SANTA ANA SUCKER
ANNUAL REPORT FOR COVERED ACTIVITIES
(September 1, 2009 To September 1, 2010)

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

DECEMBER 2010

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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 uses 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.

In further broadening critical habitat for the Santa Ana Sucker, the U. S. Fish & Wildlife Service Announced a Final Revision of Santa Ana Sucker Critical Habitat on December 2, 2010. These new areas total 9,331 acres in portions of creeks and rivers in San Bernardino, Los Angeles and Riverside counties, California. In the 2005 critical habitat rule, the Service excluded all of Unit 1 in San Bernardino, Riverside, and Orange

Counties (15,414 ac (6,238 ha)) from the final critical habitat under section 4(b)(2) of the Act. In the 2010 critical habitat final rule (Tables 1-2), the Service designated a total of 5,538 ac (2,241 ha) as critical habitat in Subunits 1B and 1C, which correspond roughly to Unit 1 in the 2005 final rule and did not exclude any of these areas under section 4(b)(2) of the Act. In the 2005 critical habitat rule, the Service did not designate Subunit 1B (Santa Ana Wash; 8,174 ac (3,308 ha)) as critical habitat. In the 2010 final critical habitat rule (Tables 1-2), the Service designated 1,559 ac (631 ha) in City and Mill Creeks and the Santa Ana River (below Seven Oaks Dam) as part of Subunit 1A, which composed a portion of Subunit 1B in the 2005 final rule. In summary, the 2010 final critical habitat rule resulted in the new designation of 7,097 acres of critical habitat in San Bernardino, Riverside, and Orange Counties.

The newly designated areas are identified in three Units, as follows:

Unit 1 – Santa Ana River – totals 7,097 acres divided into three subunits. Subunit 1A is not occupied by the Santa Ana Sucker but is essential to its conservation. Subunits 1B and 1C are both occupied by the species. Unit 1 includes upper, mainstem and lower portions of the Santa Ana River as well as portions of the Rialto Drain and Sunnyslope Creek. Unit 1 includes lands within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan and the Santa Ana Sucker Conservation Program.

The result of including an area in a critical habitat designation is the requirement of Federal agencies to ensure actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat, the regulatory standard of section 7(a)(2) of the Act under which consultation is completed. Federal agencies must consult with the Service on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Within occupied areas, Federal agencies must also consult with the Service on actions that may affect a listed species and refrain from undertaking actions that are likely to jeopardize the continued existence of such species. The analysis of effects to critical habitat is a separate and different analysis from that of the effects to the species. For some species (including Santa Ana sucker), and in some locations, the outcome of these analyses will

be similar, because effects to habitat will often also result in effects to the species. However, the regulatory standard is different, as the jeopardy analysis investigates the action's impact on the survival and recovery of the species, while the adverse modification analysis focuses on the action's effects on the designated habitat's contribution to conservation. This will, in many instances, lead to different results and different regulatory requirements.

Unit 2 designates additional acreage in the San Gabriel River and Unit 3 designates additional acreage in Big Tujunga Creek.

In 2008-09, a Biological Assessment was completed pursuant to the Federal Endangered Species Act. The USFWS is currently reviewing the Biological Assessment. The approved Biological Assessment will be used by USFWS to prepare the Biological Opinion for the U. S. Army Corps of Engineers 404 permit. The 404 permit, in the form of a Regional General Permit (RGP) was circulated during this period and the review period is closed. At this time, the Team is awaiting for a Biological Opinion from the USFWS and 401 Certification from the Regional Water Quality Control board. To obtain the 40l Certification, the Team needs an approved CEQA document which is likely an Initial Study/Mitigated Negative Declaration. The CDFG is analyzing the feasibility of issuing a Master Streambed Alteration Permit which is similar to the RGP process prepared by the Corps where SAWPA would act as the clearinghouse. If the CDFG can prepare a Master Streambed Alteration Permit then this will dictate the type of CEQA document that the Team prepares. Fortunately a Draft IS/MNP has been prepared by the Team so the bulk of the work on the CEQA document is complete.

Pursuant to the Conservation Program (May 2005), the Team's annual budget for research, monitoring and administrative responsibilities is $125,000. Over the past three 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 titled "*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, seven annual documents have been produced. In 2002, the document titled "Results of the Year 1 Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was generated. In 2003, the document titled "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. In 2007, a "Results of the Year 6 Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was generated by SMEA. In September 2008, a "Results of the Year 7 (2007) Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was generated by SMEA. Results of the Year 8 (2008) Implementation of the Santa Ana Sucker Conservation Program for the Santa Ana River" was generated by SMEA. Lastly, in 2010, Results of the Year 9 (2009) 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 9 (2010) 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. For purposes of this annual report activities are delineated as covered even though all the permits are not in place. This report fulfills the obligations in the 2005 Conservation Program. 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, information was obtained from each of the Program participants in December 2010. Following is the information obtained during those interviews using the format contained in the Conservation Program. It should be noted that long time Team participant Riverside County Flood Control & Water Conservation District decided not to participate in the Section 404, 401 and 1602 permitting efforts pursued by the Santa Ana Sucker Conservation Team, and described on page 3 of this report. The District will continue to meet its obligations to obtain regulatory permits prior to conducting regulated activities. The District activities are also conducted pursuant to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), which provides the District with take coverage for MSHCP covered species. The District, however, continues to participate in the Santa Ana Sucker Conservation Team by attending Team meeting/activities, contributing funding, and coordinating with the Team regarding habitat restoration activities that may be proposed within District facilities.

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. Approximately 22 tons of trash and litter were removed from the SAR Levee System, and Highgrove Channel. Approximately 14 cubic yards of accumulated sediment was removed from the concrete lined Highgrove Channel upstream of the confluence with the SAR levee. The District was the lead sponsor for the annual volunteer Watershed Cleanup Day held on October 3, 2009 providing location for assembly, labor, equipment, facilities and public education hand outs. The event is a multi-agency effort that resulted in the removal of 40 cy of trash from various locations along the Santa Ana River Watershed. Mowing along the existing Riverside levees (D.S. of Mission Blvd. to upstream of Riverside Ave.) was not done during this period.
2. Estimates of the amount of habitat disturbed and disturbance type: Because of the nature of the maintenance activities, no SAS habitat disturbance occurred.

3. Observations of Federally listed species or their sign in the vicinity of instream activities: Least Bell's vireos and Santa Ana wooly stars were previously detected in the vicinity of SH 60 and Market Street. The previously described maintenance activities were conducted outside the riparian bird nesting season and in a manner to avoid and minimize impacts to the known species locations.

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: Santa Ana Sucker habitat was not disturbed for the 2009 reporting period. Maintenance in the Sunnyslope Channel was done outside of the spawning season and included the removal of approximately 5.25 tons of trash and debris. Appropriate BMPs were installed during the work period to prevent the conveyance of sediment downstream into the SAR. The District also continued its efforts to restrict unauthorized access by repairing fences and by installing new fence. No other pertinent data is available.

6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: There are areas of the SAR where the low-flow channel is located directly adjacent to the levees. These low-flows need to be relocated away from the toe of the levee to allow for the proper inspection of the levee system and ensure the structural stability of the facility. Such activities are described in the sucker conservation program. During the next year, it's anticipated that the low-flow channel currently against the westerly levee toe between SH 60 and Market Street will need to be realigned. The incorporation of gabions or other habitat enhancements could be evaluated to determine the feasibility of incorporating such features into low-flow realignment activities.

7. Recommendations: Continue to conduct Sunnyslope Channel maintenance activities in a manner that minimizes potential impacts to downstream areas even though these areas are not currently used by SAS.

Riverside County Transportation Department

1. Summary of all Covered Activities that were conducted: In January of 2009, construction began on replacement of River Road Bridge; as a result, sand removal was limited to what was necessary to protect the bridge (which was open throughout construction) and to maintain flow in the river.
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: Approximately 25 Santa Ana Suckers were rescued and relocated between January and August 2010. Additionally, approximately 100 Santa Ana Suckers were observed in June of 2010.
4. Estimates of Incidental takes: All Santa Ana Sucker surveys and relocation efforts were performed in accordance with measures outlined by the USFWS.
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: Phase 1 of the bridge construction was underway during the reporting period. Completion of the remaining phases is expected in May 2011.
7. Recommendations: None

<u>San Bernardino County Flood Control District (SBCFCD)</u>

1. Summary of all Covered Activities that were conducted: In November 2009, the District removed a stockpile of boulders from the Santa Ana River, near the confluence with San Timoteo Creek, from the river bed to an upland location. The boulders were stockpiled in this location during a dry season several years ago, during permitted maintenance activities. The presence of the stockpile did not effect the hydrologic regime of the creek. The work was overseen by a biologist. There was no flowing water in the immediate vicinity of the work. For this work one loader and several rock trucks entered off of Waterman Avenue, crossed the Santa Ana

River to the location. The work lasted approximately four days. No other flood control activities or maintenance occurred in the Santa Ana River proper in 20089.

2. Estimates of the amount of habitat disturbed and disturbance type: A private adjacent land owner took a small back hoe in the SAR, directly downstream of Tippecanoe Avenue in San Bernardino. The suspect took the tractor and began digging into the river bottom to try to steal copper wiring. This illegal action disturbed 1-2 acres. The San Bernardino County Sheriff and San Bernardino County Flood Control District (District) were notified and took the necessary action. Unfortunately, the perpetrator spilled a small amount of hydraulic fluid into the river and the District had to go in and clean it up. This action consisted of using a hand crew and shovels and scooping the spill, by hand, to clean up the spill. This course of action was taken to impact the river and surrounding habitat, as little as possible.
3. Observations of Federally listed species or their sign in the vicinity of in stream activities: None observed.
4. Estimates of incidental take: None. No suckers were harmed or harassed because no work was completed in any wetted area where suckers could exist.
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: The SBCFCD did not do maintenance activities in the SAR proper or the Rialto Channel in the year 2009-2010.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: None
7. Recommendations: None

<u>Orange County Flood Control District, Orange County Public Works</u>

1. Summary of all Covered Activities that were conducted: No significant actions took place this year. Work was done to remove invasive plants and noxious weeds outside of the least bell vireo breeding season.
2. Estimates of the amount of habitat disturbed and disturbance type: County spray trucks were utilized this past year to make annual routine spray application to Arundo/non-native vegetation. The spray applications took place with the use of

County crews which all possess a Qualified Applicator's Certificate. The work sites were between Weir Canyon Road and Gypsum Canyon Road on previously established pathways for spray vehicles to enter and exit the sites. Approximately 66.01 acres were treated with no habitat being disturbed or destroyed. All spray applications took place outside of the nesting season (March 15th – September 15th). To our knowledge, no least Bell's Vireo or Sucker fish were observed during spray applications.

3. Observations of Federally listed species or their sign in the vicinity of instream activities: Work was done outside of breeding season so no surveys were conducted and no habitat was impacted.
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: For the requested period we performed general litter/debris removal.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: None.
7. Recommendations: Continued eradication of Arundo.

<u>City of Riverside (Regional Water Quality Control Plant)</u>

1. Summary of all Covered Activities that were conducted: Standard maintenance included two reconstructions, April 30, 2010 and October 9, 2010, of the sand dike used to create a conveyance channel between the treatment works and the treatment wetlands. A single, D-6 Caterpillar, bulldozer was used to move river-bottom sand to construct the dike.
2. Estimates of the amount of habitat disturbed and disturbance type: On April 30, 2010 approximately 7,500 cu ft of sand was mounded in the river bed to create the conveyance dike. On October 9, 2010 approximately 7,500 cu ft of sand was mounded in the river bed to create the conveyance dike.
3. Observations of Federally listed species or their sign in the vicinity of instream during both activities: None.

4. Estimates of incidental take: None.
5. Any other pertinent data concerning the implementation of measures to avoid or minimize adverse effects to the Sucker and an explanation of any failure to meet such measures: Activities were overseen by a third-party biologist. Riverside County Parks Department crew placed fish-blocking nets across the river at the upstream and downstream ends of the dike repair area. Nets were held in place with steel fence stakes. Crews periodically checked the nets for fish; none were found. Prior to use the bulldozer was inspected to ensure it was free from leaking hydraulic oil and fuel which could potentially result in adverse impacts. Following repair the nets were again checked for fish. Upon determining no fish were present, nets were removed.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: Due to realignment of the Santa Ana River during storms in December 2010, a future dike reconstruction date is unknown.
7. Recommendations: None.

Orange County Water District

1. Summary of all Covered Activities that were conducted:
   Constructed Wetlands: In 2010, the diversion berm which is used to divert 50% of the river flow into the wetlands was rebuilt twice by OCWD staff and several times by the construction company rebuilding the River Road Bridge. Details of the River Road Bridge project can be found under the Riverside County Transportation Department section.
   Groundwater recharge: As part of OCWD's water conservation activities, the District re-built its T-levee system beginning in late spring 2010 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:
2. Amount of habitat disturbed:

Constructed wetlands: The wetlands themselves are not considered favorable habitat for the Suckers. The re-establishment of the diversion berm is a very temporary disturbance, necessitating one or two days 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 2010 in the vicinity of the diversion into the constructed wetlands.

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

4. Incidental Take:

   Constructed wetlands: No suckers were found during 2010 surveys by OCWD staff while rebuilding the diversion berm.

   Groundwater recharge: No suckers have ever been reported from the spreading grounds, and none were taken in 2010.

5. 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.

6. Anticipated new activities:

   Constructed Wetlands: No new activities are planned for the constructed wetlands.

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

7. Recommendations: none

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

1. Activities: From September 1, 2009 to September 1, 2010, the RIX facility experienced 23 shutdowns. This averages about 1.92 shutdowns per month. All shutdowns were routine in nature and unavoidable, mainly attributed to ultra-violet (UV) channel safe-guards, maintenance needs, and utility power maintenance and failures. The longest shutdown was 5 hours and 28 minutes. The shortest shutdown was for 4 minutes. The median shutdown time was 63 minutes, and there were 5 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 permit 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. 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 was 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 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 the Orange County Sanitation District (OCSD) or the Orange County Public Works. Access to several manholes requires the river be crossed. There is 1 river crossing located near the Gypsum Canyon Bridge to access manholes. OCSD survey for access roads was completed on January 25, 2010.

   CCTV: The maximum discharge from Prado Dam for the last reporting cycle (2008-2009) was low and was expected to remain low for the 2009-2010 reporting period. For this reason, close circuit television of the SARI pipeline was not conducted based on continued limited discharge from Prado Dam by the Army Corp of Engineers. The SARI line was still considered to be in acceptable condition without any concern of the line breaking or collapsing in the Santa Ana River bed channel.

   Vegetation Removal: Weed abatement and removal of overhanging tree branches was done to 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. OCSD keeps 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 2010 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 in-stream activities: No sightings in 2010.
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 effects to the Sucker and an explanation of any failure to meet such measures: No changes were made to the covered activities.
6. Any anticipated changes in the project description, modifications to the Program and/or new activities that will be proposed: A monitoring survey conducted at critical river crossings along the SARI line in the spring of 2009 indicated reduced soil cover at three locations. Protection repairs were conducted on the grade stabilizers at these three locations during the fall of 2009. Further monitoring surveys were conducted following major rain events in February 2010 and additional erosion of soil cover was measured at one of the river crossings closest to the SAVI Ranch business complex. Protection repairs were conducted at this grade stabilizer in February 2010.
7. Recommendations: Based on the results of the 2010 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, OCSD 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.