

## Chapter 8

# Alternatives Considered but Rejected

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Section 10 of the Federal Endangered Species Act (ESA) requires that a habitat conservation plan (HCP) describe alternatives to the proposed incidental take covered in the HCP and the reasons why each alternative was not selected. As part of the development of this HCP, multiple alternatives to the proposed taking were considered.

## 8.1 Evolution of the Proposed HCP

As the Upper Santa Ana River (SAR) HCP development process has evolved over the time so have the analytical scenarios used as the basis for the Upper SAR HCP. Previous HCP iterations included Covered Activities that resulted in greater impacts on species and the riverine system than were acceptable or likely to be permissible under the Federal and State ESAs. Preliminary impact analyses, including substantial hydrology modeling, led to the modifications to the Covered Activities to substantially reduce the potential biological and hydrological impacts resulting in the Covered Activities. Similarly, many iterations and additions to the conservation strategy led to substantial improvements in the measures to avoid and minimize take and the expected outcomes for each species covered by the HCP. The modifications resulted in reduced impact on the Santa Ana River and increased conservation values to species in a way that protects and enhances the ecological function of the system far more than earlier iterations of the HCP.

The largest change to the proposed Covered Activities was the modification of water reuse projects in order to reduce impacts on Santa Ana sucker and other aquatic species. In an early iteration of the HCP, the initial proposed versions of Covered Activities would have resulted in much larger reductions in baseflow in the Santa Ana River, and larger impacts on covered aquatic species, especially to the Santa Ana sucker and arroyo chub. Most notably, the initial round of hydrologic modeling demonstrated that the water reuse projects, as proposed, would have resulted in a reduction of effluent discharge into the Rialto Channel and Santa Ana River by more than 50%, and a 73% loss of suitable sucker habitat (i.e., areas with suitable water depth, velocity, and river bottom substrate) in the upper reach of the Santa Ana River and a 100% loss of suitable sucker habitat in the lower reach. Given the unacceptable potential impacts on the Santa Ana sucker and other aquatic species resulting from this scenario, the original proposed version for the Covered Activities was rejected as a viable alternative. Using the hydrologic and habitat suitability modeling as a guide to determine a minimum flow necessary to maintain occupied Santa Ana sucker habitat, the Permittee Agencies then developed new alternatives for the Covered Activities, making the water reuse projects smaller and less impactful. This resulted in a commitment to a minimum amount of baseflow to be discharged into the river by the wastewater treatment plants, which reduced potential impacts on the Santa Ana sucker and other aquatic species to a level that could still sustain healthy populations in the Santa Ana River and could be fully offset through the conservation strategy of the HCP.

The current set of Covered Activities in the Upper SAR HCP, as now proposed, was determined through the partnership and the collaborative efforts with the Permittee Agencies, Wildlife Agencies, and involved stakeholders. The complete HCP conservation strategy for all covered species was also developed through this collaborative partnership, and includes a comprehensive strategy for long-

term protection, restoration, and conservation to manage the natural resources and species of the Upper SAR watershed in a way that ensures long-term ecological value to the region and species recovery.

Four alternatives were thoroughly considered as potentially viable options to this HCP. Those four alternatives and the reasons why each was not selected are described below.

## 8.2 Alternative 1: No Project

The No Project Alternative would include the future circumstances without the HCP Preserve System for the Upper SAR HCP and Section 10 Incidental Take Permit issued jointly to the Permittee Agencies for future implementation of the proposed Covered Activities, and would also include predictable actions by persons or entities if the HCP did not occur.

Under the No Project Alternative, Section 10 permit(s) would not be issued by the U.S. Fish and Wildlife Service (USFWS) for take of the proposed Covered Species through the Upper SAR HCP and there would be no implementation of the watershed-scale, coordinated conservation strategy as is committed to by the 11 Permittee Agencies for the Proposed Project. However, that is not to say that the individual water supply projects proposed by the various water agencies would not occur, rather the Permittee Agencies would likely pursue project-by-project incidental take permits from USFWS and the California Department of Fish and Wildlife (CDFW) for the take of listed species pursuant to the Federal and State ESAs associated with implementation of Covered Activities. Conservation would also be negotiated on a project-by-project basis with each Wildlife Agency in order to appropriately offset the impacts of each individual project. There would be no regional approach to developing holistic conservation measures that provide long-term species and ecosystem benefits. Covered Activities could be implemented individually, but without the proposed Upper SAR HCP incidental take permit and the regulatory assurances that go along with it. The water resources projects that would occur under the No Project Alternative are essentially the same list of proposed future water infrastructure projects (the Covered Activities in this HCP); however, a more difficult and lengthy permitting process would likely occur if conducted individually and without any assurances that permits would be granted for any of the Covered Activities.

Impacts on species could occur under the No Project Alternative, including construction or expansion of water infrastructure or water facilities, if most or all the Covered Activities were implemented. However, the Permittee Agencies would need to seek incidental take permits through single-project HCPs (Section 10 of ESA), or through Section 7 consultation with USFWS, and through individual 2081 permits under the State ESA. Due to the difficulty in securing permits for all Covered Activities individually, it is also possible that some Covered Activities would be too costly to permit and fewer Covered Activities would be implemented, resulting in fewer impacts and incidental take under the No Project Alternative than would occur under this HCP.

While the impacts could be less than covered under this HCP if Permittee Agencies are not able to obtain take permits individually, there would also be less strategic conservation and less assurances for coordinated implementation of conservation measures. These added uncertainties adversely affect the ability of the Permittee Agencies to achieve their public mission to capture and store local water supply, which then makes the region more reliant on imported water from Northern California.

Another potential consequence of the No Project Alternative is the loss of the Upper SAR HCP as a regulatory mechanism to provide incidental take permit coverage for Santa Ana sucker translocation activities and other conservation measures, including the establishment of the HCP Preserve System. To date, no other mechanism has been identified that could provide long-term coverage to entities downstream of translocated sucker populations, such as Southern California Edison. USFWS has stated that establishment of new populations in the upper watershed is a requirement for the recovery of Santa Ana sucker. The Upper SAR HCP has the rare ability to enable the translocation effort to establish these new populations.

### **8.3 Alternative 2: Phase 1 Covered Activities Only**

This alternative would result in an HCP that would provide incidental take coverage for only those high priority, near-term Covered Activities that are identified in Phase 1 (Years 0–5) of the Upper SAR HCP. Implementation of the Phase 1 Covered Activities would include construction and operation of fewer Covered Activities than are identified in the Upper SAR HCP.

This alternative would also only implement the Phase 1 conservation actions because mitigation is directly tied to impacts. While preservation and habitat restoration would occur during Phase 1, in proportion to Phase 1 impacts, the remainder of the proposed HCP Preserve System and Tributaries Restoration projects would not be implemented as part of the HCP regional conservation strategy. The full suite of mitigation lands and conservation actions is needed in order to attain a sustainable preserve system that incorporates the many habitat needs of species, including habitat for breeding, foraging, and connectivity. Potential impacts from Covered Activities would be reduced if only Phase 1 projects are implemented; however, it is likely that some or all future projects not included as Covered Activities under this alternative would be pursued individually by Permittee Agencies on a project-by-project basis because they are key to long-term reliability of the regional water supply. If pursued independently, future development of the Covered Activities identified in Phases 2 through 4 of the Upper SAR HCP would likely result in a more difficult and lengthy permitting process. There would also be no assurances that permits would be issued for any of these Covered Activities. Conservation would also be negotiated on a project-by-project basis with each Wildlife Agency in order to appropriately offset the impacts of each individual project, which would not benefit from the regional approach and holistic conservation measures that provide long-term species and ecosystem benefits.

### **8.4 Alternative 3: Reduced Impacts on Santa Ana Sucker**

This alternative would assume that water reuse and recycling projects that are most impactful to the Santa Ana sucker would not have permit coverage through the Upper SAR HCP, and this alternative would result in less baseflow reduction and reduced impacts on aquatic habitat in the Santa Ana River. Covered Activities that reduce baseflow have the most potential impact on Santa Ana sucker and other aquatic habitat, and therefore also require the greatest amount of conservation measures to offset their impacts. Water reuse projects like the SBMWD Recycled Water Project (WD.1) and the Rialto Wastewater Diversion and Reuse Project (Rial.1) would be substantially modified to reduce the impacts on Santa Ana sucker or would not be included as Covered Activities at all, and permit coverage for those water infrastructure projects would not be provided through the HCP.

While the reduced impacts on base flow in this alternative could likely eliminate the need for the Santa Ana Sucker Translocation project, some or all of the Tributaries Restoration projects, and many other enhancements in the Santa Ana River, there is an argument to be made that these measures to improve the long-term viability of the Santa Ana sucker population are needed now, regardless of Covered Activity implementation. Even with the current level of water in the Santa Ana River, the Santa Ana sucker population is under constant threat from rapid changes in instream flow, lack of high-quality habitat, no redundancy of other populations centers in the river system, and therefore frequent threat of extirpation. With this alternative, it is likely that many Santa Ana sucker recovery plan goals would not be achieved, or would not be implemented in a coordinated, watershed-scale manner.

## 8.5 Alternative 4: Reduced Impacts on San Bernardino Kangaroo Rat

Like the other alternatives, this alternative would involve implementation of fewer Covered Activities, specifically stormflow diversion projects, that are included in the Upper SAR HCP. This alternative would not include projects that divert storm flow into new or expanded recharge basins, nor would it include activities to operate and maintain new diversion structures or activities related to construction of new recharge basins and associated diversions. These projects could include substantial reduction or elimination of the Mill Creek Diversion Project (CD.1, Phase 1), Santa Ana Levee and Cuttle Weir Diversion (CD.2, Phase 1), and the Active Recharge Projects (VD.2).

The elimination of these new stormflow diversion projects would eliminate the associated additional impacts on San Bernardino kangaroo rat (SBKR) in the alluvial fan sage scrub where most of these projects are proposed. The anticipated impacts from these new water capture projects create the need for a SBKR habitat conservation, restoration, and long-term protection as offsetting mitigation for these projects. If these Covered Activities are eliminated from the HCP as a part of this alternative, then these conservation measures for SBKR would not be required as mitigation.

Without the proposed conservation measures for SBKR, some USFWS recovery goals would likely not be achieved by the HCP. Loss of a funding source and regulatory mechanism like the Upper SAR HCP to provide long-term conservation actions would make the overall recovery of SBKR more difficult. This alternative would result in fewer impacts on SBKR habitat (primarily in lower-quality SBKR habitat areas) but also result in reduced high-quality conservation measures for SBKR. Permittee Agencies could still pursue many of the same future activities by seeking individual incidental take permits for each of these Covered Activities. However, future development associated with these Covered Activities would likely result in a more difficult and lengthy permitting process. There would also be no assurances that permits would be granted for any of these Covered Activities.