

THE STRUGGLE FOR WATER: HOW ONE IRRIGATION DISTRICT SEEKS WATER SUPPLIES

INTRODUCTION

One of the primary concerns for farmers in Central California is water. Their questions follow a familiar path. “How much water will I get?” “When will it start?” “Where will it come from?” “How much will it cost me?” Water shortages have become a regular conversation topic in the Central Valley, the home to the largest farming county in the nation.¹ Due to recent decreases in water supply for westside Central Valley farmers, the surrounding communities are suffering.² Central Valley employment is heavily dependent on agriculture, and the decreased water delivery from the federal government has caused unemployment to rise, tax revenue has dropped due to lower property values, and agriculture-related businesses have seen sales drop dramatically.³ Reduced water deliveries have also lead to other environmental consequences as well, including increased soil salinity and decreased ground water quality.⁴

Westlands Water District (Westlands), formed in 1952, is an irrigation district that covers nearly 600,000 acres of the west side of California’s Central Valley.⁵ Westlands is in an area without enough naturally occurring water to irrigate the land for farming, and therefore must rely heavily on a contract with the federal government that has

¹ *Rescuing the San Joaquin, A Special Report*, THE FRESNO BEE, at <http://www.fresnobee.com/man/projects/savesjr/mainbar.html> (last visited July 1, 2001).

² Robert Rodriguez, *No Water, No Work*, THE FRESNO BEE, July 2, 2001, at A1.

³ WESTLANDS WATER DISTRICT, WATER PROSPECTS FOR THE WEST SIDE: WHAT’S AT STAKE?, at <http://www.westlandswater.org/Wtr%20Supply/WhatStake.htm> (last visited July 17, 2001).

⁴ *San Luis & Delta Mendota Water Authority v. Pixley Irrigation District*, No. CIV-F-97-6140 OWW, 1999 U.S. Dist. LEXIS 22369, at 28-29 (E.D. Cal. May 24, 1999), *aff’d*, 238 F.3d 430 (9th Cir. 2000).

⁵ WESTLANDS WATER DISTRICT, HISTORY, at <http://www.westlandswater.org/aboutWWD/History1.htm> (last visited July 1, 2001) [hereinafter HISTORY].

been recently delivering less than the contract amount.⁶ To obtain a steady water supply, Westlands entered into a contract with the Bureau of Reclamation in 1963 for 900,000 acre-feet⁷ of water per year for forty years.⁸ In 1965 the contract amount was increased by 250,000 acre feet per year, and the term extended to 2007, when the neighboring Westplains Water Storage District was consolidated with Westlands.⁹ Though the contract calls for delivery of 1,150,000 acre feet of water per year, the contract also allows for the amount of water to be decreased during the water year to ensure compliance with the Endangered Species Act and the Central Valley Project Improvement Act (CVPIA).¹⁰ Westlands' water deliveries may be decreased regardless of the amount nearby districts receive under other contracts, even if the other districts receive their full amount.¹¹ By 2020, shortfalls may become more common, as the State Department of Water Resources forecasts increased water supply shortages of 2.4 million acre feet (maf) in normal years and 6.2 maf in drought years.¹²

Due to the importance of water and the recent trends of water supply reductions, Westlands is becoming both creative and aggressive in its maneuvers.¹³ As would be expected with such aggressive tactics, Westlands is often the center of controversy, both in the courtroom and in the public realm. But the future of water delivery shows no sign of improvement.¹⁴ Water consumption has increased on a per-

⁶ *Id.*

⁷ BLACK'S LAW DICTIONARY 24 (7th ed. 1999) (Acre-foot is defined as "A volume measurement in irrigation, equal to the amount of water that will cover one acre of land in one foot of water (325,850 gallons).").

⁸ WESTLANDS WATER DISTRICT, PUBLIC AFFAIRS DEPARTMENT BROCHURE (obtained from Westlands Water District July 24, 2001) (on file with author).

⁹ HISTORY, *supra* note 5.

¹⁰ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 8-44 (1998); *Barcellos and Wolfsen, Inc. v. Westlands Water District*, 849 F. Supp. 717, 721-722 (E.D. Cal. 1993).

¹¹ *Id.* at 720, 725 (stating for the 1993-1994 water year, Westlands was to receive 50% of their contractual supply, while other districts received 75-100% of their normal allotment).

¹² DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 1-2 (1998).

¹³ Tom Philip, *In my opinion: Earlier Battles Were Nothing Next to New San Joaquin Water War*, METROPOLITAN NEWS-ENTERPRISE, Sept. 6, 2000, at 7 (quoting Dick Moss, manager of Friant Water Users Authority, "It is nothing short of a Pearl Harbor sneak attack on eastside users.").

¹⁴ Glen Martin, *Drought Could Be Our Next Crisis*, THE SAN FRANCISCO CHRONICLE, July 22, 2001, at A1.

capita basis, and the population is growing.¹⁵ Added to that are increased demands from technology and biotechnology companies.¹⁶

The purpose of this law review article is to discuss and analyze the various methods that Westlands Water District is using to secure a reliable water supply. The first section of this article will focus on the methods Westlands has come to rely on. Those include federal water supplied through the Central Valley Project (CVP), groundwater use, water transfers and purchases, and water conservation. The second section of this article will focus on the more controversial methods that Westlands is exploring to increase water supplies. Westlands is attempting to retire land in their district, detach other land from their district, and appropriate water from the nearby San Joaquin River. Westlands is also facing other issues related to water supply, such as environmental and drainage problems.¹⁷

I. ESTABLISHED METHODS

A. *The Central Valley Project*

Westlands' contract with the federal government serves as the primary source of water and it is supplied through the Central Valley Project, a federal reclamation project.¹⁸ Westlands contract calls for 1,150,000 acre-feet of water per year¹⁹ which provides most of the district's average demand of 1,460,092 acre-feet per year. Since 1994, the delivery of this water has been impacted by CalFed, a collection of state and federal agencies working together with agricultural, environmental, and urban parties.²⁰ The goal of CalFed is to "develop a 30-year collaborative plan to address four main problem areas: ecosystem health, water quality, water supply reliability and levee system integ-

¹⁵ *Id.* (explaining that water consumption increased 15% per year from 1992 to 2001, and California's population increased by six million people from 1992 to 2001).

¹⁶ *Id.*

¹⁷ *Firebaugh Canal Co. v. United States*, 203 F.3d 568, 578 (9th Cir. 2000); Dennis Pfaff, *Thy Neighbor's Water*, CAL. LAW., Feb. 2001, at 57, 90 (quoting Thomas Birmingham, General Manager of Westlands "The catch, he says, is that 'we need to have the water to produce crops to pay for the drainage solution.'") [hereinafter *Thy Neighbor's Water*].

¹⁸ WESTLANDS WATER DISTRICT, WESTLANDS' WATER SUPPLY, at <http://www.westlandswater.org/Wtr%20Supply/WS9.htm> (last visited July 18, 2001) [hereinafter WESTLANDS' WATER SUPPLY]; Central Valley Project Improvement Act, Pub. L. No. 102-575, § 3403(d), 106 Stat. 4706, 4707 (1992).

¹⁹ WESTLANDS' WATER SUPPLY, *supra* note 18.

²⁰ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 2-14 (1998).

city” in the San Francisco Bay Delta area.²¹ Westland’s connection with the Bay-Delta estuary is that the water is pumped from the Delta, south through the San Luis Canal, and finally to Westlands.²² CalFed is also affected by restrictions imposed by the Central Valley Project Improvement Act (CVPIA) which prohibits, with few exceptions, any new CVP water supply contracts until all environmental restoration actions specified in the act have been completed.²³

Much to Westlands’ chagrin, the development of CalFed’s “collaborative plan” has been delayed by politics.²⁴ Current CalFed proposals could cost up to \$9 billion for projects such as enlarging current water reservoirs and environmental restoration, and water conservation strategies.²⁵ With so much money on the line, and so many competing interests, legislative approval of CalFed’s spending is difficult to come by.²⁶ California Senator Dianne Feinstein presented a bill in early 2001 that would provide preferential water guarantees for Westlands.²⁷ However, this bill was met with strong resistance from several senators and environmental groups that felt guaranteed deliveries for farmers would “come at the expense of endangered fish and wildlife”²⁸ California Senator Barbara Boxer agreed to support the bill if the guarantees were removed, thereby protecting environmental concerns, and if preauthorization for three water reservoirs was removed to allow for greater government review.²⁹ As such, the bill was passed without water guarantees for Westlands leaving Westlands susceptible to signif-

²¹ WATER EDUCATION FOUNDATION, A BRIEFING ON THE BAY-DELTA AND CALFED, at <http://www.water-ed.org/calfeddeltabriefing.asp> (last visited Nov. 5, 2001); see also CAL. WATER CODE §§ 78684 - 78685.14 & 78500 et seq. (Deering 2001).

²² DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE. BULLETIN 160-98, 8-44 (1998).

²³ *Id.* at 2A-9.

²⁴ WATER EDUCATION FOUNDATION, A BRIEFING ON THE BAY-DELTA AND CALFED, at <http://www.water-ed.org/calfeddeltabriefing.asp> (last visited Nov. 5, 2001); David Whitney, *CalFed Moves Ahead; House Committee Ok Legislation After Fight Over Westlands Water Deliveries*, THE FRESNO BEE, Nov. 8, 2001, at A15.

²⁵ David Whitney, *Feinstein, Boxer Duel Over Water Legislation*, SCRIPPS HOWARD NEWS SERVICE, July 19, 2001; Mark Grossi, *Views on Cal-Fed Plan Heard House Committee Hearing Also Focuses on Water Needs of Agriculture*, THE FRESNO BEE, July 1, 2001, at B1.

²⁶ David Whitney, *CalFed Moves Ahead; House Committee Ok Legislation After Fight Over Westlands Water Deliveries*, THE FRESNO BEE, Nov. 8, 2001, at A15.

²⁷ Eric Brazil, *Feinstein Bill Would Expand 2 Dams; Environmentalists Question Purpose, Price of Water-Crisis Project*, S.F. CHRON., May 24, 2001, at A11.

²⁸ Glen Martin, *New Water Plan Displeases Farmers, Environmentalists*, S.F. CHRON., Oct. 11, 2001, at A23.

²⁹ *Id.*

ificant water delivery reductions.³⁰ Westlands now works to get that language put back into the bill.³¹

Politics is not Westlands' only opponent.³² They must also deal with environmental groups, laws, and issues such as endangered species.³³ As proposed endangered species are added, Westlands struggles for water increases. Westlands must even fight the red-legged frog and Santa Ana sucker for water.³⁴ One advantage to Westlands is that CalFed consists of many agencies working together, so representatives are available from agencies such as the Federal Bureau of Reclamation, California Fish and Wildlife Services, Environmental Protection Agency, and California Department of Water Resources.³⁵ The goal of this union is to facilitate communication between the agencies; allowing for coordinated response to issues that arise.³⁶

The current annual process of determining the amount of water for Westlands begins with a classification of the water year as wet, normal (both above and below), or dry (both dry and critical) by the State Water Resources Control Board.³⁷ During unusual hydrologic years the water year can be classified as wet due to unseasonably heavy early rainfall, followed by a string of dry months.³⁸ This results in a series of consequences which compensate for the lack of water, such as larger than expected reservoir storage releases.³⁹ Once the classification is made, the Bureau of Reclamation announces the CVP water allocations for the water year.⁴⁰ The problem facing Westlands is that once that determination is made by the Bureau, it can only be challenged in a lawsuit, as attempted in *Westlands Water Dist. v. United States*.⁴¹ In that case, Westlands unsuccessfully sued after only being allocated thirty-five percent of their water contract amount.⁴² Federal appellate

³⁰ *Id.*

³¹ *Id.*

³² DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 2-14 (1998).

³³ *Id.*

³⁴ *Id.*

³⁵ WATER EDUCATION FOUNDATION, A BRIEFING ON THE BAY-DELTA AND CALFED, at <http://www.water-ed.org/calfeddeltabriefing.asp> (last visited Nov. 5, 2001).

³⁶ DEPT. OF WAT. RESOURCES, BULLETIN 160-98, 2-14 (1998).

³⁷ *Id.* at 3-8.

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Westlands Water Dist. v. United States*, 153 F. Supp. 2d 1133, 1138 (E.D. Cal. 2001).

⁴¹ *Id.* at 1137.

⁴² *Id.* at 1138, 1179.

courts have held that the United States is not liable for any water shortage caused by statutory mandates related to the Endangered Species Act or the CVPIA.⁴³ Westlands' only other option would be to use the political process to preempt state water law by "a preemptive federal statute or clear Congressional directive to the contrary."⁴⁴

In an environment so competitive over water, Thomas Birmingham, Westland's general manager and general counsel, focuses his time on securing a water supply.⁴⁵ While general managers would traditionally manage the district, Westlands' general manager meets with senators and spends time in congressional hearing rooms.⁴⁶ Due to the uncertainty in the political processes, it is reassuring for Westlands to know that other options, discussed below, can be used to supplement their federal contract.⁴⁷

B. Groundwater

California defines groundwater as "water beneath the surface of the ground, whether or not flowing through known and definite channels."⁴⁸ "Courts typically classify water rights in an underground basin as overlying, appropriative, or prescriptive."⁴⁹ Rights are classified as overlying when the owner of the land can use water from underneath his land for use on his land; appropriative when it is limited to surplus water and put to a proper overlying use; and prescriptive if it is a wrongful taking of non-surplus water that is actual, open and notorious, hostile, adverse to the original owner, under claim of right, and continuous for the statutory period.⁵⁰

Before obtaining the contract for the CVP water, Westlands relied much more heavily on groundwater than today.⁵¹ Westlands pumped

⁴³ O'Neill v. United States, 50 F.3d 677, 689 (9th Cir. 1994) (explaining that article 11(a) of Westlands contract with the government "unambiguously absolves the government from liability for its failure to deliver the full contractual amount of water where there is a shortage caused by statutory mandate").

⁴⁴ Westlands Water Dist. v. United States, 153 F. Supp. 2d 1133, 1176 (E.D. Cal. 2001).

⁴⁵ *Thy Neighbor's Water*, *supra* note 17, at 59.

⁴⁶ *Id.*; see also Michael Doyle, *Water Bid Thwarted Valley Officials Drive Back From Nation's Capital*, THE FRESNO BEE, Sept. 14, 2001, at AA6.

⁴⁷ WESTLANDS WATER DISTRICT, GROUNDWATER MANAGEMENT PLAN 1996, at 16, at <http://www.westlandswater.org/long/200207/gwmp2.pdf> (last visited Feb. 12, 2003) [hereinafter GROUNDWATER MANAGEMENT].

⁴⁸ CAL. WATER CODE § 1005.1 (Deering 2001).

⁴⁹ *City of Barstow v. Mojave Water Agency*, 23 Cal.4th 1224, 1240 (2000).

⁵⁰ *Id.* at 1241.

⁵¹ GROUNDWATER MANAGEMENT, *supra* note 47, at 16.

groundwater at the rate of 800,000 to 1,000,000 acre-feet per year from 1950 to 1968.⁵² Current studies have shown that the safe yield of groundwater pumpage is between 135,000 to 200,000 acre-feet per year.⁵³ Such heavy pumping is no longer a viable option for Westlands, because it led to compaction of water-bearing sediments and caused land subsidence up to twenty-four feet in some areas.⁵⁴ This land subsidence, or sinking, “impacts infrastructure, roads, buildings, wells, canals,” and more.⁵⁵ The impact of the subsidence is seen when canal lining must be repaired due to cracks, bridges that cross canals must be raised after settling, and canal capacity is decreased due to sinking and misalignment.⁵⁶

Since obtaining the contract for federal water, Westlands has used less groundwater.⁵⁷ However, in 1991-1992, when Westlands received only twenty-five percent of the contract allocation, groundwater surface level dropped to its lowest level since 1977.⁵⁸ Since 1983, some areas have experienced up to two feet of subsidence.⁵⁹

Westlands does not regulate or control groundwater pumping, but it does monitor the static water levels in area wells and the quality of pumped water.⁶⁰ The state legislature has merely “encouraged” local agencies to work cooperatively to manage groundwater resources in their area.⁶¹ That encouragement does not go as far as requiring any water district to adopt or implement a groundwater management plan.⁶² The CVPIA requires water districts to prepare water conservation plans to promote the “highest level of water use efficiency . . . using best available cost-effective technology and best management prac-

⁵² *Id.*

⁵³ WESTLANDS WATER DISTRICT, GROUNDWATER SUPPLY, at <http://www.westlandswater.org/wtr%20supply/ws6.htm> (last visited July 18, 2001).

⁵⁴ *Id.*

⁵⁵ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 3-51 (1998).

⁵⁶ *Id.* at 3-52.

⁵⁷ WESTLANDS' WATER SUPPLY, *supra* note 18 (detailing that from 1990 to 1999 the average annual groundwater use was 275,168 acre-feet, but fluctuated from 15,007 acre-feet to 715,572 acre-feet).

⁵⁸ GROUNDWATER MANAGEMENT, *supra* note 47, at 16.

⁵⁹ *Id.* at 16-17.

⁶⁰ WESTLANDS WATER DISTRICT, GROUNDWATER SUPPLY, at <http://www.westlandswater.org/wtr%20supply/ws6.htm> (last visited July 18, 2001).

⁶¹ CAL. WATER CODE § 10750 (Deering 2001) (Section 10750(a) reads “It is the intent of the Legislature to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions.”).

⁶² *See id.* § 10750.4.

tices.⁶³ This water conservation plan includes groundwater.⁶⁴

Groundwater supplies thirty percent of California's urban and agricultural water use.⁶⁵ It is an important part of California's water supply, but pumping more water than is recharged is not sustainable.⁶⁶ Groundwater overdraft in the San Joaquin Valley is expected to decrease as land is retired.⁶⁷ However, drought conditions pose a concern to planning efforts related to groundwater usage.⁶⁸ Studies have shown that today, California is subject to droughts far more severe than in the past 150 years.⁶⁹ Because overdraft is not sustainable,⁷⁰ Westlands must find another supply of water to supplement the limited amount of groundwater they can pump.⁷¹

C. *Water Transfers, Purchases, and Exchanges*

Water marketing has been recognized as possibly being one of the key methods for dealing with the rising water demand in California.⁷² The use of water transfers entered the mainstream during the drought from 1987 to 1993. The state of California established the state Drought Water Bank to purchase excess surface water primarily from agricultural users to sell to other urban, agricultural, and environmental users.⁷³ California statutes prevent the state or any regional or local agency from denying a transferor of water the use of water transfer facilities when capacity is available, if fair compensation is paid.⁷⁴ The

⁶³ Central Valley Project Improvement Act, Pub. L. No. 102-575, § 3405(e)(1), 106 Stat. 4706, 4713 (1992).

⁶⁴ *See id.* § 3403(f) at 4707.

⁶⁵ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 3-7 (1998).

⁶⁶ *Id.* at ES3-5.

⁶⁷ *Id.* at ES3-7.

⁶⁸ *Id.* at 3-11.

⁶⁹ *Id.*

⁷⁰ *Id.* at ES3-5.

⁷¹ WESTLANDS' WATER SUPPLY, *supra* note 18 (explaining that average annual crop water demand is 1,460,092 acre feet, and year 2001 expected groundwater pumpage is expected to be 410,000 acre feet, which is in excess of the safe amount of 135,000 to 200,000 acre feet).

⁷² WATER EDUCATION FOUNDATION, CALIFORNIA ISSUES: WATER MARKETING, at <http://www.water-ed.org/cabriefing.pdf> (last visited Nov. 5, 2001).

⁷³ *Id.*

⁷⁴ CAL. WATER CODE § 1810 (Deering 2001) (stating "Notwithstanding any other provision of law, neither the state, nor any regional or local public agency may deny a bona fide transferor of water the use of a water conveyance facility which has unused capacity, for the period of time for which that capacity is available, if fair compensation is paid for that use, subject to the following . . .").

CVPIA has also authorized the transfer of project water to non-CVP contractors to help facilitate water transfers.⁷⁵

There are three primary types of water marketing available to users: “a permanent sale of a water right by the water right holder; a lease from the water right holder . . . allowing the lessee to use the water under specified conditions over a specified period of time; [and] a sale or lease of a contractual right to water supply.”⁷⁶ Whichever type of marketing is used, it should involve “real water” as opposed to “paper water.”⁷⁷ Real water “involves a change in the place and type of an existing use without harming another legal user of water, while paper water might involve sale of water that would not otherwise be beneficially used”⁷⁸

The California Department of Water Resources has identified five primary methods of obtaining water to allow for transfers.⁷⁹ The farmer can elect to fallow land, either permanently or during a drought.⁸⁰ This method has the drawback of third party impact upon farm workers, harvesters, and other agricultural and rural related parties.⁸¹ The farmer can also shift his crops to another crop that requires less water. However, this will often mean shifting to a crop that produces less income, such as planting wheat instead of corn or safflower instead of tomatoes.⁸² The farmer can conserve water through less usage or recycling,⁸³ but the amount of water to be recognized through conservation is limited.⁸⁴ Water can also be obtained from surface storage withdrawals, but that water must be replenished.⁸⁵ The last recognized method of obtaining water for water marketing is through

⁷⁵ ASSOCIATION OF CALIFORNIA WATER AGENCIES, WATER FACTS, at <http://www.acwanet.com/generalinfo/waterfacts/transfer.asp> (last visited June 19, 2001).

⁷⁶ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 6-25 (1998).

⁷⁷ *Id.*

⁷⁸ *Id.*; *Id.* at 6-26, citing to CAL. WATER CODE §§ 1435, 1706, 1725, 1736, 1810d (Deering 2002).

⁷⁹ *Id.* at 6-26 to 6-27.

⁸⁰ *Id.* at 6-26.

⁸¹ *Id.*

⁸² *Id.*

⁸³ *Id.* at 6-27.

⁸⁴ *Id.*; see CALIFORNIA FARM BUREAU FEDERATION, AMAZING WATER FACTS, at <http://www.cfbf.com/info/waterfacts.htm> (last visited June 19, 2001) (explaining that California farmers use less water than they did 30 years ago, yet produce 67% more crops).

⁸⁵ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 6-27 (1998).

groundwater substitution, the shortcomings of which were discussed above.⁸⁶ The problem with many of these options is that in order to make these a viable long-term solution to water needs, water agencies must have access to a reliable conveyance for these supplies.⁸⁷

Water conveyances face many of the same problems as California's overall water supply. Many of the transfers for Northern and Central California must go through the Delta, and therefore are subject to the operating constraints related to protection of aquatic species and water quality.⁸⁸ Depending on the nature of the transfer, it must be reviewed and approved by both state and federal water projects and governmental agencies.⁸⁹ Some transfers are also subject to National Environmental Protection Act and California Environmental Quality Act review.⁹⁰ The cost of short-term water transfers can also fluctuate widely.⁹¹

The CVPIA authorizes districts to transfer all or part of the water received from the CVP to other users or agencies.⁹² However, these transfers must meet thirteen conditions for approval.⁹³ Some requirements are that transfers must be for a beneficial use;⁹⁴ if the transfer is to a non-CVP contractor, all other CVP entities have a right of first refusal;⁹⁵ and that the transfer will not adversely impact fish and wildlife.⁹⁶ The aim of the approval by the Secretary of the Interior is to help aid water users in meeting future water needs, while remaining in compliance with the CVPIA.⁹⁷

Despite the difficulties, there is widespread support for water transfers.⁹⁸ The Environmental Defense Fund has argued in favor of water

⁸⁶ *Id.* at 6-27 to 6-28.

⁸⁷ *Id.* at 6-28.

⁸⁸ *Id.*

⁸⁹ WESTLANDS WATER DISTRICT, WATER TRANSFERS, at <http://www.westlandswater.org/wtr%20supply/wtrtrsf.htm> (last visited Aug. 15, 2001) [hereinafter WATER TRANSFERS].

⁹⁰ *Id.*

⁹¹ WATER TRANSFERS, *supra* note 89 (stating purchases made by Westlands have ranged from \$45 per acre-foot in 1995 to more than \$110 per acre-foot in 1994, depending on water supplies).

⁹² Central Valley Project Improvement Act, Pub. L. No. 102-575, § 3405(a), 106 Stat. 4706, 4709-4710 (1992).

⁹³ *See id.* § 3405(a)(1) at 4710.

⁹⁴ *See id.* § 3405(a)(1)(E) at 4710.

⁹⁵ *See id.* § 3405(a)(1)(F) at 4710.

⁹⁶ *See id.* § 3405(a)(1)(H) at 4710.

⁹⁷ *See id.* § 3405(a) at 4709-4710.

⁹⁸ Dennis Pfaff, *Opening the Floodgates*, CAL. LAW., Nov. 1998, at 57, 60 (explaining that Tom Graff, senior attorney with the Environmental Defense Fund, Richard Rosenberg, retired Bank of America chairman, and Fred Cannon, an executive vice

markets.⁹⁹ CalFed has established a website to help simplify the approval process and to increase information sharing.¹⁰⁰ Westlands is also heavily dependant on short-term water transfers and is seeking long-term water transfers in an attempt to secure a steady water supply.¹⁰¹

In the last ten years, Westlands has purchased an average of 1,400,000 acre-feet of short-term water per year in an effort to supplement its reduced CVP water deliveries.¹⁰² Westlands transfers have included purchases of surplus water from other water districts or agencies, same year exchanges, and exchanges with the obligation to return the water in future years.¹⁰³ Westland's current goal is to obtain more long-term water transfers to assure water quantity, availability, and controlled cost.¹⁰⁴ However, given the current water scarcity and uncertainty about litigation over water rights, many communities are skeptical of long-term transfers.¹⁰⁵

D. Conservation

Conservation efforts, while critically important statewide, do not appear to hold great yields for Westlands.¹⁰⁶ Westlands is located within the Tulare Lake Region of California.¹⁰⁷ Studies have shown that improving irrigation scheduling and system improvements such as including pressure regulation and filtration can result in savings of 17,000 acre-feet per year for the Tulare Lake Region.¹⁰⁸ Other statewide conservation proposals are not considered viable in the area. Other pro-

president with Bank of America were all working together to add "a dose of free enterprise."").

⁹⁹ PACIFIC RESEARCH INSTITUTE FOR PUBLIC POLICY, ENDING CALIFORNIA'S WATER CRISIS, at <http://www.pacificresearch.org/issues/enviro/watermkt/main.html> (last visited Nov. 7, 2001) (quoting Tom Graff, senior Environmental Defense Fund attorney, "Not only does a [water] market reduce the need for new, environmentally destructive infrastructure, it also provides a way for ecosystems that have been short-changed to obtain more water from a willing seller.").

¹⁰⁰ ON TAP, OVERVIEW, at <http://ontap.ca.gov/overview.cfm> (last visited Feb. 2, 2003) (explaining that On Tap is an online water market information source developed by CalFed).

¹⁰¹ WATER TRANSFERS, *supra* note 89.

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ DEPT. OF WAT. RESOURCES, THE CALIFORNIA WATER PLAN UPDATE, BULLETIN 160-98, 6-8, 8-49 (1998) (explaining that "For nearly three decades, Californians have recognized the importance of water conservation.").

¹⁰⁷ *Id.* at 8-44 (1998).

¹⁰⁸ *Id.* at 8-49 (1998).

posals, such as flexible water delivery, have been “deferred because existing delivery systems in the region are highly developed, and further improvements would result in little depletion reduction at a high cost.”¹⁰⁹ Neither canal lining, piping, nor tailwater recovery are considered significant options because the west side of the Tulare Lake Region has already implemented such improvements.¹¹⁰

II. IN-PROGRESS METHODS

A. Land Retirement

Land retirement is the purchase of land from willing sellers.¹¹¹ Land retirement has been used in the Florida Everglades by the federal government to secure the social benefits of environmentally critical lands.¹¹² However, the concept was still just a vague theory to the West Coast in the early to mid 1990’s.¹¹³ The goal behind the program is to reduce drainage, enhance fish and wildlife resources, and to make water available for other CVPIA uses.¹¹⁴ The CVPIA authorizes the Secretary to purchase land that would improve water conservation or quality, or land that is no longer suitable for agricultural production due to drainage or wastewater problems or groundwater withdrawals.¹¹⁵ As already mentioned, Westlands faces serious drainage issues that

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ U.S. DEPT. OF THE INTERIOR, BUREAU OF RECLAMATION, CVPIA LAND RETIREMENT DEMONSTRATION PROJECT: EXECUTIVE SUMMARY, at <http://www.mp.usbr.gov/regional/landret/docs/finales.pdf> (last visited Nov. 7, 2001).

¹¹² J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *ECOLOGY L.Q.* 263, 340 (2000) (also see footnote 425 which states “See \$10 Million Farm Land Retirement Plan Launched to Aid New York City Watershed, 29 *Env’t Rep (BNA)* 937 (1998)” and see same article footnote 426 “See Drew Douglas, *New Deal for Everglades Land Purchase Would See 60,000 Farm Acres Acquired*, *Daily Env’t Rep (BNA)*, Jan. 12, 1999, at A-9.”).

¹¹³ Harrison C. Dunning, *Confronting the Environmental Legacy of Irrigated Agriculture in the West: The Case of the Central Valley Project*, 23 *ENVTL. L.* 943, 968 (1993) (explaining “The CVPIA makes reference to using some of the restoration fund money for land retirement. The stated purposes of land retirement go beyond drainage problems. The statute refers to using restoration fund money to retire land for improved water conservation, presumably using that term in the modern sense.”).

¹¹⁴ U.S. DEPT. OF THE INTERIOR, BUREAU OF RECLAMATION, CVPIA LAND RETIREMENT DEMONSTRATION PROJECT: EXECUTIVE SUMMARY, at <http://www.mp.usbr.gov/regional/landret/docs/finales.pdf> (last visited Nov. 7, 2001).

¹¹⁵ Central Valley Project Improvement Act, Pub. L. No. 102-575, § 3408(h)(2), 106 Stat. 4706, 4729 (1992).

make it a prime candidate for land retirement.¹¹⁶

The land retirement program will begin with a five-year demonstration project led by the U.S. Bureau of Reclamation.¹¹⁷ To be eligible for the program, the land to be retired must receive CVP water and the land must be owned by a willing and voluntary seller.¹¹⁸ The demonstration program calls for the acquisition of 15,000 acres with 7,000 acres in Westlands.¹¹⁹ For Westlands to keep the water rights to the retired lands, Westlands will pay the market price for that right, which is up to \$1,150 per acre.¹²⁰

Another alternative that avoids reliance on the government program is private land retirement administered by Westlands.¹²¹ Westlands offers a similar program where the district will purchase land from willing sellers at fair market value.¹²² This privately administered program currently seeks to acquire a similar amount of land as the government program.¹²³

B. Land Detachment

The Lemoore Naval Air Station lies on the eastern edge of Westland's district.¹²⁴ In 1999, Westlands' directors proposed to detach the air station from the District's service area.¹²⁵ The air station receives both non-agricultural municipal and industrial water, which would con-

¹¹⁶ Felix E. Smith, *The Kesterson Effect: Reasonable Use of Water and the Public Trust*, 6 S.J. AGRI. L. REV. 45, 66 n.88 (1996) (discussing that a U.S. Bureau of Reclamation Alternatives Description Report estimated that up to 275,000 acres of land in the western valley, out of an estimated two million acres of farmland, contain elevated levels of selenium of other metals).

¹¹⁷ U.S. DEPT. OF THE INTERIOR, BUREAU OF RECLAMATION, CVPIA LAND RETIREMENT DEMONSTRATION PROJECT: EXECUTIVE SUMMARY, at <http://www.mp.usbr.gov/regional/landret/docs/finales.pdf> (last visited Nov. 7, 2001).

¹¹⁸ Central Valley Project Improvement Act, Pub. L. No. 102-575, § 3408(h)(1), 106 Stat. 4706, 4729 (1992).

¹¹⁹ U.S. DEPT. OF THE INTERIOR, BUREAU OF RECLAMATION, CVPIA LAND RETIREMENT DEMONSTRATION PROJECT: EXECUTIVE SUMMARY, at <http://www.mp.usbr.gov/regional/landret/docs/finales.pdf> (last visited Nov. 7, 2001).

¹²⁰ WESTLANDS WATER DISTRICT, WESTLANDS LONG-TERM SUPPLEMENTAL WATER SUPPLY PROGRAM, at <http://www.westlandswater.org/wtr%20supply/lgrmwtrsupp.htm> (last visited July 17, 2001).

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.* (discussing that over 11,000 acres were in escrow, and the district expects to acquire about 13,000 acres).

¹²⁴ WESTLANDS WATER DISTRICT, PROPOSED DETACHMENT OF THE LEMOORE NAVAL AIR STATION FROM WESTLANDS' SERVICE AREA, at <http://www.westlandswater.org/topics/lnas.htm> (last visited July 17, 2001).

¹²⁵ *Id.*

tinue after the detachment, but Westlands desires to discontinue agricultural water deliveries.¹²⁶ The government owns the air station, which covers 16,300 acres, but leases about 12,200 acres of agricultural land within the air station to farmers.¹²⁷ Detaching the agricultural land in the air station would free approximately 31,000 acre-feet of water.¹²⁸

The process to detach the land begins with the preparation of an Environmental Impact Report (EIR) at Westlands' expense.¹²⁹ The EIR is expected to take at least one year to complete.¹³⁰ Once the EIR is complete, the proposal will be forwarded to the Fresno County Local Agency Formation Commission for approval.¹³¹

C. San Joaquin River Appropriation

The San Joaquin River does not pass through Westlands, yet it comes within one mile of the northern edge of the district.¹³² It is the largest river near the district, but Westlands receives no water from it.¹³³ The water in the San Joaquin river is currently managed by the Friant Water Users Authority and serves 15,000 farmers that neighbor Westlands.¹³⁴

Westlands recently lost a court battle in an attempt to force the Bureau of Reclamation to allocate all CVP water on a pro-rata basis among all CVP contractors, which would include both Westlands and the Friant Water Users Authority.¹³⁵ The suit was filed when the Bureau reduced Westlands 1994-1995 water allocation to thirty-five percent of the contracted amount, yet users of San Joaquin River water

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ Richard Hall, *Water District Asks Congress to Help Secure More Water*, California Farm Bureau Federation Ag Alert, at <http://www.cfbf.com/agalert/2001/aa-062701b.htm> (last visited June 27, 2001).

¹³¹ Lesli A. Maxwell, *LAFCO Rejects Kings Water Request; Kings County and the Navy Vow to Win the Westlands Issue*, THE FRESNO BEE, Dec. 16, 1999, at B1.

¹³² Westlands Water District, Map of Westlands Water District, copyright 1998 (obtained from Westlands Water District July 24, 2001) (on file with author).

¹³³ *Thy Neighbor's Water*, *supra* note 17, at 59 (explaining that ironically, Westlands receives some water from the Fresno Irrigation District, which receives water from the San Joaquin, to use for irrigating the landscaping at its headquarters).

¹³⁴ Mark Grossi and Lesli A. Maxwell, *Protests Stall Westlands' Bid for Water*, THE FRESNO BEE, June 18, 2001, at A1.

¹³⁵ *Westlands Water Dist. v. United States*, 153 F. Supp. 2d 1133, 1179 (E.D. Cal. 2001) (granting summary judgment for defendants).

received one hundred percent of their water supply.¹³⁶ The users of San Joaquin River water, however, entered into a contract with the Department of the Interior in 1939 whereby the users conditionally allow the “Interior” to exercise their “rights to the San Joaquin [River] waters in exchange for the agreement of the Bureau to provide ‘substitute water [to them].’ ”¹³⁷ That prior right gave the users priority over Westlands due to the priorities established by California water law.¹³⁸

In California, riparians have first priority.¹³⁹ Among riparians, all users must reduce their usage proportionately.¹⁴⁰ After riparians fulfill their needs, appropriators are entitled to water.¹⁴¹ Among appropriators the rule is “first in time, first in right.”¹⁴² Because the San Joaquin River users still own their senior water rights in the San Joaquin River, they “have superior, not equal, rights over those of the water districts, who are later (1963 and 1978) secondary customers for CVP water from [the] Interior.”¹⁴³

Despite the rule regarding pro-rata allocation, Westlands is attempting to appropriate water from the San Joaquin River using two obscure water laws “that give priority to growers who reside nearer to where the rain actually falls”¹⁴⁴ These two laws are the watershed statutes and county-of-origin statutes.¹⁴⁵ They have been largely untested since their inception in the 1930’s.¹⁴⁶ The statutes were adopted to “al-

¹³⁶ *Id.* at 1138.

¹³⁷ *Id.* at 1143.

¹³⁸ *Id.* at 1173.

¹³⁹ *Id.* at 1173 (explaining that riparians have the right to divert water flowing on his land for use upon the land, and all riparians on a stream have common ownership in the water).

¹⁴⁰ *Id.* at 1173 (explaining that all riparians must reduce their usage proportionately due to their common ownership).

¹⁴¹ *Id.* at 1173 (explaining that an appropriator is a person that diverts and uses water that is surplus to that used by riparians and earlier appropriators, and uses it for a reasonable and beneficial use).

¹⁴² *Id.* at 1173.

¹⁴³ *Id.* at 1176-1177 (referring to the 1978 contract by the San Benito County Water District, which was also a plaintiff in this suit).

¹⁴⁴ *Thy Neighbor’s Water*, *supra* note 17, at 58; see generally Robirda Lyon, *The County of Origin Doctrine: Insufficient as a Legal Water Right in California*, 12 S.J. AGRIC. L. REV. 133 (2002).

¹⁴⁵ CAL. WATER CODE §§ 11460-11463, 10505-10505.5 (Deering 2001).

¹⁴⁶ *United States v. State Water Res. Control Bd.*, 182 Cal.App.3d 82, 139 (2001) (Court explaining that “Virtually none of this protective legislation has been interpreted by the courts. (But see generally *City of Fresno v. California* (1963) 372 U.S. 627, 630 [10 L.Ed.2d 28, 30-31, 83 S.Ct. 996].) The Attorney General, however, has construed the watershed and county-of-origin statutes as having a common purpose: to

leviate the fear of Northern California interests that local water supplies would become depleted."¹⁴⁷ "The laws specifically give upstream users the ability to assert claims to the water to protect their own economic and development interests."¹⁴⁸ Since the river runs partly through Westland's watershed, Westlands is claiming about thirty percent of the flow, or approximately 500,000 acre-feet per year.¹⁴⁹

Westlands' general manager spends seventy-five percent of his time defending this new approach to obtaining water.¹⁵⁰ This is due to protests filed by counties, other water districts, environmental groups, and fishing groups when Westlands filed its application with the State Water Resources Control Board.¹⁵¹ Protestors claim not only that 15,000 farmers which rely on San Joaquin water are at risk of losing their allocation, but that the entire CalFed process could be derailed as other districts, counties, and agencies apply for water that has been previously allocated elsewhere.¹⁵² Underlying the protestor's concern is the fact that even opponents admit that Westlands does have an argument based on the county-of-origin and watershed statutes.¹⁵³

If approved, Westlands would have priority over U.S. Bureau of Reclamation permits and could appropriate up to 500,000 acre-feet of San Joaquin water per year.¹⁵⁴ Westlands would, however, have to install a pumping plant and pipeline to carry the water from the San Joaquin River into the California Aqueduct and into Westlands distribution system.¹⁵⁵ The process will require extensive public review followed by environmental assessments, all of which could take years.¹⁵⁶

reserve to the areas of origin an undefined preferential right to future water needs. (25 Ops.Cal.Atty.Gen 8, 10 (1955).)"); *Thy Neighbor's Water*, *supra* note 17, at 60.

¹⁴⁷ United States v. State Water Res. Control Bd., 182 Cal.App.3d 82, 138 (2001).

¹⁴⁸ *Thy Neighbor's Water*, *supra* note 17, at 60.

¹⁴⁹ *Id.* at 61.

¹⁵⁰ *Id.* at 59.

¹⁵¹ Mark Grossi and Lesli A. Maxwell, *Protests Stall Westlands' Bid for Water*, THE FRESNO BEE, June 18, 2001, at A1.

¹⁵² Mark Grossi, *Water Case Hinges on 2 Obscure Laws: Westlands Deal Cites Untested 57-Year-Old Statutes to Seek a Third of San Joaquin's Flow*, THE FRESNO BEE, Aug. 20, 2001, at A1.

¹⁵³ *Id.* (quoting Lloyd Carter, a longtime Westlands critic).

¹⁵⁴ WESTLANDS WATER DISTRICT, SAN JOAQUIN RIVER APPROPRIATION, at <http://www.westlandswater.org/Wtr%20Supply/SJR%20Appropriation.htm> (last visited July 7, 2001) (Westlands rights, would still be subordinate to the Exchange Contractors' rights).

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

III. CONCLUSION

Westlands is not in a unique position, but rather faces the same water problems that many water districts face. As it continues to explore new methods for obtaining a steady water supply it is sure to upset many diverse groups. However, smaller water districts can benefit from the innovation exercised by Westlands.

The CalFed model of cooperation between state and federal agencies will likely be duplicated in other states as the California system is refined. Westlands' efforts of ensuring a steady water supply will benefit agricultural users nationwide as a delicate balance is sought between commercial, residential, environmental, and agricultural water needs. Increased water transfers and purchases, furthered by CalFed, will become more commonplace. Water transfers and purchases will also likely play an even greater role in the annual water supply of not only Westlands, but all water districts. Such transfers will allow a limited resource to be most efficiently distributed.

Groundwater use will remain an important supplement for Westlands' farmers. As they have already learned, this is a source that must be budgeted to prevent further land subsidence. While groundwater use is monitored, other conservation efforts must be considered such as improving irrigation scheduling and system improvements. Water realized through these additional conservation methods may not be significant, but every additional acre-foot is needed.

The most controversial of Westlands maneuvers are land retirement and the use of the county of origin and watershed statutes. The land retirement program is in its early stages, but may hold promise for both environmental purposes and agricultural. The retired land set aside for wildlife under this approach would appease environmental groups while unused water would be diverted to productive agricultural land. The main obstacle to this is the financial outlay required to buy the land, but to Westlands advantage the demonstration project has already received legislative approval and funding approval.

The county of origin and watershed statutes will likely prove unsuccessful, simply due to the magnitude of the impact a successful challenge would have. It would mean the unraveling of much of the state of California's water system. While this may be of benefit to Westlands, Westlands will surely face many foes in its battle.

The outcome of these uncertainties will determine not only the Westlands Water District's future, but also those of its many farmers.

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