



1620 Mill Rock Way, Suite 500
Bakersfield, CA 93311
661.398.4900
www.kwb.org

PAST AND PRESENT BOARD MEMBERS OF KERN COUNTY WATER BANK AUTHORITY

Dudley Ridge Water District

Dale Melville – 1995-2002
Steve Jackson – 2002-present

Semitropic Water Storage District

Wilmar Boschman – 1995-present

Westside Mutual Water Company

William Phillimore – 1995-present
Scott Hamilton – 1995-2017
Kimberly Brown – 2017-present

Wheeler Ridge-Maricopa Water Storage District

William Taube – 1995-present

Tejon-Castac Water District

Dennis Mullins – 1995-2006
Dennis Atkinson – 2006-present

Kern County Water Agency Improvement District 4

Robert Bellue – 1995-1998
James Beck – 1998-2004
Eric Averett – 2004-2008
Curtis Creel – 2008
David Beard – 2008-present

Staff of Kern County Water Bank Authority

Jon Parker, General Manager
Nick Torres, Facilities Manager
Danelle Scott, Office Manager
Manda Wood, GIS Coordinator/Webmaster
Steve Yoder, Field Supervisor
Sam Handel, Field Assistant



Water Recovery and
Habitat Redemption



THE KERN WATER BANK: A STORY OF WATER RECOVERY AND HABITAT REDEMPTION

By creating the nation's largest direct recharge water storage system, the Kern Water Bank is helping forge a long-term future for people and wildlife

Every day, thousands of motorists drive along State Route 43 southwest of Bakersfield, most of them likely unaware they are crossing over the Kern Water Bank, the largest underground water storage system in the nation.

Separated from the rush of trucks and cars by simple wire fences, the property may appear to be nothing more than flat, undeveloped land, lined with low-lying brush and the occasional thicket of trees. Sometimes, the landscape shimmers with deep-blue stretches of water, but often it's a dry, brown expanse of countryside that's easy for passersby to ignore.

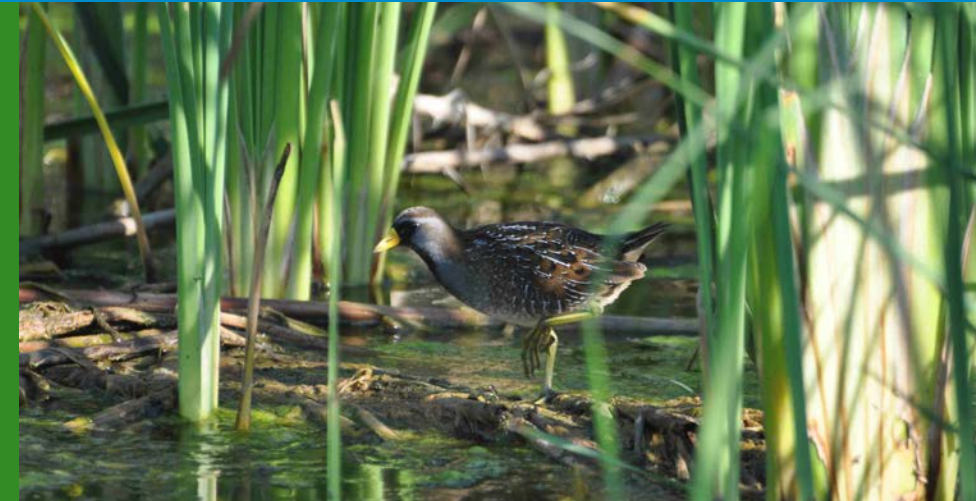
But for tens of thousands of waterfowl, as well as San Joaquin kit foxes, badgers, bobcats and myriad other wildlife, this 20,000-acre block of land represents nothing less than home. For many, this is year-round, life-giving habitat. For others, it's a nesting site where they raise their young. For dozens of species of migratory birds, it's a crucial resting place along the Pacific Flyway as they head north to Canada or south to Mexico and beyond.

Nowhere else in the U.S. is there as vast a piece of land -- 32 square miles -- that banks water for humans while preserving native habitat and wildlife. It's an achievement that quickly put Kern County at the forefront of water management when it launched initial operations under temporary permits in 1995. In 2000, then-U.S. Interior Secretary Bruce Babbitt visited the Kern Water Bank, calling it "the most effective groundwater storage program in the United States, probably the whole world."



THE KERN WATER BANK RIVALS THE SACRAMENTO-SAN JOAQUIN RIVER DELTA IN DIVERSITY AND SHEER NUMBERS OF BIRDS. IN THE FALL ESPECIALLY, IT'S STAGGERING TO SEE.

Jim Jones, biologist, South Valley Biology Consulting



Lying at the southern end of the San Joaquin Valley, 12 miles from downtown Bakersfield, the Kern Water Bank can hold 1.5 million acre-feet of water. That's almost three times the storage capacity of Lake Isabella, a major source of Bakersfield's water about 40 miles east of the city. In size alone, the Kern Water Bank's underground reservoir is larger than the 14-square-mile Lake Isabella. Since it began operating, the Kern Water Bank has recharged more than 2 million acre-feet and recovered some 1.5 million acre-feet of water, supplying a life-giving resource to hundreds of farms and thousands of Bakersfield residents.

In the process, it has become one of the most important freshwater wetlands in California.



PURSuing A WATER BANK DREAM

Yet this unique project struggled for years before it succeeded.

Among those who saw its potential was California’s Department of Water Resources (DWR). California water officials had grown increasingly interested in developing underground water storage projects to bank water in wet years for reliable supplies in dry ones. In 1988, DWR purchased the land, known as the Kern Fan Element, from Tenneco West. The state agency acquired the property on behalf of more than two dozen State Water Project (SWP) contractors, the public water agencies that hold long-term contracts with DWR for SWP water deliveries. They also pay all SWP capital and operational costs.

Over the next five years, DWR attempted to move forward with its plan to build out an underground water bank on the property southwest of Bakersfield. But, based 250 miles away in Sacramento and stymied by legal, institutional and environmental hurdles, DWR concluded by 1993 it couldn’t succeed.

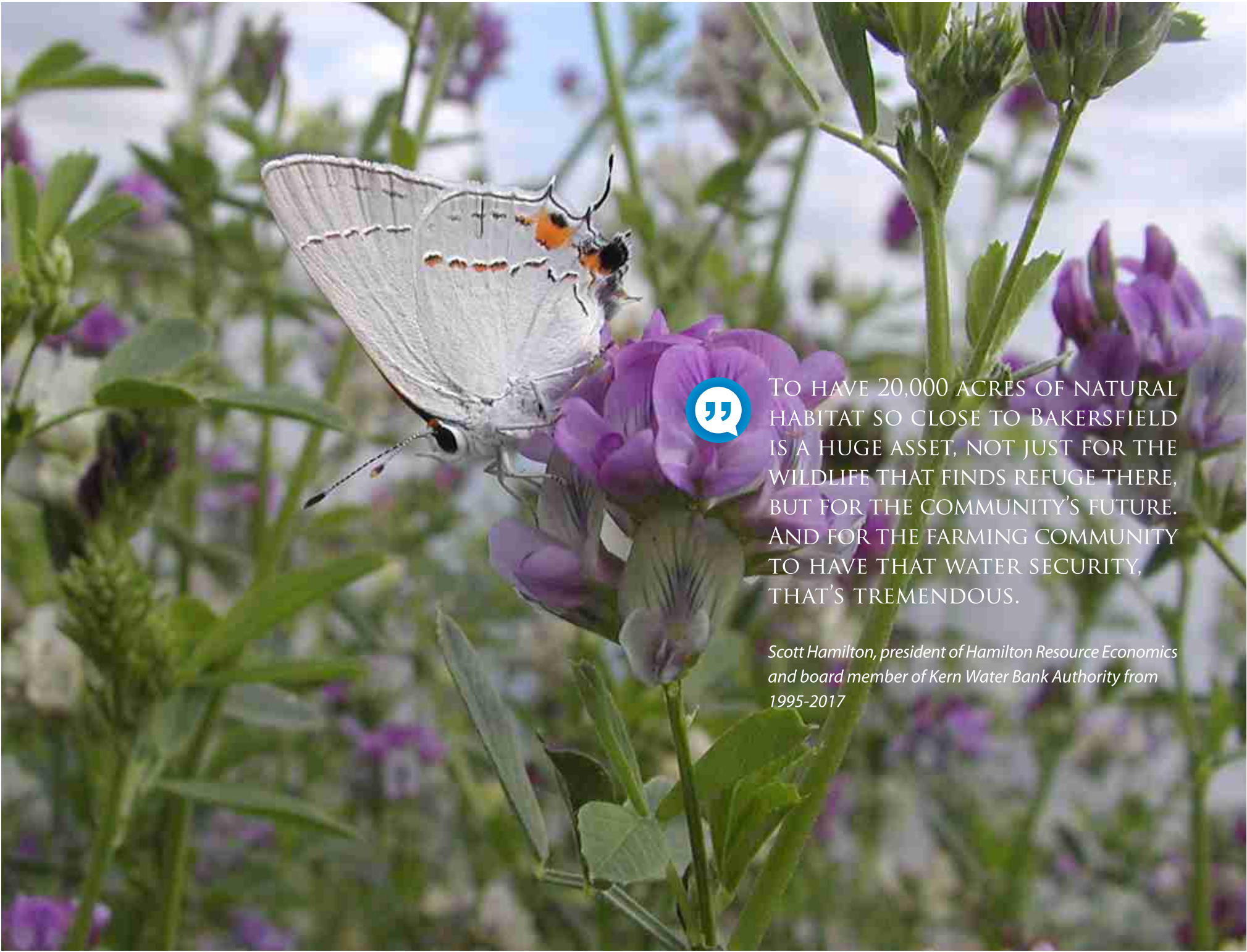
Then, in 1994, California’s water dynamics changed with the approval of the historic Monterey Agreement. Comprised of a set of principles established by DWR representatives and SWP contractors, the agreement resolved long-running disputes among the contractors regarding operation of the massive state-built water system. Operated by DWR, the SWP provides water supplies for 25 million Californians and 750,000 acres of irrigated farmland.

The Monterey principles included transferring the Kern Fan Element land to designated SWP agricultural contractors. DWR’s leadership “was pretty insistent in the Monterey negotiations that Kern County get the water bank back,” remembered Tom Clark in a 2010 in-house video interview with the Kern County Water Agency (KCWA), an SWP contractor where he was the long-time general manager.

Among the publicly approved amendments to the Monterey Agreement was a provision allowing the Kern Fan Element lands to be transferred to the KCWA. In turn, the KCWA could convey the land to another local public agency for water bank development and use.



The KCWA clearly understood the advantages of building out an underground reservoir on the Kern Fan Element. A groundwater recharge and recovery project was ideally suited to the area’s natural geology, sandy soils and vast aquifer. Canals could convey water from the Kern River, the State Water Project Aqueduct, and the federally supplied Friant-Kern Canal. Once it arrived at the property, the water could be delivered into recharge basins, where it could percolate into the underground basin and then be recovered during dry years.



TO HAVE 20,000 ACRES OF NATURAL HABITAT SO CLOSE TO BAKERSFIELD IS A HUGE ASSET, NOT JUST FOR THE WILDLIFE THAT FINDS REFUGE THERE, BUT FOR THE COMMUNITY’S FUTURE. AND FOR THE FARMING COMMUNITY TO HAVE THAT WATER SECURITY, THAT’S TREMENDOUS.

Scott Hamilton, president of Hamilton Resource Economics and board member of Kern Water Bank Authority from 1995-2017

BUILDING A COALITION

So, in 1995, the property transfer was granted—but not without cost to the KCWA. As part of the transfer, it agreed to permanently give up 45,000 acre-feet of the water it was entitled to each year from the SWP.

Looking to defray the loss of that water entitlement as well as the cost of constructing the Kern Water Bank’s infrastructure, the KCWA reached out to other SWP agricultural water contractors to partner in the groundwater banking project.

Eighteen SWP agricultural contractors were offered the opportunity to develop the Kern Water Bank and share its underground water supply. Some already had access to natural groundwater basins farther north in the San Joaquin Valley and declined to participate. Others said no to the project, concerned about the project’s cost and risk of failure, underscored by the DWR’s own experience. Only six agreed to sign on.

Those risk-takers were mostly based in Kern County: the KCWA on behalf of its Improvement District 4, which serves the Bakersfield area; Tejon-Castac Water District; Westside Mutual Water Company; Semitropic Water Storage District; and Wheeler Ridge-Maricopa Water Storage District. The sixth, Dudley Ridge Water District, was located in adjoining Kings County.

Representing Westside Mutual was William “Bill” Phillimore, executive vice president of Paramount Farming (now Wonderful Orchards). Like other farming interests in the southern San Joaquin Valley, Paramount was still reeling from California’s early 1990s’ drought. It was clear more water storage was needed for the inevitable return of dry years. Paramount had formed Westside Mutual Water as a subsidiary to focus on water resources. When the KCWA’s Clark called Phillimore, asking whether he would support the Kern Water Bank in a major way, Phillimore said yes.

“I committed for Paramount without telling anyone, not even my employer,” remembers Phillimore, who took the lead in forming the organization that would administer the Kern Water Bank.

In 1995, the six contractors formed a joint powers authority called the Kern Water Bank Authority. The new public entity would construct, maintain and fund the water bank. The KCWA immediately transferred its Kern Fan Element property to the new Authority. The Kern Water Bank participants then permanently transferred a total of 45,000 acre-feet of their annual SWP entitlement (called “Table A Allocation”) to the KCWA. In turn, the KCWA transferred that entitlement to DWR in exchange for the Kern Fan Element property.

In 2017, the value of that retired water is worth at least \$5,000 an acre-foot, or more than \$200 million.



TWENTY YEARS AFTER ITS APPROVAL, THE KERN WATER BANK’S HABITAT CONSERVATION PLAN CONTINUES TO BE ONE OF THE MOST INNOVATIVE HCPs IN THE NATION.

Rob Thornton, partner, Nossaman law firm, and key architect of the Kern Water Bank’s Habitat Conservation Plan



WAIT OR MOVE FORWARD?

With the property in hand, the Kern Water Bank Authority was eager to begin constructing the canals, wells, pump stations and pipelines needed to develop the project. There was no time to waste, since 1995 was a wet year with plenty of water available to store underground. But the project required permitting approvals from both the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (In 2013, the California agency changed its name to the California Department of Fish and Wildlife (CDFW).)

The two wildlife agencies were willing to grant temporary operating permits for the project. But unless the Authority could develop a comprehensive environmental management strategy that met USFWS and CDFG approval, permission to operate would terminate. The Authority members had to choose: 1) wait an unknown number of years for permanent permits to be granted – if, in fact, they ever would be – before beginning to build out the infrastructure and thus miss out on 1995’s water abundance, or 2) start investing millions of dollars in the project’s infrastructure under temporary permits but risk failure in securing the permanent consent to operate, as DWR had experienced.

The choice was clear to Phillimore, who had become chairman of the Kern Water Bank Authority. “The project was a real gamble, but failure was not an option,” he remembers.

The other Authority members agreed that moving forward with temporary permits was a risk they were willing to take. Work on the infrastructure began, and in 1995, its first year of operation, the Kern Water Bank took delivery of 218,000 acre-feet of water.





WE WERE VERY IMPRESSED BY EVERYTHING WE SAW AND CERTAINLY AGREE. . . THE KWB [IS] A MODEL OF STATE-WIDE, NATIONAL AND WORLDWIDE SIGNIFICANCE. IT IS AN INSPIRATIONAL LANDSCAPE THAT EXEMPLIFIES WHAT THE TULARE BASIN WAS ONCE LIKE WHILE PROVIDING IMPORTANT ECONOMIC BENEFITS.

Robert B Hansen, president, Tulare Basin Wildlife Partners, in a 2006 letter to the Kern Water Bank Authority

NO FUTURE WITHOUT ENVIRONMENTAL PERMITS

Even so, the Authority still faced the difficult process of securing environmental permits for permanent operation. First and foremost, it was required to create a Habitat Conservation Plan (HCP) and a Natural Community Conservation Plan (NCCP) under the federal and state Endangered Species Acts (ESA). The two documents are long-term contractual agreements between the wildlife agencies and landowners that commit the property owners to long-term habitat conservation and protection, not only of endangered and threatened species but also other wildlife of concern. The USFWS and CDFW would have to approve both plans submitted by the Kern Water Bank Authority.

As DWR had learned, the Kern Water Bank project was beset with environmental challenges. The property had been farmed extensively in the decades before DWR had acquired it. But after agricultural production ceased in the early 1990s, endangered species began to occupy the land. Their presence not only meant the water bank project needed permits for construction and operation but also ensured that approval would not be easy. It was an effort that would require what Phillimore called “top troops.”

In Phillimore’s mind, no one was more qualified to create a successful HCP than environmental attorney Robert Thornton. A partner in the Nossaman LLP law firm in Irvine, California, Thornton had significant legal experience with groundwater, natural resource and endangered species issues. He had not only helped several Kern County landowners with their environmental issues but had worked on HCPs across the U.S.

In 1995, Phillimore reached out to Thornton, who agreed to take on the project.



“The timing was very good,” Thornton remembers. “It was the golden age of HCPs. The Clinton Administration, and particularly Secretary of the Interior Bruce Babbitt, wanted to demonstrate that the ESA was not formed simply to stop development projects but also as a mechanism for cooperation among environmentalists and land-users.”

Accustomed to working on HCPs that addressed urban development in environmentally sensitive areas, Thornton was intrigued with the Kern Water Bank Authority’s goal to use its rural property only for underground water banking. He liked the Authority’s desire to replicate the naturally occurring historic conditions of seasonal water flows from the Kern River. Before it was contained by the completion of Lake Isabella Dam in 1953, the Kern River had regularly flooded areas of the southern San Joaquin Valley in high-rainfall years, creating intermittent wetlands, sloughs and tule swamps that supported abundant populations of plants and animals.

For Thornton, the HCP challenge was not just the vast size of the Kern Water Bank property. Its 32 square miles extended west past Interstate 5 to the California Aqueduct, and east beyond State Route 43 to Allen Road. It also stretched from Taft Highway on the south to Stockdale Highway on the north.

More concerning were the several endangered species that lived there. These included the San Joaquin kit fox and the Tipton kangaroo rat. Thornton also knew the Kern Water Bank’s HCP and NCCP would have to commit to the conservation not only of the site’s endangered and threatened species but others that were not protected by the ESAs. In that way, the Kern Water Bank’s environmental plans would help ensure those other species did not become endangered or threatened.

FINDING COMMON GROUND

Another challenge was the undeniable wariness among the HCP working group of public and private biologists, engineers, administrators and lawyers. The federal and state wildlife agencies saw the water bank as an excellent opportunity to restore and enhance large areas of native upland and wetland habitats. Yet they feared the Kern Water Bank, despite its human benefits, might do more harm than good to the property's wildlife. On the team was Dr. Jeffrey Single, then a CDFW environmental specialist.

"Without careful planning, the project could have resulted in a number of impacts to wildlife and plants, including injury or death to an endangered animal, flooding of burrowing animals and ground-nesting birds, and destruction of habitats that could be important in the recovery and de-listing of some endangered species," Single notes. "Developing mutual understanding and trust among the participants became critical."

For more than two years, Phillimore and Thornton led the Kern Water Bank Authority in crafting a comprehensive environmental management strategy for the property. There were intense negotiations with USFWS and CDFW at numerous Sacramento meetings. There were pragmatic details to resolve: Was it better to flood recharge ponds in March or May? How fast or slow should the water come in to the property? Would subsidence be an issue? "Bit by bit, we set aside our own positions so we could figure out how to make this project work," Single says.

"We convinced the two agencies we were serious about our HCP and willing to go above and beyond the standards of conservation," remembers Thornton. "We wanted them to know our plan would conserve and improve the condition of wildlife species on the Kern Water Bank property."

In particular, Single credits Phillimore with helping the entire group reach consensus. "Bill wanted to get this project done, and he was willing to take the time to listen and try to understand what the conservation community was saying," Single recalls. "And we were willing to listen to him."

Out of the discussions and negotiations emerged a 900-page, 28-pound stack of plans and legal agreements that spelled out shared goals and individual responsibilities for 75 years, through 2072. It prescribed reporting and planning requirements, adaptive management methodologies, and avoidance and mitigation measures.

Among its provisions was a unique "conservation bank." The Kern Water Bank Authority designated 3,200 of its 20,000 acres as protected habitat for endangered species. This provision allowed the Authority to sell "conservation credits" to developers, local agencies, oil companies and others that needed to mitigate the habitat impacts of their projects. Such conservation banking, says Single, "allows for an entire area to be designated for habitat protection."

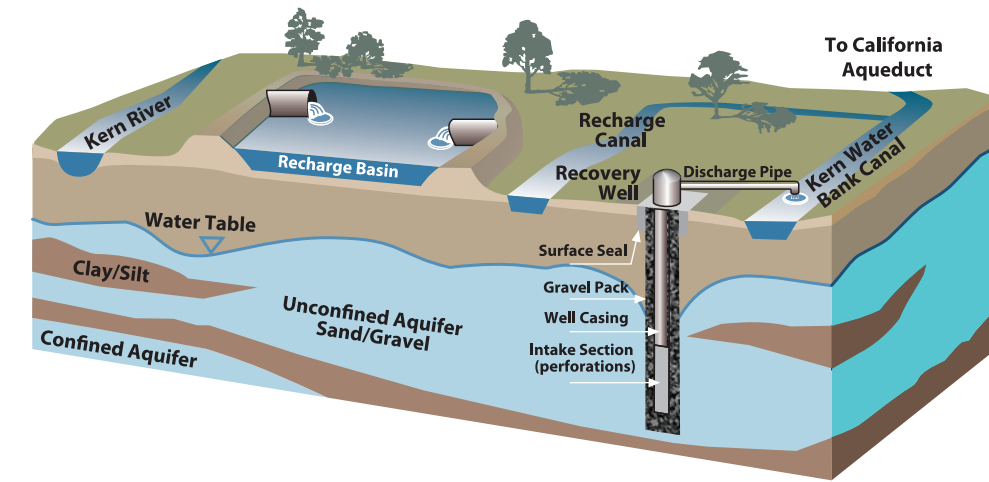
The HCP also required the Kern Water Bank Authority, USFWS and CDFW to regularly monitor wildlife populations and review the water bank's activities every year.

In 1997, the Kern Water Bank's HCP and NCCP were approved. It had taken more than two years.

"Knowing how slow the wheel can turn in the permitting process, this project was absolutely phenomenal in the speed of what we accomplished," remembers Peggy Poor, who worked on the project's formation in the mid-1990s when she served as secretary to the Kern Water Bank Authority's board of directors.

WIN-WIN FOR KERN COUNTY

With environmental permits in hand, the Kern Water Bank Authority could at long last complete its infrastructure. It would take nearly seven years to construct 7,000 acres of recharge basins, drill or rehabilitate some 85 recovery wells, install 36 miles of pipelines and carve out the 6-mile canal to convey water from the Kern River and the California Aqueduct, remembers Ken Bonesteel, a civil engineer who was the water bank's project manager during the permitting process. The cost? A whopping \$35 million, funded by the six members of the Kern Water Bank Authority.



"I had never worked on a project like this," Bonesteel says. "They don't come along very often. It was fantastic, the No. 1 project of my career."

On Oct. 2, 1997, California Governor Pete Wilson joined Congressmen Bill Thomas and Cal Dooley, State Senator Jim Costa, Kern Water Bank Authority members and other key stakeholders for a signing ceremony on the grounds of the property along State Route 43.

"By the time of the signing, we were truly partners with the environmental entities," Poor says. "We had proved to them that we would be good stewards of the property, that the 20,000 acres would be used exactly as the HCP intended and that we would follow through."

In 1998, the Kern Water Bank received the Clair A. Hill Agency Award for Excellence by the Association of California Water Agencies. The annual award recognizes outstanding achievements by public water agencies.

"It was unheard of for a first-year program to be selected," recalls Poor. "Not only did the Kern Water Bank win in the water management category, but it was also awarded the overall sweepstakes prize that year."



California legislators look on as wildlife agency officials sign the 75-year Habitat Conservation Plan and Natural Community Conservation Plan, giving the green light to the Kern Water Bank's future. The Oct. 2, 1997 ceremony took place on the Kern Water Bank site southwest of Bakersfield.

Front row from left: Kern Water Bank Authority Chairman Bill Phillimore; California Department of Fish and Game Director Jacqueline E. Schafer; and U.S. Fish and Wildlife Service Regional Director Michael J. Spear. Back row from left: State Assemblyman Roy Ashburn; Congressman Bill Thomas; State Assemblyman Chuck Poochigian; Governor Pete Wilson; State Senator Jim Costa; and Congressman Cal Dooley.

REVIVING A VANISHED WETLAND

Twenty years after its environmental plans were approved, the Kern Water Bank has returned vast stretches of wetlands to Kern County. After the statewide drought of 2012-16, California received record precipitation during the 2016-17 season. The melting of the heavy snowpack in the state's mountains allowed the water bank to replenish its supply to levels not seen in years. Its 11 square miles of shallow surface ponds glistened with water even through 2017's long, hot summer, something that hadn't been seen since 2011. In fact, the Kern Water Bank expects to recharge more than 500,000 acre-feet in 2017, breaking its record for a single year. One acre-foot alone is enough to meet the needs of a family of four for one year.

Much of that water has not only provided municipal supplies to urban Bakersfield but has irrigated several hundred thousand acres of fields, orchards and vineyards.

"The Kern Water Bank basically kept large portions of Kern County's farms alive, especially on the west side, during the five-year drought," says Ernest Conant, a Bakersfield-based attorney with the law firm of Young Woolridge and general counsel for the Kern Water Bank. "It's been a win-win for keeping the ag economy going while enhancing the wildlife habitat of this area."

Regardless of how much rain or melted snow makes its way to the Kern Water Bank, its Authority continues to manage the property to restore and enhance native habitat and wildlife. Since 1994, when the first surveys were conducted, the number of mammals, birds, reptiles and amphibians has more than tripled. As of 2017, 210 species of birds, including Bald Eagles and Peregrine Falcons, have been identified on the water bank's property. More than 45 species of mammals, reptiles and amphibians have been observed. Among the many special-status species found on the property are Tipton kangaroo rats, burrowing owls, tricolored blackbirds and San Joaquin woolly threads.

Ducks, geese, terns, grebes, egrets and ibis have descended on the property, drawn by this year's water-filled recharge ponds. More than 17,500 water birds were counted in one survey in April 2017. That's a

dramatic improvement from the 2012-16 drought years, when wildlife biologist John Sterling watched their numbers drop to nearly zero. He has conducted bird surveys for the Kern Water Bank since October 2011. During January 2012, he counted 35,000 birds in two days on the property.

"It's taken a while for the ponds to return to a functioning marsh with aquatic insects and vegetation," Sterling says. "Now, the Kern Water Bank is one of the most important nesting areas for water birds in the Central Valley. In May 2017, there were over 7,000 nesting there, more than on any other privately-owned location in the valley."

Pulled to the manmade wetlands, the wildlife find even more accommodations. The shorelines of the ponds offer both dense vegetation and bare habitat, each providing shelter and nesting sites for waterfowl. Under its adaptive management program, the Kern Water Bank limits the growth of non-native plant species such as tumbleweeds. Canals are dirt-banked at gentle four-to-one slopes to make it easier for wildlife to traverse them. Other spaces offer wildlife cover, foraging habitat and corridors for upland species. Those not only include kit foxes, rabbits, coyotes and other mammals, but also hawks, falcons and owls.

"Swainson's Hawks had not been seen nesting south of Fresno for years," says Jim Jones, biologist with South Valley Biology Consulting. "About nine years ago, we began seeing them flying and foraging in the Kern Water Bank. Now, we're seeing them nest and raise their young there." Willows, cottonwoods, sedges and other wetland vegetation have emerged. Native plant life is burgeoning. "We've discovered four healthy populations of the San Joaquin woolly-thread, which is a federally endangered plant," Jones says. "They are the easternmost known populations of the species."

Phillimore, who often walks the property, marvels at its abundant wildlife, especially after the rains. "The landscape is still a constant surprise to me," he says. "One of the great lessons of this project for me is that we're a prime example of 'If you build it, they will come.'"



20 YEARS DOWN, 55 TO GO

Today, the original six members of the Kern Water Bank Authority remain its participating entities. Since 1995, they have spent \$49 million to build, upgrade and replace Kern Water Bank facilities. More than 400 farmers and thousands of Bakersfield residents and businesses have benefitted from that investment.

Many credit Phillimore as the driving force behind the Kern Water Bank's formation.

"The Kern Water Bank is indebted to Bill Phillimore for forward thinking and perseverance," Poor says. "He had the vision. If it hadn't been for him, it never would have gone through."

For his part, Phillimore points to the Authority board and staff for the project's success. "The Authority board has been incredibly unified from day one," he says. "You can count on one hand the number of times there has not been a unanimous vote. And the staff's length of service and loyalty has made a tremendous difference."

Looking ahead, the Kern Water Bank will maintain its ongoing commitment to its two-fold mission.

"The Kern Water Bank property will never be developed," says Jonathan Parker, geologist and Kern Water Bank general manager since 2002. "I can't imagine the property being used for anything but water banking and preserving San Joaquin Valley habitat for generations to come."

Now long removed from Kern County and living in Atlanta, Poor has never forgotten the history-making days when a team of visionaries set out to create what others had been unable to accomplish.

"The Kern Water Bank was so perfect: a combination of common sense and common goals," she says. "Working on it was a once-in-a-lifetime project."



FINDING SAFE HARBOR: SENSITIVE WILDLIFE SPECIES AT THE KERN WATER BANK

The number of sensitive wildlife species present on the Kern Water Bank increased from 10 in 1994 to 34 in 2017. The increase is due, almost exclusively, to the addition of recharge basins with varying water depths providing diverse habitat to a wide variety of water-dependent bird species. Many of the upland areas of the water bank have been retired from farming and have returned to a natural condition that has provided prime habitat for listed species like Tipton kangaroo rats and burrowing owls. Increases in the number of species and individuals at the Kern Water Bank are expected in the years to come.

AMPHIBIANS

SCAPHIOPDIDAE (spadefoot toads)
Spea (=Scaphiopus) hammondi, Western spadefoot

REPTILES

PHRYNOSOMATIDAE (horned lizards)
Phrynosoma coronatum frontale, California horned lizard *

ANNIELLIDAE (legless lizards)
Anniella grinnelli, Bakersfield legless lizard

BIRDS

PELECANIDAE (pelicans)
Pelecanus erythrorhynchos, American white pelican
Pelecanus occidentalis, Brown pelican

PHALACROCORACIDAE (cormorants)
Phalacrocorax auritus, Double-crested cormorant

ARDEIDAE (herons, egrets, and bitterns)
Ardea alba, Great egret
Ardea herodias, Great blue heron
Botaurus lentiginosus, American bittern
Egretta thula, Snowy egret
Nycticorax nycticorax, Black-crowned night heron

ANATIDAE (ducks, geese, and swans)
Aythya valisineria, Canvasback
Branta canadensis leucopareia, Aleutian Canada goose
Cygnus columbianus, Tundra swan

ACCIPITRIDAE (hawks, kites, harriers, and eagles)
Accipiter cooperi, Cooper's hawk *
Buteo swainsoni, Swainson's hawk *
Circus cyaneus, Northern harrier *
Elanus leucurus, White-tailed kite
Pandion haliaetus, Osprey

FALCONIDAE (falcons)
Falco columbarius, Merlin
Falco mexicanus, Prairie falcon

THRESKIORNITHIDAE (ibises and spoonbills)
Plegadis chihi, White-faced ibis

LARIDAE (gulls and terns)
Chlidonias niger, Black tern
Sterna caspia, Caspian tern
Sterna forsteri, Forster's tern

STRIGIDAE (owls)
Athene cunicularia hypugea, Burrowing owl *

LANIIDAE (shrikes)
Lanius ludovicianus, Loggerhead shrike

ALAUDIDAE (larks)
Eremophila alpestris actia, California horned-lark

MIMIDAE (mockingbirds and thrashers)
Toxostoma redivivum, California thrasher

ICTERIDAE (blackbirds)
Agelaius tricolor, Tricolored blackbird
Xanthocephalus xanthocephalus, Yellow-headed blackbird

MAMMALS

HETEROMYIDAE (kangaroo rats, pocket mice, and kangaroo mice)
Dipodomys nitratoides nitratoides, Tipton kangaroo rat *
Perognathus inornatus inornatus, San Joaquin pocket mouse *

CANIDAE (foxes, wolves, and coyotes)
Vulpes macrotis mutica, San Joaquin kit fox *

MUSTELIDAE (Weasles, Badgers, and Relatives)
Taxidea taxus, American badger *

CRICETIDAE (New World rats and mice)
Onychomys torridus tularensis, Tulare grasshopper mouse

