

Chronology: The Public Trust Doctrine, and Development and Decline of the Bay-Delta Estuary
(with links to supporting documentation online)

- 6,000 yrs ago [Bay-Delta estuary forms](#): As the Earth warms at the end of the last ice age, sea level of the Pacific Ocean rises, filling San Francisco Bay, creating tidal estuaries in the Delta and Suisun Marsh, and meeting the fresh water flowing down from the many rivers and streams of the Coast Range, Sierra Nevada, and Cascade Range.
- 535 A.D. Roman Empire's [Institutes of Justinian](#) describes the public trust doctrine in Roman law. "By the law of nature these things are common to mankind—the air, running water, the sea, and consequently the shores of the sea."
- 1821 A New Jersey Supreme Court case, [Arnold v. Mundy](#), applies the public trust doctrine to tidal waters of the state, finding a common right of the public for fishing.
- 1892 [Illinois Central Railroad v. Illinois, 146 U.S. 387 \(1892\)](#) established the scope of the public trust doctrine in America. The issue was whether the Illinois legislature could grant nearly the entire waterfront area of Chicago to the Illinois Central Railroad. The Supreme Court of the United States held that Illinois had title to the land underneath the navigable waters of Lake Michigan and that it held this title in trust for the public's use. Illinois was not allowed to convey this land if the effect would be to destroy the public's right of navigation and fishing. However, the Court also held that Illinois could convey parcels of trust land to private individuals so long as the overall effect was to improve the public's ability to exercise its trust rights. The conveyance to Illinois Central did not meet this criterion and was therefore void.
- 1908 - 1929 [California & Hawaiian Sugar Refining Corporation of Crockett measured salinity in the Delta](#), sending barges upstream to collect fresh water for their production needs. Prior to 1920, C&H found that fresh water was consistently available in Suisun Bay (18 miles upstream of Crockett) from early winter through summer months. After 1920, fresh water in Suisun Bay became much rarer as Sacramento Valley rice cultivation expanded and the Central Valley Project and State Water Project were built and operated over the next 50 years.
- 1926 **December 24**: California Supreme Court rules in [Herminghaus v. Southern California Edison](#) that riparian water right holders are not bound by existing California law to use water reasonably with respect to appropriative water right holders. The decision proves controversial throughout California.
July 30: California Department of Finance files water rights applications for 7.3 million acre-feet of water rights on the Feather River and in the Delta, as well as millions more on many other rivers and streams throughout the Central Valley watershed in anticipation of design and construction of statewide water systems. The state's requested water rights exceed by many times the amount of annual runoff in the rivers subject to the state's applications.
- 1928 **November**: California voters pass Proposition 7, a constitutional amendment banning waste and unreasonable use, and unreasonable methods of diversion of water statewide by nearly a 4-to-1 margin. The constitutional amendment requires that all uses and diversions, and methods of diversions of water in California must be reasonable, including riparian rights, thereby addressing the issues raised by *Herminghaus*.
- 1933 **December**: California voters narrowly pass the Central Valley Project Act by a margin of 33,603 votes statewide, authorizing the state to build its first coordinated water system. Because of the Great Depression, the state could not finance the project, however.
- 1928 - 1934 First lengthy statewide drought of the 20th century results in runoff from all rivers and streams tributary to the Delta that was less than 60 percent of average conditions.
- 1937 US Bureau of Reclamation takes over ownership, design, construction, and operation of the Central Valley Project from the state of California.
- 1940s Shasta Dam completed on upper Sacramento River in 1944; Friant Dam completed on upper San Joaquin River in 1949. [On the San Joaquin River, fall-run Chinook salmon go extinct in late 1940s and spring-run Chinook salmon go extinct in early 1950s.](#)
- 1951 **August 24**: California Department of Water Resources files water rights applications for nearly 22 million acre-feet of water rights in the Feather River watershed and the Delta anticipating design and construction of the Feather River Project (later renamed the State Water Project).
- 1957 **March**: California Department of Water Resources applies for water rights permit for 1.1 million acre-feet of water on Italian Slough, Sacramento River Delta channels, and San Luis Creek, anticipating eventual development of the State Water Project.
- 1958 State Water Rights Board issues [Water Rights Decision 893](#), the first of six subsequent decisions approving permits for various pieces of the Central Valley Project, operated by the Bureau. These decisions included terms by which the Water Board reserved jurisdiction to revisit salinity control requirements for protecting the Delta.

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- 1950s Average annual Delta exports by the Central Valley Project were **1.03 million acre-feet**.
- 1960 **November:** California voters narrowly pass Proposition 1 (the Burns-Porter Act), the bond referendum to finance construction of the State Water Project.
- 1961 State Water Rights Board received testimony from Delta Water Users Association concerning south Delta salinity conditions deteriorating in the San Joaquin River north of Mendota Pool since 1950, but the Board established no salinity standard when it adopted [Decision 1020](#).
- 1964 US Bureau of Reclamation issues a project design report describing a proposed Peripheral Canal, to route Sacramento River flows around the Delta directly to state and federal water project pumps at Tracy.
- 1968 Congress creates the National Wild and Scenic Rivers System to balance national policy for river development with a policy of preserving free-flowing rivers and their natural and cultural values.
- 1960s Average annual Delta exports by the Central Valley Project and the State Water Project were **1.77 million acre-feet**.
- 1971 The California Supreme Court first applies public trust doctrine to navigable streams, as well as to ecological preservation and study.
- 1972 California's Legislature adopts its own [California Wild and Scenic Rivers Act](#), and then-Governor Ronald Reagan signs it into law. The California system protected segments of the Smith River and tributaries, Klamath River and tributaries, Scott River, Salmon River, Trinity River, Eel River, Van Duzen River, and American River, thereby preventing further water development for export by state and federal water projects.
- 1976 - 1977 Worst drought in state history leaves California with less than 40 percent of average historical runoff to the Delta from Central Valley watershed rivers and streams.
- 1978 State Water Resources Control Board adopted a Water Quality Control Plan for the Delta and [Water Rights Decision 1485](#), establishing salinity objectives that are still in effect today. The State Water Resources Control Board declined to assign responsibility to any water agencies for meeting the salinity objectives. Eight different lawsuits are filed against D-1485, eventually consolidated into one case.
- 1970s Despite the deep two-year drought, average annual Delta exports for both CVP and SWP = **3.66 million acre-feet**.
- 1982 **June:** California voters reject Proposition 9 by a nearly 2 to 1 margin, a referendum to finance construction of a Peripheral Canal around the Delta, two large off-stream reservoirs in the western Sacramento Valley and enlargement of Shasta Dam.
- 1983 California State Supreme Court issues the **Mono Lake Decision** ([National Audubon Society v. Superior Court](#)) declaring that the state of California must protect the public trust ecological resources of Mono Lake and has continuing jurisdiction over water rights permits and licenses to ensure continual protection occurs.
- 1986 **May:** Appellate Judge John Racanelli issues the first public trust and water quality planning decision on the Delta cases originally filed in 1978, [United States v. State Water Resources Control Board](#). California Supreme Court declines to hear the case on appeal in July, letting Judge Racanelli's decision stand. Racanelli stated that the State Water Resources Control Board must take a global view of the Delta and Sacramento and San Joaquin River tributary watersheds, and must by law protect beneficial uses of water (including fish and wildlife) not merely water rights.
- 1987 - 1992 Longest drought in modern California history leaves state with just 56 percent of average Sacramento Valley runoff and 47 percent of average San Joaquin Valley runoff to the Delta from Central Valley watershed rivers and streams.
- 1988 **California Legislature** adopts the [Salmon, Steelhead Trout, and Anadromous Fisheries Program Act](#), setting as state policy a goal to double the production of salmon and steelhead fish in California.
October: After more than a year of evidentiary hearings into public trust resource and water supply issues, [State Water Resources Control Board issues Draft Bay-Delta WQCP](#) calling for a new "water ethic," new flow objectives for Delta channels, and pre-State Water Project export rates [but split between Central Valley Project and State Water Project pumps] as a "reasonable interim goal until a safe level of exports is found." After water contractors strenuously object to the draft plan, it is withdrawn.
- 1980s Despite three dry years, (1987 through 1989), average annual Delta exports reached **5.06 million acre-feet**.

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- 1991 US Environmental Protection Agency, through its federal Clean Water Act authority, threatens to reject California's 1991 Bay-Delta Water Quality Control Plan and assume responsibility for regulating Delta water quality to comply with the federal Clean Water Act.
- 1992 **March:** US Environmental Protection Agency issues status and trends report on Delta aquatic species, finding that most native species are in decline, particularly Delta smelt and salmon species, while some invasive species like crabs and clams outcompete native species for aquatic food resources.
October: Congress passes and President George H.W. Bush signs the [Central Valley Project Improvement Act \(CVPIA\)](#) into law. CVPIA adds fish & wildlife protection to the CVP's purposes, authorizes water transfers, sets aside 800,000 acre-feet annually for instream fish flows, and establishes for the project a goal of doubling fish species populations over 1967-1991 levels.
- 1992 **December:** [Draft Decision 1630](#) was to implement the 1991 Water Quality Control Plan, and would have included spring and fall pulse flows to benefit salmon in the San Joaquin River together with springtime export limits for the state and federal Delta pumps.
- 1993 **March:** US Fish & Wildlife Service lists the Delta smelt as threatened with extinction under the federal Endangered Species Act. Delta smelt once numbered several hundred thousand individual fish as recently as mid-1980s, but declined dramatically in recent years.
April 1: After the US Environmental Protection Agency again threatens to reject Draft D-1630 and take control of regulating Central Valley and Delta waterways itself, then-Governor Pete Wilson ordered the State Water Resources Control Board to withdraw the draft decision and start over.
- 1994 **Summer:** State operates its third Drought Water Bank in four years, allowing Sacramento Valley sellers of surface water to pump large amounts of groundwater to substitute for their surface supplies. In and around the town of Durham (Butte County), deep agricultural wells went dry, one of three municipal wells was shut down due to contamination, and many residents' taps were empty that summer, and well levels fell throughout the northern and central parts of the Valley.
December 15: [The Department of Water Resources, the Bureau of Reclamation, state and federal water contractors, and environmentalists sign the Bay-Delta Accord](#), an agreement committing stakeholders to ecosystem restoration while protecting contractors' Delta export rates.
December 19: The US Fish & Wildlife Service designates the Delta as "critical habitat" for the threatened Delta smelt under the federal Endangered Species Act.
- 1990s After three early years of drought in this decade, average annual Delta exports still reach **4.68 million acre-feet**.
- 2000 **February:** State Water Resources Control Board adopts [Water Rights Decision 1641 \(D-1641\)](#), assigning the Department of Water Resources and the Bureau of Reclamation responsibility for complying with south Delta salinity standards in the decision starting in April 2005.
- 2004 **March 2004:** US Fish & Wildlife Service reaffirms the need to retain Delta smelt as a threatened species, and considers to whether to upgrade its status from threatened to endangered.
- 2006 **2005 and 2006:** National Marine Fisheries Service lists winter-run Chinook salmon and killer whales as endangered, and spring-run Chinook salmon, Central Valley steelhead, green sturgeon, and Central Coast steelhead as threatened (along with their critical habitats in the Central Valley watershed) under the federal Endangered Species Act.
February 2006: State Water Resources Control Board adopts [Water Rights Order 2006-0006](#) telling DWR and the Bureau to "cease and desist" from further violations of the south Delta salinity standards. The Board gives the water agencies until July 1, 2009, to demonstrate permanent compliance with the standards, stating that they wouldn't extend the deadline. The Board offers DWR and the Bureau many options for complying, yet the water agencies ignore them in favor of planning permanent operable tidal barriers.
- 2007 Fisheries scientists publicize to a concerned public a "[pelagic organism decline](#)" in the Delta, about which the State Water Resources Control Board holds informational hearings: Delta fish and other species populations at all levels of the estuary's food web plunged dramatically as the State Water Project and the Central Valley Project's Delta water export pumping reach historic record levels. Average Delta exports for the SWP and CVP from 2000 through 2007 = **6.01 million acre-feet**.
- 2008 **March:** [California Water Impact Network \(C-WIN\) and California Sportfishing Protection Alliance \(CSPA\) file a public trust complaint with the State Water Resources Control Board](#) urging immediate hearings into how to protect Delta public trust ecological resources.
October: State Water Resources Control Board declines to open hearings requested in the public trust complaint.
December: C-WIN and CSPA file first Delta public trust lawsuit in Sacramento County Superior Court. US Fish and Wildlife Service publishes its [Delta Smelt Biological Opinion on Operation Criteria and Plan](#) for the SWP and CVP.

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- 2009 **February:** C-WIN and CSPA withdraw their public trust lawsuit for procedural reasons.
June: Department of Water Resources and the Bureau of Reclamation acknowledge they are once again violating D-1641 salinity standards for the south Delta despite the 2006 Cease and Desist Order. [The State Water Resources Control Board holds hearings to determine whether to modify the Order.](#)
National Marine Fisheries Service publishes its [Salmon Biological Opinion on Operation Criteria and Plan](#) for SWP and CVP.
Average Delta exports for the SWP and CVP from 2000 through 2009 = **5.55 million acre-feet.**
- 2010 **January:** [State Water Resources Control Board modifies the 2006 Cease and Desist Order](#) to extend DWR and the Bureau's compliance schedule by five years (from 2009) to 2014 to enable the water agencies to complete operable tidal barrier projects in Delta channels that fisheries agencies have strong reservations about.
August: [State Water Resources Control Board adopts information Delta Flow Criteria Report](#) identifying flows to protect the public trust. And State Water Resources Control Board approved its [2010 Integrated Report on Clean Water Act Section 303\(d\) list of Water Quality Limited Segments and the Clean Water Act Section 305\(b\) Assessment of Water Quality.](#)
September: C-WIN and CSPA are joined by AquAlliance of the Sacramento Valley to file a new public trust lawsuit in Sacramento County Superior Court.