

**SANTA ANA SUCKER
ANNUAL REPORT FOR COVERED ACTIVITIES
(September 1, 2005 To September 1, 2006)**

**A COMPONENT OF THE SANTA ANA SUCKER
CONSERVATION PROGRAM
WITHIN THE SANTA ANA RIVER WATERSHED**

DECEMBER 2006

Background

In the Spring of 1998, a group of concerned public agencies from throughout the Santa Ana River Watershed began meeting with the goal of determining the reason(s) for the decline of the Santa Ana Sucker and correspondingly, to devise strategies for recovering the species. Early on, the U.S. Fish & Wildlife Service (USFWS) and the California Department of Fish & Game joined the effort. The Santa Ana Watershed Project Authority (SAWPA) hosted the monthly meetings and served as the administrating agency for the effort. The group collectively became known as the Ad-Hoc Santa Ana Sucker Discussion Team (Team) and more recently, the Santa Ana Sucker Conservation Team.

In April 2000, the USFWS listed the Santa Ana Sucker as “threatened”. In 2001-2002 the USFWS in close collaboration with the Team and SAWPA, drafted an Environmental Assessment, Conservation Program and Implementation Agreement. Since that time, it was recognized that the U.S. Army Corps of Engineers should be the lead agency for the Environmental Assessment. The Corps of Engineers initiated formal consultation with the Service regarding the Conservation Program on January 7, 2003. It was the intent of the Environmental Assessment to describe ongoing, routine “Normal Activities” which are covered by the Conservation Program. These activities have been ongoing for decades including percolation and recharge activities, flood control maintenance procedures, tertiary treated wastewater discharges and transportation maintenance. The EA approach has been shelved in favor of a Programmatic Biological Opinion by the Service and supported by the Team. It is described in further detail on the following page but continues to rely on the Conservation Program approach.

On February 26, 2003, the United State District Court, Northern District of California, San Francisco Division, in California Trout et al v. Gale Norton, Secretary of Interior, promulgated an order granting plaintiffs (California Trout) motion for summary judgment and enjoining defendants from issuing any section 7 concurrence or biological opinions that allows Federal actions which “may affect” the Santa Ana Sucker to proceed pending designation of critical habitat. On April 18, 2003, the Defendants filed a

memorandum with the Court in support of motion to alter or amend the judgment. Also during this time, the Santa Ana Sucker Conservation Team filed a declaration as Amicus Curiae in support of the Defendants memorandum. This had been particularly disappointing and frustrating for the Santa Ana Sucker Conservation Team. At a time when significant progress had been attained in building a body of scientific understanding, devising and implementing recovery strategies, and supporting the overall effort financially and administratively, the Biological Opinion for this proactive effort had been stopped in midstream. And because of budgetary constraints, the USFWS was not in a position to conduct work necessary to designate critical habitat. However, on February 25, 2004, the U.S. Fish & Wildlife Service issued a Final Rule in compliance with the court order in designating critical habitat for the Santa Ana Sucker. The Service designated critical habitat for approximately 21,129 acres of streams in Los Angeles and San Bernardino Counties. Acres designated as critical habitat include portions of the main stem of the Santa Ana River and the City, Chino, Mill and Cucamonga Creeks. With this Final Rule, the Service can effectively proceed on consultations on actions that may affect the species. In a procedural action, the U.S. District Court, Northern District of California, San Francisco Division issued a Joint Stipulation to lift the injunction on June 21, 2004. Both parties signed the Joint Stipulation. The Service drafted a "Conservation Program for the Santa Ana Sucker (*Catostomus santaanae*) Within the Santa Ana River Watershed", dated May 17, 2005. The Conservation Program is the document that the Team used to carry on its obligations to the overall effort of recovering the species. These obligations include the "Research" Annual Report and the "Administrative" Annual Report. This document is the Administrative Annual Report.

Pursuant to the Federal Clean Water Act, the Team has met with the U.S. Army corps of Engineers and has filed a 404 application for the Teams activities along the river. The application was submitted in the Summer of 2006. In December 2006, the Corps has formally asked for more information in completing the application. In a parallel action, the Team has met with the State Regional Water Quality Control Board to satisfy the 401 Water Quality Certification requirements. After completion of these two permit

applications, the U.S. Fish & Wildlife Service will be in a position to complete the Biological Opinion for the Conservation Program.

Pursuant to the Conservation Program (May 2005), the Team's annual budget for research, monitoring and administrative responsibilities is \$125,000. Over the past two years, approximately \$68,000 of this budget has been dedicated to San Marino Environmental Associates ongoing scientific work. The remainder of the budget is dedicated to Administration and Team support. Funds are held by SAWPA in a restricted, dedicated account. Contribution levels may increase yearly upon approval of the Participants, limited to the Consumer Price Index (CPI).

In advance of listing the Sucker in 2000, the Team had embarked on an approach where sound science preceded recovery implementation projects. Following are some of the major accomplishments thus far.

- The Team funded through the National Fish & Wildlife Foundation a comprehensive study entitled "*Water Quality & Other Environmental Variables Associated with Variations in Population Densities of the Santa Ana Sucker*". The principal investigator was fisheries biologist Dr. Michael K. Saiki, U.S. Geological Survey, Biological Resources Division. The study concluded that no single causal physiochemical parameter is responsible for the decline of the Sucker. This study is known as the Phase 1 report. The Phase 1 report cost approximately \$125,000, all funded by Team participants. It was completed in late 1999.
- A Phase 2 study, also funded by Team agencies, was undertaken by fisheries biologist Dr. Camm Swift. The purpose of this study was to investigate migration patterns, exotic fish predation and the significance of tributaries to the species long-term survival. It was completed in January 2001 at a cost of \$35,000.
- In an effort to begin investigation of a long term recovery strategy, a Phase 3 study funded by SAWPA, was completed. Authored by Drs. Jonathan N. Baskin and Thomas R. Haglund, principals of San Marino Environmental Associates (SMEA), the study is entitled "*Conservation Program for the Santa Ana Sucker in the Santa Ana River, Southern California*". The study's mission was to investigate the feasibility of recovery of the Sucker and to outline a long-term Conservation Program based on

the best available scientific information and utilizing adaptive management techniques. This effort cost \$10,000.

- Based on the Phase 3 work, the Team authored an annual Conservation Program for the Sucker commencing September 1, 2000. The Program balances Information Needs/Research with Recovery Implementation Strategies and has an annual budget of \$125,000. SAWPA is the administrator of the Program and holds and disperses funds for various Program elements. Currently, SMEA is implementing the Information Needs/Research portion of the Program. The Conservation Program will be renewed each year drawing upon adaptive management strategies and input from all Team members. It is to commence on September 1 of each year.
- Pursuant to the Conservation Program, SMEA has been retained to implement the scientific/research portion of the Program. Thus far, four annual documents have been produced. In 2002, the document entitled "Results of the Year 1 Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was generated. In 2003, the document entitled "Results of the Year 2 Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was produced. Correspondingly, in Spring 2004, SMEA produced "Results of the Year 3 Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River". In Spring 2005, SMEA generated "Results of the Year 4 (2004) Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River." In December 2006, a "Results of the Year 5 Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was generated by SMEA.

As stipulated by the Conservation Program For The Santa Ana Sucker (*catostomus santaanae*) Within The Santa Ana River Watershed, (May 2005) an Annual Report of the previous year's research and management accomplishments will be prepared by the Program Administrator. The Annual Report will be provided to the Team and the USFWS by December 31st. of each year. The report will include two components. The Research & Adaptive Management portion of the report will be compiled by SMEA under separate cover and will be attached to this report. For this year, it is the aforementioned "Results of the Year 5 (2005) Implementation of the Santa Ana Sucker

Conservation Program for the Santa Ana River". Working under a Task order with SAWPA, SMEA annually will include the following information in its portion of the report

1. A list and brief summary of significant actions that were accomplished
2. Results and evaluation of monitoring and surveys completed as part of the research aspect of the Program
3. Location, amount and success of habitat restoration efforts, if any
4. Population estimates or percent occupied habitat
5. New and additional information concerning type of habitat occupied and reproductive biology
6. Analysis of information obtained in the previous year's research
7. Assessment of the status of the Sucker in the Santa Ana River, and
8. Recommendations for future research.

The second component of the Annual Report describes the Covered Activities which is this report. This second component also contains specific criteria that includes:

1. A summary of all covered activities that were conducted,
2. Estimates of the amount of habitat disturbed and disturbance type (i.e., permanent, temporary),
3. Observations of listed species or their sign onsite or in the vicinity of instream activities,
4. Estimates of incidental take,
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures,
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed, and
7. Recommendations.

To obtain the information required for the Covered Activities portion of the Annual Report, interviews with each of the Program participants took place in December 2006.

Following is the information obtained during those interviews using the format contained in the Conservation Program.

Riverside County Flood Control & Water Conservation District

1. Summary of all Covered Activities that were conducted: This year, routine maintenance activities included general trash and litter removal. Several tons of trash were removed along the Santa Ana River at Mission Avenue, Market Street and Riverside Avenue. Additionally, trash and litter was removed from Sunnyslope Channel. Lastly, mowing activities were conducted downstream of Mission Avenue to the end of the levee post Riverside Avenue.
2. Estimates of the amount of habitat disturbed and disturbance type: Because of the nature of the maintenance activities, no habitat disturbance occurred.
3. Observations of Federally listed species or their sign in the vicinity of instream activities: None
4. Estimates of incidental take: No known take occurred this year.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures: No other pertinent data.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: The presence of Arundo donax within this reach of the Santa Ana River is minimal due to the Arundo removal effort that was done in the past years. Therefore, Arundo removal is becoming a minor component of the District's project description.
7. Recommendations: None

Riverside County Transportation Department

1. Summary of all Covered Activities that were conducted: As in previous years, sand removal took place both upstream a distance of 1,000 feet and downstream a distance of 700 feet.

2. Estimates of the amount of habitat disturbed and disturbance type: Habitat disturbance was limited to 1,000 feet upstream of the River Road Bridge and 700 feet downstream of the bridge.
3. Observations of Federally listed species or their sign in the vicinity of instream activities: None
4. Estimates of Incidental takes: No known take occurred this year.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures: No other data.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: No anticipated changes in the project description.
7. Recommendations: None

San Bernardino County Flood Control District

1. Summary of all Covered Activities that were conducted: Because of near record flows in 2004-05, the District did not conduct channel maintenance this year.
2. Estimates of the amount of habitat disturbed and disturbance type: No Sucker habitat was disturbed during the year.
3. Observations of Federally listed species or their sign in the vicinity of instream activities: During the year, two (2) Willow Flycatchers were recorded, however, none nested. The vireo numbers are much more robust. A total of 15 territories were detected in 2005, with 12 of the 15 territorial males being paired. A total of 21 vireos were successfully fledged during the season.
4. Estimates of incidental take: No known take occurred during the year.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures: None
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: None
7. Recommendations: None

Orange County Flood Control District, County of Orange Resources & Development
Management Department

1. Summary of all Covered Activities that were conducted: No significant actions took place this year. With least Bell's vireos being found no hand crews were used to remove Arundo donax.
2. Estimates of the amount of habitat disturbed and disturbance type: In a limited effort, utility trucks were utilized to spray for Arundo in already established pathways between Weir Canyon Road and Gypsum Canyon Road in areas that were previously treated. Approximately 185 acres were treated. No habitat was disturbed.
3. Observations of Federally listed species or their sign in the vicinity of instream activities: Least Bell's vireos were observed in 23 locations this year in the Orange County Flood Control District's service area along the Santa Ana River. They were generally observed from the County line to Weir Canyon Road. No Suckers were observed during the year.
4. Estimates of incidental take: No known takings occurred during the year.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures: Because of least Bell's vireo sightings, Arundo donax removal was limited this year. No flood control structure maintenance was conducted during the year.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: SARI line project is scheduled for construction in calendar year 2007.
7. Recommendations: Continued eradication of Arundo.

City of Riverside (Regional Water Quality Control Plant)

1. Summary of all Covered Activities that were conducted: Standard maintenance included a single reconstruction of the sand dike used to create a conveyance channel between the treatment works and the treatment wetlands. Maintenance to repair the damage caused by severe winter storms in 2005 were also performed.

They included the excavation of sediment from the pump pond east of structure 2, repair of the dike around pond 9, repair of the access road near pond 9, repair of the north conveyance channel and the repair of the access road across the south channel culverts.

2. Estimates of the amount of habitat disturbed and disturbance type: Approximately 15,000 cu ft of sand was mounded in the river bed to create the conveyance dike. Approximately 3,415 cu ft of silt and sand was either removed from channels or used to restore damaged ponds and roads in the wetland area above the normal high flow channel.
3. Observations of Federally listed species or their sign in the vicinity of instream activities: None.
4. Estimates of incidental take: None.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures: None.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: None
7. Recommendations: None.

Orange County Water District

Orange County Water District

1. Significant Actions:

Constructed Wetlands: The District's Constructed Wetlands were filled with sediment, and ceased to function in the winter of 2004. The river breached the wetlands and ran through them until 2006 when it was moved back to the main channel.

Groundwater recharge: As part of OCWD's water conservation activities, the District re-built its T-levee system mostly beginning in late May 2006 following the storm flows, to spread water for percolation. There was activity in the river totaling approximately 1,600 hours, mostly only one bulldozer was involved. Habitat

Restoration: The District led a group that placed two sandbag-filled gabions in the river below Mission in a preliminary effort to provide habitat for suckers.

2. Amount of habitat disturbed:

Constructed wetlands: The wetlands themselves are not considered favorable habitat for the Suckers. The re-diversion of the river back into the main, central channel was a very temporary disturbance, necessitating a day of bulldozer work in or near the water.

Groundwater recharge: Suckers have not been observed in the Districts recharge area located between Imperial Highway and Ball Road, therefore, habitat disturbance in the groundwater recharge area has not affected Suckers and is always temporary in nature.

3. Observation of listed species:

Constructed wetlands: No Suckers were observed in 2006 in the vicinity of the former diversion into the constructed wetlands nor were any encountered over two days of seining and surveying the dewatered channels after the river was moved back into the main, central channel in preparation for rebuilding the wetlands in 2007.

Groundwater Recharge: No suckers have ever been observed in the spreading basins.

4. Incidental Take:

Constructed wetlands: No suckers were observed, harmed or harassed in the process of relocating the river back to its former channel.

Groundwater recharge: No suckers have ever been reported from the spreading grounds, and none was taken in 2006.

5. Updates on Covered Activities:

Constructed Wetlands: Routine activities were limited to re-diverting the river in 2006.

Groundwater recharge: Routine levee construction and maintenance occurred during the year. The "T" levees were reconstructed six times during the year, which is typical. No sediment was permanently exported from or imported into the river.

6. Success in meeting conservation measures:

Constructed wetlands: The District worked with the Service to implement partial minimization measures, and is working with the Service to implement the remaining measures.

Groundwater recharge: The District worked with the Service to implement partial minimization measures and is working with the Service to implement the remaining measures.

7. Anticipated new activities:

Constructed Wetlands: OCWD is planning to construct a new constructed wetlands system on OCWD property just upstream of the River Road Bridge. The new wetlands system will consist of 180 acres of inter-linked pond systems and 220 acres of habitat restoration for the least Bell's vireo and southwestern willow flycatcher. Additional Sucker enhancements will also be built including sand substrates and boulder placement in the river course. In addition to the new constructed wetlands system, the District and USFWS are conducting collaborative research to improve the Diversion structure. This includes the removal of culverts and the creation of Sucker habitat enhancements. The Prado Wetland will be re-constructed (emptied of some of the sediment load) in 2007.

Groundwater Recharge: No new activities are planned for the groundwater recharge area.

8. Recommendations: None

City of San Bernardino Municipal Water Department (Rapid Infiltration & Extraction Facility [RIX]).

1. Significant Actions: From November 1, 2005 to October 31, 2006, the RIX facility experienced 31 shutdowns. This averages about 2.6 shutdowns per month. This was below the rate for the previous period, although with the variability of the system, the reduction was most likely not significant. All shutdowns were routine in nature and unavoidable, mainly attributed to ultra-violet (UV) channel safe-guards, maintenance needs and utility power failures. The longest shutdown was 8 hours and 2 minutes. The shortest shutdown was for 11 minutes. The median shutdown

was 56 minutes, and there were 4 days when a shutdown lasted more than 2 hours. Per regulatory requirements, the UV system must be maintained and operated within strict guidelines to ensure coliform compliance.

2. Amount of habitat disturbed: Due to plant shutdowns, temporary habitat disturbance may occur below the RIX facility. To determine any impacts on Suckers, a study was commissioned in August 2002 to determine impacts, if any. This study, conducted by Brant Allen of U.C. Davis, has been finalized and concluded the following: *“The short duration flow reductions from the RIX facility would not have any significant impact on the Santa Ana Sucker population living in the study section of the Santa Ana River.”* And *“Santa Ana Suckers have evolved life history strategies that are consistent with a dynamic environment. The adult fish utilize deep pool habitat, which provides protection against possible desiccation during the long dry season (Swift 2001, Allen 2002). Rapid percolation in the sandy wash environment can leave shallow water habitat dry within a few minutes when flow is reduced in the river (Allen 2002). The deep pools, selected by the suckers, offer the greatest stability in the environment. During the rainy season, these same pools provide a refuge from rapidly increasing river velocities. In areas where the total river discharge can increase from zero to over 3,000 cfs in twelve hours, the habitat at the bottom of the pools will experience the smallest change in water velocity. The possible maintenance shutdowns and subsequent water release during start up at the RIX facility, are consistent with natural perturbations in the flow regime in the study area of the Santa Ana River.”* This study is one of the measures in the Sucker Conservation Program and was funded by the Conservation team participants through SAWPA.
3. Observation of listed species: As part of the research work funded by the Discussion team, Baskin et al have observed Suckers from immediately below the RIX facility discharge point downstream to the River Road Bridge area. During certain times of the year, the RIX facility contributes a significant portion of the flows of the river.
4. Incidental Take: No known takings occurred during the year.

5. Success in meeting conservation measures: Maintenance of the river channel taken by the Santa Ana Watershed Association (SAWA) reduced arundo around the RIX outfall. SBMWD staff no longer crosses the river for sampling purposes or piezometer maintenance. SBMWD met all conservation measure objectives during the year.
6. Anticipated new activities: No new activities are planned during the year.
7. Recommendations: None

Orange County Sanitation District

1. Summary of all Covered Activities that were conducted:

Inspection: Staff inspected the pipe, manhole structures and covers, rip-rap surrounding some manholes, access roads, and the surface features along the pipeline's route. The inspection is used to assess the need for repairs. Access is by way of dirt and/or gravel roads maintained either by OCSD or RDFD. Access to several manholes requires the river be crossed. There is 1 river crossing located near the Gypsum Canyon Bridge to access manholes.

CCTV: A 1,000 foot section of the SAR pipeline located in the river was close circuit televised (CCTV). The pipe contains numerous cracks in this section of the pipe where groundwater enters the pipe. OCSD videos this section annually to assess the pipe's condition and determine if cleaning or repairs are warranted.

Vegetation Removal: Weed abatement and removal of overhanging tree branches was done to provide access to OCSD's manholes for inspection.

Road Repair: Minor road repair (fill in of ruts) was done provide access to OCSD's manholes for inspection.

Survey: The SAR is constantly shifting its banks and cutting deeper paths through the flood plain. OCSD surveyed the river where it crosses its pipeline and nears its manholes. The information keeps OCSD abreast of the rate at which the river is approaching the pipeline (reduced ground cover) and manholes (bank erosion). Thus, OCSD can schedule and take preventative measures to prevent any failure due to normal shifting of the river. The 2006 Annual Survey took place in May of this year.

2. Estimates of the amount of habitat disturbed and disturbance type: No habitat was disturbed by these activities.
3. Observations of Federally listed species or their sign in the vicinity of instream activities: no sightings in 2006.
4. Estimates of incidental take: There were no known or likely occurrences of incidental take.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse affects to the Sucker and an explanation of any failure to meet such measures: No changes were made to the covered activities. The following covered activities did not occur: Rip-rap, Pipe Cleaning, and Manhole Repair
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: The SARI Line Relocation/Protection Project EIR/SEIS Draft is scheduled for release by March 2007.
7. Recommendations: Based on the results of the 2006 annual survey, there was no further significant degradation of the soil cover above the SARI pipeline that warranted immediate repairs. Therefore, there are no immediate plans to conduct additional repairs. However, the Sanitation District will continue to monitor the rains throughout this fall/winter and if significant erosion occurs that jeopardize the integrity of the pipeline, then emergency repairs will be conducted.