

Wild and Scenic River Eligibility Report

SAN PEDRO RIPARIAN NATIONAL CONSERVATION AREA

May 2016



**Prepared by the USDI Department of the Interior
Bureau of Land Management, Tucson Field Office**

May 2016



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Cover photo – San Pedro River near Charleston courtesy of BLM/Bob Wick

San Pedro River Wild and Scenic River Study Area Eligibility Report

This document consolidates resource information about the San Pedro River and one of its key tributaries, the Babocomari River. The purpose of this document is to provide a basis for reassessing the eligibility and suitability for inclusion of the San Pedro River and related free-flowing conditions and outstandingly remarkable river values into the National Wild and Scenic River System.

I. BACKGROUND:

The San Pedro River Wild and Scenic River Study Area Eligibility Report describes the information considered by the Bureau of Land Management (BLM) in the eligibility, and tentative re-classification of the San Pedro River for suitability analysis in the San Pedro Riparian National Conservation Area (SPRNCA) Resource Management Plan (RMP).

The SPRNCA was established by Public Law (P.L.) 100-696 on Nov. 18, 1988 to preserve, protect, and enhance the aquatic, wildlife, archaeological, paleontological, scientific, cultural, educational, and recreational resources in the conservation area. The mainstem San Pedro River through the SPRNCA was studied for potential designation by Congress under the Wild and Scenic Rivers Act of 1968¹ in 1994, and a suitability determination was made in the 1996 Arizona Statewide Wild and Scenic River Study Report Record of Decision² (hereafter referred to as the 1996 Rivers Study Report). The Record of Decision approved the BLM recommendations for the two segments, totaling 44 river miles, as suitable for designation with a 'Recreational' Classification. The study area is under protective management to preserve free flowing characteristics and outstandingly remarkable values. Guidance for the identification, evaluation, planning and management of eligible and suitable wild and scenic rivers is provided by BLM Manual 6400- Wild and Scenic Rivers³.

This evaluation was conducted to determine if the eligibility determinations and tentative classifications made in the 1996 Rivers Study Report are still appropriate for the SPRNCA given current conditions. The existing suitability recommendations in the 1996 Rivers Study Report will be revisited in the SPRNCA RMP to address changes in circumstances which may affect the eligibility and suitability for inclusion in the National Rivers System. The changes are mainly related to land status, resource conditions and outstandingly remarkable values, and changes in management of the SPRNCA.

As part the public scoping for preparation of the RMP comments received from the public recommended an inventory of other river segments for possible Wild and Scenic River

¹ Public Law 90-542; 16 U.S.C. 1271 et seq.

² Arizona Statewide Wild and Scenic Rivers Study Report/Record of Decision, USDI, BLM, 1997.Final, published in February 1997; Record of Decision approved May 29, 1996.

³ 6400 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management (Public), Rel. 6-136, July 13, 2012.

designation. Therefore, this Eligibility Report also contains a determination on the eligibility of the Babocomari River, a tributary of the San Pedro River located partially within the SPRNCA. Land use activities in the study river corridor have been managed under the 1989 Riparian Management Plan, prepared by the BLM to achieve the purposes of the conservation area. The decisions in the Riparian Management Plan were adopted in the Safford RMP and Environmental Impact Statement (EIS). Facilities to accommodate public recreational use have been developed at the locations identified in the San Pedro Riparian Management Plan, including designated access points along the highway crossings and various trailheads which provide access to the San Pedro Trail and SPRNCA.



San Pedro River near Fairbank

STUDY AREA SUMMARY: SAN PEDRO RIVER

The study area includes the San Pedro River from the United States international boundary with Mexico downstream to the Escalante Crossing on the north boundary of the SPRNCA (Map 1).

A. Name of River: San Pedro River

B. Location:

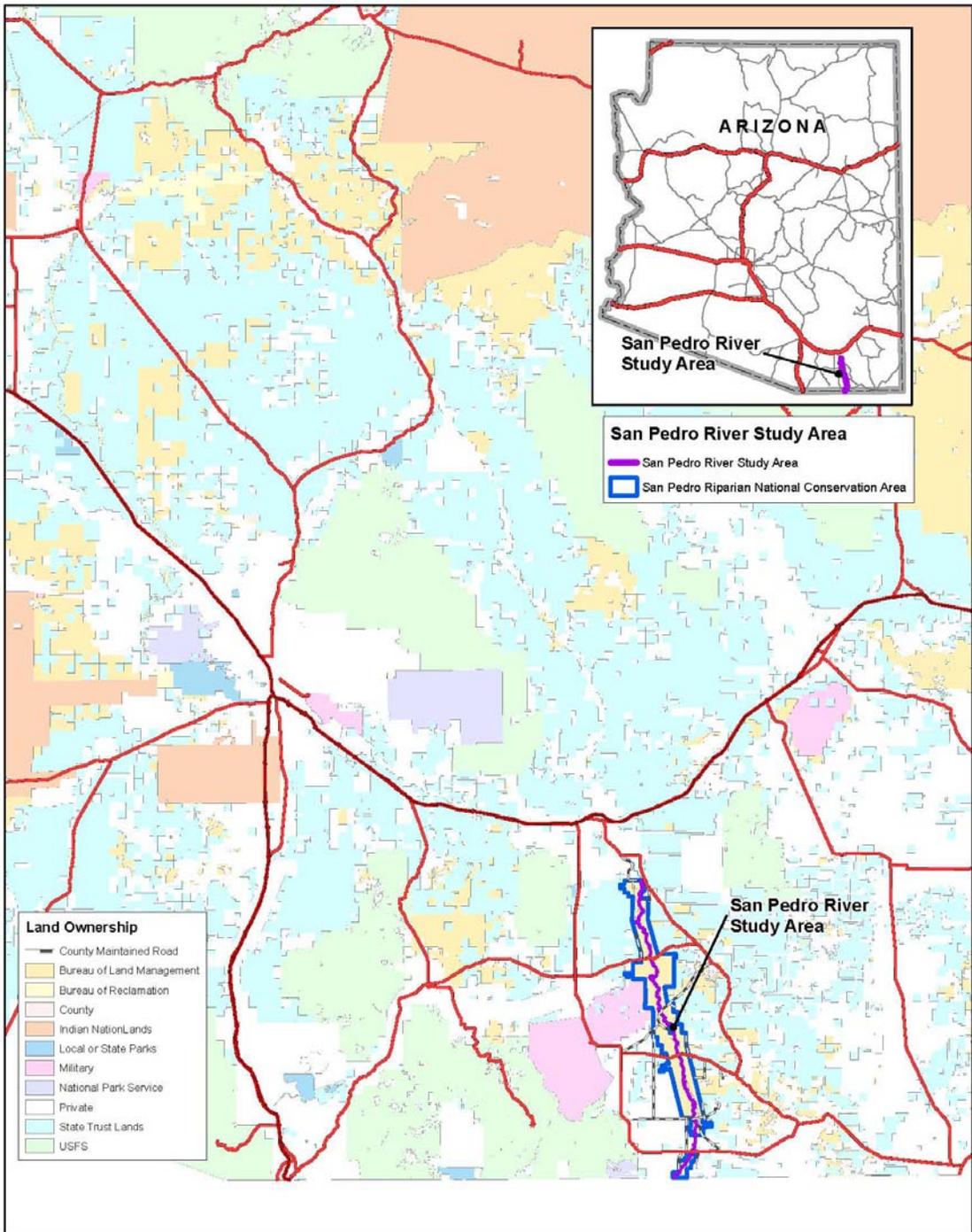
The SPRNCA is located in southeastern Arizona approximately 80 miles southeast of Tucson. The nearest towns are Sierra Vista, Tombstone, and Saint David. The area is accessible from I-10 by State Routes (SR) 80, 82, 90 and 92, and local county roads. The SPRNCA includes federal lands administered by the BLM in the San Juan de Las Boquillas and San Rafael del Valle land grants, generally situated in Township (T) 18 South (S), T19S, T20S, T21S, T22S, T23S and Range (R) 21 East (E), in Cochise County, Arizona.

The SPRNCA is within the Madrean Archipelago ecological region, characterized by high desert grassland and shrub cover, at elevations ranging from 3,600 feet at Saint David to 4,300 feet near the international border.

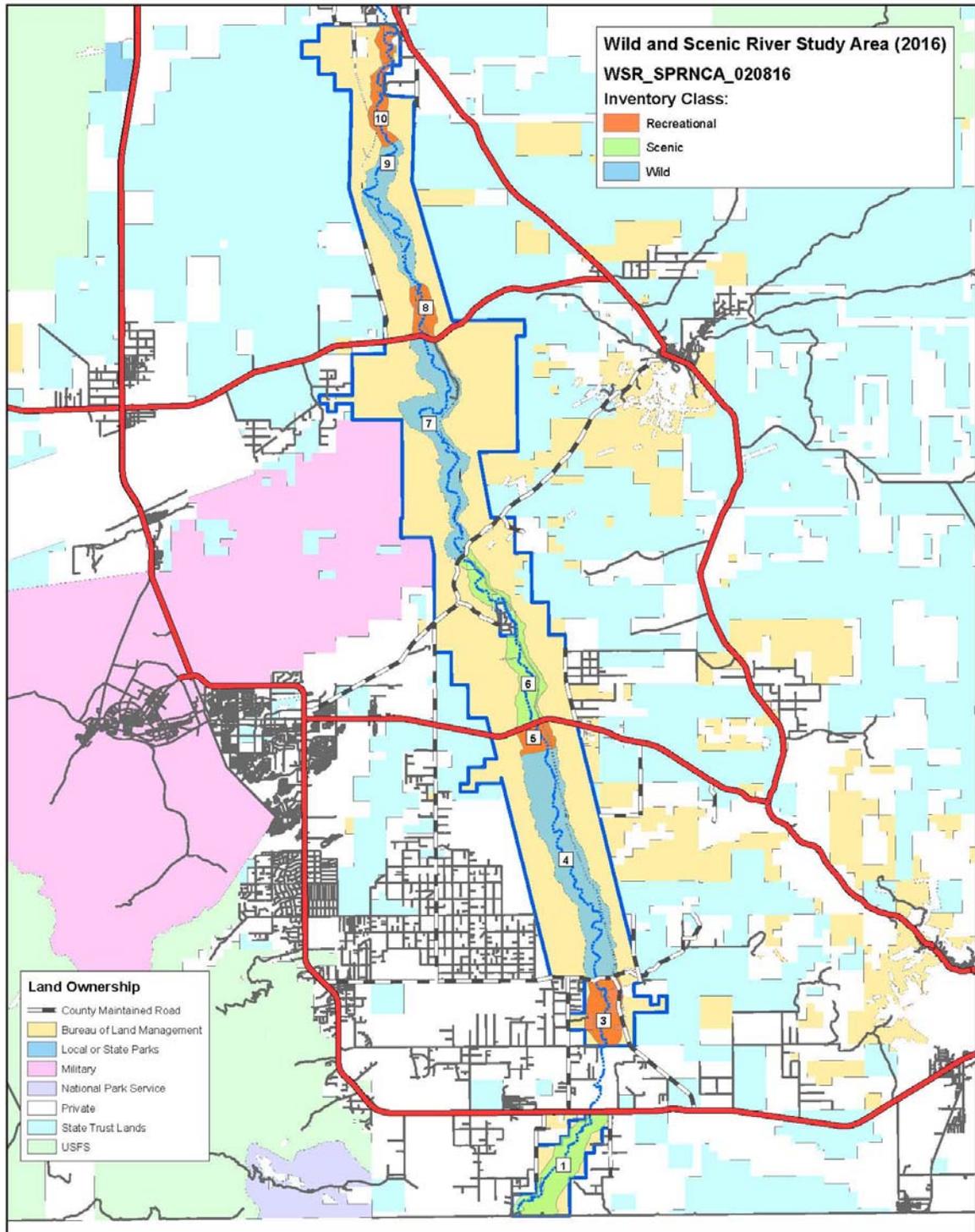
The study river for this evaluation includes approximately 50.7 river miles from the international boundary to Escalante Crossing, including the two river segments across the SPRNCA which were determined suitable for designation in the 1996 River Study Report, and recommendations approved by the Department of Interior for designation by Congress.

The study river was measured to identify the river mileage using current aerial photography and Geographic Information System (GIS) methods, and divided into segments defined primarily by the highway crossings which provide access to the river, and the current land ownership. The river mile (RM) measurements begin at 0.0 at the international boundary and continue downstream to the end of the study area at RM 50.8. Table 1 describes the river segments considered in this evaluation, including the existing classification (Map 2). The 2.4 river mile segment from SR 92 to the SPRNCA boundary along Waters Road is entirely across private land, and was determined noneligible in the 1996 River Study Report.

Public comments received during scoping for the SPRNCA RMP requested continued protection of the existing river segments determined suitable for designation, and recommended an inventory of other river segments for possible designation. The river segment between SR 92 and Waters Road is included in this evaluation because it lies between the two segments determined suitable for designation, and to identify possible changes in circumstances which may warrant a change in the noneligible determination made in the 1996 River Study Report.



Map 1. Location and Vicinity of the San Pedro River Study Area



Map 2. San Pedro River Study Area and Inventory Classifications

Table 1. San Pedro River Study Segments and Current Classification.

ID	River Segment	River Miles		River Miles	1996 Classification
		From	To		
1	U.S. - Mexico Border to SR 92	0.0	4.8	4.8	Recreational
2	SR 92 to Waters Rd. (SPRNCA Boundary)	4.8	7.2	2.4	Noneligible ⁴
3	Waters Rd. to Hereford Rd.	7.2	9.8	2.6	Recreational
4	Hereford Rd. to Garden Wash	9.8	19.4	9.6	Recreational
5	Garden Wash to SR 90	19.4	20.3	0.9	Recreational
6	SR 90 to Charleston Rd.	20.3	27.4	7.1	Recreational
7	Charleston Rd to SR 82	27.4	37.1	9.7	Recreational
8	SR 82 to Willow Wash	37.1	39.1	2.0	Recreational
9	Willow Wash to Saint David Diversion Ditch	39.1	47.5	8.4	Recreational
10	Saint David Diversion Ditch to SPRNCA Boundary	47.5	50.8	3.3	Recreational
	Total			50.8	

C. River Mileage:

The total river miles studied shown on Table 2 below are based on measurements of the San Pedro River channel alignment on aerial photography taken in 2015. The mileage is different from the river miles identified in the 1996 River Study Report due to the greater accuracy achieved from using GIS data and do not reflect any change in the river study segments.

Table 2. San Pedro River Study Miles 1996 and Current Evaluation.

San Pedro River	River Miles 1996	River Miles 2016	Notes
Studied	46	50.8	No change in study area, only mileage
Eligible	44	48.4	Excludes the International Boundary Zone
Noneligible	2	2.4	Private segment between SR 90 and Waters Road.

⁴ The section from SR92 and the SPRNCA boundary along Waters Road is entire on private land and outside the SPRNCA.

D. Study Area Acreage:

The acreages shown on Table 3 are based on the acres determined suitable for designation in the 1996 River Study Report, and the topographically defined study corridor in this evaluation. The acreage is different from the acres identified in the 1996 River Study Report due to the differences in the extent of the study corridor, and the current land ownership pattern, which includes several parcels reconveyed to the United States since the 1996 study.

Table 3. San Pedro River Study Area acres and Land Ownership.

Ownership	Study Area Acres 1996	Study Area Acres 2016	Notes
BLM	12,256	16,568	SPRNCA lands
Private	1,840	1,279	Various
International Border Zone	0	8	International Boundary and Water Commission

II. ELIGIBILITY

Free flowing conditions and outstandingly remarkable values identified in the 1996 River Study Report were evaluated to determine if any changes in circumstances have occurred which may warrant reconsideration of the existing eligibility determination.

A. Determination of Free Flow:

The entire river segment studied remains in free flowing condition. The St. David Ditch continues to divert river flows at about river mile (RM) 47.5. The diversion dam and ditch are owned and operated by the St. David Irrigation District with headquarters in St. David, Arizona. The diversion alters the flows in the 3.3 mile river segment downstream from the diversion to the end of the river study area.

B. Determination of Outstandingly Remarkable Values:

To be eligible for inclusion into the National Wild and Scenic Rivers System, the river and its adjacent land area must have one or more Outstandingly Remarkable Values (ORVs). ORVs may include scenic, recreation, geology, fish, wildlife, historical, cultural, or other values. A river related value must be unique, rare or exemplary to be outstandingly remarkable.

The outstandingly remarkable values (ORVs) identified in the 1996 River Study Report were: scenic, recreational, fish and wildlife habitat, cultural, historic and paleontological resources. These ORVs are summarized below.

- 1. Scenery:** The river study corridor is scenic, with a largely natural appearance and many outstanding landform, vegetation and water features. A visual resources inventory completed for the SPRNCA in 2012 identified the river study corridor as 'Class A' for

scenic quality, 'High' for visual sensitivity, and the viewing distance as 'Foreground-Middle ground'. The current RMP designated portions of the river study corridor within several Research Natural Areas (Saint David Cienega, San Pedro River, and San Rafael) under Visual Resource Management (VRM) Class I to preserve the existing character of the landscape, and provide for natural ecological changes with very limited management activity. The rest of the riparian corridor was designated under VRM Class II to retain the existing character of the landscape.

- 2. Recreational:** The river corridor provides opportunities for outdoor recreation in riparian and upland settings, in a largely natural environment. Sections of the study corridor near the existing highway crossings are readily accessible, and include developments to accommodate public use completed by the BLM to provide access to the SPRNCA. Recreation opportunities in primitive and remote settings area also available in the study area, and on adjacent lands along the riparian corridor. Sites managed to accommodate public are found along SR 82, SR 90, SR 92, and Charleston Road, including the Fairbank Historic Townsite, San Pedro House, and several trailheads at locations throughout the SPRNCA. The San Pedro Trail system was established in 1995, and has been maintained to provide non-motorized travel (hiking, bicycling, and equestrian riding) from the public access points to various recreation opportunities and points of interest in the SPRNCA and along the river corridor. Recreational opportunities which attract public use include sightseeing, wildlife viewing, hunting, viewing sites of historic, prehistoric, paleontological, and botanical interest, viewing the river and riparian woodland, and trail use activities. Bird watching opportunities are internationally renowned, and the San Pedro is recognized as a Globally Important Bird Area⁵. Fishing opportunities are limited to warm water exotic species, and attract very limited use. River floating opportunities are limited by the river flows, and attract very little use. Water play (wading, swimming) opportunities attract some use, particularly near the public access points along the highways. Hunting opportunities are limited by current regulations which prohibit use of fire arms in the SPRNCA between Charleston Road and SR 92.
- 3. Fish:** The San Pedro River provides aquatic habitat for desert pupfish (*Cyprinodon macularius*), and Gila topminnow (*Poeciliopsis occidentalis*), two species listed as Endangered by the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act. Habitat for fish species is limited by poor water quality, which leads to occasional fish kills. The river segment between SR 90 and Charleston Road offers the most reliable fish habitat due to generally sufficient flows and good water quality. The segment from Fairbank to the Saint David Diversion is not considered fish habitat due to insufficient flows and poor water quality. Sport fish species which may be found in the river include channel catfish, green sunfish, black bullhead catfish, carp, and occasionally large mouth bass.
- 4. Wildlife Habitat:** Biological and resource studies since the 1996 River Study Report have identified numerous resident and migratory avian species that use the San Pedro River year round or for part of the year, and many rare and unique species may be present. The San Pedro River is in a critical location along a north-south migratory

⁵ Audubon Important Bird Area #US-AZ901 San Pedro Riparian National Conservation Area Profile

corridor for neo tropical birds, and many species use the river and depend on it for survival.

Habitat has been identified in the SPRNCA and river study area for federally listed (or proposed for listing) species including Huachuca water umbel, southwest willow flycatcher, yellow-billed cuckoo, northern Mexican gartersnake, desert pupfish, Gila topminnow, lesser long-nosed bat, jaguar and ocelot. Critical habitat designated or proposed for designation by the USFWS is found in the SPRNCA and the river study corridor for the following species: Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*), listed as Endangered; the northern Mexican gartersnake (*Thamnophis eques megalops*), listed as Threatened, and the yellow-billed cuckoo (*Coccyzus americanus*), listed as a threatened species. The critical habitat designations, or proposed designations, were made after the 1996 Rivers Study Report, and are considered new ORVs in the river study area.

The SPRNCA and the study river corridor provide habitat which supports game species which attract hunting, including javelina, mule deer, white tailed deer, dove, quail, rabbit, waterfowl, predators and fur bearers. Additionally, the study area supports a high diversity of reptile species, including lizards and snakes and amphibians which attract research and wildlife viewing.

- 5. Cultural:** The river study corridor includes remnants of the Presidio de Terrenate, adobe building remnants of a Spanish fort dating to the late 1700's. The site is used for educational purpose and has a path and signs.

The river corridor also includes pre-historic cultural resource values. A petroglyph site is used for educational purposes, and has an interpretive path and signs.

- 6. Historic:** The river study area includes several historic townsites (Fairbank, Contention, Charleston), and remnants of mining and ore processing (Millville, Boston Mill, Central Station Mill), historic railroad grades, historic roads and trails, historic ranching (Clanton Ranch), and farming (Del Valle). The Fairbank historic townsite is managed by the BLM for recreational and educational purposes, and for visitor contact and information.
- 7. Paleontological:** Geologic formations in the study area include alluvial deposits dating to the last glacial age, approximately 11,000-13,000 years ago, which contain world renown paleontological resources. The Lehner and Murray Springs Sites, both National Historic Landmarks, are found along the edge of the river corridor. Both sites have contributed information which helped date and understand the Clovis culture in North America during the last ice age, and the interactions with mega fauna. Both sites are internationally renowned for scientific research and educational purposes.
- 8. Botany:** The river study area supports a high variety of riparian and upland vegetation which attracts research and educational activities. The study area includes outstanding cottonwood/willow gallery tree woodland, mesquite bosque, sacaton grassland, mixed desert shrubs and other vegetation communities.

The outstandingly remarkable values identified in the 1996 River Study Report are still present in the river study area.

The legislation which established the SPRNCA, P.L. 100-696, identifies the presence of 'aquatic, wildlife, archaeological, paleontological, scientific, cultural, educational, and recreational' resources, and directs management of the SPRNCA to 'conserve, protect, and enhance' those resources. The ORVs are essentially the same as the SPRNCA resource values, and they have been preserved by the protective management established for the SPRNCA in the legislation, the San Pedro River *Riparian Management Plan*, and the Safford RMP.

III. CLASSIFICATION

The basis for the inventory classification of the river segments in this evaluation is described for each segment below.

1. U.S. - Mexico Border to SR 92: (4.8 river miles)

Water Resource Development: None.

Shoreline Development: Largely undeveloped. A few inconspicuous structures. Evidence of past farming and farm roads. U.S. Border Patrol surveillance tower.

Accessibility: Readily accessible from SR 92 via San Pedro Trail.

Water Quality: Category 5, impaired for not-attaining the water quality standards for E-coli and dissolved copper for the designated uses of full body contact and aquatic and wildlife (warm water).

Tentative Classification: Scenic.

2. SR 92 to Waters Road (2.4 river miles)

Water Resource Development: None.

Shoreline Development: Some development and evidence of human activity. A few residential structures and roads on the edge of the corridor. Active farming and farm roads in the corridor.

Accessibility: Readily accessible from SR 92 and Hereford Road via residential and farm roads, but there is no legal public access due to entirely private land ownership.

Water Quality: Category 5, impaired for not-attaining the water quality standards for E-coli and dissolved copper for the designated uses of full body contact and aquatic and wildlife (warm water).

Tentative Classification: Non-eligible (Recreational).

3. Waters Road to Hereford Road (2.6 river miles)

Water Resource Development: None. River channel may have been straightened in the past for farm development, presently re-vegetated and naturalized.

Shoreline Development: Some development and evidence of human activity. Some residential structures and roads on the edge of the corridor. Active farming and farm roads in part of the corridor on private land.

Accessibility: Readily accessible from Hereford Road, Waters Road and Lehner Road, with designated trailhead to access the San Pedro Trail for non-motorized trail access.

Water Quality: Category 5, impaired for not-attaining the water quality standards for E-coli and dissolved copper for the designated uses of full body contact and aquatic and wildlife (warm water).

Tentative Classification: Recreational.

4. Hereford Road to Garden Wash (9.6 river miles)

Water Resource Development: None.

Shoreline Development: Largely primitive and undeveloped. No substantial evidence of human activity. Evidence of past farming and farm roads, and ranching. Union Pacific Railroad grade along the corridor, recently abandoned.

Accessibility: Accessible only by non-motorized trail from Hereford Road and SR 90 trailhead via the San Pedro Trail.

Water Quality: Category 5, impaired for not-attaining the water quality standards for E-coli and dissolved copper for the designated uses of full body contact and aquatic and wildlife (warm water).

Tentative Classification: Wild.

5. Garden Wash to SR 90 (0.9 river miles)

Water Resource Development: None.

Shoreline Development: Some development and noticeable evidence of human activity. Evidence of past farming and farm roads. Union Pacific Railroad grade along the corridor, recently abandoned. Restored historic ranch house with visitor contact and recreational developments at San Pedro House, public parking, visitor contact, toilets, picnic facilities, administrative quarters, trails and footpaths.

Accessibility: Readily accessible from SR 90 and designated parking area and trailhead at San Pedro House. Non-motorized access on San Pedro Trail and Kingfisher Pond loop trail from the trailhead.

Water Quality: Category 5, impaired for not-attaining the water quality standards for E-coli and dissolved copper for the designated uses of full body contact and aquatic and wildlife (warm water).

Tentative Classification: Recreational.

6. SR 90 to Charleston Road (7.1 river miles)

Water Resource Development: None.

Shoreline Development: Some development and evidence of human activity in the Escapule area, with occupied residential buildings, a primitive road crossing, an overhead water aqueduct crossing (Tombstone Aqueduct). Lewis springs power line across river.

Accessibility: Accessible in places by road (SR 90, Escapule Road, and Charleston Road), with non-motorized trail access beyond the existing trailheads.

Water Quality: Category 5, impaired for not-attaining the water quality standards for E-coli and dissolved copper for the designated uses of full body contact and aquatic and wildlife (warm water).

Tentative Classification: Scenic.

7. Charleston Rd to SR 82 (9.7 river miles)

Water Resource Development: None. Historic Charleston Dam site and dam site withdrawal present in this segment, but is undeveloped.

- Shoreline Development:* Union Pacific Railroad, historic railroad grades, Little Boquillas Ranch headquarters, evidence of historic townsite (Charleston and Millville), evidence of past ranching (buildings, fencing, water wells, corrals), evidence of past mining and ore processing (mill sites and structure remnants).
- Accessibility:* Accessible by non-motorized trail only, from the existing trailheads at the highway crossings (Little Boquillas trailhead and Millville trailhead).
- Water Quality:* Category 3, inconclusive. More sampling needed.
- Tentative Classification:* Wild.
- 8. SR 82 to Willow Wash (2.0 river miles)**
- Water Resource Development:* None. Union Pacific Railroad bridge at RM 37.7.
- Shoreline Development:* Some development, some evidence of human activity around public use area at Fairbank. Evidence of historic townsite (Fairbank) with remnants of buildings, and associated cemetery. Restored historic buildings at Fairbank, with public parking, visitor contact, toilets and trailhead. Evidence of historic ore processing (Fairbank mill site).
- Accessibility:* Readily accessible from SR 82 parking area and trailhead. Non-motorized trail access beyond the trailhead.
- Water Quality:* Category 5, impaired due to E-Coli exceedance.
- Tentative Classification:* Recreational.
- 9. Willow Wash To Saint David Diversion Ditch (8.4 river miles)**
- Water Resource Development:* None.
- Shoreline Development:* Union Pacific Railroad railroad grade on private land along river, recently abandoned. Evidence of historic railroad grades. Evidence of past ranching around Summers Well (RM 43). Evidence of historic mine ore processing (Boston mill site) with remnants of structures. Evidence of historic Spanish presidio (Terrenate) with remnants of adobe buildings. Evidence of historic townsite (Contention) with remnants of buildings.
- Accessibility:* Accessible only by non-motorized trail, from trailheads at Land Coral and SR 82 at Little Boquillas. Access is also available from the residential community at Escalante crossing along the Saint David Ditch service road.
- Water Quality:* Category 5, impaired due to E-Coli exceedance.
- Tentative Classification:* Wild.
- 10. Saint David Diversion Ditch To SPRNCA Boundary (3.3 river miles)**
- Water Resource Development:* None. Except earthen dam at the beginning of the segment. This diverts flows for irrigation, and reduces river flows downstream.
- Shoreline Development:* Saint David Ditch diversion dam and ditch. Natural gas pipeline crossing. Escalante Road crossing, a few houses.
- Accessibility:* Accessible by vehicle from Escalante Crossing Road, and by non-motorized travel cross country. Accessible also by non-motorized trail from the trailhead at Land Coral. Access is also available from the residential community at Escalante crossing, and SR 80 via residential streets.
- Water Quality:* Category 5, impaired due to E-Coli exceedance.
- Tentative Classification:* Recreational.

IV. ELIGIBILITY DETERMINATION AND TENTATIVE RECLASSIFICATION

Resource conditions and circumstances in the San Pedro River Study Area have changed since the 1996 River Study Report was completed. The changes do not affect the river's free flowing condition, but added one outstandingly remarkable value for botanical resources. Road access which was planned by the BLM along some of the river segments was not implemented to preserve resource values, and public access is limited to non-motorized travel throughout the river corridor, except at designated highway crossings and trailhead access points. Critical habitat has been designated within the study corridor by the USFWS for threatened and endangered species, adding to the importance of the wildlife ORVs identified in the 1996 River Study Report. Resource inventories have identified botanical resources that include unique and rare plants, including exemplary stands and specimens of riparian and upland vegetation, which are considered an additional outstandingly remarkable value. Table 4 below shows the recommended tentative classifications for analysis in the San Pedro RMP.

Table 4. San Pedro River Study Area Segment Tentative Re-Classifications.

ID	River Segment	River Miles	BLM Acres	Private Acres	Proposed Eligibility Re-Classification
1	U.S. - Mexico Border to SR 92	4.8	1,798.63	176.22	Scenic
2	SR 92 to Waters Road SPRNCA Boundary	2.4	0	0	Non eligible
3	Waters Road to Hereford Road	2.6	1,029.36	294.07	Recreational
4	Hereford Road to Garden Wash	9.6	4,378.03	176.59	Wild
5	Garden Wash to SR90	0.9	541.96	22.08	Recreational
6	SR 90 to Charleston Rd.	7.1	1,817.97	293.15	Scenic
7	Charleston Road to SR 82	9.7	3,453.97	114.48	Wild
8	SR 82 to Willow Wash	2.0	639.44	34.56	Recreational
9	Willow Wash to Saint David Diversion Ditch	8.4	1,918.90	41.47	Wild
10	Saint David Diversion Ditch to SPRNCA Boundary	3.3	989.27	126.00	Recreational
	Total	50.8	16,567.53	1,278.62	

STUDY AREA SUMMARY: BABOCOMARI RIVER

The study area includes the San Pedro River from the United States international boundary with Mexico downstream to the Escalante Crossing on the north boundary of the SPRNCA (Map 3).

The San Pedro River has many side drainages with watersheds draining Whetstone, Huachuca, Mule and Dragoon mountains forming the Upper San Pedro Basin. While all the major washes draining into the San Pedro River are important to the river's hydrologic and other resource values, the Babocomari River is the most substantial tributary due to its perennial flow and was identified for study to evaluate its eligibility for addition to the National Wild and Scenic Rivers System. In addition, the Babocomari River is identified as an area suitable for consideration as an ecological linkage, as this river provides important wildlife genetic connectivity between the Huachuca Mountains (Hass 2000), Whetstone Mountains and Las Cienegas National Conservation Area (LCNCA) to the San Pedro River. The Babocomari River is even more important as a wildlife corridor considering the amount of urban growth in Sierra Vista and the Hereford area between the Huachuca Mts. and the San Pedro River.



Babocomari River near its confluence with the San Pedro

The Babocomari River is not identified in previous inventory or planning efforts, including the Safford RMP (1992), the Arizona Wild and Scenic River Legislative EIS (1994), the San Pedro Riparian Management Plan (1988), or the National Park Service's Nationwide River Inventory River Segment Location and General Description.

A. Name of River: Babocomari River

B. Location:

The Babocomari River is located in Cochise and Santa Cruz counties, with its upper watershed on Fort Huachuca, National Forest, BLM and private lands in the Whetstone and Huachuca mountains as well as the Canelo Hills. A portion of the river's upper watershed is within the Las Cienegas National Conservation Area, administered by the BLM Tucson Field Office. Part of the Babocomari River crosses several conservation easements held by the United States on private property.

Map 3 shows the location of the Babocomari River and its watershed in relation to the SPRNCA planning area.

C. The Babocomari River study area begins at its confluence with the San Pedro River and continues to the end of the defined river channel in the vicinity of the town of Elgin, AZ, totaling approximately 27 river miles. The river study corridor includes ¼ mile on each side of the river. Land ownership within the study area includes BLM land, private land, State Trust land, and a short segment of Fort Huachuca Military Reservation as shown on Table 1 below River Mileage and Acreage:

Segments: The 27-mile Babocomari River was divided into two segments, primarily considering changes in land status or ownership. Segment 1 includes approximately four miles of river from its confluence with the San Pedro River to the SPRNCA boundary. Segment 2 includes approximately 23 miles of the river from the SPRNCA boundary to the beginning of the defined channel near Elgin, Arizona.

Segment 1, a 4-mile portion on BLM land is within the SPRNCA (Map 3), and is in largely natural condition. Upstream from the SPRNCA, the river flows through residential and rural areas, with considerable development along the river corridor, particularly around Huachuca City. Within Segment 2, the river crosses several conservation easements acquired in 2007 to protect 6.7 miles of the river from development. The conservation easements are within LCNCA Acquisition Planning District.

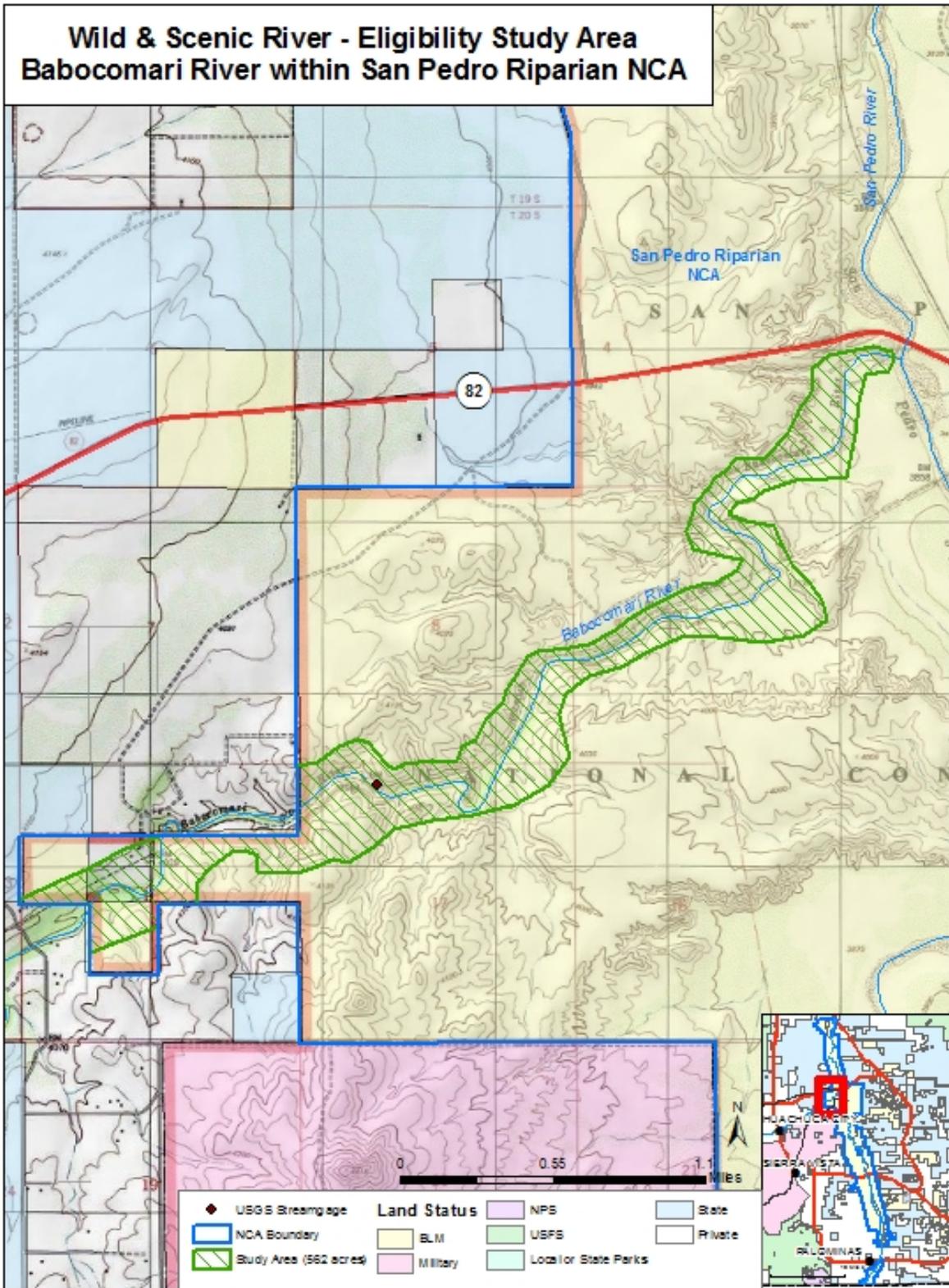
The area within Segment 1 includes the topography break that defines the canyon rim that is natural to the river corridor, see Figure 2. The study area is in a total of 562 acres and contains 4 miles of the river. There are 26 acres of private land within the study area.

Table 5. Land Ownership along the Babocomari River Study Area

Ownership	River Miles	Acres in Study Corridor
BLM	4.0	1,308
Department of Defense	0.1	201
Private	22.5	6,500
State	0.4	330
Total	27	8,339

V. ELIGIBILITY

The eligibility of a river for potential inclusion in the National Wild and Scenic Rivers System is determined by the river's free-flowing condition and, with its adjacent land area, possession of one or more outstanding remarkable values (ORVs). The eligibility determination is part of the inventory process and does not require a decision or approval document. The BLM does not have the authority to evaluate the presence, absence, or quality of values that occur on private lands, and therefore the eligibility determination considers only the river segment (Segment 1) on BLM administered lands. Segment 2 is excluded from the remainder of the report. This does not constitute a finding of noneligible.



Map 4. Babocomari River Within SPRNCA

A. Determination of Free Flow:

There are no man made modifications to the Babocomari River in Segment 1 of the study area. The river is free flowing and has a natural and predictable flow regime based on USGS stream flow data. Wet-dry mapping by The Nature Conservancy (TNC) and volunteers from 2007 to present indicate perennial conditions in wet years, transitioning to intermittent during dry years. There are two USGS stream flow gaging stations on the Babocomari River. One in the upper part of the watershed near Huachuca City (United States Geological Survey [USGS] 09471380) and one within the SPRNCA boundary (USGS 09471400, Latitude 31°42'01" North, Longitude 110°13'35" West). These gaging stations provide data on stream flow for approximately ten years.

Groundwater pumping in recent years upstream from the SPRNCA to supply water to Fort Huachuca is creating a cone of depression which is decreasing stream flows in segment 1 (Lacher 2012).

B. Determination of Outstandingly Remarkable Values:

1. **Scenery:** The Babocomari River forms a steep sided canyon in bedrock geology with a narrow canyon bottom, and perennial flows (though flows appear to be transitioning to intermittent). Vegetation in the canyon bottom includes cottonwood-willow riparian woodland, with mesquite bosque. The uplands are Chihuahuan desert scrub. A historic railroad grade, minor range improvements, and a stream gaging station are present along the river segment. Scenic quality is Class A, with outstanding landform, vegetation and water features, in largely natural condition with few noticeable developments. Rural residences border the Babocomari River corridor on adjacent private lands⁶.
2. **Recreation:** The historic railroad grade is part of the San Pedro Trail system, but trail plans have not been implemented.
3. **Fish:** The study area has aquatic habitat which used to support native fish species. Aquatic habitat conditions have degraded due to water flow reductions, and may no longer support fish (long finned dace).
4. **Wildlife:** Habitat has been identified in the SPRNCA and river study area for federally listed (or proposed for listing) species including southwest willow flycatcher, yellow-billed cuckoo, northern Mexican gartersnake, jaguar, and ocelot. The Babocomari River on SPRNCA contains occupied proposed critical habitat for the federally (USFWS) listed as threatened yellow-billed cuckoo. Proposed critical habitat for the federally listed as threatened northern Mexican gartersnake continues from the San Pedro River upstream on the Babocomari River to approximately 1.7 miles downstream of Elgin, Arizona and includes segments which fork into the Canelo Hills and Huachuca Mountains. The federally

⁶ BLM 2012. San Pedro River Visual Resources Inventory.

endangered Huachuca water umbel has been documented as occurring within Segment 1 of the Babocomari River.

5. **Historical:** A historic railroad grade follows the river in the canyon.
6. **Cultural:** The Babocomari River on the SPRNCA contains areas where cultural sites are abundant. These sites add significance to the study of prehistoric archaeology along the SPRNCA.

River Segment 1 has the following ORVs; scenery, recreation, wildlife, historical, and cultural.

VI. ELIGIBILITY DETERMINATION AND CLASSIFICATION

The basis for the inventory classification of the river segments in this evaluation is described for Segment 1 below.

The tentative classification for the Segment 1 is scenic. The study area is entirely within the SPRNCA, which protects it from development and has been managed through natural processes since designation. There is an abandoned rail road grade that follows the river for approximately 1.5 miles and is used solely for administrative vehicular access. The downstream beginning of the study area is located at the river’s confluence with the San Pedro River. State Route 82 is within 300 feet of this terminus. The first 1.5 miles of the river from the upstream terminus is within 1,000 feet of private land holds with small residential developments. There is a small amount of evidence of human activity in the upstream portion including an old abandoned bridge abutment. Evidence of grazing also occurs in the upstream portion. Other than the factors listed above, there is little evidence of human activity, especially within the riparian corridor.

Table 6. Land Ownership within Babocomari Segment 1

ID	River Segment	River Miles	BLM Acres	Private Acres	Proposed Eligibility Classification
1	Babocomari River Segment 1	4.0	1,308	0	Scenic

According to the latest 305(b) Assessment report for 2012/2014 from Arizona Department of Environmental Quality, the Babocomari River, in its entirety, is listed as attaining the standards set by the Clean Water Act for some uses. As a tributary to the San Pedro River, maintaining the water quality in the Babocomari is important for improving impaired reaches of the San Pedro that are downstream from the confluence.

A proper functioning condition assessment was performed on the study area in October 2013. The assessment split the study area into two segments. The upper part of the study is from the USGS gaging station (USGS 09471400) to the SPRNCA boundary and was found to be in

proper functioning condition. It is a stable bedrock lined channel with some evidence of excess sediment from the watershed. The lower segment from the gage to the confluence of the San Pedro River was found to be functional at risk with a downward trend. Factors contributing to this finding are predominately attributed to grazing and deteriorating upland watershed conditions. Groundwater extraction was identified as an issue for both segments.

VII. SUITABILITY

The tentative classifications identified in this inventory will be considered and analyzed in the revision of the SPRNCA RMP and EIS. The ROD will identify the determinations on the eligibility and suitability of the proposed river study area delineation, and the tentative re-classification of river segments.

The determinations made in the ROD will constitute the BLM recommendations, and will be forwarded to the Secretary of Interior by the Director of the BLM for recommendations to Congress. The ROD would identify the protective management guidelines that will be implemented to protect the river corridor until Congress acts on the agency recommendations.

Table 6. List of Preparers and Reviewers

Name	Title	Office
David McIntyre	San Pedro Riparian National Conservation Area Resource Management Plan Team Leader	BLM Tucson Field Office
Francisco Mendoza	Outdoor Recreation Planner	BLM Tucson Field Office
Jim Mahoney (retired)	Outdoor Recreation Planner	BLM Tucson Field Office
Heather Swanson	Natural Resource Specialist	BLM Tucson Field Office
Ken Mahoney	Program Lead, National Conservation Lands	BLM Arizona State Office