

CHAPTERS

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND AND SCOPE OF REPORT

This report addresses certain land ownership issues concerning federal reserved water right claims for the San Pedro Riparian National Conservation Area (SPRNCA). The United States Department of the Interior, Bureau of Land Management (BLM or United States) filed these claims in the Gila River Adjudication as authorized by Congress.¹ Congress established SPRNCA as part of the Arizona-Idaho Conservation Act of 1988 (Act), which was enacted on November 18, 1988 to “provide for the designation and conservation of certain lands...”² See **Appendix A**. In section 102(d) of the Act, Congress reserved water rights for SPRNCA and directed the Secretary of the Interior to file a claim to quantify those rights as part of a stream adjudication.

(d) WATER RIGHTS. Congress reserves for the purposes of this reservation, a quantity of water sufficient to fulfill the purposes of the San Pedro Riparian National Conservation Area created by this title. The priority date of such reserve rights shall be the date of enactment of this title. The Secretary shall file a claim for the quantification of such rights in an appropriate stream adjudication.

16 U.S.C. § 460xx-1. In 1991, the Arizona Department of Water Resources (ADWR) published the Final San Pedro River Watershed Hydrographic Survey Report (Final San Pedro HSR), which included an analysis of BLM’s federal reserved water rights claims for SPRNCA.

By Order dated September 26, 2006, the Special Master for the Gila River Adjudication initiated a contested case to address objections to ADWR’s analysis of BLM’s claim. By Order dated June 28, 2007, the Special Master designated six issues for briefing, which the Special Master addressed by Order dated March 4, 2009. See

¹ *In re the General Adjudication of All Rights to Use Water in the Gila River System and Source*, W-1, W-2, W-3, W-4 (Consolidated), Contested Case No. W1-11-232 (Consolidated).

² Pub. L. No. 100-696, 102 Stat. 4571, codified in 16 U.S.C. §§ 460xx-460xx-6.

Appendix B. Among his findings, the Special Master held that the priority date of any federal reserved water right for SPRNCA would be November 18, 1988, should such a right be found to exist. March 4, 2009 Order at 12. The Special Master further found that Congress authorized expansions to SPRNCA after November 18, 1988 pursuant to section 105 of the Act (16 U.S.C. § 460xx-4) by exchanges, purchases, or donations. *Id.* at 14. For non-federal lands subsequently acquired or incorporated within SPRNCA, the Special Master found that the priority date of a federal reserved water right for these lands would be the date of their incorporation within SPRNCA. *Id.* at 15.

Regarding the number of acres of federal land that comprised SPRNCA as of November 18, 1988, the Special Master found that there was a “genuine issue of material fact” due to conflicting evidence. *Id.* at 14. Although Congress described the area to be included in SPRNCA by reference to a map dated January 1988, which “generally depicted” the public lands within SPRNCA, it also directed the Secretary of the Interior to file another map and legal description of the conservation area with certain Congressional committees after the enactment of the Act. *Id.* In sections 101(b) and (c) of the Act, Congress stated:

(b) AREA INCLUDED. The conservation area shall consist of public lands as generally depicted on a map entitled “San Pedro Riparian National Conservation Area – Proposed” numbered AZ-040-0Z, dated January 1988, and consisting of approximately 56,431 acres.

(c) MAP. As soon as practicable after enactment of this title, a map and legal description of the conservation area shall be filed by the Secretary of the Interior...with the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the United States Senate. Each such map shall have the same force and effect as if included in this title...

16 U.S.C. § 460xx. The Special Master found that the BLM Safford District finalized the map and legal description required by section 101(c) of the Act sometime in November 1989, but that the total number of acres of federal lands was not the same as the total number of acres of federal lands depicted on the January 1988 map. *Id.* at 13. During briefing and oral argument, the United States provided additional acreage numbers that

conflicted with both the January 1988 and the November 1989 maps. *Id.* at 13-14. Because of these conflicting numbers, the Special Master requested that ADWR prepare a report to address the following ownership issues:

1. The total number of acres of federal land within the exterior boundaries of the SPRNCA on November 18, 1988;
2. A summary description of each transaction, its nature, and the number of acres of lands acquired by the United States after November 18, 1988, and incorporated within the SPRNCA;
3. The total number of acres of federal land currently within the exterior boundaries of the SPRNCA;
4. The total number of acres of private land currently within the exterior boundaries of the SPRNCA; and
5. Any other information ADWR considers relevant and helpful concerning the history of the land area comprising the SPRNCA.

Id. at 16.

After the Special Master issued his March 4, 2009 Order, ADWR began its land ownership research and reviewed official records maintained by the Cochise County Assessor's and Recorder's Office (Cochise County), the Arizona State Land Department (ASLD), and the Arizona Department of Revenue (ADOR). ADWR consulted with BLM concerning the results of its research and compared it with the ownership information maintained by BLM, which is the federal agency charged with maintaining accurate land ownership records for all federal lands.³

³ See http://www.blm.gov/wo/st/en/prog/more/cadastralsurvey/program_description.html.

During ADWR's consultations with BLM, several issues were identified. There were discrepancies among the 1989 legal description prepared by the BLM Safford District, the 1989 map, and BLM's existing GIS shapefile⁴ for the SPRNCA boundary provided to ADWR. Also, BLM became aware that it could not find any evidence that the 1989 legal description and map had been submitted to the appropriate Congressional committees as required by section 101(c) of the Act. In addition, ADWR and BLM determined that there was insufficient information concerning ownership of a railroad right-of-way within SPRNCA. By August 2009, BLM had updated its GIS shapefile for SPRNCA and ADWR had completed its research.

The deadline for ADWR's report was initially September 11, 2009. At the request of the United States, the Special Master stayed publication of ADWR's report so that the United States could resolve the issues identified by ADWR and BLM. September 9, 2009 Order at 1-2.

On February 19, 2010, the United States filed a status report pursuant to Order of the Special Master dated November 12, 2009. In its status report (p. 2), the United States indicated that funding was not yet in place for the necessary archival research to determine whether the November 1989 map had been filed with the appropriate Congressional committees as required by section 101(c) of the Act. After the February 19, 2010 status report was filed, BLM again updated its GIS shapefile for the SPRNCA boundary, first in March 2010 and then in April 2010.

Pursuant to the Special Master's Minute Entry dated February 25, 2010 and subsequent Order dated April 15, 2010, the United States, among others, filed comments concerning the next phase of the SPRNCA case. In its comments, the United States indicated that it intended to submit an updated legal description to Congress to serve as the official SPRNCA boundary.⁵ ADWR also filed comments and indicated that it was

⁴ A shapefile is a digital format for storing geospatial data and associated attribute information for use by Geographic Information System (GIS) software. Shapefiles describe geometries including points, lines and polygons. The most recent GIS shapefile for the SPRNCA boundary was prepared by BLM in April 2010.

⁵ In its April 23, 2010 comments, the United States indicated that it would update the Court on its progress to resolve the boundary issue no later than June 1, 2010. United States' Comments Regarding the Next Phase of SPRNCA Contested Case Litigation, p. 3, n. 2. As of June 15, 2010, ADWR had not received this update. In order to assure timely publication of this report, any additional information filed by the United States after June 15, 2010 will not be included in this report.

ready to publish the SPRNCA report using BLM's April 2010 GIS shapefile, together with other time-sensitive information from Cochise County, ASLD and ADOR. By order dated May 24, 2010, the Special Master lifted the stay on ADWR's report, and directed ADWR to file its report by July 2, 2010.

1.2 NOTICE AND COMMENTS

ADWR filed a notice of the publication of this report with the Maricopa County Superior Court, and sent copies of the notice to the court approved mailing list for the SPRNCA contested case. A copy of the report in electronic or paper format may be obtained by contacting ADWR at 1-866-246-1414. A copy of the report will also be posted on ADWR's website. Pursuant to the Special Master's Order of May 24, 2010, the deadline for the litigants in the contested case to file comments on the report is August 16, 2010, and responses will not be allowed.

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CHAPTER 2: PROJECT AREA

SPRNCA is located within the San Pedro River Watershed in southwestern Cochise County, approximately 60 miles southeast of Tucson (**Figure 1-1**). State Routes 80, 82, 90, and 92 provide access. Major towns in the region include Benson to the north, Bisbee and Tombstone to the east, and Sierra Vista to the west. Of these, Sierra Vista is the largest community with an estimated population of over 61,000 in 2006 (ADWR, 2009, pg. 37).

SPRNCA lands border the San Pedro River for approximately 35 miles, from the International Border in the south to Curtiss Siding in the north (**Figure 2-1**). Compared to its length, SPRNCA is relatively narrow and typically less than 2 to 3 miles wide. It is widest (about 6 miles) near the abandoned town of Fairbanks where the Babocomari River joins the San Pedro River. SPRNCA generally slopes from south to north, from an elevation of about 4,300 feet at the International Border to an elevation of about 3,700 feet near Curtiss.

SPRNCA lands are discontinuous in two areas. The first area is a two-mile gap located near the International Border between the towns of Hereford and Palominas. The second area is located within SPRNCA south of the abandoned town of Charleston, and is referred to as the Escapule exclusion area. The latter is a residential area that forms a void within SPRNCA approximately 1 mile long and less than 0.5 mile wide.

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CHAPTER 3: METHODOLOGY

This chapter describes the data that ADWR used to evaluate land ownership within SPRNCA and its analysis of these data. ADWR relied on records and documents available through public agencies between December 2009 and April 2010. Land surveys were not conducted by ADWR for the project.

3.1 DATA SOURCES

ADWR utilized a variety of data from four agencies to define the boundary of SPRNCA and track changes in SPRNCA land ownership since its designation in November 1988. Data sources included:

- BLM
- Cochise County
- ASLD
- ADOR.

Data provided by these agencies are summarized below and copies of several documents obtained from them are presented as appendices.

3.1.1 Bureau of Land Management

Through its Cadastral Survey Program, BLM is responsible for conducting boundary surveys of all federal and Indian lands in the United States. BLM also maintains records of mining claims and sites in the western states. ADWR used the following BLM information in this report:

- November 1989 legal description and maps of the SPRNCA boundary (**Appendix C-1**);
- Explanation of post-designation modifications to SPRNCA boundary and legal description (**Appendix C-2**);

- Revised SPRNCA boundary sent to ADWR in April 2010 as a Geographic Information System (GIS) shapefile (**Appendix C-3**);¹
- Mining claims within SPRNCA (**Appendix C-4**);
- Master title plat maps (**Appendix C-5**);
- Surface area responsibility maps (**Appendix C-6**); and,
- Final Management Plan and Environmental Impact Statement for SPRNCA (**Appendix C-7**).

3.1.2 Cochise County

Cochise County identifies assessed property within the county and maintains property ownership records and assessment maps. ADWR used the following Cochise County information in this report:

- March 2010 GIS shapefile of current parcels within SPRNCA (**Appendix D-1**);
- Recent parcel maps and selected parcel deeds (**Appendix D-2**); and
- Parcel ownership and acreage records, accessed via the county's in-house computer system.

3.1.3 Arizona State Land Department

ASLD manages state trust lands in Arizona and provided ADWR with the following information used in this report:

- A deed transferring ownership of certain state trust lands within SPRNCA to the United States (**Appendix E-1**); and
- GIS shapefile of current state trust land within SPRNCA (**Appendix E-2**).

Deed information was obtained by querying ASLD's Parcel and Land Mapping System (PALMS) database, and GIS data were downloaded from the Arizona Land Resource Information System (ALRIS).

¹ BLM prepared its April 2010 GIS shapefile of SPRNCA's boundary using survey data stored in its Geographic Coordinate Database (GCDB).

3.1.4 Arizona Department of Revenue

ADOR maintains tax rolls for assessed properties in Arizona. ADWR obtained a December 2009 copy of the tax rolls for Cochise County and used them to cross-check the county parcel maps and GIS cover, and verify current ownership of parcels within SPRNCA.

3.2 ADWR ANALYSIS

Using the data described above, ADWR followed three steps to analyze SPRNCA land ownership. The first step established the exterior boundary of SPRNCA. The second step identified land ownership within SPRNCA's boundary and evaluated whether ownership had changed since designation. The third step estimated the acreage of SPRNCA lands at designation and the current acreage. Each step is summarized below.

3.2.1 SPRNCA Exterior Boundary

In consultation with BLM, ADWR determined that the 1989 legal description and maps of the SPRNCA boundary (**Appendix C-1**) contain errors that have since been corrected by more recent BLM boundary surveys and notes (**Appendix C-2**). According to BLM, the revised SPRNCA boundary that it provided to ADWR as a GIS shapefile in April 2010 (**Appendix C-3**) incorporates these corrections. To ADWR's knowledge, BLM's 1989 legal description and corresponding maps of SPRNCA have not been officially amended. For purposes of this report, ADWR used BLM's April 2010 shapefile because BLM believes it is an accurate representation of the exterior boundary of SPRNCA at the time of designation.

3.2.2 Land Ownership Within SPRNCA

The next step in ADWR's analysis identified landowners within SPRNCA. This required a combination of data from Cochise County, ASLD, BLM, and ADOR. ADWR started by using ArcGIS™ software to overlay BLM's 2010 SPRNCA boundary onto a GIS shapefile of current parcels from Cochise County (**Appendix D-1**). Based on this

overlay and comparison to recent parcel maps (**Appendix D-2**), all parcels located within the exterior boundary of SPRNCA were identified and tabulated. **Appendix F** lists these parcels along with information on their ownership history.

Lands within SPRNCA can be divided into two general categories— *parcels* and *unassessed lands*. Cochise County has assigned each parcel in the county a unique identification number. Parcels within SPRNCA include private residences and ranch land, commercially-owned properties, mining claims, rights-of-way (ROWs) for utilities and a railroad, and some federal lands. Cochise County has not assigned identification numbers to its unassessed lands, but their locations appear on parcel maps as areas between parcels. Within SPRNCA, unassessed lands include state trust and other federal lands and road ROWs. ADWR assigned each tract of unassessed land a unique identification number for reference in this report and also listed these tracts in **Appendix F**.

Parcels

ADWR determined the ownership history of parcels within SPRNCA by reviewing recent parcel maps and deeds from Cochise County (**Appendix D-2**) as well as by querying the county's in-house computer system. Data from computer queries were hand recorded by ADWR staff at the county office. ADWR verified current parcel ownership by cross-checking Cochise County records against the ADOR tax rolls.

Approximately 190 parcels existed within SPRNCA at designation. The largest were two historic Mexican land grants that cover much of the project area – the San Juan de las Boquillas y Nogales Grant and the San Rafael del Valle Grant. The Final San Pedro HSR (ADWR, 1991, pp. 466-467) describes the history of these land grants and how the United States acquired them prior to the designation of SPRNCA. Since designation, 26 parcels within SPRNCA have changed ownership from private to federal through acquisition by the United States.

Unassessed Lands

Most unassessed lands within SPRNCA are federally owned and maintained by BLM. ADWR relied on BLM records of mining claims (**Appendix C-4**), master title plat and

surface management responsibility maps (**Appendices C-5 and C-6**), and BLM's GCDB to verify the location and ownership of these lands at and since designation.

Other unassessed lands within SPRNCA include state trust lands and ROWs for two roads. ADWR reviewed a deed that transferred ownership of state trust land within SPRNCA to the United States (**Appendix E-1**) and used a GIS shapefile from ASLD (**Appendix E-2**) to determine whether there is still state trust land within SPRNCA. The state trust land transfer occurred prior to designation and no transfers have occurred since that time. One 280-acre tract of state trust land remains within SPRNCA. The ownership of ROWs within SPRNCA is discussed below.

Rights-of-Way

Determining the ownership of all ROWs in SPRNCA proved difficult. Several ROWs crossed SPRNCA at designation including natural gas and water pipelines, power and telephone lines, a dam and canal, roads, and a railroad (see Table 3-1 and Map 3-1 in **Appendix C-7**). In its 1989 Final Management Plan and Environmental Impact Statement, BLM stated that most of these existing ROWs were authorized by previous landowners and indicated it would be approving new bridge ROWs in the future. Verifying prior and current ownership of all ROWs was not practical since, according to Cochise County, not all ROWs appear on their parcel maps.

The ROWs within SPRNCA that do appear on parcel maps are owned by utilities (Arizona Public Service and El Paso Natural Gas Company), a railroad (Southern Pacific Transportation Company), the City of Tombstone, and Cochise County. For this report, only ROWs shown on parcel maps are identified with separate ownership.

3.2.3 Acreage Determination

Acreage at Designation

To ADWR's knowledge, the acreage of federal lands within SPRNCA's exterior boundary have never been formally determined, either at designation or since that time. ADWR estimated the acreage of these lands at designation by employing a method of subtraction. This method used ArcGIS™ to first calculate the total acreage within

SPRNCA based on BLM's 2010 shapefile of the boundary.² Records from ASLD, BLM and Cochise County were then used to subtract from this total the acreage of non-federal lands at designation which included private, city, county and state trust lands. The remainder equaled the acreage of federal lands within SPRNCA at that time.³

Recorded deeds provided the acreage of most non-federal lands within SPRNCA at designation often to the precision of a tenth of an acre or better,⁴ with the exception of 18 private parcels that are split by the SPRNCA boundary and only lie partially within SPRNCA. **Figure 3-1** shows examples of the parcel splits. In these cases, ADWR relied on ArcGIS™ and the GIS shapefile for each parcel from Cochise County to calculate the number of acres on both sides of the boundary to the nearest tenth of an acre. The accuracy of these acreage determinations ultimately depends on the accuracy of the SPRNCA boundary and how well Cochise County depicted the location and size of the parcels in their GIS shapefile.⁵ ADWR found that deeded acreages compare well with acreages determined from corresponding GIS shapefiles. For the 18 private parcels split by the SPRNCA boundary at designation, their deeded area totaled 406.063 acres compared to a total of 410.2 acres based on their GIS shapefiles.

A relatively small tract of unassessed land used as a road ROW exists within SPRNCA and is not deeded. ADWR estimated the area of this ROW (20.7 acres) based on the GIS shapefile from Cochise County. **Appendix F** lists the acreage of each parcel and tract of unassessed land within SPRNCA along with the source of the acreage.

Acreage of BLM Land Acquisitions

Recorded deeds provided ADWR with the acreage of 26 parcels that the United States acquired within SPRNCA since designation. The SPRNCA boundary splits four of these parcels. As previously described, ADWR calculated the acreage of the parcels

² BLM believes its 1989 legal description of the SPRNCA boundary contains errors. Since this legal description and corresponding maps have not been officially amended, ADWR used an April 2010 GIS shapefile from BLM to represent the SPRNCA boundary at designation.

³ The acreage of non-federal lands at designation was found to be more certain than the acreage of federal lands. A relatively large (approximately 4,600 acres) tract of federal land within SPRNCA has remained unassessed and does not have deeded acreage.

⁴ Deeds for unsurveyed parcels only list acreages to the nearest acre.

⁵ ADWR found one parcel (107-24-016) split by the boundary to be incorrectly displayed in the County GIS shapefile. ADWR modified this shapefile based on the deed legal description and map.

on both sides of the boundary by using a GIS shapefile from Cochise County. **Appendix F** lists the acquired parcels and their associated acreages within SPRNCA in red.

Current Acreage

ADWR calculated the acreage of federal lands within SPRNCA as of April 2010 by adding the acreage of federal lands that it determined existed at designation to the acreage of lands acquired by the United States since that time.

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CHAPTER 4: RESULTS

This chapter describes the results of ADWR's analysis of land ownership within SPRNCA and provides the information requested in the Special Master's March 2009 Order. **Section 4.1** presents the total acreage within the exterior boundary of SPRNCA at designation, and **Section 4.2** presents the acreage of federal lands within SPRNCA at that time. The acreage of lands acquired by the United States since designation and the current acreage of federal and non-federal lands within SPRNCA are provided in **Sections 4.4** and **4.5**, respectively.

4.1 TOTAL SPRNCA ACREAGE AT DESIGNATION

Based on BLM's April 2010 GIS shapefile of the exterior boundary of SPRNCA, the total acreage within SPRNCA at designation was 58,254.6 acres.

4.2 FEDERAL LANDS WITHIN SPRNCA AT DESIGNATION

ADWR estimates that approximately 4,170.8 acres of non-federal lands existed within SPRNCA at designation. Included were:

- 3,825.5 acres of private property;
- 280 acres of state trust land;
- 64.9 acres of county land; and
- 0.4 acres owned by the City of Tombstone.

Appendix F provides further details on the ownership and acreage of these lands.

By subtracting the acreage of non-federal lands from the total SPRNCA area, ADWR calculates that the acreage of federal lands within SPRNCA at designation was approximately 54,083.8 acres. **Figure 4-1** shows the general location of both federal and

non-federal lands within SPRNCA at designation, and **Appendix G** provides more detailed (quadrangle-size) maps of these lands.¹

4.3 LANDS ACQUIRED BY UNITED STATES WITHIN SPRNCA SINCE DESIGNATION

ADWR determined that, since designation, the United States has acquired 26 private parcels covering approximately 2,088.4 acres within SPRNCA. **Appendix F** lists the prior owners of these parcels along with dates of sale and parcel acreages. **Figure 4-2** shows the general location of the acquisitions.

4.4 FEDERAL AND OTHER LANDS CURRENTLY WITHIN SPRNCA

By adding the acreage of federal lands determined at designation (54,083.8 acres) to the acreage of private lands acquired by the United States since that time (2,088.4 acres), ADWR calculates that the acreage of federal lands was 56,172.2 acres within SPRNCA as of April 2010. The acreage of non-federal lands within SPRNCA has been reduced since designation by the acquisitions and now totals approximately 2,082.4 acres (4,170.8-2,088.4). **Figure 4-3** shows the general location of federal and non-federal lands currently within SPRNCA and **Appendix H** provides more detailed maps of these lands.

The United States could potentially acquire additional private and state trust lands within SPRNCA. According to BLM, as of April 2010, there were no pending acquisitions affecting land ownership.

¹ Locations for most parcels and unassessed lands within SPRNCA are based on a GIS shapefile from Cochise County. For display purposes, ADWR made necessary adjustments to the shapefile and digitized the location of Parcel 107-24-016 from a deed map.