

San Pedro Riparian National Conservation Area
Collaborative Adaptive Management
Annual Partner Meeting
December 9, 2022

DRAFT Meeting Summary

Morning Session at San Pedro House

BLM Updates

Staff/leadership updates - Scott Feldhausen, BLM

- The Gila District is currently at about a 30% vacancy rate. BLM is experiencing hiring difficulties and is hiring outside of the agency more than in the past.
- New staff
 - Alix Rogstad - Deputy District Manager
 - Colleen Dingman - Tucson Field Office Manager (started initially with the Gila District as the acting Deputy District Manager in October 2021)
 - Michael Dixon – TFO Non-renewable Assistant Field Manager
 - Clint Dalton – TFO Archaeologist
 - Theresa Condo - Natural Resources Specialist (previously Vegetation Tech)
- Vacant TFO positions
 - Renewables Assistant Field Manager (previously Margie Guzman, Kevin Weldon is detailing)
 - Hydrologist (previously Dave Murray)
 - Hydro Tech (previously Peggy Monkemeir)
 - Range Tech (previously Emilio Corella)
 - Archaeologist (previously Amy Sobiech)
- BLM Arizona Procurement also turned over all their staff and are still working on filling vacancies, so there are currently big challenges for awarding and processing contracts.

Field Office Updates - Scott Feldhausen and Amy McGowan, BLM

- Overall, the BLM is trying to focus more on larger landscape scale projects to effect more change. This also aligns with some of the federal funding initiatives.
- Middle Gila South Travel Management Plan
 - Francisco Mendoza is leading this effort.
 - The area includes the Lower San Pedro/Picacho Peak area and Middle Gila South areas that were not part of the 2010 Middle Gila Travel Management.
 - These are big processes that take a lot of time.
 - Currently soliciting input on access needs and the route inventory.
- Las Cienegas NCA Beaver EA
 - Have been working on this for many years, and now very close to finishing.

- The EA analyzes the re-introduction of beaver into Cienega Creek. Once a decision has been signed, the BLM will be able to reintroduce beavers into Cienega Creek. Working now on Section 7 consultation with USFWS.
- Las Cienegas NCA Landscape Restoration EA
 - The focus is on vegetation management and erosion control projects.
 - Working now on Section 7 consultation with USFWS.

Technical Team Updates and Discussion

Note: in discussion sections partner questions or comments are presented in italics. BLM responses are in bullets below.

Uplands and Grazing

Uplands Working Group update - *Eric Baker, BLM*

- The big focus has been the four SPRNCA Allotments' Land Health Evaluations and Grazing Lease Renewals. Currently awaiting the proposed and final decisions on the EA.
- Throughout the SPRNCA Allotments Livestock Grazing Lease Renewals project, the BLM has been trying to share information on the EA clearly and easily - two StoryMaps were created to help with this.
- AIM (Assessment, Inventory and Monitoring) will be part of the implementation of the Adaptive Management framework that is part of the Proposed Action of the EA
- Want to include partners on Integrated Vegetation Management – learn from other's successes and lessons.

Group discussion

Do working group members participate in AIM monitoring?

- Not in collecting data. Ideally contracted, trained crews will do this moving forward. The working group will help interpret the data and look at objectives.

Las Cienegas had tried to develop a dashboard of metrics. Will these groups try something similar? It is very valuable.

- This hasn't been discussed yet, but further conversation here would be useful.

Sentinel Landscape Restoration Partnership - *Amber Morin, Ft. Huachuca*

- The Partnership is supported by DOD, USDA and DOI
- Goals: Protecting natural resources and protecting the military mission
- Focusing on conservation work from the mountains to the river. The goal is to look for ways for agencies to align and support each other. The group is not a decision body. It's a collaborative effort. Action is taken under each agency's own legal authority. Through a USFS grant, they have collaboratively addressed 30,000 acres of wildfire and hazardous fuels work. Putting in another application to the Joint Chiefs now.
- \$4 million is available over the next three years through the Regional Conservation Partnership Program.

- An additional \$1 million is available for conservation easements (Dec 16 deadline).
- Funding was just secured for the Borderlands Restoration Network to do restoration work. Last year there was funding for The Nature Conservancy to do water work.

Group discussion

What entity administers conservation easements?

- This depends on the specific easement and mission. Some administrators include TNC and the Trust for Public Lands.

What type of work is Borderlands Restoration Network (BRN) doing?

- They applied for America the Beautiful (ATB) funds. Work includes restoration, erosion control projects, invasive species, wildlife, wildfire protection around Sonoita/Patagonia, and work with local communities to create jobs.

Integrated Vegetation Management EA - Amy McGowan/Dan Quintana, BLM

- BLM has funding to write a watershed-wide EA (similar to the Las Cienegas NCA Landscape Restoration EA that analyzed treatments across jurisdictions where possible, with willing landowners).
- The BLM land in the watershed is fairly fragmented. Will look at all methods needed to restore ecosystems. Will focus on vegetation management, treatments, and erosion control.
- This will allow treatments to be focused where they are most needed and not be limited to checkerboard BLM land. This approach has been successful in other parts of the District.
- Will include pre-treatment and post-treatment monitoring. BLM works with the Uplands Working Group to collect lessons learned from other partners to apply in the EA.
- SPRNCA is really the driver for this. Will look at the RMP to see where objectives are not being met and updates are needed.
- Will build on partnerships in the area. Can tie in with Sentinel Landscapes and all partners working in the watershed.
- It is already contracted out and contract documents have been submitted. Expect to get awarded after the first of the year.
- Will try to start NEPA in spring.

Group discussion

Is there any consideration of pre-NEPA collaborative sharing?

- Yes, BLM wants to leverage the Uplands Working Group to identify lessons learned and sharing opportunities. Formal scoping to be as inclusive as possible.

This sounds a lot like what BRN is doing. Why can they proceed, while BLM has to wait for a comprehensive EA?

- BRN is working on private land, not federal land.
- Amber can look more into what compliance they had to go through.

SPRNCA Grazing EA - Amy McGowan and Eric Baker, BLM

- The public comment period on the preliminary EA was completed in May 2022. BLM received 21 comment letters, with 129 substantive comments – all have been responded to. Just got the final Biological Opinion from USFWS.
- On Dec 21 BLM will issue the Final EA with 5 decisions (Integrated Vegetation Management and 4 proposed grazing decisions on each allotment - this is where the adaptive management will appear).
- There will be a 15-day protest period (only for allotments), and 30 days for comment.

Group discussion

Several holidays shorten the comment period considerably.

- The litigation BLM is involved in on this issue has a completion date that must be met. BLM also had to complete consultation with USFWS.

Sounds like BLM intends to authorize grazing?

- Yes, the proposed decision will be to renew livestock grazing with the adaptive management framework we are going to propose.

Fencing work - Eric Baker, BLM

- BLM has secured \$350k with intent to purchase fencing materials. The initial estimate suggested this would purchase 100 miles of materials, but with inflation it has ended up being about 80 miles.
- Funds arrived in early 2022. Have issued materials through Cooperative Range Management Agreements
 - 13 miles specifically to SPRNCA allotments
 - 27 miles remain to issue to BLM leaseholders.
 - A couple emergency situations also needed fencing (Cienega Creek flood damage, Rose Tree fire impacts and Mescal fire impacts).
- There will be a handful of materials to start with proposed actions for new projects.
- BLM was also able to secure \$205k to put towards an AZ Conservation Corp youth crew assistance agreement.
 - There have been 3 hitches so far – focusing on inventorying SPRNCA boundary and identifying needs. Funding/timing won't allow repair, just inventory at this point.
 - Have surveyed 64 miles of fence and found 185 non-functional points. This information will be useful for maintenance of boundary fences.

Riparian

Riparian Working Group update – Mark McCabe, BLM (for Christina Perez)

- A subgroup has been focusing on avian monitoring work. Several projects are proposed because of this:
 - Tucson Audubon Society, Appleton Whittell and Cienega Watershed Project – avian surveys

- Establish 2 Modis stations, one at SPRNCA and one at LCNCA (these are telemetry sensors for birds and bats). The Appleton Whittell already has one.
- Modis banding for bats (AZGFD and Sentinel Landscapes)
- Re-establish the MAPS station. This was an on-going project run by Marcia Radke. There was a gap after she left. Keith has taken this on.
- Amalgamate data for 3 species (Cactus Ferruginous Pygmy Owl, Yellow-billed Cuckoo, and Sonoran Talus snail)
- Study movement ecology and habitat needs of Mexican Duck within Gila District as a whole.

Group discussion

Where will trespass grazing fit within the Working Groups?

- This has been discussed a bit in all the groups, particularly in the Uplands and Grazing group.
- The fencing work is also trying to address this.

The Riparian Working Group hasn't been meeting. This should be a priority. There is an important role for this group to look at the ongoing damage by trespass cattle in the riparian area. We want to understand what is happening and where. This feels somewhat haphazard right now.

- The resolution to this is based on litigation settlements, and BLM won't be talking now about how they will have to approach this.

Lance Clawson from the Lucky Hills allotment shared that he has had a good experience working on this with the BLM. The fencing materials were helpful, as there were many repairs that needed to be done. He reports that in two years they have had two of their animals get out and into the river. They pregnancy check all their animals, and all have buttons in their ears (for tracking). All of them are also numbered. He recently rode the river for six days with good cowboys and saw four cows. They found their two bulls, and they are back where they should be. They are diligent about checking water gaps after each big rainstorm. They are trying to do the best job they can. They love the land and the wildlife. and want to be good stewards.

Another partner noted that nonetheless cows do get out.

Western Watershed shared that from their perspective one cow in the river for one day can do damage to sensitive species. It needs to be an extremely rare and not common occurrence. There are people on the ground who see them every day.

Updates: Water umbel, Arizona Eryngo, and beavers - *Theresa Condo, BLM*

Theresa provided handouts to the group (see Appendix D).

Highlights:

- Completed Huachuca water umbel surveys from little Boquillas to Hereford bridge, using the same protocol as Ft. Huachuca.

- Beaver surveys were done in the fall of 2021 and 2022 from St. David to the border by Watershed Management Group.
- Fish surveys were done in the spring.
- AZ Eryngo – monitored pre-established plots of the population at Lewis Springs (listed as endangered in June of 2022).
- Whitehouse Wetland project – the pond will be dredged to create habitat for aquatic species. The project is currently on hold.

Group discussion

Re: fish inventory - Last time there were 5 locations found, now only 3. This highlights issues of water and groundwater. The water is the biggest issue here. What is going on with limiting groundwater pumping? What is the latest?

(By way of an answer the group transitioned to the next topic)

MOU for Cooperative Monitoring and Management of the SPRNCA and Surrounding Areas within Cochise County

Partners in the MOU each shared their role and goals for participating.

BLM - Scott Feldhausen

- Federal reserved water rights are still in adjudication; it's unknown when it will be completed.
- The 2019 RMP completion allowed the BLM to shift the conversation toward the common value of a healthy and functioning San Pedro River. Everyone wants this.
- The MOU was signed in 2021 - The parties agreed on the science that drives the monitoring they believe to be necessary, the modeling that will be used to evaluate the trend in condition over time, and an adaptive management process where key players can talk about what is needed to change direction in areas that aren't trending well.
- Since MOU signing the parties have been working on implementation and developing a funding strategy for all water-related monitoring (through the Conservation Finance Network).

Cochise County - *Mark Apel*

- The Upper San Pedro Partnership (USPP) has been in place since 1998. The Cochise Conservation Recharge Network since 2015. What has been lacking is a targeted focus to do recharge on 8 different projects to get more water back into the ground.
- The MOU gives the county a targeted focus on success of projects; quantitative goals to measure success.
- Everyone wants to make use of limited funding. The synergy of these partnerships is important, and will help access funding.

City of Sierra Vista - *Sharon Flissar*

- The strength of this group is that we started with a plan and have been able to hit the ground running. There has been more happening in the last year or two than in many previous years. It is an exciting time to be involved in these efforts.
- A recent action was hiring a coordinator to help us put all these pieces together (Holly Richter)

Resilient Rivers, LLC - *Holly Richter*

- The hope is that the MOU ties this all together and makes it a living process.
- The MOU is on the USPP website – everyone should look. It is science-based and transparent. There is an awesome adaptive management protocol for how we will save the water in the SPRNCA moving forward.
- A current effort is working on recharge with the Cochise Conservation Recharge Network

Group discussion

When considering the health of the river, how far back will we look at historic data to determine trend. The starting baseline effects the goals.

- From the BLM side they will look at whether objectives of the 2019 RMP are being met. The approach is to look at where we are today and think about what we can do tomorrow.

How will the partners make use of past information?

- The WHIP (Web-based Hydrologic Information Portal) data will feed into the annual assessment.

Will there be any public involvement in this process?

- Any decisions that are made by an agency will involve NEPA, just like everything else.

The RMP has language about the Stromberg transects. There is a need to figure this out. Will there be a workgroup outside of the MOU partners that can think about the best approach for riparian monitoring.

- The MOU partners are working on this now with Mark Dixon (who worked with Stromberg on that early work). They are reaching out to historic partners. Folks should expect to hear more on this soon.

Sky Island Alliance shared that they have a lot of landowner relationships on the upper San Pedro on the Sonoran side and would be happy to coordinate. There are more opportunities to reach across the border.

Recreation and Cultural/Heritage

Recreation and Cultural/Heritage Working Group update - *Francisco Mendoza and Clint Dalton, BLM*

- Clint is the new TFO Archaeologist (replacing Kim Ryan)

- The working group has met several times (both virtual and in the field) and looked at sites: Kingfisher, Lehner, San Pedro House
- Birding trails around Kingfisher: Viewing platforms have been suggested that will allow access when there is flooding. BLM will begin pursuing this, but it will take time.
- Infrastructure issues: The powerline into the San Pedro House needs work. It is becoming a concern. Will be looking at broader options for power supply.
- SPRNCA is the next priority for a comprehensive TMP. Will start the after the Middle Gila South TMP is complete.
- Safety concerns and environmental remediation projects: The field visit today to Millville/Charleston area will focus on:
 - Safety concerns re: FUDS (feedback from the public is that signage is not sufficient)
 - Lead/arsenic contamination related to previous mining. Additional testing in recent years has given more information about specific areas, including on public trails. Have preliminary engineering and cost estimate – will discuss in the field.
 - This is a popular site for accessing the backcountry. It is open to firearm hunting, and there is some interest from hunters. Feedback is that better public education and information/signage is needed.
 - Sink hole has formed in the flats below the mills. The group will visit this and discuss proposed solutions. Keith will visit the site next week with the AZGFD crew to develop a plan.

Partner updates

- The Xerces Society partners with colleagues on firefly surveys. There are historic records of a rare firefly on the SPRNCA. They will be expanding the Firefly Atlas to Arizona. Contact Staff if you are interested in more information.
- Friends of San Pedro are reopening San Pedro House and Fairbank as visitor contact site in September.
- Hereford NRCD is hosting a workshop on Dec 10 at Whitewater Draw.

Shared History Activity

Partners worked to populate a paper timeline with important events in the San Pedro River and surrounds, going back to the time of the mammoths. For a full list of all items added to the timeline, see Appendix B.



Group reflections on the shared history

- There is a trend of increasing peril being identified for various species.
- Immense diversity of the area through time – people, cultures, countries

Who else should contribute to this timeline?

- | | |
|-----------------------------------------|--------------------------|
| • Bill Gillespie | • Indigenous Governments |
| • The family that lived in the house | • AZGFD |
| • Deni Seymor | • Mexico |
| • Brophy Family (history on Babocomari) | • Universities |

Next steps

- This could be a living document on the web that people can add to (Friends of SPR could possibly include it on their site).
- Should be published in the county and promoted as (series of fact sheets)
- Who is interested in a follow-up conversation? → Emily Burns, Bob Luce, Ron Stewart, Robert Walter. (SDR can share what other groups have done as examples)
- Find out about other high-water events from USGS (in addition to 2000)

Field Trip – St. David Cienega



Prescribed Burn

Overview - BLM

- 700 acres of the Cienega was burned in February 2020. The objectives included:
 - Increasing wildlife habitat by reducing weeds (e.g., bulrush) and opening up space to access water. Prior to the burn, BLM staff had to manually cut openings in the vegetation for wildlife access.
 - Mitigating the encroachment of mesquite in the uplands
 - Limiting the amount of cottonwood and willow trees in the Cienega (with a limit of 20% maximum mortality of cottonwood and willow). The BLM wanted to leave plenty of cottonwood and willow for birds and monarchs to utilize.
 - Decrease the fuel loading in the grassland.
 - Burning in a mosaic pattern in terms of intensity
- The BLM feels the burn objectives were met. Specific results included:
 - Some vegetation growing back within a few weeks.
 - Bulrush no longer having thatch in it, which allows wildlife to travel through.
 - Very low percentage of cottonwood and willow mortality (not close to the 20% limit).
 - Waterfowl such as spotted sandpiper, killdeer, and kestrel began to utilize the Cienega immediately after the burn.
 - A change in mammals using the areas formerly covered in bulrush has not been seen.
 - The Huachuca water umbel responded positively immediately after the fire, likely because it was no longer crowded out by the bulrush.
 - A translocated population of umbel is present in the Cienega, but no natural population exists here.
 - Umbel numbers have not been monitored since shortly after the burn; the long-term implications are unknown.

- A complication with the burn was the Mexican garter snake. Overnight temperatures had to be below 40 degrees to burn; some BLM staff were skeptical that this would happen, but the weather window did come in February.
- The fire control line was at the toe of the slope. North of that, no line was needed because the fuels naturally controlled the burn.
- A major lesson learned is that the BLM will have to continue burning to maintain the desired characteristics for the vegetation of the Cienega.



Discussion – Q&A

- Are there any overall restoration plans for the St. David Cienega?
 - Not now. A former staff developed a restoration plan that included modifications to dikes, but no NEPA or Biological Opinion was completed for it.
- Does infrastructure such as the gas line, groundwater wells, and railroad infrastructure directly impact the Cienega?
 - Yes, but unsure of their specific impacts. The railroad seems to function as a dam.
- What do we know about the water composition in this area?
 - The wells are monitored, and some groundwater analysis has been done by Chris Eastoe at USGS. Most of the water seems to be connected to an old, deep aquifer.
- Is there any giant sacaton in the Cienega?
 - There are a few small patches.
- Has the BLM been able to keep the cows out of the Cienega?
 - Cattle do trespass onto the Cienega; they travel 20 miles north from Fairbank to this area. Although lots of infrastructure has been placed to prevent trespass, the river is hard to keep up with, especially since cows are on the riverbank. The fire impacted infrastructure that helped control cattle.
 - The checkerboard ownership in the area (with mixed private and public parcels in close proximity) makes cattle management difficult. However, current neighbors are partnering with the BLM; they took care of some

infrastructure impacted by the fire, and a neighbor is constructing a gathering facility for potential trespass cattle in an 80-acre private inholding within the SPRNCA.

- The BLM is proposing a boundary fence project to keep cattle out of the riparian area.

St. David Proposal

- The BLM is proposing installation of a steel fence around the Cienega, locating the fence where soils become erosive. About five miles of fence would be installed along the railroad grade, to Tabletop Mesa, and up to Escalante Road.
- The design would hopefully be a long-term solution for the consistent breaks/cuts in the current boundary fence. The fence will be made of pipe, cables, and concrete, and eight feet surrounding the fence line will be cleared for operating the bobcat.
 - Pipe rail will not be used because the thin walls of the pipe can pop.
 - The state requires that boundary fences have four horizontal barriers. For this fence, two strands of cable would be ideal, but the final design depends on the cost.
 - With the four-barrier requirement for fences, an ARA-funded proposal would not qualify as a boundary fence.
 - The whole barrier will be wildlife friendly, with smooth wire being used up to 42" high.
- The project is now in the implementation phase, since the NEPA has been completed.
- Pupfish are in the pond within the project area, but not topminnow. There is not enough water for fish in the rest of the NCA.

Partnerships

- Needs for partner assistance with this project include monitoring and help addressing OHV impacts.
 - BLM saw the immediate result of the burn, but have not been able to monitor beyond that.
 - Access in this area is sensitive; gates being cut is a consistent problem. Someone once drove a road straight into the Tabletop Mesa area a few years ago. OHV drivers often use the equestrian access gates.
- The San Pedro River is already closed to vehicles, except for one road through the NCA (the Powerline Road that had initially been administrative access only but opened to the public through the RMP process). However, enforcement is an issue; there are only six law enforcement rangers covering the BLM's 2.3-million-acre area.
- The Nomads OHV group has helped with trash and fencing. The BLM isn't sure if this group is still active.
- More groups will probably pop up to engage once the Travel Management Plan process begins.
- The creation of wildcat routes is a national-level conversation, but drivers' decisions usually come down to preferring to pay a ticket if they are caught.

- The Tonto National Forest has had many wildcat roads created in the past few years. They just finished their Travel Management Plan and now need to figure out how to enforce it.
- The SPRNCA TMP process is expected to start in the next 2-3 years. The TMP will focus on non-motorized routes and stopping people from making their own trails.
- Some states have statutes to confiscate vehicles of drivers who make wildcat routes, and they seem to have fewer wildcat issues.
- The Arizona state government often prioritizes prosecuting other types of crimes. Prosecution is difficult because the evidence needed is a photo of someone driving on the wrong side of a designation sign or barrier.
- A major funding opportunity for this area is the Sentinel Landscape Restoration Partnership.

Takeaways (all participants)

Field Trip

- The different perspectives and many types of knowledge present today generated new ideas.
- Meeting new partners is valuable, and reconnecting with people after years of virtual meetings was great.
- The candid back and forth conversation is appreciated; some issues are contentious, and it is important that we can speak frankly and respectfully.
- Thanks to BLM's partners for being here.
- There is a huge difference between meeting in the field versus Zoom.
- The many types of knowledge contributed during the shared history exercise was great, and learning about the history of the area was valuable.

BLM's work

- Appreciate the time and energy taken to implement the burn and BLM's management projects.
- As someone just getting situated in this area, I appreciate the opinions shared today and BLM's efforts to bring partners together.
- It is surprising how the landscape can change in a few years.
- The route to St. David Cienega is a challenge. The road is washed out and is next to private land. The railroad is private property, so this is a legal challenge to solve.
- We can be successful by taking baby steps; having large group meetings annually will clean up gray areas and identify strategies and projects.
- Disappointed that the EA is coming out on December 21st; request to hold it until the new year.

Field Trip - Millville Historic Site



Participants

Ron Stewart

Renell Stewart

Sharon Flissar

James Heurig

Francisco Mendoza

Clint Dalton

Notes – Colleen Whitaker

The group walked to the petroglyph site and to the recently emerged sinkhole. Topics discussed en route included lead and arsenic contamination, and FUDS.

Lead/arsenic contamination

- There have been two surveys - one just after acquisition, and one more recently.
- These include detailed soil survey maps indicating areas of concern.
- The engineering report (ECA) lays out a variety of options for dealing with this. The contractor has suspended activity, but will start again soon.
- The hiking trails traverse the slag. The goal is to keep these trails open to view the historic sites, so the recommended treatment is to cap the trails. With this approach maintenance would likely be needed in 15-20 years.
- Information needs to be developed and posted publicly.

Petroglyphs / Rock Art

- These are likely from about 900 years ago (Hohokam and Mogollon farmers).
- Much of the rock art has been obscured by vegetation growth over the last 1-2 years.
- Current DOI guidance recommends pictures of the rock art not be used on public-facing materials.

- Francisco and Clint will reach out to Archaeology Southwest for input on improvements to signage here.

Sink Hole

- The large sink hole near the petroglyph site emerged about a year ago, and is about 12-15 feet deep.
- BLM installed a barbed wire fence around the hold to keep people out. There are still some concerns about smaller animals slipping under/through the fence and falling in.
- The recommended solution is to fill the hold with a liquid styrofoam, using Arizona Game and Fish Department crews. (Follow-up is to find out about the load bearing capacity of the foam).



Trails

- BLM is working to improve equestrian trail access here.
- There is a need to consolidate information and improve signage.
- BLM would like to resurface the loop trail that goes to the overlook (and build it as an ADA accessible trail)

Appendix A: Participants

Alphabetical by affiliation

- Tice Supplee, Audubon Southwest
- Lizann Michaud, Bisbee (citizen)
- Sharon Rock, Bisbee (citizen)
- Scott Feldhausen, BLM Gila District
- Amy McGowan, BLM Gila District
- Kevin Weldon, BLM Tucson Field Office
- Mark McCabe, BLM Tucson Field Office
- Eric Baker, BLM Tucson Field Office
- Theresa Condo, BLM Tucson Field Office
- Francisco Mendoza, BLM Tucson Field Office
- Wyatt Shannon, Brookline Ranch
- Matt Ford, Brookline Ranch
- Sharon Flissar (City of Sierra Vista)
- Mark Apel (Cochise County)
- Renell Stewart, Friends of the San Pedro River
- Bob Luce, Friends of the San Pedro River
- Robert Weissler,
• Friends of the San Pedro River
- Joanne Roberts, Friends of the San Pedro River
- Ron Stewart, Friends of the San Pedro River
- Amber Morin, Ft. Huachuca Sentinel Landscapes Partnership
- James Lindsey, Hereford NRCD
- Lance Clawson, Lucky Hills Ranch (Tombstone)
- Don Decker, NRCS (Douglas)
- Holly Richter, Resilient Rivers LLC
- Jennifer Martin, Sierra Club
- Emily Burns, Sky Island Alliance
- Kim Schonek, The Nature Conservancy
- Tom Stitt, The Nature Conservancy
- Steven True, True Ranch Beef
- Michael McDonald, Tucson Audubon Society
- Jennifer MacFarland, Tucson Audubon Society
- Jonathan Horst, Tucson Audubon Society
- Cyndi Tuell, Western Watersheds Project
- Saff Killingsworth, Xerces Society
- Tricia Gerrodette

Facilitation/documentation: Southwest Decision Resources - Tahnee Robertson, Colleen Whitaker, Anna Murveit, Julia Guglielmo

Appendix B: Agenda

San Pedro Riparian National Conservation Area

Collaborative Adaptive Management | Annual Partner Meeting

December 9, 2022 | 9:00am - 4:00pm | San Pedro Riparian NCA

Meet at the San Pedro House (9800 AZ-90, Sierra Vista, AZ 85635)

Working Group BLM Leads

- Recreation and Cultural/Heritage: Francisco Mendoza, Clint Dalton
- Riparian and Aquatic: Christina Perez
- Uplands and Grazing: Eric Baker and Theresa Condo

8:30am – BLM/Facilitation team arrive for set-up

9:00am – San Pedro House Arrivals – Bagels, Coffee, and Socializing

9:30am – Welcome, Agenda Review, and Introductions

9:40am – Collaborative Adaptive Management Overview (Tahnee Robertson, SDR)

- BLM Updates
 - Staff/leadership updates - *Scott Feldhausen, BLM*
 - Other field office priorities - *Amy McGowan, BLM*
 - Middle Gila South Travel Management Plan
 - LCNCA Beaver EA

9:55am – Uplands and Grazing

- Uplands Working Group update - *Eric Baker, BLM*
- Sentinel Landscape Restoration Partnership - *Amber Morin, Ft. Huachuca*
- Integrated Vegetation Management EA - *Amy McGowan/Dan Quintana, BLM*
- SPRNCA Grazing EA - *Amy McGowan/Eric Baker, BLM*
- Fencing work - *Eric Baker, BLM*

Riparian

- Riparian Working Group update - *Theresa Condo, BLM*
- Updates: Water umbel, Arizona Eryngo and beavers - *Theresa Condo, BLM*
- MOU for Cooperative Monitoring and Management of the SPRNCA and Surrounding Areas within Cochise County
 - BLM (Scott Feldhausen)
 - Cochise County (Mark Apel)
 - City of Sierra Vista (Sharon Flissar)
 - Ft. Huachuca (Holly Ballantyne)

Recreation & Cultural/Heritage

- Recreation and Cultural/Heritage Working Group update - *Francisco Mendoza/Clint Dalton, BLM*
- Environmental remediation projects - *Francisco Mendoza*

10:35am – Partner Updates

11:00am – Shared History Activity

- Interactive group activity to develop a collective timeline of important events in the SPRNCA and greater landscape.

12:45pm – Picnic Lunch at San Pedro House

- Please bring your own bagged lunch

Field Visits

1:15pm – Move to cars for site visit – select one of two site visits

1:25pm – Drive to St/ David Cienega (60min) or drive to Millville Complex (20 min)

2.25pm – St. David Cienega

- Logistics: This visit will include a short walk up a small hill (less than a ¼ mile). High clearance vehicles are required to reach the site. There may be an opportunity to carpool with other participants from a location near to the site - we will organize carpooling during lunch.
- BLM team: Eric, John, Dan, Mike, Mark, Theresa, Scott
- Topics and Discussion:
 - *Prescribed burn*: View and discuss recovery from a prescribed fire here in 2020 - lessons learned and implications for future management.
 - *Fencing*: View site of planned fencing, discuss project intention and components, partner feedback

1:45pm – Millville

- Logistics: This visit will include a short walk on flat ground (less than a ¼ mile). Parking is available at the site and no special vehicle clearance is required.
- BLM team: Francisco, Clint, Dan
- Topics and Discussion:
 - Overview of site, significant components, volunteer signing plan, and partner discussion/feedback
 - Safety concerns
 - Sinkhole, lead and arsenic contamination areas of concern that effect trails, discuss ideas for managing visitor use.
 - FUDS - update and discussion on additional signing
 - Hunter safety zone signing

3:30pm – Wrap Up

4:00pm – Adjourn

Appendix C: Shared History Timeline

Partners took turns verbally sharing everything they had added to the timeline. Sharing began with the earliest entry and moved forward in time.

Timeline items:

- Mammoths
- 13,000 years ago, the clovis culture came into the valley looking for mammoths and other large megafauna that are now extinct. They were here for a couple hundred years.
- 9,000 BC - ~ 2,000 BC: Clovis were the most active. Following them were the Archaic native cultures – following fauna, gathering plants.
- 1,000 BC – early agricultural groups. Many coming in from Mexico.
- 81 BC – emergence of specialized cultures (Hohokam and Mogollon). Living in large agricultural villages using irrigated farmlands along the San Pedro.
- 1200 AD – ancestral Puebloan groups migrated south and established villages.
- 1300 AD – Sobiapuri lived here until early 1800s.
- 1540 – the historic era began in this area. Coronado expedition passed. Referred to the San Pedro as the Rio Nespa.
- 1690s – Kino arrived; introduced crops like barley and brought cattle.
- 1760 – Raiding by Chiricahua Apache once the Sobaipuri were no longer here to repel invasions. Minor occupation of the Apache in this area, but not meaningful inhabitants.
- 1760 – Presidio Santa Cruz de Terrenate
- 1820 – Mexican government established land grants along the San Pedro.
- 1843/46 – James Ohio Pattie came into the San Pedro and named it the Beaver River
- 1848/49 – Battle of the Bulls
- 1853 – Gadsden Purchase
- 1876 - Shiflin came to Tombstone
- 1877 – Camp Huachuca is established
- Tombstone Pipeline from the Huachucas (after earthquake)
- 1882 – Railroad in Fairbank; connected into Mexico (Naco) for mines and cattle transport
- 1882 – Cochise County created (previously this was Pima County)
- 1882 – Establishment of St. David
- 1887 – earthquake in Sonora. After this Tombstone Mining Company brought in Cornish pump – 1.6 million gallons a day.
- 1890s – severe drought in the valley. Changed landscape rather significantly. Prior to this it was slow flowing water and pools. This is when it begins to become entrenched.
- 1902 – Little Boquillas



- 1903 – Supreme Court validated George Hurst land grant (Little Boquillas)
- 1920 – major flood event
- 1934 – Taylor Grazing Act, to address Great Plains erosion
- 1930s – Johnson grass introduced.
- 1936 – Bavispe Reserve Established in Mexico, the headwaters of the San Pedro. At that time, it was primarily for timber connection.
- 1940s – power pumps introduced
- 1943 – Hereford NRCD established
- 1950s – high lift pumps introduced
- 1972 – Nixon signed order to direct all federal managers to do Travel Management Planning
- 1976 – City of Sierra Vista officially incorporated (previously was Fry Town)
- 1970s – Lehmann's lovegrass introduced
- 1970s – first record of Southwest springs firefly collected near here. Species described shortly after.
- 1976 – FLPMA enacted by Congress. BLM Organic Act
- 1970s – Sale of Little Boquillas Ranch by Kern County to Tenneco Mineral Exploration (who intended to open SPRNCA to development)
- 1983 – last major cottonwood recruitment event along the river
- 1987 – Grassroots advocacy that resulted in forming the Friends of the San Pedro River
- 1980 – AZ Groundwater Management Act
- 1980s - Doug Duncan small mammal inventory of full length (published)
- 1985 – Gila River Adjudication began
- USGS gauges (Charleston is first)
- 1988 – Enabling act for SPRNCA
- 1989 – San Pedro River Riparian Management Plan (the only plan in place until the RMP) – David Creeper did All Bird Survey, which is basis for ABC designation of SPRNCA as Globally Important Bird Area
- 1990s – developed MAPS station
- 1998 – AZGFD Statewide SWFL and YBC surveys to establish baseline
- Early 1990s – AZGFD statewide fish surveys and informal water umbel surveys by multiple scientists, including Gorey.
- SWFL listed as endangered. Miralet Haltermen started surveys on YBC nest surveys and banding.
- DOD started required water humble surveys
- 1992 – water umbel listed as endangered
- 1994 – first challenge to Biological Opinions
- 1998 – USPP established. BRAC (Base Realignment and Closure) initiated which drove the formation of the partnership.
- Ecology and Conservation of the San Pedro River edited by Juliet Stromberg et al.
- First wet-dry mapping of SPRNCA
- 2001 – one of the biggest flood flow events. Doubled wet-dry mapping wet length 9 months later
- 2000 – drought starts

- 2002 – City of Sierra Vista Operations Park started recharging
- Fish and Chiricahua leopard frog listed
- 2005 – Charleston Gauge went dry for the first time
- 2006 – SPRNCA water needs report; initial work by Julie Stromberg
- 2007 – Infrastructure Recovery Act
- 2008 – Border wall erected (18') flanking the river to the east and west
- DOD required surveys have been continuous since 1999. (SWFL, YBC and HWU)
- 2011 – big freeze (below zero).
- 2011 – Monument Fire in southern Huachuca mountains. And Horseshoe Two Fire and Wallow Fire in the White Mountains
- 2011 – Water Sentinels started here
- National Riparian Service Team report documenting that SRPNCA has still not recovered from 20 years of grazing.
- 2013 – Activation of Bella Vista Ranches subdivision (3,000 acres) with full support of all communities – permanently protected and retired. Cochise County Recharge Network site.
- 2018 – AZ IBA program TAB and AC – Bell's vireo and Lucy's Warbler. Next year dedicated as global IBA for Bell's Vireo.
- 2015 – formal Cochise Conservation Recharge Network (CCRN) formed
- 2015 – Sentinel Landscapes formed
- Citizen's inventory of lands with wilderness characteristics completed. SPRNCA inventory and finds 4 tracks that qualify, but choose not to manage as wilderness.
- 2017 – Mexico's CONANP established flora and fauna protection area for Bavispe
- 2017 – Horseshoe Draw project completed with funding from Hereford NRCO and ADEQ. Erosion control and recharge.
- YBC listed as threatened
- 2018 – group of scientists sent letter to BLM asking them to end grazing in SPRNCA because of scientifically documented negative impacts.
- Mexican garter snake listed. YBC critical habitat and jaguar also designated
- 2019 – SPRNCA RMP signed
- 2020 – Border wall built across the San Pedro River (30' tall with gates open seasonally and stadium lighting that is not yet turned on)
- 2021 – Water MOU signed
- 2020/2021 – historic drought year and warmest on record
- AZ Eryngo is listed
- 2022 – first monitoring effort for SW Springs Firefly which may occur here (not yet relocated). Threatened.

Appendix D: BLM Riparian Updates

Handout provided to partners

Theresa Condo and Christina Perez, BLM

December 9, 2022 at the San Pedro House

- Huachuca Water Umbel (HWU) surveys on the San Pedro River
 - BLM staff and volunteers surveyed from the old Boquillas ranch to Hereford Bridge in late May and early June 2022 – Approximately 25 miles.
 - Fort Huachuca completed inventories of the San Pedro in 2001, 2004, 2007, 2008, 2009, 2010, and 2015. In 2015, 45 metapopulations were documented.
 - We recorded the locations of HWU metapopulations using Esri FieldMaps application that displayed previously recorded metapopulations on the map.
 - We recorded 12 metapopulations. All metapopulations were found in past surveys, no new metapopulations.
 - At each metapopulation we collected data on patch size, patch density, canopy cover over the patch, soil moisture, and disturbance data on invasive plants, cattle, wildlife, recreation, and sedimentation.
 - 2022 summary results*
 - All 12 meta populations were growing in moist or saturated soil
 - 10/12 patches were partially covered with overstory vegetation
 - Disturbance from cattle trampling was observed at 7/12 patches. 8 patches were within 1m of livestock sign
 - 6/12 patches had uprooted or broken stems.
 - Disturbance from sedimentation was observed at one patch.
 - 11/12 metapopulations had non-native plants within 10 meters. Most common invasives were rabbitsfoot grass and Bermuda grass. Johnsongrass was found throughout the survey area but not in direct competition with HWU.
 - Common native plants growing near and amongst HWU included, spikerush, equisetum (horsetail), and bulrush.
 - We did not collect data at previously recorded metapopulations where HWU was no longer present.
 - Throughout the survey area we noted signs of bank erosion, changes in channel location, drying streambed.
 - BLM is planning to monitor the known metapopulations every other year and re-inventory the river every 5 years. Monitor in 2024 and Inventory in 2026.

*Note: survey report is still in draft form

- Arizona Eryngo
 - Rare wetland plant species. Population on SPRNCA at Lewis Springs wetland.
 - In June 2022, AZ Eryngo was listed Endangered with the bounds of Lewis Springs designated Critical Habitat.

- BLM monitored pre-established plots in Sept. 2022 that were established at Lewis Springs wetlands in 2020.
- In spring 2022, BLM planted 70 plants at St. David Cienega wetland habitat. The outplanting appears to have been largely unsuccessful but St David Cienega is still a viable location to keep trying. Challenges: water fluctuations, competing wetland vegetation, and unauthorized cattle.
- Beaver Survey
 - River was surveyed for beaver and beaver sign in fall 2022 by Watershed Management Group.
 - Summary pending
- Fish Surveys
 - Survey data were collected at 3 fish sampling sites in spring 2022
 - Historically there were 13 native fish species that occupied the upper SPR to date only 2 remain: Desert sucker and Longfin Dace. Habitat loss and introduced species are reasons for extirpation.
 - SP fish surveys began 1990 to assess and monitor the fish populations in the river
 - 5 permanent sites were selected in 1990, since then 1 site is dry (on the Babocomari), and 2 sites are intermittent.
 - To date only 2 historic sites are sampled and one new site established in 2020.
- Whitehouse wetland project is on hold
 - This is a pond that will be dredged to create open water for native aquatic species. Location is near Hereford Bridge.