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$650 million Santa Ana River plan adds fish-saving methods to water-saving projects

The Upper Santa Ana River Habitat Conservation Plan outlines 85 new water-capture projects

Biologists Kai Palenscar, right, and Chris Jones, with the San Bernardino Valley Municipal Water District, survey the Sunnyslope Creek at the Louis Robidoux Nature Center in Jurupa Valley on Thursday, Feb. 18, 2021. The water district will release its habit conversation plan for the upper Santa Ana River and its tributaries next month. (Photo by Watchara Phomicinda, The Press-Enterprise/SCNG)

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The San Bernardino Valley Municipal Water District has decided to join them, not fight them.

Stymied by environmental barriers and losses in court for 11 years, the large water wholesaler serving 700,000 residential and business customers from Fontana to Yucaipa is on the precipice

of releasing an environmentally based plan that would nearly double its supply of water by diverting billions of gallons from the Upper Santa Ana River, while mitigating the effects on 20 indigenous fish and bird species.

Water managers in both San Bernardino and Riverside counties describe this two-sided effort as balanced, ecologically friendly and massive in scope, but also necessary to keep up with the water demands of a growing Inland Empire.

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Biologists Chris Jones, left, and Kai Palenscar, with the San Bernardino Valley Municipal Water District, wade thought shallow water as they survey the Sunnyslope Creek at the Louis Robidoux Nature Center in Jurupa Valley on Thursday, Feb. 18, 2021. The water district will release its habit conversation plan for the upper Santa Ana River and its tributaries next month. (Photo by Watchara Phomicinda, The Press-Enterprise/SCNG)

Engineers turning green

“It is a ground-breaking plan. No one is doing something this big,” said Heather Dyer, San Bernardino Valley water district CEO and general manager.

The 50-year Upper Santa Ana River Habitat Conservation Plan (HCP) covers 850,000 acres of the river and riparian habitat in Riverside and San Bernardino counties. If approved, it could allow for about 85 new water-capture projects that would add 87,000 acre-feet of water on average to the supplies of 12 cooperating agencies. That’s equal to water used by about 175,000 households per year, or more than 500,000 people.

But for every gallon of water taken from the river for human use, there would be less for the fish, amphibians and birds that live there. That’s why the plan emphasizes creating new ways for these animals not only to survive, but thrive, Dyer said.

“It’s an amazing way of interlinking environmental benefits with engineering projects,” she said. “There will have to be engineering solutions if you want to have native species remain in the river.”

Dyer, a biologist hired by the district about five years ago, was once considered “the enemy,” according to people who follow the issue, because she worked for the U.S. Fish & Wildlife Service, the agency that in 2009 blocked the San Bernardino Valley district and the Western Municipal Water District in Riverside from moving forward on proposed projects because they failed to show how they would protect the endangered Santa Ana sucker fish and other threatened river species.

The “fish over people” mantra no longer applies, Dyer said, adding she believes the HCP can deliver benefits for both.

“We are working together to get all the necessary permits to build water supply projects over the next 50 years,” she said, referring to the consortium of agencies partnered on the HCP, which includes the Inland Empire Utilities Agency, Metropolitan Water District of Southern California, Riverside Public Utilities, San Bernardino Valley Water Conservation District, Southern California Edison and others.

The plan, the projects

The HCP has been eight years in development and is ready for release to the general public in March 2021, Dyer said. After a comment period, a final draft would be created that must be approved by Fish & Wildlife.

The question remains: Will it be acceptable to the agency and to environmental groups who have sued to stop projects in the past.

“I do think it (HCP) is an improvement over the status quo,” said Ileene Anderson, senior scientist at the Center for Biological Diversity, a group that has sued on varying occasions to stop water agencies from building projects that would imperil the Santa Ana sucker fish.

“One would hope it would improve the functioning of that river system,” Anderson said of the plan.


Santa Ana sucker fish (Courtesy photo)

A major emphasis of the HCP includes caring for the Santa Ana sucker fish, listed as threatened under the federal Endangered Species Act, as well as other threatened and non-listed species. A recent survey found about 6,000 of the algae-eating fish clustered in a 3-mile up-river section. The fish are also found in the San Gabriel River and a tributary to the Los Angeles River.

So-called mitigation projects would satisfy environmental regulations, smoothing the way for more storm-water diversion into side basins — pooling water for percolation into the San Bernardino aquifer. It also allows for more recycling of wastewater to be recharged into the aquifer for storage, which is later piped up for use by retail water districts, water companies and city water departments, Dyer said.

The San Bernardino Valley Municipal Water District imports about 100,000 acre-feet of water from the State Water Project, a pipeline that delivers water from the Sacramento-San Joaquin River Delta in Northern California.

The state water source is heavily reliant upon melting snowpack from the Sierra Nevada. The amount of snowpack was about 68% of average for this time of year, while major state reservoirs are around 69% to 71% of their historical averages for Feb. 17, according to the state Department of Water Resources. But most of the state's urban counties are in a two-year drought.

Water managers are concerned about irregularity in snowfall due to global climate change, which could reduce snowpack in future years and result in less imported water for Southern California agencies to buy.

“With climate change, it creates so much uncertainty,” Dyer said. “That’s why we are focused on having a diverse supply. If we don’t have enough State Water Project water, we can shift to the (local) ground water basin.”

One of the partners in the HCP, the Inland Empire Utilities Agency, is hoping the plan will allow the building of a project to divert water from the Santa Ana River and inject it into the ground. Because water from storms or mountain snow melt “comes in gulps,” it can be difficult to capture and often gets wasted, said Sylvie Lee, manager of strategic planning for the IEUA.

“So in drier years, we will have that water stored in the aquifer and you can use it during the drought years,” Lee said.

Proposed projects in the plan include:

• Erecting rubber dams that can be inflated during the rainy season to pool water in the river and deflated during the dry months to allow water to pass through to support the sucker fish, explained Joanna Gibson, wildlife biologist with San Bernardino Valley district. A rubber dam is proposed for the river in southern Colton.

• Ground-water recharge projects at tributaries to the river, including at Plunge Creek near Highland. Riverside Public Utility plans recharge projects at Columbia Basin at the corner of Marlborough and Chicago avenues; west of Northgate Street in Highgrove; and at Spring Brook Channel between West La Cadena Drive and Orange Street. San Bernardino Valley district proposes enhancing water recharge just below Seven Oaks Dam located near Highland and near Devil Canyon behind Cal State San Bernardino.

Capital costs for all storm-water capture and recycled water projects in the HCP total about $650 million over 50 years, Dyer said.

“But we would be saving $945 million by capturing more water because we wouldn’t have to buy imported water,” she said.

Fish gotta swim, birds gotta fly

To get to the project phase, the 12 agencies involved in the HCP have identified multiple ways to protect and even grow the Santa Ana sucker population through restoring habitat and even breeding the little fish in concrete river “raceways,” then relocating them into the wild river.

A key way is to clean out tributaries of trash and debris, widening them, then adding a permanent water source from recycled water plants, said Gibson, the wildlife biologist. These include Anza Creek, about 2 miles downstream from Mount Rubidoux, and Hidden Valley Creek, less than a mile from the Van Buren Boulevard Bridge in Riverside, among others.

Once restored, biologists can begin the tricky task of translocating sucker fish to new homes — in river creeks. Now, the threatened species congregate in one stretch of the Santa Ana River,

making them susceptible to a tanker crash leaking toxic chemicals or some other event, such as a fire, that could wipe out the species, Gibson said.

“This way, we don’t have all the eggs in one basket,” she said.

On a recent weekday, San Bernardino Valley district biologists Chris Jones and Kai Palenscar waded into Sunnyslope Creek in Jurupa Valley where the 46 fire in October 2019 charred brush and burned down a nature center. The creek contained plastic bags and fast-food containers washed in from street storm drains.

“We are trying to make the stream more suitable for the native fish species to live, like the Santa Ana sucker and other species covered by the HCP, like the arroyo chub,” a native, chunky fish listed as “vulnerable,” Jones said.

The biologists also do bird surveys. The least bell’s vireo, listed as endangered, and the California gnatcatcher, a threatened species that is small and likes to eat insects, are present along the river banks.

The plan calls for restoring 221 acres of riparian habitat for the vireo, an olive-gray songbird, and 222 acres of alluvial fan sage scrub for the gnatcatcher and the San Bernardino Merriam’s kangaroo rat, an endangered species.

Taking out palm trees and arundo — giant reeds that suck up water and choke out native plants — is part of the plan for coaxing the vireo to stick around, even nest, Gibson said.

For the gnatcatcher and the kangaroo rat, thick, invasive grasses must be removed by hand.

“Grasses have been there for decades,” Gibson said. “It is very, very challenging for anybody embarking on that kind of habitat restoration.”

Innovative techniques include using sheep and goats, she said.

The kangaroo rat, which hop on two feet, can’t move through the thick grasses, preventing them from getting food or finding a mate, she said.

Mitigation plans for all 20 species will cost about $200 million, Dyer said. But the projects can’t move forward without those efforts.

“I believe the species of the Santa Ana River are better with, than without, us,” Dyer said