

SAN PEDRO RIPARIAN NATIONAL CONSERVATION AREA



San Pedro Riparian National Conservation Area National Landscape Conservation System FY 2010 Annual Manager's Report

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NATIONAL LANDSCAPE CONSERVATION SYSTEM
FY 2010 Manager's Annual Report

I. Introduction

- a. Accomplishments within this report reflect the time period October 1, 2009 thru September 30, 2010.
- b. Site Name: San Pedro Riparian National Conservation Area, Address: San Pedro Office, 1763 Paseo San Luis, Sierra Vista, AZ 85635, (520) 439-6400,
Website:http://www.blm.gov/az/st/en/prog/blm_special_areas/ncarea/sprnca.html
- c. Manager: Mark Rekshynskyj
- d. San Pedro Project Office, Tucson Field Office, Gila District, Arizona State Office
- e. Arizona-Idaho Conservation Act, Public Law 100-696 (November 18, 1988)
- f. "The Secretary shall manage the conservation area in a manner that conserves, protects, and enhances the riparian area and the aquatic, wildlife, archeological, scientific, cultural, educational, and recreational resources of the conservation area." Public Law 100-696, Sec. 102.(a)
- g. Acreage: approximately 57,000 acres of public, state and private land within its designated boundaries.
- h. Estimated Annual Visitation: 113,325

II. Land Use Planning

a. Overview

We currently operate under the San Pedro River Riparian Management Plan and Environmental Impact Statement, and Record of Decision, August 1989. Additional lands acquired during completion of the Management Plan identified above are managed under the Safford Resource Management Plan and Environmental Impact Statement, July 1994. These two plans will be re-evaluated when the effort to establish a Gila District Resource Management Plan is initiated. No firm date for initiating that planning effort has been established.

b. Implementation-Level Planning

- Areas of Critical Environmental Concern and Research Natural Areas, as stated in the Safford Resource Management Plan are The Saint David Cienega and San Pedro River.
- San Pedro Riparian National Conservation Area Habitat Management Plan, 1993.

- Recommendation of suitability in Wild and Scenic River from Arizona Statewide Wild and Scenic River Final Legislative Environmental Impact Statement, December 1994.

III. Protecting America's Natural Resources

a. Notable Natural Resources

- i. The San Pedro Riparian National Conservation Area (SPRNCA or NCA) is among the last, highly biodiverse, wild areas left in the country. This land encompasses grasslands, desert scrub, mixed scrub-grassland, aquatic habitat, riparian habitat, cottonwood/willow woodlands, mesquite bosques, and wetland habitat. Within these habitats live more than three hundred sixty-five species of birds, over eighty-two species of mammals, approximately forty-three species of reptiles and amphibians, numerous fish species of which two are native, and of course a plethora of insects including a newly discovered species of scorpion. Of these species approximately fifteen are special status species including gray hawk, Mexican garter snake, yellow-billed cuckoo, and lesser long-nosed bat. Additionally, there are several endangered species with the high potential for being present within the NCA, including ocelot and jaguar.
- ii. The main challenge in protecting the NCA's natural resources is ensuring that there is enough water to support said resources. With water being the main focus we are also faced with illegal activities such as trespass, non-native species such as tamarisk, and dwindling funds for staff and supplies.

b. Land Health Assessments

- i. There are four grazing allotments within the SPRNCA. There were no land health assessments done on the NCA in FY2010.

c. Inventory Efforts

We continue to inventory and assess the various resources annually. All 43 miles of river has been inventoried and assessed for native fish species. We continue to document that only two of the thirteen native fish inhabit the resource. The majority of the fish habitat is unsuitable for reintroduction of the eleven species no longer in the system. This is due to water quantity and quality issues, and exotic species that have invaded the river. Endangered and special status species including Gray Hawk, Huachuca Water Umbel and Southwestern Willow Flycatcher, are inventoried annually. Inventory of the flora within the NCA is on a three year cycle of monitoring/inventory to assess trends.

d. Restoration Efforts

During June, six springs were monitored by the BLM wildlife biologist and hydro tech for their ability to provide adequate habitat during the driest time of the year for introduction of Gila topminnow (*Poeciliopsis o. occidentalis*), desert pupfish (*Cyprinodon m. macularius*), Chiricahua leopard frog (*Lithobates chiricahuensis*), and Huachuca water umbel, as proposed under the Environmental Assessment "Special Status Species Reintroduction at Six

Springs, San Pedro Riparian NCA." White House Well, Horse Thief, Murray, Ben, Frog, and Little Joe Springs were monitored and proven to have adequate water quantity and quality to support reintroduction efforts of four native species. Also part of this project, it is planned that three new populations of Huachuaca Water Umbel will be introduced into the system in December 2010.



BLM Fisheries Biologist at Special Status Species Reintroduction Site

Russian knapweed (*Acroptilon repens*) control was continued at five prior known locations and one location found during 2010. Russian knapweed is an introduced, deep-rooted, long-lived perennial with rhizomatous roots that also produces biochemicals inhibiting the growth of native plants (allelopathy). These features of Russian knapweed make cultural control difficult, and allow it to outcompete native species and form monocultures that are not conducive to native plant or wildlife species richness. A total of six sites of approximately one acre total were treated with glyphosate during 2010. Control was successful and complete eradication of Russian knapweed on the NCA seems likely at this time with follow-up treatment in future years. A new infestation of knapweed was found and treated in the Palominas area during 2010.

Giant reed (*Arundo donax*) is a tall perennial introduced from the Old World that reproduces vegetatively by underground rhizomes or through rooting stem pieces. This vegetative growth appears to be well adapted to floods, which may break up individual reed clumps and spread the pieces, which may then sprout and colonize further downstream. Giant reed uses large amounts of water, is capable of growing in dense stands, and damages riparian ecosystems by outcompeting native species, such as cottonwood and willow, for water. A total of six small clumps of less than one acre total of giant reed were treated

with glyphosate herbicide. Eradication of giant reed on the NCA seems likely at this time with follow-up treatment in future years.

Infestations of tamarisk (*Tamarix chinensis*, including related species and hybrids) occur throughout the SPRNCA, with the most severe infestations situated adjacent to the San Pedro River north of the historic town of Fairbank. Isolated populations of tamarisk to the south of Fairbank functionally serve as extended seed sources, increasing potential for further spread along the San Pedro River. Survey and mapping of approximately 75 acres was completed by BLM staff of the San Pedro River floodplain from Waters Road north. Herbicide treatment was accomplished by BLM staff and fire crew using cut-stump and foliar spray of approximately 6 acres of tamarisk. Control efforts are proposed to continue for 20 years and beyond. Wildlife biologist met with Tim Carlson and Shannon Hatch with Tamarisk Coalition and conducted field visit to view completed tamarisk control south of Palominas.

IV. Protecting America's Heritage Resources

a. Notable Heritage Resources

- i.** The cultural resources of the management area represent a diverse array of site types, cultures, and time periods. There are approximately one hundred fifty recorded cultural resource properties in the national conservation area. Among these areas, there is The Murray Springs site which dates back to the Clovis Hunters some 11,200 years ago. Murray Springs has been nominated for the National Register of Historic Places, has enormous public use values and has an interpretive trail. Also among the cultural resources is The Presidio of Santa Cruz de Terrenate which has an interpretive trail and is on the National Register of Historic Places. The Presidio of Santa Cruz de Terrenate dates from 1539 to 1820 with the Spanish presence in the southwest encompassing exploration, mining, ranching, establishment of mission system, and an attempt at establishing permanent settlements. Another important site, the town of Fairbank dates back to transportation and commerce during the American Settlement from 1853 to 1912. Fairbank is on the National Registry, has high visitation of the public and even still holds ties to the community with its' descendants still living in the area and holding reunions at the town.
- ii.** The overall condition of the heritage resources in the San Pedro Riparian National Conservation Area (SPRNCA or NCA) varies greatly. The prehistoric resources are in stable condition. The majority of historic resources (90%) that have not been stabilized are in very poor condition. Seven percent of properties that have been stabilized are in fair condition. Properties that have either been restored or that are in the process of being restored are in excellent condition include the San Pedro House and the Fairbank Schoolhouse.



Restoration of the Fairbank Mercantile in progress

b. Inventory efforts

In FY2010, approximately 200 acres were inventoried for historical significance on the San Pedro Riparian National Conservation Area.

c. Restoration Efforts

Ongoing efforts to preserve, protect, stabilize, and interpret historic buildings and structures at Fairbank Historic Townsite and other SPRNCA historic sites continue. Historic preservation projects undertaken during FY2010 included:

- Completed rehabilitation and restoration of all historic doors and windows on the Adobe Mercantile Building
- Repair to eroded and missing adobe
- Repair to gutters and fascia damaged by tree limbs
- Repair of the historic wood-and-glass display case from Mercantile
- Removal of hazard branches/limbs/stumps around structures and public areas
- Implementation of mitigation measures for safety hazards noted in 2010 Gila District Health & Safety report
- Adobe wall preservation was undertaken at Presidio Santa Cruz de Terrenate
- Condition assessments completed for three historic corrals: Land, Fairbank South, and Little Boquillas Ranch.

These efforts were undertaken through a collaboration of BLM, the Friends of the San Pedro River, and Stan Greer Millworks (a local historic wood restoration specialist).

d. Other Accomplishments

During FY2010, planning was completed for several large-scale rehabilitation projects at Fairbank. This included completion of NEPA clearance process,

coordination with other agency programs, and consultation with partners and SHPO. One project, installation of a CXT vault toilet, was completed during FY2010. It improved visitor facilities and allowed for removal of temporary porta-potties from the historic site.

Two other projects are now “shovel-ready” and will be completed during FY2011. A concrete slab constructed by BLM for office trailers will be removed and the area re-contoured; and a historic-look safety fence installed around the Mercantile and adjacent wooden Small House. This will allow for removal of a costly and unsightly rented chain-link fence, and re-integrate this area with the larger site.

V. Providing Recreation and Visitor Experiences

a. Overview

- i.** While the techniques used to gather visitation numbers vary from trailhead registers to traffic counters, public visitation to the SPRNCA in FY 2010 was estimated to be approximately 113,325 visitors. The vast majority of the visitors enjoy wildlife viewing and study, but most especially birding. Viewing of the many cultural sites in the SPRNCA is also a primary visitor activity. The preferred means by which the public traverses the SPRNCA is by foot, and to a lesser extent on mountain bikes, and as equestrians.

b. Facilities, Construction, and Maintenance

- i.** The SPRNCA does not have an approved sign plan. However, over the years much effort has gone into the development of highway portal signs, boundary signs, trailhead kiosks, interpretive displays, trail markers, and various regulatory or emergency signing. All of the above mentioned signage has been developed to reflect agency and NCA-specific design features and requirements.
- ii.** There are ten major trailheads that provide access to the San Pedro Riparian National Conservation Area. Description of these sites will be elaborated upon in Section VI. These sites provide legal, physical access to the SPRNCA, approximately every eight miles from north to south, and greater access near sites or areas of significant cultural or natural interest. Prior to the end of FY 2010, these sites were in poor to fair condition. As stated in other sections of this document, two historic sites, San Pedro House and the Fairbank Schoolhouse, have been adapted to provide greater amenities to the public, including shade ramadas, picnic tables, and site hosts.
- iii.** Description of new or ongoing construction will be elaborated upon in Section “Your Recovery Dollars At Work”.
- iv.** With the exception of trail reconstruction and maintenance, which will be addressed in Sections VI and VII, annual operational deferred maintenance to SPRNCA recreation-related facilities is minimal, and has always been focused on the San Pedro House and the Fairbank Historic Townsite, with much lesser emphasis on the Murray Springs Clovis Site

and the Presidio Santa Cruz de Terrenate. Yearly maintenance is focused on features or problem areas associated with public safety, especially water quality, boundary fencing, parking or traffic issues, and trash or vandalism. This work is largely accomplished by one Park Ranger and volunteer Site Hosts, the Outdoor Recreation Planner and other NCA resource staff, the volunteers of the FSPR, and by BLM Force Account staff.

c. Comprehensive Travel and Transportation Management

- i.** Public vehicular access is limited to the ten trailheads. The interior areas of the SPRNCA are closed to motorized vehicles, except for administrative and emergency use, or as provided by permit, as in the case of scientific research. Thus, the primary modes of recreational travel are hiking, mountain biking, and equestrian. When the San Pedro River is in high flood stages, typically during the summer monsoon rains, a few kayakers will attempt to navigate the river.
- ii.** There has been no comprehensive travel or management plan developed for the San Pedro Riparian National Conservation Area. There are approximately 3 miles of poorly maintained system gravel roads available for public use to access the trailheads. There are approximately 58 miles of multiple-use, non-motorized trails within the San Pedro Riparian National Conservation Area.
- iii.** As a result of the very few miles of vehicular routes open to the public, and the excellent trail inventory completed for the SPRNCA, current management and staff consider the specific development of travel and transportation planning as unnecessary, and better developed during San Pedro Riparian National Conservation Area resource management planning.

d. Recreation Fee Program

- i.** Non-commercial Special Recreation Permits are required for backcountry camping in the San Pedro Riparian National Conservation Area. These permits are available at trailheads.
- ii.** There are currently issued six commercial Special Recreation Permits for guided eco-tourism or guided equestrian travel, and approximately twelve permits issued for organized groups, such as weddings, and NGO events, etc. Currently, there are no permits issued for competitive events. The benefit to the public is significant in that the expertise of the guides greatly enhances the experience of the visitor. However, contributions to the local economy are minimal given the small number of successful guides. On the other hand, benefits from the permission to conduct organized group activities largely by members of local communities within a very special area in their own 'backyard' is important towards

gaining support for the conservation, protection and enhancement of the San Pedro Riparian National Conservation Area.

- iii. A business plan guiding the collection and expenditure of recreation-related fees is being developed and will be completed during FY 2011.
- iv. There is approximately \$5,000 in the SPRNCA 1232 account. Of which, approximately, \$500 is generated every fiscal year.
- v. Primary priorities for the expenditure of collected recreation fees have yet to be developed, but will be incorporated into the SPRNCA business plan.

VI. Your Recovery Dollars at Work

Approximately \$772,000 was obligated for two projects within the SPRNCA from funding through the American Recovery and Reinvestment Act (ARRA). The San Pedro Riparian National Conservation Area Trailhead Reconstruction Project received \$590,000 in ARRA funding. The San Pedro Riparian National Conservation Area Trail Reconstruction and Maintenance Project received \$182,000 in ARRA funding.

The San Pedro Riparian National Conservation Area Trailhead Reconstruction Project funded the reconstruction of the ten trailheads providing access to SPRNCA for the public. Since the designation of the SPRNCA in 1988, limited funds and limited existing materials were used to construct parking areas, appropriate signage, and amenities such as picnic tables and restrooms. Ten trailheads were completed, but there was minimal ability to secure the trailheads from motorized or livestock trespass, or provide the visiting public with a sense that they were visiting an entire special area managed by one agency.



Removal of deteriorated wooden post fence at San Pedro House Trailhead

This project, when it was completed in February 2011, provided some economic recovery for up to 20 individuals, most of who live in Cochise County. As a result of ARRA funding, the reconstruction of the SPRNCA trailheads included: the removal of old sub-standard fencing and parking barrier materials and replaced with permanent, steel pipe rail; grading and resurfacing rutted access roads; construction of one shade ramada; replacement of rotten wooden picnic tables permanent concrete tables; revegetation of several sites with native trees for shade and beauty; the placement of an ADA-accessible cobbled sidewalk at the San Pedro House; the replacement of plastic porta-potties with permanent CXT vault toilets at four locations; and the construction of equestrian trailhead amenities such as hitching posts and small corrals at several trailheads frequented by the equestrian public.

The San Pedro Riparian National Conservation Area Trail Reconstruction and Maintenance Project provided for the reconstruction and maintenance of the entire 58 mile SPRNCA trail system. The SPRNCA trail system was often haphazardly constructed and minimally maintained. Over the years improvement has been made, but never has the whole trail system been available for thorough and systematic reconstruction, where necessary, and maintenance to BLM manual specifications.

This project, which will be completed during the late summer of 2011, has brought over 40 miles of SPRNCA trails back into compliance with BLM trail standards, as well as providing for the removal of faded, exfoliating fiberglass trail markers, incongruent with the natural landscape, with permanent steel trail markers, laser-cut with the beloved logo of the San Pedro Riparian National Conservation Area. The work conducted under this project also included the removal of old-style 'Iron Rangers' at the trailheads with fee collection stations in compliance with BLM manual direction.

This work has been accomplished through the hiring of youth employed by Arizona conservation corps organizations (see Section VII).

The environmental and social benefits resulting from the completion of these projects include: greater recognition of the singular significance of the San Pedro Riparian National Conservation Area by the visiting public due to the consistent physical design and aesthetics now present at each SPRNCA trailhead; greater protection to the fragile natural and cultural resources of the San Pedro Riparian National Conservation Area from motorized and livestock trespass; and coming into compliance with BLM standards for accessibility and safety for the visiting public.

VII. Engaging Youth in America's Great Outdoors

a. Youth Engagement

Under the direction of the Friends of the San Pedro River, an organized program is implemented during the school year for children, which is comprised of guided walks in various habitat and in-depth classroom sessions discussing the discoveries

of the children. A total of 22 of these events were conducted with 665 children participating. Funding sources for this program were provided entirely through the FSPR organization.



A Youth Organization Conservation Corps Crew Conducting Trail Work

b. Youth Employment

The major accomplishment in FY2010 that was achieved through the employment of youth was the reconstruction and maintenance of just over 40 miles of non-motorized, multiple use trails within the San Pedro Riparian National Conservation Area. One component of the project which was most unusual was the obliteration and naturalization of trails within the historic cemetery at Fairbank. Severe erosion as a result of these social trails and short-cuts was threatening to expose and undercut grave plots within the cemetery. The youth crews successfully removed and put to bed these illegal trails.

As stated above in Section VI, funding for the hiring of these crews was provided through the American Recovery and Reinvestment Act. The total number of youth employed thus far, all of whom are considered ‘underserved,’ is 56 individuals. The project will be fully completed by the end of September, 2011.

VIII. Partnership and Volunteer Efforts

a. Overview

We are a key member of the Upper San Pedro Partnership (USPP), a consortium of 21 federal, state, local, and private agencies. The USPP was established for

coordination and cooperation in the identification, prioritization and implementation of comprehensive policies and projects to assist in meeting water needs in the Sierra Vista Subwatershed of the Upper San Pedro River Basin. Furthermore, the USPP is responsible for the preparation of annual reports to Congress regarding steps to be taken to reduce overdraft and restore sustainable yield of groundwater in the Sierra Vista Subwatershed by 2011.

- During FY 2010, staff attended approximately 30 Technical, Political Action, and Executive Committee meetings.
- Staff assisted in the completion of the 321 report to Congress for 2010.

We are privileged to have a well-established and successful “Friends” group, the Friends of the San Pedro River (FSPR) organization. The FSPR help in our mission by providing a most important task of outreach to the public. By providing information about the SPRNCA to the public, they are strengthening the message of conservation, enhancement, and protection of our resources. They also provide help to the San Pedro staff on projects in which “extra man power” is needed.



ARRA funded Trailhead Reconstruction Amenities

c. Volunteer Accomplishments

FSPR have contributed 11,893 hours of volunteer time at a value of about \$247,969 during FY2010. The FSPR provided a total of 227 educational events during FY 2010.

- Conducting 52 interpretive walks, with 303 participants.

- Conducting 24 bird walks, with 166 participants.
- Sponsoring eleven hikes, with 147 participants.
- Sponsoring 22 history walks, with 271 participants.
- Sponsoring 52 bird walks at the City of Sierra Vista Environmental Operations Plant (which feeds reclaimed water to the SPRNCA through Murray Springs) with 2,177 participants.
- Conducted 5 evening walks with 37 participants.
- An organized program for school children which is comprised of a walk and a classroom session. A total of 22 of these events were conducted with 665 children participating.
- Providing community presentations and participating in community events to highlight the importance and value of the SPRNCA, such as the International Migratory Bird Day, Spring Fest, and the Fairbank Reunion.
- Operating an information center within the SPRNCA at the San Pedro House 364 days a year.
- Operating a museum and information center within the San Pedro Riparian NCA at the Fairbank School House approximately 170 days a year.

d. Partnership Accomplishments

National Conservation Area Fiscal Year 2010 Partnership Accomplishments				
Partner(s)	Project Name and Description	Accomplishments	Monetary and In-kind Contributions	
			BLM	Partner
Friends of the San Pedro	Operating visitor center at San Pedro House	Providing public outreach, education, bookstore, etc.		\$ 60,715.20
Friends of the San Pedro	Operating museum and information center at Fairbank	Providing public outreach, education, bookstore, etc.		\$ 28,356.00
Friends of the San Pedro	Fairbank Days	Providing setup etc.		\$ 500.40
Friends of the San Pedro	International Migratory Bird Day	Providing setup etc.		\$ 667.20
Friends of the San Pedro	Fairbank Reunion	Providing setup etc.		\$ 834.00
Paradise Valley Community College	Repair/Build fence. Garbage pick-up.	New and repaired fences. A cleaner NCA		\$ 8340.00
Friends of the San Pedro	Nature walks	Public outreach		\$ 10,049.70
Southwest Wings Festival	Southwest Wings Festival	Contributed IT support	\$ 4000.00	

IX. Science

a. Overview

The San Pedro Riparian National Conservation Area is known throughout the world for its' diversity of plant and animal species. Conserving, protecting, and enhancing this diversity is a main focus for the staff.

Over the past five years at least 20 research projects have been completed. These projects are being conducted by BLM scientists as well as scientists from universities and other science agencies. In 2010:

- NAU graduate students conducted research on cottonwood genetics on SPRNCA.
- Fort Huachuca contractors conducted water umbel genetic research.

Results of research studies have been made available to the community. All research is available to the public through their request to the San Pedro Office. Some universities have websites that post their on-going and completed research on the San Pedro Riparian National Conservation Area. Researchers are required under research agreements to provide results of their research. Some research is available to the public in our public information room and at the San Pedro House.



Red-winged blackbird in the hand during banding session

Monitoring species is also an important component to the management, preservation, and enhancement of the San Pedro Riparian National Conservation Area. The ongoing monitoring of upland and riparian vegetation, avian populations, threatened and endangered species, and hydrology is consistently being conducted.

- Northern Arizona University researchers conducted a survey of gray hawk, and other raptors, of SPRNCA.

The San Pedro Avian Resources Center is a volunteer-based mist netting bird banding project, headed by the Natural Resource Specialist. This project is just entering its sixteenth year of operation.

- Two banding stations are being operated in the SPRNCA one at San Pedro House and the other by Green Kingfisher Pond.
- The data being collected at these banding stations is contributing to the local knowledge of avian: migration, molt migration, production, and survival.
- The data is inputted into national databases both at the Institute of Bird Populations and the bird banding laboratory where population trends, migration paths, and much more can be seen and analyzed.

Along with local knowledge, the data also contributes to a bigger picture. The information gained from these banding stations is playing a major role in management actions along with about every aspect of the continued preservation of the San Pedro Riparian National Conservation Area.



Beaver cache on the San Pedro River

Beaver (*Castor canadensis*) were reintroduced to the San Pedro Riparian NCA after having been extirpated by fur trappers by 1894. During 1999, 2000, and 2002, a total of 15 beaver were reintroduced. The purposes of beaver reintroduction on the

NCA were many. As a keystone species, beaver may have a large influence on community diversity and ecosystem structure through their tree felling and dam building behavior. Beaver dams may increase storage capacity and lead to greater flows during dryer periods, which may result in enhanced flow in intermittent streams. Beaver impoundments may increase the area of riparian habitat, and elevate water tables through groundwater recharge. By functioning as sediment traps, beaver ponds accumulate organic matter, and reduce erosion potential. With that, beaver dams may reduce the river's sediment carrying capacity and deposition.

- During 2010, the location of beaver dams was determined through BLM wildlife biologist's observations and wet/dry mapping data. ArcGIS was used to map the expansion and site fidelity of these dams.
- Foliage density at control, beaver, and fire-influenced sites was monitored by the BLM wildlife biologist and significant differences were not found between control and beaver sites, but significant differences were found between beaver and fire and control and fire sites.
- The wildlife biologist established point count transects and protocol for monitoring of beaver effects on avian populations.

The annual spring and fall fish monitoring was conducted in April and September by Jerry and Sally Stefferud, Dr. Paul Marsh, and the BLM wildlife biologist.

- We continue to document that only two of the thirteen native fishes inhabit the resource. The majority of the fish habitat is unsuitable for reintroduction of the eleven species no longer in the system. This is due to water quantity and quality issues, and exotic species that have invaded the river.
- Fish numbers were low to moderate, with the remaining two species of native fish, longfin dace (*Agosia chrysogaster*) and desert sucker (*Catostomus clarkii*), documented at the Charleston and Hwy. 90 sites.

The federally endangered Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*) and southwestern willow flycatcher (*Empidonax trailii extimus*) continues to be monitored on the NCA by EEC, Inc. as required under species specific conservation measures of the biological opinion "Proposed Ongoing and Future Military Operations and Activities at Fort Huachuca."

- No southwestern willow flycatchers were documented in the SPRNCA in 2010.
- Huachuca Water Umbel was introduced at three sites in the SPRNCA in 2011.



San Pedro River in Summer Flood Stage

The eleventh annual BLM and volunteer wet/dry monitoring effort was conducted on June 18 along the San Pedro River within the US and Mexico, during the driest time of year. Maps showing the results from the wet/dry monitoring effort allow comparison of river conditions over time, the percentage of river that is wet or dry, and establish an important baseline for evaluating the upper reach of the San Pedro River. Along the Upper San Pedro River, 53% of the total stream length was wet for 2010 as compared to 62% the previous year.

- During FY 2010, approximately 50 miles of the Upper San Pedro River were mapped during the wet/dry effort. Segments along the Babocomari River, Curry Draw, and Horsethief Draw were also mapped.

Proper Functioning Condition (PFC) evaluations were completed on 10 miles of riparian corridor in the SPRNCA during 2010. Two sections were evaluated including from the International Border fence to the Highway 92 Bridge and from the Charleston Bridge to the Boston Mill site.

- The section from the International Border fence to the Highway 92 Bridge was rate as Functional-At-Risk trending upward. Entrenchment has limited the lateral movement of the channel. Large-sized bed material, braided channel features, and scoured areas are evidence of excessive erosion and deposition. The riparian zone appears to be able to sustain moderate flooding events, however is vulnerable to high flood flows, thus a determination of Functional at Risk is warranted. The system is trending upward because of apparent adjustments through widening, creation of sinuosity, stabilization of banks, and aggradation.

- The Charleston Bridge to Boston Mill site was ranked as Functional-At Risk trending upward. The Functional-At-Risk rating is warranted because the overall conditions are not sufficient to adequately dissipate flood flows as evidenced by scouring and course bed load present. Although woody vegetation is present, insufficient vegetative cover is present to protect banks from erosion. The system is in a state of adjustment (aggrading, widening, and developing sinuosity) following past entrenchment. Future system health is dependent on maintaining perennial water.

b. Science Efforts

National Conservation Area Fiscal Year 2010 Science Efforts						
Project Name and Description	Scientific Discipline	Research Contributor/ Collaborator	Land Management Applications	Products	Monetary and In-Kind Contributions	
					BLM	Partner
Wet/Dry on San Pedro River	Hydrology	Public Volunteers/Friends of the San Pedro	Water rights	Hydrologic trends over time		\$8,340
Water Sentinals	Hydrology	Public Volunteers/Friends of the San Pedro	Water rights	Hydrologic trends over time		\$750
Monitoring Avian Production and Survivalship	Avian ecology	Public Volunteers/ Friends of the San Pedro	Actions on the ground that would affect avian ecology	Avian trends		\$12,000
Grassland Restoration	Grassland ecology	The Nature Conservancy	Mesquite removal in grasslands	Marking of trees		\$2,668

X. Outreach, Environmental Education, and Interpretation Efforts

a. Overview

- Arizona Archaeology Month – Tours of Fairbank Townsite; Fairbank Cemetery; and Presidio Santa Cruz de Terrenate. Event held in March 2010 as part of Arizona Archaeology Month; approx. 150 participants. Tours sponsored by FSPR, BLM, and SHPO
- Fairbank Reunion, an annual gathering attended by 50-60 participants. Several were involved in FY2010 efforts to expand interpretive displays at the site.
- Fairbank days, a series of monthly events for winter visitors involving living history, western heritage events and music, reenactments, and tours. Four of these events were held, with 150-350 visitors attending.
- Presidio Santa Cruz de Terrenate Stabilization: A protective mud coating was re-applied to the remaining walls of this 1776 Spanish fortress with assistance from the National Park Service and volunteers from the Arizona Site Stewards and Friends of the San Pedro River. Staff also provided oversight for ongoing research excavations at the site.

- BLM staff work days -- BLM/FS Shared Services Historic Preservation Specialist facilitated 2 work days during FY2010 which included a workshop in appropriate materials and techniques for undertaking preservation efforts on Federally-managed historic properties



Wildlife Interpretive Display at FSPR Spring Fest

- Staff and the FSPR meet with community groups, clubs and other volunteer organizations to provide presentations about the SPRNCA and recreational opportunities. Around 150 presentations, guided walks, hikes and equestrian rides are provided each year by the FSPR. Each year the FSPR sponsor a docent training session over a month long. BLM staff and experienced FSPR docents instruct new docents about the SPRNCA to prepare them to lead hikes, walks and equestrian rides in the future.

b. Visitors Centers

Two locations within the SPRNCA, one at San Pedro House and one at Fairbank Schoolhouse, staffed by FSPR volunteers, provide one page interpretive handouts, with maps, to the various SPRNCA sites and trails open to the public.

The FSPR supports the BLM's educational and public outreach program by:

- Staffing the information center at the San Pedro House 364 days a year (closed on December 25 only).
- Staffing the operation of the Fairbank School House museum and information center three days a week for a total of about 170 days a year. Both the San Pedro House and Fairbank School House are located next to the San Pedro River and trail system.

c. Environmental Education

The Friends of the San Pedro River conduct a program for schoolchildren, led by volunteer John Rose. This wonderful program starts with a classroom visit and slide show, followed up by a visit to the San Pedro River checking out the river flow, micro organisms in the water, and a general introduction to “water and the desert.” In addition, we had two groups “attend” classes in the Fairbank Schoolhouse.

Also part of environmental education, the Natural Resource Specialist is part of two field trips from local schools. One of the field trips is from a local middle school in Naco, Arizona, where a class of 5th and 6th graders come to observe the avian banding station. The other field trip is a class from the local community college, Cochise College, who also come to observe the avian banding station. Although these two groups differ in age, they both walk away with a better understanding of the avian species which utilize this very important habitat and migration corridor and also a greater respect for the environment in which they just visited.

d. Interpretation

- i.** The main messages delivered to the public is the importance and significance of (a) riparian resources and the associated botanical and biological resources, (b) the paleolithic, prehistoric, Spanish settlement, as well as the other historic resources and, (c) the numerous recreational and interpretative opportunities.
- ii.** In partnership with FSPR, a Cultural Docent program was developed and provides interpretive tours of Fairbank, Murray Springs, and Millville historic sites. FSPR volunteers produced three new interpretive posters for display in the Fairbank Schoolhouse: two on pioneer Fairbank families, and a third on the role of railroads in the site’s development. The SPRNCA has one page handouts for each of the eleven trailhead / parking areas and seven additional destination sites within the SPRNCA. We provide the public with a regulatory brochure and maps of the various locations and trails. BLM staff conducted interpretative walks, and conducted presentations to various schools and community organizations. Total visitation to the SPRNCA is estimated at approximately 113,325 annually.
- iii.** Participants in the interpretive opportunities on the SPRNCA come from all over the world and are all age classes.

XI. Manager’s Corner

Having one Manager who oversees two National Conservation Areas, Las Cienegas NCA and San Pedro Riparian NCA, provides challenges. With all the ARRA projects and demands of regularly occurring work, I am pleased to announce that the staff for both Las Cienegas and San Pedro Riparian NCAs have pulled through with this demand and have started to work together on a multitude of projects.



San Pedro River and Spring Rainbow