

Desert and farm, water drainage and a new deal in the Central Valley

Mark Arax, *The Sacramento Bee*, 11-27-16

LOS BANOS --The helicopter landed in the western hills above the San Joaquin Valley and out of the dust walked President John F. Kennedy.

It was Aug. 18, 1962, and the sun would not let go. In the hollow of the mountain, where California was about to build its newest reservoir, the air felt like a blast furnace. Summer had baked the earth to a tan and shrunken form. The hills turned to hide. Though not a drop of rain had fallen from the sky since spring, no one in the assembled crowd, certainly not the cotton kings, thought of this as drought.

Going dry for eight months was California's condition. And here was the president coming west to deliver California's fix. A son of Massachusetts, he knew this was a place where "things do not happen but are made to happen." Looking down on the Valley, he could see nature's aridity and man's answer side by side. Desert and farm, salt and fruit. The difference was the reach of an irrigation canal.

Two Irish American politicians at the peak of their power, JFK and Gov. Pat Brown, came together that day outside Los Banos, "the baths," to build the nation's largest off-stream earthen reservoir. No partnership between Washington, D.C., and Sacramento had ever tackled a project of such monument. By dint of the new reservoir and an aqueduct that sent water from one end of California to the other, the Central Valley Project and the State Water Project forever joined hands.

But the building of the San Luis Reservoir and canal stands out in the annals of western reclamation for a more inglorious reason. The Westlands Water District, 600,000 acres of irrigated agriculture, controlled nearly all the federal water that moved through the new plumbing.

The protectors of the environment, such as they were in the late 1950s, didn't grumble about the arrangement. The cotton growers on Fresno County's vast west side, after all, had played an outsized role in getting the federal government to build its share of the San Luis unit. But there was plenty of reason to suspect that Westlands, drawn in the shape of a whale, entitled to more than 1 million acre-feet of water each year, was a risky investment for the feds.

Half the district boasted some of the finest loam in the world. This was the soil the farmers, congressmen and government bureaucrats loved to talk about. But the other half, nearly 300,000 acres, came with a caveat. It was alkali desert plugged up with clay. Irrigation after irrigation, deadly salts backed up into the root zone. An elaborate drainage system had to be built to remove the polluted water from the land.

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That drainage system with an outlet to the sea never came to be. And the inevitable – the story of ancient Mesopotamia – transpired. A poisonous brew of salts and selenium bubbled up to the surface, stunted crops, killed migratory birds and triggered a decadeslong fight among environmentalists, farmers and the federal government. None of the scientific studies or half-baked experimental projects or tangled court rulings has ever

come up with a sure and safe way to get rid of the polluted water. Young protagonists have turned into old protagonists trying to solve the riddle of the land.

Now a compromise to settle one of the most protracted and costly disputes in the history of U.S. irrigated agriculture is finally at hand. After negotiating in secret for two years, the U.S. Bureau of Reclamation and the Westlands Water District have agreed to a complex deal on drainage and farming that pleases neither side. As it moves to a vote in Congress, and likely adoption, the environmentalists in San Francisco and Sacramento are digging in for the next round of their epic fight against the whale.

Had “Moby Dick” played out on the land instead of the sea, it seems, this would be its fable.

The president and the governor stood next to each other in the shade of a speaker’s platform festooned with red, white and blue bunting. The 10,000 people before them had awakened early that summer day in anticipation of the event. Husbands and wives, their children in tow, had driven into the dry hills from miles around. They were dressed as if for a fancy Sunday picnic.

The idea of California reclamation always had been to dam a river at its source. The \$500 million San Luis Reservoir, at least a decade in the cajoling, would take an equally audacious approach and build a dam many miles from the nearest river. More than 1 million acre-feet of federal water from the rivers of the north would be pumped out of the Sacramento-San Joaquin Delta each year and run up the hill into the California Aqueduct. The aqueduct would then take the water through the San Luis unit and deliver it to Westlands and four other federal recipients.

The beauty of the aqueduct was that it would serve two masters. Working on behalf of the State Water Project, the great concrete river would take millions of acre-feet more from the Delta and ship it hundreds of miles south – to the farms of Kings and Kern counties, and to the faucets of Los Angeles and San Diego.

Kennedy, wearing an elegant dark suit and a blue tie with diagonal stripes, his hair stuck at perfect, was transfixed by the seeming paradox of the San Joaquin Valley.

“We can see the greenest and most richest earth producing the greatest and richest crops in the country,” he told the crowd. “And then a mile away we can see the same earth and see it brown and dusty and useless, and all because there’s water in one place and there isn’t in another.”

The president then counted one, two, three, and he and Brown pushed down on a pair of plungers that set off the dynamite packed into the hillside. Clouds of dust billowed skyward. The crowd gave an earnest cheer. Some of the men – the cotton growers among them, along with the reclamation engineers – knew a different truth about the land. Nature had made the soils of the Valley very different from each other. Sections of Westlands, mile after mile, were laden with selenium, salt and boron. The waters of farming would percolate a shallow way down, hit hard clay and then bubble back up in a bog of contamination.

The wastewater was so unremitting – the salts alone could fill 30 railroad cars a day – that only a regional drainage system could handle the problem. But the reclamation bureau, it turned out, was a lot more skilled at making the desert bloom than cleaning it up once it bloomed.

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The bureau, failing to appreciate the challenge at hand, set the cost of drainage at \$20 million. An earthen canal would transport the poisoned runoff 197 miles to an outlet in the Delta. But a canal made out of dirt wasn't going to work. Salts and selenium would simply leach out. So the bureau and Westlands, in 1965, embraced a new \$41 million plan that featured a main canal lined with concrete.

Then Westlands woke up one morning wanting to grow bigger. The cotton kings had expanded their farming to higher ground outside the district. They wondered: Why not include this land in the boundaries of Westlands? That way, cheap federal water could flow there, too.

The Department of Interior, guided by a philosophy that all good earth should come under the plow, wished mostly to please the farmers. So Interior, without congressional approval, allowed Westlands to grow from 400,000 acres to 600,000 acres. This bigger footprint took away millions of dollars for drainage and spent it on an expanded irrigation system. The high ground, flush with new water, drained onto the low ground. A farmer with a backhoe hit contaminated mire a few feet down. To make matters worse, the state of California was souring on the idea of a planned outlet to the Delta.

“No drainage, no water” might have been the mantra of the reclamation bureau. But in 1967, the bureau started delivering water to Westlands even as drainage was delayed. Not until the early 1970s did the bureau proceed to build a concrete canal that snaked 87 miles across the plain. The farmers fabricated a system of tile drains under the root zones that collected the polluted water and sent it into the canal. With no route to the ocean, the wastewater drained northward into Kesterson Reservoir, 600 acres of man-made ponds next to a national wildlife refuge. There, the toxic brew was allowed to evaporate under the Valley sun.

A government plane flying overhead might have discerned a disaster in the making. The wastewater from a bird's eye view looked nothing but beautiful blue. Ducks and geese on their migratory journeys alighted to feed and swim and give birth. Many of the young became grotesquely deformed. Those with stunted gullets were dying a slow death. An alarmed federal scientist, Felix Smith, traced the tragedy to the accumulation of selenium in the environment, a byproduct of irrigated agriculture in the desert.

His superiors tried to silence Smith, but a nearby cattle farmer, Jim Claus, had seen the same suffering in his cows and was talking to a local reporter named Lloyd Carter. Together, the three men documented the scandal right down to the wealthy growers employing various fronts to hide the fact that they were farming vast stretches in violation of federal acreage limits. The reclamation bureau, well aware of the scheme, had chosen to look the other way.

The story landed on “60 Minutes” and the feds were forced to shut down Kesterson and the master drain in 1986. That's when the farmers of Westlands began suing the federal government for breaking its promise of drainage. After one court ruling and another, the federal government found itself on the hook to solve the unsolvable. Without drainage, dozens of farmers had no choice but to retire their lands. By 2005, taxpayers had spent \$107 million to retire 40,000 acres of the most polluted ground.

The new deal before Congress transfers the burden of drainage from the federal government to Westlands. The district will handle the salts and selenium within its borders in a way that does no further harm to the birds. What the system will look like – how extensive and costly it will be – is up to Westlands to decide. In return, the federal government will forgive Westlands from paying the \$375 million it still owes for building the dam, reservoir and water delivery systems. The district will have to retire another 60,000 acres, but it can continue to farm 200,000 acres of polluted ground.

At 500,000 acres in size, Westlands will remain the largest agricultural water district in the nation. The whale will be entitled, in perpetuity, to 75 percent of the cheap federal water it has drawn in previous years. It will keep on replacing seasonal crops such as melons and garlic with more permanent crops such as almonds and pistachios, thereby hardening demand for water. And the land will go on sinking because farmers can continue pumping vast amounts of groundwater whenever their federal supplies are restricted by drought and Delta smelt.

Not all of the big growers inside Westlands are pleased with the deal. Farmers on the good lands will have to take out \$185 million in bonds to reimburse the farmers on the problem lands for their drainage troubles. The impacted farmers – some of whom sit on the Westlands board, some of whom negotiated directly with the federal government for payouts amounting to millions of dollars each – will still be able to grow nuts or whatever else. The pistachio tree, for one, isn't bothered much by salt. And drip irrigation has bought them more time. The precise application of water is, for now, keeping the toxic bog from invading the root zone.

Today, Kesterson has been filled with earth to cover up the selenium hot spots. The desiccated bones of the master drain still carve a path through Westlands. Inside the district, there's hope that a President Donald Trump will gut the Endangered Species Act and Clean Water Act, too, and turn the clock back to 1962. But if you walk the soil and talk to the clear-eyed farmers, they will tell you about a new reality.

California finally has begun the process of regulating groundwater. Sometime in the next decade, Westlands won't be able to willy-nilly stick more 1,800-foot wells in the ground to make up for water that drought and fish take. And sometime beyond that, as the ancient Sumerians discovered, salt inexorably will have its way. The whale, these farmers will whisper, cannot be sustained.