The Salton Sea, I.I.D., and the Public Trust: Some Implications of Water Transfers From the Imperial Valley

by Andrew Pollak

Introduction

The California State Water Resources Control Board (SWRCB or Board) administers California water appropriations and exercises the state's adjudicatory and regulatory functions regarding water pollution and water quality issues. Cal. Water Code § 174 (Deering 1977). On September 30, 1988, the SWRCB issued Order 88-20. Imperial Irrigation District, Order to Submit Plan and Implementation Schedule for Conservation Measures, Water Rights Order 88-20, 2 (SWRCB September 1988) [hereafter Order 88-20]. Order 88-20 brought to a close the second round of hearings in a landmark California water politics issue -- the Salton Sea/Imperial Irrigation District (IID) waste and unreasonable use hearings.

Order 88-20's implications range beyond the Imperial Valley's farmlands and the 360 square-mile, artificially-created Salton Sea. (See fig. 1). (This figure represents the sea's area in 1969, prior to a five foot rise that occurred during the 1970s. A. Swajian, *Identification and Evaluation of Federal, State, and Local Interests in Salton Sea, California* 3 (1969).) The implications include altering Southern California's water supply and influencing the SWRCB's already precarious balance of environmental and water supply needs in the ecologically sensitive Sacramento/San Joaquin Delta. Order 88-20 also provides a major example of "water marketing," an emerging approach for supplying water to California's municipal and industrial uses.

In addition, Order 88-20 provides an example of the SWRCB allocating water supplies to the detriment of the Salton Sea's environmental interests. In performing this resource allocation, the SWRCB followed California's "reasonable use" doctrine found in the California Constitution, Article X, Section 2. The Board declined to apply California's public trust doctrine, a rule "friendlier" to environmental interests. In the past, the SWRCB and the courts have applied the public trust doctrine when faced with water allocation choices between urban/agricultural uses and environmental requirements.

Why did the SWRCB fail to apply the public trust doctrine to the IID/Salton Sea issue? Would applying the public trust doctrine in addition to the constitutional reasonable use test have substantially altered the Board's decision? This article will discuss these questions as well as summarize the facts leading up to the controversy and examine the ruling's statewide implications.

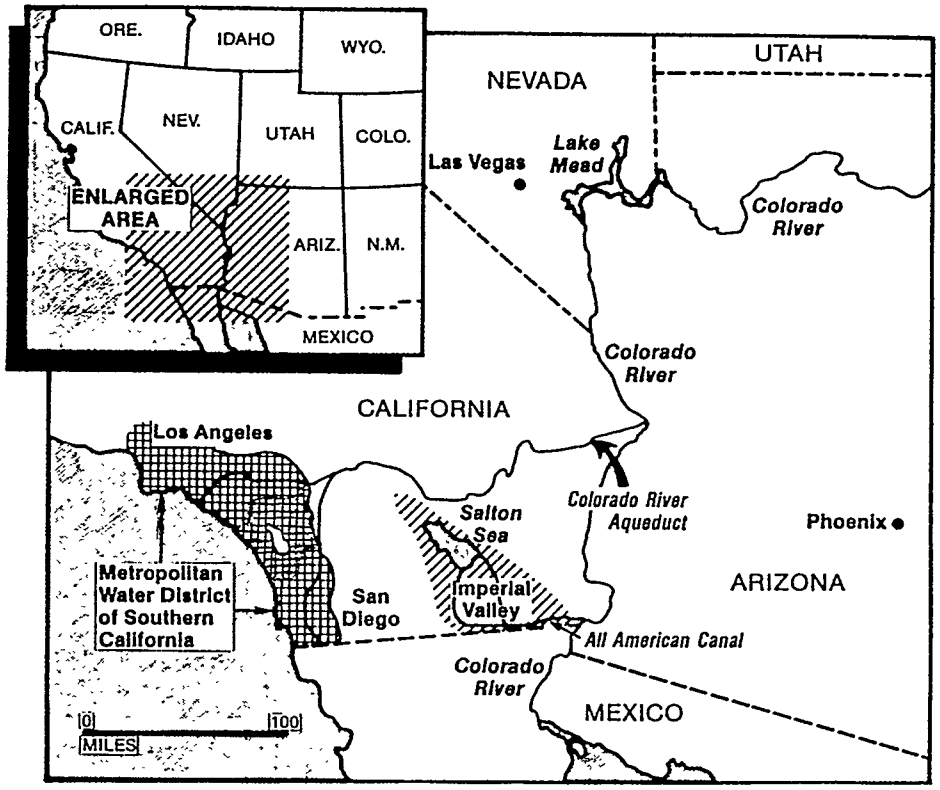
The Salton Sea's Origins and Uses

The Salton Sea is contained in a natural depression known as the Salton Sink. M. Reisner, *Cadillac Desert* 127 (1986); A. Swajian, *supra*, at 3. Over the last several thousand years, Colorado River flood waters have repeatedly filled the sink to create the Salton Sea. *Id.* After each flood, the flood waters eventually receded, leaving the "sea" to slowly dry up under the desert sun. *Id.* The Salton Sink would then stand dry until the next flood occurred. *Id.*

The last flood occurred between 1905 and 1906, forming the modern-day Salton Sea. M. Reisner, *supra*, at 127. Subsequently, the sea did not dry up as it had in the past. *Id.* Irrigation waste water flowing off the Imperial Valley's cultivated land replenished water lost from the sea through evaporation. As agriculture expanded in the Imperial Valley, more irrigation return flow entered the sea. After several years, water entering the sea from irrigation return flow exceeded water leaving the sea through evaporation; beginning about 1920, the sea's water level actually began to rise. Imperial Irrigation District, Alleged Waste and Unreasonable Use of Water, Water Rights Decision 1600, 56 (SWRCB June 1984) [hereafter Decision 1600].

After it became clear that the Salton Sea created during the 1905 flood was more than a temporary intrusion, the federal govenment acted to define the new sea's purpose. In 1924, the federal government created Public Water Reserve No. 90 to provide "a reservoir in Salton Sea for storage of waste and seepage water from irrigated land in Imperial Valley." A. Swajian, *supra*, at 4. California made a similar declaration when the state legislature enacted AB 461 (Veysey) in 1968. The state legislature declared, "[t]he primary purpose of the Salton Sea is for collection of agricultural seepage." 1968 Cal. Stat. ch.392, §2.

Despite its recognition as an agricultural "sump," the Salton Sea also gained recognition for its recreational and wildlife uses. In 1930, under Executive Order 5498, the President created the Salton



REGIONAL MAP

Source: IID Draft EIR: Proposed Water Conservation Program and Initial Water Transfer. April 1986, Figure 2-1.

Figure 1

Sea National Wildlife Refuge on the sea's southern shoreline to protect the approximately 200,000 ducks and 55,000 geese that utilized the sea in winter. A. Swajian, *supra*, at 23. The U.S. Fish and Wildlife Service currently manages the refuge. In the 1930s, the California Department of Fish and Game developed a sport fishery within the sea. The Department imported the sea's three main species of fish -- orangemouth corvina, sargo, and bairdiella -- from the Gulf of California and took other steps to form a food chain within the sea to support the fishery. *Id.* at 32. In 1957, California developed the Salton Sea State Recreation Area on the sea's northeast shoreline. State records show that hundreds of thousands of fisherman and other visitors utilize this recreation area each year. *Id.* at 6.

The Salton Sea's slowly increasing salinity has imperilled the fishery for some time. The salinity increase is a natural process. Evaporation removes water from the sea, but does not remove the salts, chemicals, and other minerals contained in the irrigation return flow entering the sea. Thus, the total amount of these materials in the sea has increased over time, increasing the sea's salinity. For example, in 1910, the United States Geological Survey measured about 20 million tons of chlorides in the sea. Pomeroy, Johnston, & Bailey, U.S. Geological Survey, Reconnaissance Study and Preliminary Report on a Water Quality Control Plan for the Salton Sea III-35 (1910). By 1965, the amount of chlorides had grown to 114 million tons. In terms of salt concentrations, by 1986, the sea's salinity had increased to 39,300 parts per million (ppm). (For comparison, the ocean's salinity is about 35,000 ppm [M. Gordon, *Animal Physiology: Principles and Adaptions* 299 (1977)], while Mono Lake's current salinity is about 85,000 ppm -- but Mono Lake has a dramatically different chemical makeup [National Academy of Sciences, *The Mono Basin Ecosystem* 56 (1987)].) According to research conducted by the California Department of Fish and Game, a salinity of 40,000 ppm would endanger fish reproduction. California Department of Water Resources, Southern District, *Investigation Under California Water Code Section 275 of Use of Water By Imperial Irrigation District* 53 (December 1981); Decision 1600, *supra*, at 61. At 50,000 ppm, adult fish could begin to die off. *Id.*

IID's Unreasonable Use of Water

The Imperial Irrigation District, a publicly-owned irrigation agency, was formed in 1911 to provide water for agricultural and municipal uses within Imperial County. IID diverts water from the Colorado River via the All-American Canal. Today, this water irrigates about 460,000 acres of Imperial Valley agricultural land annually. Decision 1600, *supra*, at 5. IID's Colorado River diversions also supply municipal, industrial, and domestic needs in the towns of Calexico, El Centro, and Brawley. *Id.*

In 1980, a local farmer filed a formal complaint with the SWRCB, alleging that IID's careless irrigation practices allowed delivery of large amounts of excess water to farmlands and also allowed water to spill over and seep through irrigation canals. *Id.* at 4. The complaint alleged that the excess water generated huge amounts of return flow, which entered the Salton Sea and caused it to rise and inundate property owned by the farmer and other landowners. *Id.* at 5.

In 1983, after a Department of Water Resources investigation and report, the SWRCB held hearings on the alleged waste of water within IID. *Id.* at 56. The hearings resulted in Decision 1600 which held that about seventy percent of the sea's inflow was attributable to IID's irrigation return flow. This figure equals about one million acre-feet of water per year, or about thirty eight percent of IID's total Colorado River water rights. (One acre-foot of water equals 325,851 gallons, enough water to supply a family of five for one year. One million acre-feet of potable water -- irrigation return flow is typically not potable -- would supply five million people annually.) The Board held IID's irrigation practices the principal cause of the Salton Sea's five foot rise between 1972 and 1981, which flooded more than 15,700 acres of public and private land. *Id.* at 57.

The SWRCB held IID's water use unreasonable under California Constitution, Article X, Section 2. *Id.* at 19. This section sets policy goals for California water usage and provides that the state must put its water resources to the fullest beneficial use possible. The section also requires a water rights holder to utilize only the amount of water reasonably required to serve the beneficial purpose(s) for which the rights holder diverts water.

In Decision 1600, the SWRCB ruled that water entering the Salton Sea could no longer provide consumptive beneficial uses. *Id.* at 66. The Board determined that IID could reasonably meet its needs and free up water for other beneficial uses if it conserved a portion of its Salton Sea return flow. *Id.* at 66. The Board ordered IID to develop a comprehensive water conservation plan to reduce the amount of spills into the sea and to report back to the Board periodically on its progress. *Id.* at 67. The Board also reserved jurisdiction to review IID's actions in carrying out Decision 1600's orders. *Id.* at 70.

IID disputed the SWRCB's finding of waste and challenged the Board's authority to make binding orders. The courts subsequently upheld the SWRCB's authority in *Imperial Irrigation Dist. v. California State Water Resources Control Board*, 186 Cal. App. 3d 1160, 231 Cal. Rptr. 283 (1986) (*review denied* January 21, 1987). On April 13, 1988, after remand and trial on the merits, the Superior Court upheld the SWRCB's findings and directives in Decision 1600. The court denied a rehearing on July 8, 1988, clearing the way for serious conservation efforts to begin within IID.

Order 88-20, released September 30, 1988, followed public hearings held in 1987 and 1988 to evaluate IID's progress, or lack of progress, in instituting the water conservation measures mandated by the SWRCB in Decision 1600. Order 88-20, *supra*, at 2. Order 88-20 sets milestone dates for completion of IID's conservation program elements. *Id.* at 44. The order requires IID to present a "definite implementation schedule" for water conservation measures to the SWRCB by January 1, 1989. *Id.* IID must show how it will conserve at least 100,000 acre-feet of water per year by January 1, 1994. *Id.* Order 88-20 also summarizes IID's findings that IID's long-term conservation potential measures 367,900 acre-feet per year. *Id.* at 17.

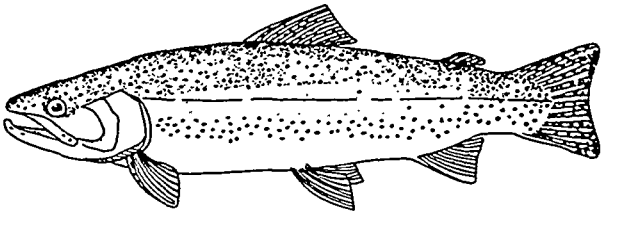
Salton Sea Effects

The SWRCB's decision to require IID to institute water conservation measures involves environmental impacts at the Salton Sea. These impacts include accelerated degradation of the Salton Sea fishery and extensive reduction of recreation related to the fishery. The Board viewed these impacts as unavoidable. Decision 1600, *supra*, at 58.

IID's conservation efforts will reduce the amount of water available to dilute the Salton Sea's salinity. As a result, the naturally occurring salt buildup will accelerate, causing destruction of the fishery earlier than anticipated. This change in salinity could occur quickly: between 1980 and 1982 the sea's surface level dropped only four inches, yet salinity increased from 38,000 ppm to about 39,000 ppm. Decision 1600, *supra*, at 59.

When the salinity begins to affect the fishery, reacreation at the Salton Sea will be detrimentally affected. IID estimates, and the SWRCB agrees, that all fishing activity and one-half of all other recreational activity will be lost when damage to the fishery occurs. Order 88-20, *supra*, at 28. IID estimates this decrease will amount to a total loss of 575,000 recreation days annually. *See id.* at 28.

In making this decision which adversely affects the Salton Sea's fishery, the SWRCB explicitly recognized the difference between the reasonable use



of water and the beneficial use of water. IID's irrigation return flow to the Salton Sea might have a beneficial effect in reducing the sea's salinity, but:

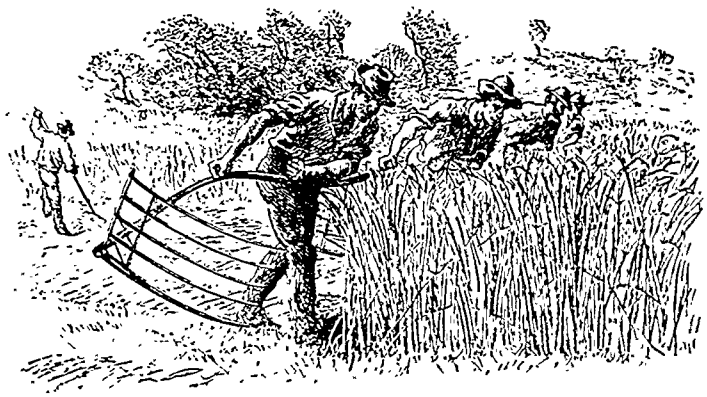
> "[i]n view of the limited life of the Salton Sea fishery under current conditions ... the Board concludes that the beneficial effect of the present quantity of IID inflow is outweighed by the adverse effect of the rising water level on surrounding property and various uses associated with that property. Under present conditions, we do not believe that the existing quantity of IID inflow to the Salton Sea can be considered a reasonable use of water." Imperial Irrigation District, Alleged Waste and Unreasonable Use of Water, Water Rights Order 84-12, 9 (SWRCB September 1984) (affirming Decision 1600 and denying petitions for reconsideration).

The SWRCB probably also considered the fact that the adverse impacts would occur to an artificial body of water, whose main statutory purpose involved acting as a "sump" for agricultural runoff. The fact that the SWRCB's decision did not involve a natural lake with a native fish population very likely made it easier for the Board to reach its decision.

The SWRCB has subsequently encouraged the development of mitigation measures to preserve environmental resources at the Salton Sea once IID's conservation measures begin. Order 84-12, *supra*, at 10; Order 88-20, *supra*, at 32. These measures may reduce impacts to wildlife that rely upon the wetlands along the sea's shoreline. It is uncertain, however, whether measures could be instituted that would mitigate the effect of reduced inflow on fishery and related recreational losses.

The Public Trust

After Decision 1600's publication in 1984, the Salton Sea Fish and Wildlife Club (Club), an Imperial Valley environmental group, urged the SWRCB to alter its decision. Order 84-12, *supra*, at 10. The Club contended that according to the recently decided *National Audubon Society v. Superior Court*, 33 Cal.3d 419 (1983), *cert. denied*, 464 U.S. 977 (1983), the California public trust doctrine protected the Salton Sea's recreational and environmental uses. Under the public trust doctrine, California has an affirmative duty to protect certain public interests in coastal and inland waters. These public trust interests, which include recreation, environmental uses, fisheries, navigation, and commerce, are held in trust for the people of the state. [For more information, see generally, Public Trust Symposium, 14 U.C. Davis L. Rev. 180-496 (1980).] In *Audubon*, the California Supreme Court affirmed the need to reevaluate water diversions threatening the Mono Lake environment. The *Audubon* holding, applicable to Decision 1600, stated: "the State has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible." *Audubon*, 33 Cal.3d at 446.



The public trust doctrine, as defined by previous judicial decisions and embraced by the *Audubon* court, mandates protection of fishing and recreation, two uses detrimentally affected by Decision 1600. When consumptive water needs, such as municipal/agricultural water use, conflict with public trust interests, *Audubon* requires a "balancing" of uses to determine the proper water allocation. The *Audubon* court did not spell out the nature of the "balancing" process; it left this definition open for future courts to determine on a case-by-case basis.

The Club faced a problem in attempting to apply the public trust doctrine to an artificial body of water such as the Salton Sea. The public trust, as related to inland waters, historically springs from California's sovereign interest in navigable waterways that existed at the time California entered the Union in 1850. *Audubon*, 33 Cal.3d at 434. This requirement has precluded the trust from affecting most artificial bodies of water in the state, including reservoirs and canals. In 1850, the Salton Sea as it is known today did not exist, and would not exist for another 55 years.

The SWRCB used this reasoning to reject the Salton Sea Fish and Wildlife Club's petition for reconsideration:

> No such title or public trust easement was acquired to ... the present Salton Sea since the Sea was not created until 1905.... [R]egardless of the extent to which the public trust doctrine may or may not apply to an artificial body of water, it is apparent that the doctrine does not justify continued inundation of property to which no public trust easement attaches. Order 84-12, *supra*, at 10.

The SWRCB declared, in essence, that it was not feasible to protect fishery and recreational uses at the Salton Sea. Absent an economical physical solution to maintain the sea's water quality, such as an expensive salinity control plant, the Board felt it was improper to postpone the inevitable salinity increases by maintaining IID's huge level of inflow. Order 84-12, *supra*, at 10.

The SWRCB might have sidestepped the "requirement" that the body of water exist in 1850, however, and applied the public trust doctrine to the Salton Sea. As the doctrine has evolved in California, through *Audubon* and other decisions, its required elements have changed. For example, historically, the

trust could only apply to waters wide and deep enough to be "navigable" by water craft. *People v. Mack*, 19 Cal. App. 3d at 1051, 97 Cal. Rptr. at 54 (1971). The court in *Dahlgren v. Department of Water and Power*, No. 8092, *slip op.* (Mono County Superior Court, August 17, 1985) (order granting preliminary injunction), however, interpreted *Audubon* and found that the public trust doctrine could be applied to an arguably non-navigable portion of Rush Creek, a tributary of Mono Lake. Subsequently, in *Mono Lake Committee v. Department of Water and Power*, No. 8608, *slip op.* (Mono County Superior Court, October 21, 1987) (order granting preliminary injunction) the court interpreted *Audubon* and ruled that the public trust applied to a stretch of Lee Vining Creek, also tributary to Mono Lake, that was definitely non-navigable. In each case, the court so ruled to protect public trust interests in these streams -- especially the streams' fish populations.

If currently non-navigable stream sections existing in 1850 are subject to the public trust, then the trust should equally apply to the Salton Sea: a navigable lake not existing in 1850. The navigability requirement is an important element in determining whether the public trust should apply. If the courts may waive one element of the public trust analysis in the above creek cases, then they may waive other elements of the analysis at the Salton Sea.

The emphasis placed by the courts on preserving fisheries in the lower Rush Creek and lower Lee Vining Creek cases may indicate that in the future, the traditional public trust tests of navigability and "existence in 1850" may be superceded by a simpler test. The courts may be moving to the position that the public trust doctrine applies to an inland waterway whenever a public trust value, especially a fish population, is found to exist in that waterway. [A full discussion of the implications of this interpretation of the Mono Basin creek cases, including inequities to private stream and reservoir owners and other uncertainties to water rights holders, is beyond this paper's scope. Uncertainties stemming from these and other cases, however, prompted proposed legislation to place limitations on the public trust doctrine and a public hearing, held in Sacramento by the State Assembly Water, Parks, and Wildlife Committee on November 21, 1988.] Under this new judicial interpretation, the mere existence of the Salton Sea's fishery and recreation uses would be sufficient to compel the state to perform a public trust "balancing."

Even if the above creek cases had been decided in time to allow the SWRCB to use them as precedent, and the Board had applied the public trust to the Salton Sea, the Board's original decision most likely would have stood. In a public trust balancing process, the competing water user's needs are weighed against the trust use's needs. Occasionally the state, as a matter of "practical necessity," may "have to approve appropriations despite foreseeable harm to public trust uses." *Audubon*, 33 Cal.3d at 446. The numerous benefits that IID's conserved irrigation water would provide statewide, described below, and the absence of acceptable alternatives for protection of the Salton Sea fishery outweighed the need to protect public trust resources at the sea.

Benefits of IID Conservation and Water Transfer

The SWRCB's decisions affect IID's use of water; however, the decisions do not affect IID's rights to divert water. IID's rights to 2.6 million acre-feet of Colorado River water stem from a 1931 interstate compact, confirmed by the U.S. Supreme Court in *Arizona v. California*, 99 S.Ct. 995 (1979). [For a full explanation of California's tangled rights to Colorado River water, see Abbott, *California Colorado River Issues*, 19 Pac. L.J. 1414-25 (1988).] Order 88-20 forces IID to change its irrigation practices, basically to irrigate the same area with less water. Eventually, with the conservation measures in place, IID will have rights to more water than it can use. Surplus water will then become available.

Such surplus water could be transferred to the wholesaler of imported water for the greater Southern California area, the Metropolitan Water District (MWD). MWD already possesses a contractual right to divert Colorado River water through its 280-mile long Colorado River Aqueduct. MWD's rights, however, are inferior to IID's rights, and claims by Arizona and by Native Americans have reduced the amount of water available to MWD over time. Surplus water made available by IID's conservation efforts could replace a portion of MWD's losses.

An IID-MWD transfer would reduce the amount of water that MWD would otherwise have to acquire from other sources, particularly the Sacramento/San Joaquin Delta. (See fig. 2). Each acre-foot transferred from IID to MWD would diminish Southern California's need to divert additional Delta water via the California Aqueduct. The SWRCB will take transfers from IID to MWD into account in reaching its ultimate decision in the Bay-Delta hearings, currently underway, that are determining the amount of water diversions to be allowed from the Delta over the next twenty years.

On November 3, 1988, the SWRCB's staff released a draft report on Delta water quality. The Draft Report assumes that by 2010, transfers from IID to MWD will reach the maximum amount identified in Order 88-20, almost 368,000 acre-feet per year. State Water Resources Control Board, Draft Water Quality

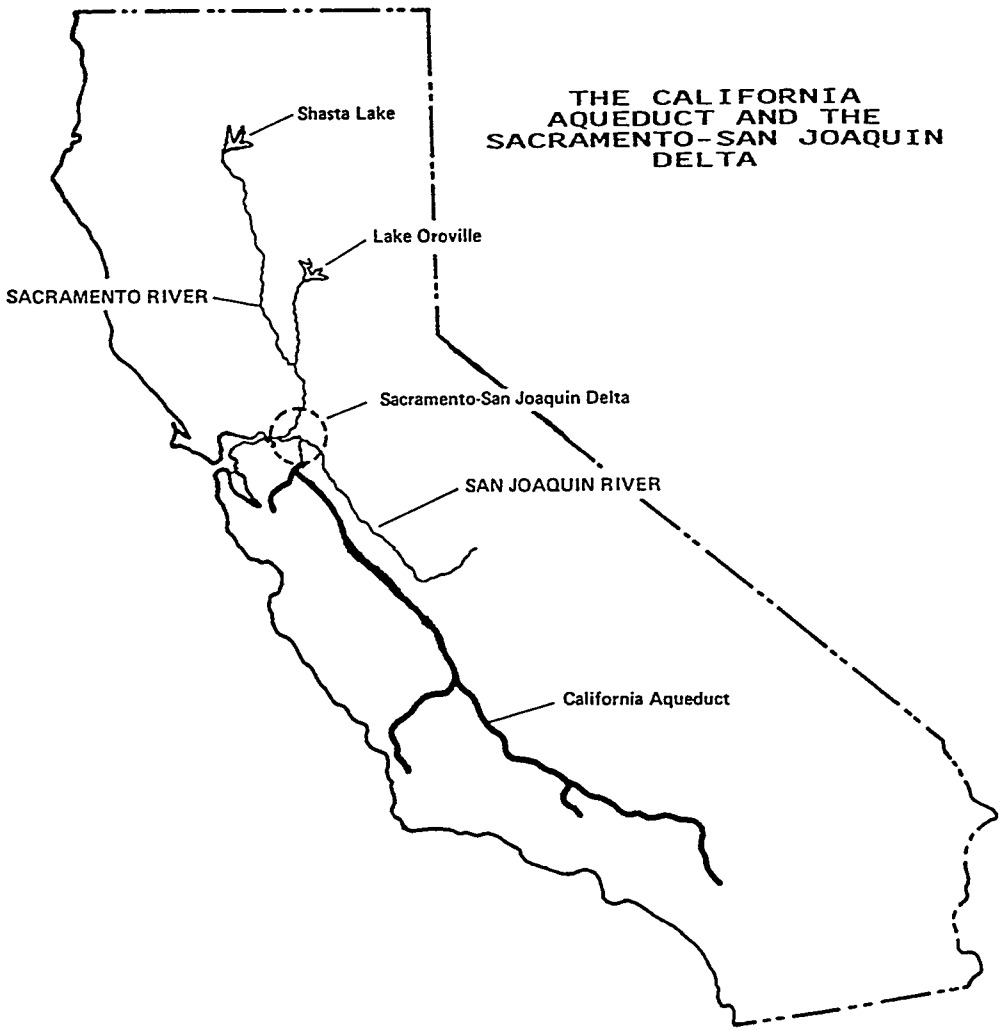


Figure 2

Control Plan, San Francisco Bay-Sacramento/San Joaquin Estuary, 6-6, 6-12 (October 1988). The Board's staff estimates a concurrent reduction of Southern California's need to divert water from the Delta. The Board will hold public hearings on the Draft Report through 1989 before deciding whether or not to approve the plan.

Finally, a water transfer between IID and MWD represents a large scale example of water marketing: "the temporary or permanent transfer of water rights from one purpose or place of use to another, without loss of priority by the transferor." O'Brien, *Water Marketing in California*, 19 Pac. L.J. 1166 (1988). In California, the water marketing concept usually refers to transfers from agricultural users to urban users. Water marketing may represent the solution to several of the state's current water controversies and also represent an important water supply source to help meet the state's future water needs. MWD has looked into marketing agreements with other agricultural agencies to enhance its supply picture, and transfers are also being examined as an alternative in the resolution of the Mono Lake controversy. For example, in 1987, under the auspices of the continuing mediation effort by the UCLA Public Policy Program, the Mono Lake Committee and the Department of Water and Power hired the Environmental Defense Fund to examine water marketing alternatives to Los Angeles's Mono Basin diversions.

Conclusion

The question of whether the courts can apply the public trust to artificial bodies of water, especially municipal and recreational reservoirs, has received renewed attention in a recent case involving a reservoir near Lake Oroville. In *Golden Feather Community Association v. Thermalito Irrigation District*, 199 Cal. App. 3d 402 (1988), the California Third District Court of Appeal ruled that the public trust doctrine could not apply to Concow Reservoir. The State Attorney General and the SWRCB's counsel, neither of whom were involved in the original proceeding, wrote to the court after *Golden Feather* was published. The parties argued that the court incorrectly decided the case based on the the SWRCB's recent practices, and

on the argument, developed by the Attorney General in the Mono Basin Creek cases, that the public trust interest in fisheries should be protected wherever a fishery might be located. The parties requested that the court depublish its opinion and issue a new opinion.

The Third District court subsequently depublished its opinion, but a new opinion has not been released. It remains to be seen whether the appellate courts will agree with the Mono County Superior Court and extend the public trust doctrine's applicability. Such an extension would not only apply to Concow Reservoir, but to places such as the Salton Sea.

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Central Valley Water Allocations: The Wildlife Perspective

by Melissa Thorme

INTRODUCTION

Historically, California's Central Valley wetlands covered four million acres and supported a wide variety of wildlife including tule elk, mule deer, pronghorn antelope, grizzly bears, and an unimaginable abundance of waterfowl. California Senate Committee on Natural Resources and Wildlife, *Sliding Toward Extinction: The State of California's Natural Heritage, 1987* 59 (Nov. 1987) [hereafter Senate Committee, *Sliding Toward Extinction*]. Over the last 200 years, levee and dam construction changed the valley's natural hydrological systems by drying up streams and decreasing flooding. Because the valley's wetlands began to receive reduced natural flows and flood waters, the wetlands shrank. These changes permitted landowners to convert expansive areas from wetlands to farmlands. By 1978, the Central Valley wetlands covered about four percent of their original area. *Id.* at 60.

State and federal governments established wildlife refuges to preserve the rapidly shrinking wetlands and their inhabitants. Ten refuges were established in the Central Valley. The ten refuges currently face serious threats from inadequate water supplies and contamination of existing supplies by salts, pesticides, and natural elements such as selenium and boron. Declining amounts of high quality water directly affects wetlands wildlife populations, represents hunting and fishing recreational losses, and poses a long-term threat to the Pacific Flyway waterfowl that winter in California. Senate Committee, *Sliding Toward Extinction*, at 60. In 1987, migratory bird population levels dropped from the 1976-1985 average of 7.4 million birds to only 2.5 million birds. *Id.* at 60.

The Central Valley's wetlands wildlife refuges need a dependable water supply to lessen adjacent land uses' impacts which decrease surface and groundwater availability. Most wetland areas now lack a secure annual water source other than rainfall and must depend on year-by-year water purchases and/or water diversions from any available source. *Id.* at 65. Currently, the Central Valley Project (CVP) has approximately one million acre feet of water available for marketing and distribution. The Regional Director of the Bureau of Reclamation's Mid-Pacific Region stated that the Bureau will reserve twenty five percent of this uncommitted water supply from contracting pending completion of a study on federal, state and private wildlife refuges and wetlands' water needs in the Central Valley. Department of the Interior, *Interior Lifts CVP Contracting Moratorium*, News Release No.