land use regulation—part of the "smart growth" movement's effort to stall suburban sprawl and its myriad negative environmental effects.[40] The idea is that if development cannot occur without water, it will be reined into areas that have sufficient resources, making development less environmentally detrimental. This is the so-called "wet growth" justification for assured supply laws, the idea that "growth and land use should be sustainable with respect to aquatic ecosystems and water resources."[41] It is the most frequently given reason for adopting these laws. Professor Tony Arnold explains: "Several developments in linking land and water reflect an inchoate but real wet growth agenda. Localities are increasingly considering growth's impacts on water

[37] ARIZ. REV. STAT. ANN. §§ 45-108, 32-2181(F) (Westlaw 2010); *see also* Shaun McKinnon, *State's Rural Growth Taxing Water Supplies*, ARIZ. REPUBLIC, June 26, 2005, at 1A; Shaun McKinnon, *Developers Cashing in on Weak Water Laws*, ARIZ. REPUBLIC, June 27, 2005, at 1A.

[38] CAL GOV'T CODE § 66473.7(a)(1) (Westlaw 2010). In limited circumstances, the provision also applies to potentially smaller subdivisions, because it includes subdivisions where the serving water system has fewer than 5,000 connections but the proposed development increases the system's connections by ten percent or more. *Id.*

[39] *See* COLO. REV. STAT. § 30-28-133 (Westlaw 2010).

[40] *See* Arnold, *supra* note 11, at 3-7. For more on the smart growth movement, *see generally* ROBERT H. FREILICH, FROM SPRAWL TO SMART GROWTH: SUCCESSFUL LEGAL, PLANNING, AND ENVIRONMENTAL SYSTEMS (1999); Joel B. Eisen, *Brownfields Development: From Individual Sites to Smart Growth*, 39 ENVTL. L. REP. NEWS & ANALYSIS 10,285 (2009); John R. Nolon, *Golden and Its Emanations: The Surprising Origins of Smart Growth*, 23 PACE ENVTL. L. REV. 757 (2006); Ed Bolen et al., *Smart Growth: A Review of Programs State by State*, 8 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 145 (2002).

[41] Arnold, *supra* note 11, at 8.

supplies and water quality in their general or comprehensive planning documents . . . and decisions to approve or deny development proposals."[42] Assured supply laws are one of the primary ways governments are implementing this "wet" approach to managing growth.

Assured supply law advocates give other reasons for adopting these laws, too. Some suggest that assured supply laws are necessary to ensure that a sufficient resource infrastructure is in place for development going forward. Sheila Kuehl, sponsor of the California law, cited this as a reason for action on the occasion of that law's passage: "Suddenly, [after the western energy crisis,] it became clear to us that there may be other things we took for granted. It was even worse with water because we can't simply build a new plant and manufacture water like electricity."[43] The idea is that a requirement as specific as demonstrating an actual, physical water supply before construction may begin puts regulatory teeth into general municipal planning efforts. This might be termed the "resource concurrency" view of assured supply laws, because just as new development must have sufficient electrical, sewage, and the other physical utilities commonly expected for modern construction, assured supply laws require the natural resources to be available as well.[44] It is a planning-centric vision of the laws.[45]

A less frequently touted, but nevertheless clear, rationale for assured supply laws is their consumer protection potential. This reasoning relies on the "market correction" view of assured supply laws, the principle that a requirement of sufficient water levels the playing field for developers and purchasers. In the process of adopting California's law, legislators noted the possibility of this effect. The proposed law, it was

[42] *Id.* at 10-11.

[43] Tracey Kaplan, New *Law Links Water Supply to OK of Large Housing Tracts*, SAN JOSE MERCURY NEWS, Oct. 10, 2001, at 19A (quoting Kuehl); *see also* ASSEMB. COMM. ON WATER, PARKS AND WILDLIFE, S.B. 221 ANALYSIS, Reg. Sess., at 6 (Cal. 2001), *available at* www.leginfo.ca.gov/pub/01-02/bill/sen/sb_02010250/sb_221_cfa_20010625_153332_asm_comm-.html ("California's population will double by 2040. Supporters contend that approving new development faster than new water supplies are developed puts existing customers at risk during future droughts.").

[44] Davies, *supra* note 6, at 1245; Strachan, *supra* note 23, at 438-42. For more on concurrency laws generally, *see*, for instance, Thomas G. Pelham, *Restructuring Florida's Growth Management System: Alternative Approaches to Plan Implementation and Concurrency*, 12 U. FLA. J.L. & PUB. POL'Y 299 (2001); Thomas M. Walsh & Roger A. Pearce, *The Concurrency Requirement of the Washington State Growth Management Act*, 16 PUGET SOUND L. REV. 1025 (1993); S. Mark White & Elisa L. Paster, *Creating Effective Land Use Regulations Through Concurrency*, 43 NAT. RESOURCES J. 753 (2003).

[45] *See*, *e.g.*, Waterman, *supra* note 12, at 190-91; AM. PLANNING ASS'N, POLICY GUIDE ON SMART GROWTH' (Apr. 15, 2002), *available at* www.planning.org/policy/guides/pdf/smart-growth.pdf.

said, would "force[] local officials to match the desires of private investors with the requirements of public policy"[46]—that is, it would prevent developers from taking advantage of unsuspecting homebuyers, just as it would stop the subtle subsidization of growth by foisting the water costs of new development onto existing homeowners.[47]

In reality, of course, advocacy for assured supply laws is not monolithic. Multiple reasons are offered for, and against, every assured supply law proposal. This is natural. Assured supply laws promise many benefits. Whether they actually deliver on that promise, however, is more difficult to parse.

C. BENEFITS AND COSTS

Scholarship addressing assured supply laws' benefits and costs is sparse. Especially on the quantitative front, there is precious little evidence of assured supply performance. The landmark study *Water for Growth: California's New Frontier*, completed by the Public Policy Institute of California in 2005, is one exception that does cut a wide swath.[48] Still, it is limited to California and thus does not extend to the many other jurisdictions that have adopted assured supply laws of their own. Given the breadth of policy choices states have when adopting these laws, uniformly extrapolating the conclusions of this California study to all other assured supply jurisdictions is a tenuous proposition.[49] In a 2007 article, I attempted to synthesize existing quantitative and qualitative data to assess whether assured supply laws deliver any benefits and, if so, whether those benefits are offset by assured supply laws' potential costs.[50] This too, however, left gaps, precisely because comprehensive data outside California is scarce. The conclusions were directional, not definitive.[51]

Assured supply laws appear to have five key benefits. First, assured supply laws in fact deliver some consumer protection benefits, because they have stopped developments lacking water and, in other cases, have

[46] S. LOCAL GOV'T COMM., S.B. 221 ANALYSIS, Reg. Sess., at 2 (Cal. 2001), *available at* http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_0201-0250/sb_221_cfa_20010426_132334_sen_comm.html; *see also infra* note 131.

[47] Davies, *supra* note 6, at 1267.

[48] ELLEN HANAK, WATER FOR GROWTH: CALIFORNIA'S NEW FRONTIER (2005).

[49] This is especially true because many California localities had assured supply laws of their own prior to adoption of the statewide measure in 2005. *See* Caitlin S. Dyckman, *A Dynastic Disruption: The Use Efficiency and Conservation Legacy of the Governor's Commission To Review California Water Rights Law Recommendation*, 36 MCGEORGE L. REV. 175, 202 (2005).

[50] Davies, *supra* note 6, at 1265-78.

[51] *See id.* at 1265.

at least given homebuyers warning that sufficient water was lacking.[52] Second and third, assured supply laws improve planning at both the micro and macro level. The micro-level benefits should be obvious: the laws force planners to take into account water availability before proceeding with a project. But the macro-level benefits are also real, even if somewhat unexpected. Assured supply laws appear to be pushing land and water planners to coordinate more closely in broader ways, other than simply on whether any given project can demonstrate water sufficiency.[53] Fourth, assured supply laws may have ancillary benefits for the legal system, because they signal projects that pose water rights dilemmas relatively earlier on in the process rather than after construction has begun.[54] Finally, assured supply laws help promote water conservation, at least incrementally, thus delivering at least one of the environmental benefits for which the laws' advocates hope.[55]

Despite these offerings, assured supply laws also do not come without costs. The most obvious are the administrative costs of additional red tape from checking for water every time a project is proposed, though presumably these costs are offset—or justified—by any consumer protection and planning benefits the laws deliver.[56] More critical, then, should be other costs. The most direct is sprawl. Although one of the primary motivators for adopting assured supply laws is halting sprawl, there is a risk that these laws may actually exacerbate it.[57] That is because "wet growth" laws do not actually target the spatial development patterns that lead to sprawl,[58] but rather, simply require whatever development does occur to have sufficient water. Because some localities want to limit growth while others want to attract it, "races to the bottom" may arise where some jurisdictions intentionally forgo implementing assured supply requirements to attract growth. To the extent development in these areas furthers sprawl, assured supply laws may intensify the very trend they seek to combat.[59]

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[52] *Id.* at 1265-67.

[53] *Id.* at 1269-70.

[54] *Id.* at 1271-72.

[55] *Id.* at 1274-75.

[56] *Id.* at 1268.

[57] *Id.* at 1276-78.

[58] For sophisticated definitions of sprawl, *see*, for instance, Jackie Cutsinger et al., *Verifying the Multi-Dimensional Nature of Metropolitan Land Use: Advancing the Understanding and Measurement of Sprawl*, 27 J. URB. AFFAIRS 235, 248 (2005); George Galster et al., *Wrestling Sprawl to the Ground: Defining and Measuring an Elusive Concept*, 12 HOUSING POL'Y DEBATE 681, 687-98 (2001).

[59] Davies, *supra* note 6, at 1276-78. Beyond this, assured supply laws may impose at least two other auxiliary costs they do not intend. If poorly designed, they may create a perception that

Thus, the ultimate verdict on assured supply laws is not in. The laws appear to offer important benefits, and their costs seem unlikely to outweigh those benefits.[60] Nevertheless, the precise balance of these benefits and costs cannot currently be calculated with precision.

III. SUSTAINABILITY AND THE LAW

Putting assured supply laws in the sustainability context first requires understanding what sustainability is. This is not as easy a task as it may seem. True, basic notions of sustainability have been around for decades, most prominently in the natural resource management context.[61] This was the ideal of early conservationists such as Teddy Roosevelt and Gifford Pinchot: to maximize resource use over time, so that renewable resources are not diminished more quickly than they replenish.[62] Over the past thirty to forty years, however, sustainability has taken on a much broader meaning. Now, the term "sustainable" is employed in a wide variety of contexts, as in "sustainable consumption," "sustainable use," and "sustainable design."[63] As J.B. Ruhl recently observed, "Adding the word 'sustainable' to proposals for just about anything is in vogue these days."[64]

The most common addition of "sustainable" is to "development." Since the United Nations' World Commission on Environment and Development (the "Brundtland Commission") issued its *Our Common*

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they have solved water problems, when in fact they have not. And, to the extent they are tagged with a reputation of unnecessary regulation, either because they slow development or fail to deliver on promised results, they may incite a backlash against other environmentally minded reforms. *See id.* at 1273, 1277-78.

[60] *See id.* at 1265-78.

[61] *See*, *e.g.*, Robert L. Glicksman, *Sustainable Federal Land Management: Protecting Ecological Integrity and Preserving Environmental Principal*, 44 TULSA L. REV. 147 (2008); Robert B. Keiter, Public *Lands and Law Reform: Putting Theory, Policy, and Practice in Perspective*, 2005 UTAH L. REV. 1127; Charles F. Wilkinson, *The National Forest Management Act: The Twenty Years Behind, the Twenty Years Ahead*, 68 U. COLO. L. REV. 659 (1997); Sandra Zellmer, *Why Resilience May Not Always Be a Good Thing: Lessons in Ecosystem Restoration from Glen Canyon and the Everglades*, 87 NEB. L. REV. 893 (2009).

[62] Arnold W. Bolle, Foreword to CHARLES F. WILKINSON & H. MICHAEL ANDERSON, LAND AND RESOURCE PLANNING IN THE NATIONAL FORESTS 1, 1 (1987).

[63] *E.g.*, Press Release, CSR News, Nearly 9 out of 10 Business Leaders Believe U.S. president-Elect Obama Will Help Advance the Corporate Responsibility Agenda (Nov. 6, 2008), *available at* www.csrwire.com/News/13642.html ("Sustainability is no longer an activity on its own, but it is totally integrated into everything we do. Business should embrace this approach if we are going to create sustainable economic growth worldwide." (quoting IKEA CEO Ander Dahlvig)).

[64] J.B. Ruhl, *Law for Sustainable Development: Work Continues on the Rubik's Cube*, 44 TULSA L. REV. 1, 1 (2008).

Future report in 1987,[65] the term "sustainable development" has dominated the environmental policy scene, so much so that President Clinton assembled a commission on the subject,[66] conferences repeatedly have focused on it as their topic, and sustainable development scholarship has surged.[67] Despite sustainable development's ascendancy on the policy front, however, little effort has been made to translate its policy goals into hard law. "Sustainable development, a concept that emerged in 1987 and was globally endorsed at the 1992 Earth Summit, has largely been avoided by the law. The law's delay in assimilating policies of sustainability is frustrating."[68]

Thus, the question of sustainability involves both what sustainable development encompasses, and what sustainable development law might look like. This Part addresses those questions, then applies them to assured supply law design options, to build a model of what an assured supply law focused on sustainability might comprise.

A. SUSTAINABLE DEVELOPMENT

In 1987, the U.N.'s so-called Brundtland Commission defined sustainable development as "development that meets the need of the present without compromising the ability of future generations to meet their own needs."[69] This was the same refrain echoed by President Clinton's Council on Sustainable Development when it issued its 1999 report, *Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st Century*.[70] That report defined sustainable development thus: "A sustainable United States will have a growing economy that provides equitable opportunities for satisfying livelihoods and a safe, healthy, high quality of life for

[65] WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE (1987) [hereinafter *"WCED*"].

[66] PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT, SUSTAINABLE AMERICA: A NEW CONSENSUS FOR THE FUTURE (1996).

[67] *See generally*, *e.g.*, BLACKBURN, *supra* note 1; JOHN BLEWITT, UNDERSTANDING SUSTAINABLE DEVELOPMENT (2008); CORDONIER SEGGER & KHALFAN, *supra* note 1; HERMAN E. DALY, BEYOND GROWTH: THE ECONOMICS OF SUSTAINABLE DEVELOPMENT (1997); ANDRES R. EDWARDS & DAVID W. ORR, THE SUSTAINABILITY REVOLUTION: PORTRAIT OF A PARADIGM SHIFT (2005); ENVIRONMENTAL LAW FOR SUSTAINABILITY (Benjamin J. Richardson & Stepan Wood eds., 2006).

[68] Spyke, *supra* note 2, at 729.

[69] *WCED*, *supra* note 65, at 43.

[70] PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT, TOWARDS A SUSTAINABLE AMERICA: ADVANCING PROSPERITY, OPPORTUNITY, AND A HEALTHY ENVIRONMENT FOR THE 21ST CENTURY (1999), *available at* clinton2.nara.gov/PCSD/Publications/tsa.pdf.

current and future generations."[71]

Almost immediately, the commonalities in the various definitions of sustainable development emerged. It became clear that the reason sustainable development differed from traditional environmental protection was that it focused on more than the environment alone. Instead, it also emphasized both economic development and principles of justice, namely, equity. Thus, J. William Futrell, former president of both the Sierra Club and the Environmental Law Institute, described sustainable development as "denot[ing] an effort to meld concerns for environmental protection, economic well-being, and social justice."[72] This then became known as the "triple bottom line," or the "three E's," of sustainable development: environmental protection, economic development, and equity.[73]

Although clear enough conceptually, actually applying the triple bottom line is a much murkier proposition. Maximizing a single policy objective is difficult. Optimizing three simultaneously is far harder.[74] An oil development project, for instance, might bring a region more jobs, thus promoting the economic and equity prongs of sustainable development, but harm local groundwater or the global climate, thus hindering the environment prong. An effort to restore wetlands might offer both environmental protection and economic development via "green collar" employment, but fail to take into account other ills plaguing lower-income and minority communities. In short, at some point there will almost always be conflicts among sustainable development's three E's.[75] And even when there is not, finding the proper balance is not a simple task.

In part for this reason, sustainable development has been subject to heavy criticism on multiple grounds. Its scope is too "enormous (and

[71] *Id.* at iv.

[72] J. William Futrell, *Defining Sustainable Development Law*, 19 NAT. RESOURCES & ENV'T 9, 9 (2004).

[73] *See*, *e.g.*, Ben Boer*, Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action*, 31 WILLAMETTE L. REV. 307, 318 (1995); John C. Dernbach, *Sustainable Development: Now More Than Ever, in* STUMBLING TOWARD SUSTAINABILITY 45, 45 (John C. Dernbach ed., 2002); U.N. Conference on Environment and Development, Promoting Sustainable Human Settlement Development, Agenda 21, U.N. Doc. A/ CONF.151.26 (1992).

[74] *E.g.*, Ruhl, *supra* note 10, at 74-75.

[75] *See*, *e.g.*, ERIC T. FREYFOGLE, WHY CONSERVATION IS FAILING AND HOW IT CAN REGAIN GROUND 138 (2006); Robert J. Klee, Note, *Enabling Environmental Sustainability in the United States: The Case for a Comprehensive Material Flow Inventory*, 23 STAN. ENVTL. L.J. 131, 139-40 (2004); Ileana M. Porras, *The City and International Law: In Pursuit of Sustainable Development*, 36 FORDHAM URB. L.J. 537 (2009).

amorphous)."[76] Its definition is a "persistent . . . problem."[77] The uncertainty it introduces is "seemingly unmanageable."[78] Its very concept is "overused, misused, and abused."[79] Sustainable development's core premise—the melding of multiple policy aims—is simultaneously its biggest contribution and its greatest hindrance. "The virtue of sustainability as a concept sufficiently broad to embrace contemporary thinking becomes the curse of vagueness when the discussion shifts from the general to the specific."[80]

Thus, scholars have not hesitated to observe that, in the stark light of day, sustainable development risks manifesting more as a watered down version of environmental protection than a holistic vision of the future. This was Professor Eric Freyfogle's conclusion when he put sustainable development under the microscope:

> [Seeing] sustainability as a catchall aspiration, including social justice along with land use issues, . . . presumes that conservation stands in tension with economic growth and social justice, with trade-offs therefore necessary. Sustainability then becomes one grand umbrella covering a variety of competing concerns. Under that umbrella compromises are made, and the ultimate outcome is a package of policies that promotes sustainability writ large. Thus, in an effort to promote sustainability, we can end up endorsing policies that are harsh on nature and that cannot be continued in any ecological sense. And yet, the policies are said to promote sustainability because of their social justice implications.[81]

In other words, there is a risk that sustainable development is a Trojan horse. Rather than advancing environmental protection in a way that makes more sense than our current, fragmented approach, it may actually undermine that objective by putting it in a paradigm where compromises beneath the baseline are inevitable.

It is this kind of criticism that has led some scholars to craft different visions of sustainable development. As Professor Gary Bryner argued, there are two kinds of sustainable development: a "weak or thin"

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[76] Spyke, *supra* note 2, at 730.

[77] David R. Hodas, *The Role of Law in Defining Sustainable Development: NEPA Reconsidered*, 3 WIDENER L. SYMP. J. 1, 15 (1998).

[78] Spyke, *supra* note 2, at 730.

[79] Ruhl, *supra* note 64, at 2.

[80] Lawrence J. MacDonnell, *Sustainable Use of Water Resources*, 12 NAT. RESOURCES & ENV'T 97, 97 (1997).

[81] FREYFOGLE, *supra* note 75, at 138.

form, and a "strong or thick" version.[82] The former sees sustainability as inevitably balancing economic and environmental criteria. It incorporates the sense that economic growth must continue but merely be "refined and balanced by environmental sensitivity."[83] The latter, "strong and thick" version of sustainable development places environmental protection at its pinnacle. It works not by increments but by wholesale change, contending that society "must be fundamentally transformed to avoid ecological disruptions and protect regenerative processes."[84]

B. SUSTAINABLE DEVELOPMENT LAW

Having seen the difficulties in placing sharp contours on the concept of sustainable development, it should hardly be surprising that the process of creating holistic sustainable development law has lagged. To be blunt, there have been "very few" efforts at trying to meld sustainable development's three E's into a single legal mechanism, whether at the local, state, federal, or international level.[85] Why?

One problem is the vagueness that the sustainable development concept brings. How should policymakers be expected to draft legislation that *implements* sustainability when the very *idea* of sustainability is so pliable and uncertain? This is an oft-invoked reason for the stalled status of sustainable development law. It does not hold up. The concept of justice is perhaps the broadest in modern thought, yet lawmakers do not let that stop them from passing bill after bill seeking to implement that fuzzy idea in more concrete ways. Sustainability is no different.[86]

There also is the problem of inertia—that existing environmental and natural resources law already pervasively addresses many of the dilemmas that sustainable development touches, so changing that legal infrastructure is hardly an easy, or fast, task. No doubt, the breadth of modern environmental law is significant.[87] But it is also flawed:

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[82] Gary C. Bryner, *Policy Devolution and Environmental Law: Exploring the Transition to Sustainable Development*, 26 ENVIRONS ENVTL. L. & POL'Y J. 1, 14-15 (2002).

[83] *Id.* at 14.

[84] *Id.* at 15.

[85] Spyke, *supra* note 2, at 729.

[86] Futrell, *supra* note 72, at 9.

[87] *See*, *e.g.*, RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 5 (2004); JAMES SALZMAN & BARTON H. THOMPSON, JR., ENVIRONMENTAL LAW AND POLICY 2 (2d ed. 2007); Zygmunt J.B. Plater, *From the Beginning, a Fundamental Shift of Paradigms: A Theory and Short History of Environmental Law*, 27 LOY. L.A. L. REV. 981, 1003-04 (1994). For more on the connection, or lack thereof, between environmental law and energy law, *see, e.g.*, Lincoln L. Davies, *Alternative Energy and the Energy-Environment Disconnect*, 46 IDAHO L. REV. 473 (2010), and Amy J. Wildermuth, *Is Environmental Law a Barrier to Emerging Alternative Energy Sources?*, 46

fragmented, short-sighted, reactionary, and silo-ed.[88] The very point, or at least a key point, of sustainable development is to correct these flaws. It is to integrate the legal process more fully so that we do not, for instance, see agricultural pesticide runoff separately from the subsidies provided to farms, or the implications that those subsidies have on the wealth distribution in farming communities and nationwide. Inertia is an excuse, not a reason, for inaction.

So too for other rationales offered for why sustainability law need not proceed: That sustainable development is vague, or confusing, or dull, is irrelevant. Every policy rubric has flaws. Sustainable development is no different. Perfection, though, is still the enemy of the good.[89] Sustainable development still advances the ball from where we are today. Sustainability still focuses "people and policy on the need to take into account the interrelationship of economy, environment, and equity, at all scales, over intergenerational timeframes. Few concepts can claim that, so let us not abandon one that can."[90]

What is needed is not further naysaying on why sustainable development law cannot work but efforts to actually test whether it can. This will be a process of starts and stops, experiments and failures. That is only inevitable. Overhauling a field of law—or laws—never comes without difficulty. Yet just as justice now serves as the touchstone for many of our legal instruments, sustainability may be the benchmark going forward.[91] For that to happen, sustainable development law must develop too. Markets drive our economy, and they need "rules and enforcement mechanisms" to function correctly—in short, "an effective governance structure."[92] Likewise for many other behaviors, a new form of governance is needed if change is what we seek, and change is precisely what sustainable development aims for. "Sustainable development is impossible without transforming the legal structure within which human activities, transactions, and initiatives occur."[93] To put that new governance structure in place, we need new rules, policies,

IDAHO L. REV. 509 (2010).

[88] *E.g.*, J. CLARENCE DAVIES & JAN MAZUREK, POLLUTION CONTROL IN THE UNITED STATES: EVALUATING THE SYSTEM 288 (1998); WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 59-60 (2d ed. 1994).

[89] *See* THE OXFORD DICTIONARY OF QUOTATIONS 716 (Angela Partington ed., 4th ed. 1996) (translating "*le mieux est l'ennemi du bien*" (Voltaire)).

[90] Ruhl, *supra* note 64, at 2.

[91] Futrell, *supra* note 72, at 9.

[92] CHARLES HOLLIDAY ET AL., WALKING THE TALK: THE BUSINESS CASE FOR SUSTAINABLE DEVELOPMENT 72 (2002).

[93] Futrell, *supra* note 72, at 9.

and guidelines. We need "details, standards, incentives, regulations, enforcement, and all the other stuff lawyers do."[94] That is, we need law.

What sustainable development law ultimately will look like is not yet clear. Some outlines, however, have begun to emerge. From the concept of sustainable development itself, at least four baseline principles should be obvious.

First, sustainability law must be forward-looking. If a key to sustainability is preserving resources in a way that does not harm future generations, sustainability law cannot be reactive to problems in the same way that current environmental law is. Rather, it must anticipate them, take them into account before they happen, and seek to avert them. In this way, sustainability law should be more planning- and process-centered than existing environmental law. Accordingly, it also must be more flexible than current law, because those plans necessarily will change over time.[95] As Professor Nancy Perkins Spyke recently summarized, sustainability law "must create a mechanism that will integrate the interests of the future into decision making, and should require long-range planning as a means of meeting that goal."[96]

Second, sustainability law must seek to advance the triple bottom line of sustainable development. This is different from many environmental laws, which focus on one medium, activity, or industry.[97] There are already some parallels in other contexts, most notably natural resource management, where statutes afford agencies leeway to balance a constellation of objectives. The concept of multiple-use sustained-yield from statutes such as FLPMA and the National Forest Management Act comes to mind.[98] Sustainability law, though, must go well beyond extant models such as these, because it inherently includes equitable considerations on top of ecological and economic principles that existing statutes put into play. It also must work toward a much broader vision—a sustainable *society*, not merely a sustainable *resource*.

Third, sustainability law should recognize that it needs both substance and procedure. It is not enough to say that "sustainability law should arise from a strong commitment to sustainable development," or

[94] Ruhl, *supra* note 64, at 2.

[95] *E.g.*, David R. Boyd, *Sustainability Law: (R)Evolutionary Directions for the Future of Environmental Law*, 14 J. ENV. L. & PRAC. 357, 372-73 (2004); John R. Nolon, *Comparative Land Use Law: Patterns of Sustainability*, 37 URB. LAW. 807, 812 (2005); Spyke, *supra* note 2, at 726-27.

[96] Spyke, *supra* note 2, at 759.

[97] Lincoln L. Davies, *Alternative Energy and the Energy-Environment Disconnect*, 46 IDAHO L. REV 473 (2010).

[98] 16 U.S.C. §§ 528 et seq., 1600 et seq. (Westlaw 2010).

that it must be "linked to indicators and measurable goals."[99] A key criticism of sustainability is that it is "used variously both as a means and as an end." [100] As Professor Freyfogle has noted, this raises a number of knotty dilemmas. "[H]ow do we apply this test [of sustainable means] to the aspects of nature that are nonrenewable? . . . How do we sustain something that is inherently dynamic? . . . [W]hen used as an end, sustainability is literally incoherent . . . until it is matched with a noun . . . . There must be some *thing* that is being sustained."[101] Making sustainability law that focuses on both process and substance might help alleviate sustainability's vagueness in this regard. There are many reasons why advocates of sustainable development might refer to the concept in procedural terms, but certainly among them is that sustainable processes are seen as furthering sustainable ends.[102] A new policy goal adopted with little political buy-in is unlikely to last. Thus, sustainability law should be participative. It should employ "procedures that will change traditional attitudes at all levels of governance."[103] It should cut across agencies rather than allowing administrators to shutter themselves in. It should "discard[] centralization and fragmentation when necessary and . . . encourag[e] non-regulatory private or public-private partnerships."[104]

Finally, while sustainability law clearly must be forward-looking, flexible, adaptable, and procedural, none of that should dilute the core mission of sustainable development. That is, sustainability law must subscribe to Gary Bryner's so-called "thick and strong" version of sustainable development. It must place environmental protection at the forefront of its objectives. Doing so means that sustainability law will aim to locate minimum levels of ecosystem protection necessary to ensure that society is sustainable, and then enforce them. It means that sustainability law will look for win-win-win solutions.[105] It means, in short, that sustainability law will always keep an eye on the future, rather than bankrupting it for immediate gains.

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[99] Spyke, *supra* note 2, at 759, 760.

[100] FREYFOGLE, *supra* note 75, at 120.

[101] *Id*.

[102] *See*, *e.g.*, ORGANIZATION OF AMERICAN STATES, INTER-AMERICAN STRATEGY FOR THE PROMOTION OF PUBLIC PARTICIPATION IN DECISION-MAKING FOR SUSTAINABLE DEVELOPMENT, Inter-American Council on Integral Development, CIDI Res. 98 (V-O/00) OEA/Ser.W/II.5, Apr. 20, 2000, arts. 2-3, *available at* www.oas.org/dsd/PDF_files/ispenglish.pdf.

[103] Spyke, *supra* note 2, at 759.

[104] *Id*.

[105] *See generally*, *e.g.*, John Elkington, *Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development*, CAL. MGMT. REV., 90 (Winter 1994).

C. SUSTAINABILITY AND ASSURED SUPPLY LAW DESIGN

Because comprehensive data on assured supply law performance remains lacking,[106] the specific nuances of how best to design assured supply laws remain largely theoretical. Certainly some elements of design must depend on the specific needs and features of any given state. As the record of assured supply law performance grows, the lessons learned for how to structure them should as well.

In a previous article, I outlined five principles around which assured supply laws are typically built. These design elements are the laws' (1) compulsoriness, or whether they are mandatory or merely voluntary; (2) stringency, or whether they demand rigorous proof of adequate water or merely some attestation of a supply; (3) universality, or whether they apply across a state or only in parts of it; (4) granularity, or whether they apply to all sizes of development or only large projects; and (5) interconnectedness, or whether the assured supply law is integrated with other land, environmental, and water planning requirements, or stands alone.[107] The article concluded that laws with certain traits should be more effective than those that lack them. Specifically, it reasoned that compulsory, stringent, universal, granular, interconnected assured supply laws should be better at maximizing the benefits, and minimizing the costs, that these laws present.[108]

By definition, these design factors do not speak to sustainability. They anticipate only assured supply law effectiveness. As a result, they also do not address how assured supply laws should be designed from a sustainability perspective, if they in fact do promote sustainability.

i. Assured Supply Laws as Sustainability Law

It is plain that, at least at the surface level, assured supply laws promote sustainability. Their very aim is rooted in achieving a kind of society that does not now exist—one where new development occurs only if there is sufficient water, that is, if the development can be *sustained*. Likewise, assured supply laws are fundamentally forward-looking. Assessment of whether there will be adequate water for a development in 5, 10, 20, or 100 years inherently requires thinking beyond the here and now. This, in turn, naturally requires balancing resource use across generations.

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[106] *See supra* Part I.C.

[107] Davies, *supra* note 6, at 1279-91.

[108] *Id.* at 1279-80.

On the other hand, it is not as obvious that assured supply laws promote all sustainable development aims. While these laws employ a kind of resource concurrency requirement that presumes economic development will continue but only in a water-sufficient way,[109] the assured supply law requirement itself says nothing about how to ensure that such water consumption is not environmentally detrimental. Indeed, because assured supply laws do not try to limit growth, but merely seek to make sure there is water to supply it, one could argue that these laws are closer to environment-neutral than environment-positive. Nor do assured supply laws create any obvious mechanism for seeking to optimize all three of sustainable development's E's. They say nothing about equity and very little, if anything at all, about economics. This failure means that assured supply laws do not necessarily employ the five-part sustainable development "algorithm," as Professor Ruhl has called it, in which the three E's are not just optimized, but optimized over both different geographies and time.[110]

Thus, while assured supply laws clearly incorporate some elements of sustainability, their "fit" with the four basic pillars of sustainability law is less clear. The question of how to design assured supply laws to best promote sustainable development remains open.

ii. Sustainability Design for Assured Supply Laws

Applying sustainability law's four pillars should yield at least a beginning sketch of the design elements needed to bring assured supply laws more in line with sustainable development. Certainly, more work will be necessary on this front as both assured supply laws specifically and sustainability law generally evolve, but there must be a starting point.

First, because assured supply laws are inherently forward-looking, the question is how forward-looking they should be. Thinking in sustainability terms, longer would seem better. If the very object of sustainability is to ensure that an activity can be maintained across generations, a water adequacy projection of 5 or 10 years would seem presumptively inadequate. Standard mortgages last 30 years; assured supply projections should not last less. Indeed, given that assured supply requirements typically apply to new subdivisions,[111] it is unlikely that those developments will simply disappear in years or decades.

[109] *Id.* at 1245.
[110] Ruhl, *supra* note 10.
[111] *See supra* Part I.A.

Gentrification shows as much. Thus, projections on the order of 100 years or longer would seem reasonable as a starting point for an assured supply law deemed well rooted in sustainability's forward-looking aim.

Second, assured supply laws should not forgo analysis of economic and equitable criteria merely because water adequacy has been found. They should seek to optimize all three of sustainable development's E's. This means that assured supply laws should not stop at asking about water, but need to extend more broadly. At a minimum, administrators should consider the effect of their assured supply determination on the other two E's. They should also weigh the environmental impacts of the water the projects they approve. That is, local authorities passing on an assured supply law determination should assess whether there will be detrimental economic or equitable results stemming from their decision. For instance: Does the disapproval of a development pull housing off the market that would be needed for economic growth? If so, are there alternate water supplies that could be tapped to allow the project to go forward? If a project is approved, does it foster or hinder housing for lower incomes? More than this, assured supply laws could be used not just to consider all three E's, but to optimize them. It is, of course, fair to ask whether relatively narrow tools such as assured supply laws should be stretched so far, and perhaps they should not. But the fact that one of the most sustainability-centric mechanisms in water and land use planning today does not reach as broadly as sustainability itself would at least raises the question of whether there should be a mechanism that does.

Third, to the extent appropriate, assured supply laws should employ procedures that help point toward sustainability's substance. Many of these may already be in place. Land plat approvals may or may not allow for public participation, but general land plans typically do.[112] To the extent assured supply assessments go beyond that general level of planning, they should account for public participation as well. This is tied directly to one of the laws' benefits: that they may signal an overallocation of water earlier on than might otherwise be the case.[113] By the same measure, assured supply laws should leave leeway for developers to prove sufficiency of water other than by traditional means. If, for instance, a developer can find water that would not otherwise be available to the municipal provider,[114] that kind of innovation should be

[112] *See*, *e.g.*, Douglas W. Kmiec, *Deregulating Land Use: An Alternative Free Enterprise Development System*, 130 U. PA. L. REV. 28, 35-36 (1981).

[113] Davies, *supra* note 6, at 1271-72.

[114] Compare, *e.g.*, Dale Kasler, *Private Water Sales Are Paving Way for Growth*,

embraced, not discouraged, in the name of sustainability.

Finally, if assured supply laws are to promote sustainability, they must put in place limits that invoke the "thick and strong" form of sustainable development. At the threshold, assured supply laws seem to do this already. They prevent development unless there is adequate—sustainable—water. But the question is more complicated than that.

Even if there is adequate water, the assured supply laws say nothing about the overall environmental effects of using the water. Will its consumption harm ecosystems? Endanger species? Are there alternate supplies that may have fewer, or less problematic, environmental effects? Assured supply laws gloss over these questions because they start with the proposition that adequate water is the end of the analysis, not the beginning.

Moreover, merely putting an assured supply requirement in place says nothing of that requirement's efficacy. Yet if the requirement does not work, the objective of minimal environmental protection is undermined. The five-factor assured supply law design suggestions of compulsoriness, stringency, universality, granularity, and interconnectedness thus come into play.[115] In short, effectiveness matters: part of implementing the thick form of sustainability in assured supply laws must include ensuring that the laws work as well as possible.

IV. ASSURED SUPPLY LAWS UNDER THE SUSTAINABILITY LENS: A FIVE STATE COMPARISON

Design of assured supply laws vary. From a sustainability perspective, this manifests in two ways. First, the general directions in which assured supply laws do and do not promote sustainability tend to follow parallel tracks among the states but, second, the extent to which states' laws promote sustainability differs. To demonstrate how this point tends to play out,[116] this Part takes a cross-section of five state assured supply laws, those of Arizona, California, Colorado, Montana, and Nevada.

SACRAMENTO BEE, Sept. 22, 2002, at A1, *with* Lora Lucero & A. Dan Tarlock, *Water Supply and Urban Growth in New Mexico: Same Old, Same Old or a New Era?*, 43 NAT. RESOURCES J. 803, 828 n.106 (2003).

[115] *See supra* note 107 and accompanying text.

[116] Other states have assured supply laws as well. *See supra* notes 18-19. The sample examined here is intended to be roughly representative, not comprehensive.

A. FUTURE PLANNING

Assured supply laws look to the future by definition.[117] How they promote sustainability's emphasis on future interests, however, varies quite significantly.

Some states take a long view. Arizona's law, for instance, demands that there be sufficient water for a development for 100 years.[118] California likewise puts its scope fairly far out on the horizon: it requires that water be available for developments subject to its assured supply law for 20 years.[119]

Other states put less emphasis on this point. Nevada requires that proposed subdivisions be accompanied by a certificate from the "Division of Water Resources . . . showing that the final map is approved . . . concerning water quantity," but that approval remains the agency's province, not the subject of strict future timeframes.[120] Likewise, all the Montana assured supply law mandates is "evidence of adequate water availability," without reference to a definite period of time.[121] Colorado is similar.[122]

Of course, one might question how far into the future even sustainable development would ask assured supply laws to look. Water is a renewable resource, so the question of intergenerational harm should be less pointed here than in instances where immediate consumption has an irreparable effect on the resource base. Indeed, while fresh, readily available water is limited, water in general is not. Our continent is surrounded by it. Desalinization already allows for that supply to be harvested, albeit at a relatively high price.[123] As technology evolves, those prices should come down. That is history's trend.

Moreover, the risk of errant forecasts is not insignificant. It is difficult enough for economists to assess a likely trend three months out. Asking local land and water officials to peg a single subdivision to a water supply for a time period multiples longer when there are so many moving parts—not the least of which are population growth, technological development, and climate change[124]—is a tall order

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[117] *See supra* Part II.C.2.

[118] ARIZ. REV. STAT. ANN. §§ 9-463.01(I), 11-806.01(B), 32-2181(C) (Westlaw 2010).

[119] CAL. GOV'T CODE § 66473.7(a)(2) (Westlaw 2010).

[120] NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

[121] MONT. CODE. ANN. § 76-3-622(e) (Westlaw 2010).

[122] COLO. REV. STAT. ANN. § 30-28-133(3)(d) (Westlaw 2010).

[123] *See generally*, *e.g.*, Jared Huffman, Moderator, *Desalination in California: Should Ocean Waters Be Utilized to Produce Freshwater*, 57 HASTINGS L.J. 1343 (2006).

[124] Robert W. Adler, *Climate Change and the Hegemony of State Water Law*, 29 Stan.

indeed.

Nevertheless, an assured supply law seeking to achieve sustainability should at least attempt to approximate future supplies, given sustainability's forward-looking emphasis. Failing to do so not only risks emptying the laws of content; it undermines their potential to further sustainability itself. Only when an assured supply law, like California's, or, better, Arizona's, looks to the long term can it claim sustainability as a goal. Tentativeness in future projections can be taken into account in the assessment.

B. THE THREE E'S

Assured supply laws are more uniform in how they address sustainable development's three E's. They focus primarily on only one third of the equation—the environment—and then generally only on the water supply facet of that question.

This should only be expected given the purposes for which assured supply laws are adopted: guarding against developments with insufficient water. While many assured supply law advocates cite more environment-centric rationales for these laws' adoption,[125] ultimately the core benefit of these laws may be consumer protection. As one Wyoming water official observed, "[Our assured supply law] was passed because we had developers sell their lots and disappear. When the new property owners found they didn't have adequate water quality or quantity[,] they would come to the state and try to get water development funding for a water project."[126]

It is thus unsurprising that assured supply laws do not holistically search for an optimal balance of the three E's. As a group, these laws typically are uni- rather than multi-dimensional. The Montana law assesses whether there is "adequate water availability" of "sufficient water quality" as prescribed by state administrative rules.[127] The Nevada law, too, weighs the "availability of water which meets applicable health standards and is sufficient in quantity."[128] Arizona and Colorado are little different, although Arizona places heavy weight on groundwater impacts

Envtl. L.J. 1 (2010).

[125] *See supra* Part I.B.

[126] Email from John Wagner, Wyoming Water Development Comm'n, to David Johnson, Quinney Fellow, University of Utah S.J. Quinney College of Law (Feb. 5, 2010) (on file with author); *see also* Davies, *supra* note 6, at 1265-67.

[127] MONT. CODE ANN. § 76-3-622(e), (f) (Westlaw 2010).

[128] *See* ARIZ. REV. STAT. ANN. §§ 9-463.01(I), 11-806.01(B), 32-2181(C) (Westlaw 2010); COLO. REV. STAT. ANN. § 30-28-133(3)(d) (2007); *see also supra* note 14.

rather than water availability alone.[129]

California does break from the other states by giving a nod to one more "E"—equity—in its law. The California assured supply law exempts new developments designed for low-income housing from its requirements.[130] Implicitly, this strikes a sustainability-informed balance that is absent from other statutes. Whereas other states' assured supply laws address, at most, economics and the environment in an implicit way (by assuming that all economic development is good as long as there is sufficient water), California's law touches on all three of the E's (by also promoting economic development where there is water, but promoting it more if it will help the economically less fortunate). One might quibble with the balance that this assured supply law strikes. But the point is not whether the statute's balance is right or wrong. It is that California at least weighed what the balance should be, and then addressed that in its law. That is more than the other state assured supply laws do. For this reason, the California assured supply law can fairly claim to be more sustainability-centered than the other states' laws.

Granted, many assured supply laws are enacted into broader subdivision and land-planning statutes, and many of those statutes ask planning officials to consider questions well beyond water availability alone. For instance, the Nevada law directs land planning officials to consider, in addition to water supply, "environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal" for new subdivisions.[131] That land planning generally may touch on other facets of sustainability beyond water, however, is a different question than whether assured supply laws themselves do. The question for assured supply laws is whether they ask planners to weigh all three dimensions of sustainable development from the water perspective—or at least their water supply determination's effects on those three dimensions. An assured supply law could, for example, give land planners discretion to deny plat approvals if a given mix of sustainable development goals related to water, including water availability, is not met. The answer is that, with the exception of California, assured supply laws remain narrower than this.

[129] NEV. REV. STAT. ANN. § 278.349(3)(b) (Westlaw 2010).
[130] CAL. GOV'T CODE § 66473.7(i) (Westlaw 2010).
[131] NEV. REV. STAT. ANN. § 278.349(3)(a) (Westlaw 2010).

C. PROCEDURE

Assured supply laws employ some procedural innovations that help push toward sustainability. It is difficult to say with any definitiveness what "procedure for sustainable development" is, but a working definition might be procedure that (1) tends to promote sustainable development's objectives by (2) ensuring that all elements of sustainable development are well represented in decisionmaking. Certainly part of this must be an emphasis on broad public participation; part of it, too, is utilizing alternate methods from traditional top-down governance.[132]

Assured supply laws break only partially from this mold. All five of the laws surveyed here still leave the subdivision approval process to a centralized executive agency, typically the local land use board, and in turn, the ultimate decision on whether there is sufficient water as well.[133] Not much else could be expected. Any problem of this type must give the final say to some decisional authority, lest there be no regulation at all.

Where assured supply laws do find new ground is by coordinating planning between different sets of decisionmakers—land use authorities and water planners.[134] How they do so is not uniform. California effectively encourages the assured supply decision to tier off broader urban water management plans, which themselves seek to avoid the problem of "paper" water that will not actually be there for the development.[135] Somewhat similarly, states like Arizona and Nevada turn to their state water officials for the assessment of whether "wet" water will be available.[136] This kind of planning integration should, in general, promote sustainability by giving both sets of decisionmakers better information on the true impacts of their determinations. By contrast, assured supply laws like Montana's are less likely to advance the sustainability ball because rather than integrating planning, they leave the door open for disaggregated, independent water availability assessments. As the Montana law states, all that is needed to comply is "evidence of adequate water availability," which may come from "well logs or testing of onsite or nearby wells," data from "published

[132] *See supra* Part II.C.2.

[133] *See* ARIZ. REV. STAT. ANN. § 11-806.01(B) (Westlaw 2010); CAL. GOV'T CODE § 66473.7(b) (Westlaw 2010); COLO. REV. STAT. ANN. § 30-28-133 (Westlaw 2010); MONT. CODE ANN. § 76-3-601 (Westlaw 2010); NEV. REV. STAT. ANN. § 278.349 (Westlaw 2010).

[134] *See* Davies, *supra* note 6, at 1269-73.

[135] CAL. GOV'T CODE § 66473.7(c) (Westlaw 2010); Cal. Water Code §§ 10615, 10621, 10635 (Westlaw 2010).

[136] ARIZ. REV. STAT. ANN. § 11-806.01(B) (Westlaw 2010); NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

hydrogeological reports," or other sources.[137]

Finally, some assured supply laws potentially open the door to a greater public-private dialogue. Arizona, California, Colorado, Montana, and Nevada all appear to fall into this category. They acknowledge, implicitly or explicitly, that new water supplies might come from sources other than a municipal provider,[138] thus at least creating the possibility that solutions the private sector finds optimal (as expressed by a market bargain between land developer and water rights holder) gain greater sway.[139] Because, however, assured supply laws otherwise rely on generally applicable public participation procedures, they do not gain further ground on this front.

D. "THICK" SUSTAINABILITY

The degree to which assured supply laws adopt a "thicker" or "stronger" form of sustainability also varies. While all the laws inherently make land planning more oriented toward environmental protection, some laws put more emphasis on this effort than others.

California's law, for instance, by focusing not just on water availability in theory but on its presence in different environmental conditions, gives environmental protection relatively more weight than assured supply laws that view water as a consumable resource and nothing more.[140] Arizona's law likewise promotes broader environmental protection than an assurance of water supply alone. It was adopted for the very purpose of avoiding groundwater overdraft, a critical environmental problem that renders water a nonrenewable resource by withdrawing it from aquifers faster than its recharge rate.[141] Colorado's, Montana's, and Nevada's laws, on the other hand, appear to focus primarily on water supply as such, leaving bigger water-related environmental questions to other measures.

Just as critical to the question of how well assured supply laws locate minimum levels of environmental protection for "thick" sustainability is the laws' effectiveness. The answer here is indeterminate, because comprehensive performance data remains

[137] MONT. CODE ANN. § 76-3-622(e) (Westlaw 2010).

[138] ARIZ. REV. STAT. ANN. § 11-806.01(B) (Westlaw 2010); CAL. GOV'T CODE § 66473.7(c) (Westlaw 2010); COLO. REV. STAT. ANN. 30-28-133(3)(d) (Westlaw 2010); MONT. CODE ANN. § 76-3-622(1)(e) (Westlaw 2010); NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

[139] *See supra* Part II.C.2.

[140] CAL. GOV'T CODE § 66473.7(a)(2) (Westlaw 2010).

[141] *See supra* note 14.

lacking, as noted previously.[142] It is, however, possible to at least suggest the laws' efficacy potential, based on their design. Again, this varies widely by state.

California's law is rigorous, requiring not just stringent evidence of sufficient water but also integrating that assessment with other water, land, and environmental planning mechanisms.[143] Yet California leaves a large loophole open, allowing any subdivision smaller than 500 homes to go unchecked by its assured supply requirement.[144]

Montana and Nevada employ mandatory assured supply assessments that apply to even smaller subdivisions, presumably sweeping most new development within their grasp.[145] Yet the evidence the assessments demand to prove water availability is more lax, or amorphous, and they are not as well integrated with larger planning mechanisms such as state environmental assessments, at least on their face.[146]

Arizona and Colorado, by contrast, impose comparatively stringent requirements for showing water availability (more akin to California's), especially Colorado, with its background system of water courts tamping down on paper water rights.[147] These states' laws, however, effectively risk massive noncompliance: Arizona by making its law mandatory only in dense urban areas,[148] and Colorado by leaving implementation and design to county discretion.[149] It should thus be clear that assured supply laws are inevitably the product of political compromise that varies from state to state; any emphasis on "thick" sustainability, or sustainability at all, varies with that, and is secondary anyway.

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[142] *See supra* Part I.C.

[143] Davies, *supra* note 6, at 1289-90.

[144] CAL. GOV'T CODE § 66473.7(a)(1) (Westlaw 2010).

[145] *See* MONT. CODE ANN. § 76-3-103(15) (Westlaw 2010) (defining "subdivision" as "a division of land or land so divided that it creates one or more parcels containing less than 160 acres that cannot be described as a one-quarter aliquot part of a United States government section"); NEV. REV. STAT. ANN. § 278.320 (Westlaw 2010) (defining "subdivision" as "any land, vacant or improved, which is divided or proposed to be divided into five or more lots").

[146] MONT. CODE ANN. § 76-3-622(1)(e) (2005); NEV. REV. STAT. ANN. § 278.377(1)(b) (Westlaw 2010).

[147] *See* ARIZ. REV. STAT. ANN. §§ 9-463.01(I), 11-806.01(B), 32-2181(C) (Westlaw 2010); *see also* ARIZ. REV. STAT. ANN. §§ 45-576, 45-576.07 (Westlaw 2010); ARIZ. ADMIN. CODE §§ R12-15-703 to -707 (2008); COLO. REV. STAT. ANN. §§ 37-92-101 to -204 (Westlaw 2010). Some Colorado localities impose even more stringent requirements, such as one county's mandate that water be available for periods as long as 300 years. *See*, *e.g.*, El Paso County, Colo. Land Development Code § 8.4.7, adm.elpasoco.com/NR/rdonlyres/C5F3EDDB-D480-49F5-9FF8-C64979B28B0E/0/LDCChapter8_Adopted_Rev0.pdf.

[148] *See* ARIZ. REV. STAT. ANN. §§ 32-2181(F), 45-108 (Westlaw 2010).

[149] *See* COLO. REV. STAT. ANN. 30-28-133(3)(d) (Westlaw 2010).

Indeed, review of these five state assured supply laws makes plain that there are two simple ways these laws can become more centered on sustainability. First, none of the laws directly address greater water conservation. If assured supply laws truly are focused on environmental protection, they should seek not just to ensure that water is there for growth, but to help make society more efficient in how it uses this valuable resource.[150] That is, after all, sustainability's core aim. Second, assured supply laws should not be championed as sprawl control measures. Sprawl certainly is a critical environmental problem, a clear manifestation of unsustainable living in general and on the water front more specifically. But assured supply laws are unlikely to stop sprawl.[151] Someday, policymakers may merge assured supply laws into larger legislative and planning proposals aimed at reducing sprawl and making land development more sustainable, and that may well be a course worth pursuing. Until then, however, assured supply laws should not be awarded high sustainability marks for goods they do not deliver.

V. CONCLUSION

The path from environmental law to sustainability law is unclear. It is murky and nebulous, and open to debate. The only way to get there from here is through experimentation, by feeling our way.

Assured supply laws are relatively new arrivals on the legal scene that dabble in sustainability. They push toward many of its goals, including putting prudent baselines in place today that should help stop unwise results tomorrow. They use planning as much as commands, an attribute both necessary for, and reflective of the squishiness of, sustainable development law.

The extent to which assured supply measures mark the way to sustainability law depends in part on their design, which varies from state to state. In general, they focus most on a single aspect of a single element of the larger sustainable development equation—water. They are still more narrow land use tool than expansive sustainable development regulator.

Eric Freyfogle recently wrote that good land use management must embrace three principles: "human utility, broadly defined," "ethical considerations," and "precaution" in the face of "ignorance."[152] From this, regulations must shift from seeing "land use issues in fragmented

[150] *See* Davies, *supra* note 6, at 1279.

[151] *See id.* at 1274-75.

[152] FREYFOGLE, *supra* note 75, at 146, 148, 153.

terms" to "tackl[ing] the problem directly"—"consider[ing] the landscape as a whole."[153] Assured supply laws as currently formulated address only one part of the larger problem: they remain focused on one aspect of the landscape, not all of it. With them, the path to sustainability law is still emerging.

[153] *Id.* at 145.