

San Pedro Riparian NCA - All Partner Meeting

San Pedro House and Site Visit Meeting Summary

April 12, 2024 | 9:30am - 3:00pm

Actions

- Website - get a link to [Collaborative Adaptive Management](#) website added on BLM SPRNCA site
- Share draft Recreation Business Plan meeting info when confirmed
- Prepare allotment/permit update for upcoming Hereford NRCD meeting

BLM Updates

Colleen Dingman, Tucson Field Office Field Manager

New staff:

- Joan Breiner – Assistant Field Manager (Renewables)
- Hannah Pierce – Wildlife Biologist
- Alexia Williams – Project Manager
- Pete Christensen – Hydrologist
- Ralph Burrillo – Archaeologist
- Aaron Peretz – Range Tech
- Tavia Carlson – Lands and Realty
- New Park Ranger for the Tucson Field Office - coming soon

Retirements:

- Francisco Mendoza (in process of filling this position)
- Keith Hughes (Hannah is Keith's replacement)

Some SPRNCA highlights of the year:

- Lots of volunteerism – ACE, Ft. Huachuca, Trail volunteers
- SPRNCA had ~278,000 visitors in 2023, based on traffic counter numbers.
- Friends of the San Pedro River hosted over 515 education participants on tours, 1500 interpretive walk participants and donated 11,000 hours of volunteer work!
- Public Lands Day here last fall with the Girls Confidence Camp was great.
- Remember that the [SPRNCA Collaborative Adaptive Management website](#) is a resource to find meeting notes, information on working groups, etc.

Tucson Field Office updates:

- Middle Gila South Travel Management Plan is almost complete.

- Las Cienegas NCA Restoration EA and Beaver Reintroduction EA were recently completed.
- Murray Springs road access has been closed due to vandalism issues. There is still pedestrian access.
- There is no longer easy access to Land Corral – the road people had been using crosses private land, and the owner has gated it off. Current access is pedestrian only until BLM addresses how to provide access again.
- Palominas has been closed to vehicle access.
- It has been necessary to close a couple of vault toilets around SPRNCA because BLM has no one to clean them. Hope to reopen them soon.



Working group updates

Recreation + Cultural/Heritage

Robert Walter and Colleen Dingman, BLM

- Robert has been mostly involved with the Las Cienegas NCA Recreation team, and is new to the SPRNCA team (this was previously supported by Francisco Mendoza, who has retired). He is getting up to speed with past meeting notes, etc. Expect more updates at the next meeting
- There are upcoming improvements at Fairbank to resurface the trails starting in the fall. This will include re-routing the trail away from the railroad berm.
- Per direction from the State Office, the Tucson Field Office is now developing a Recreation Business Plan. A draft will be released in early summer, with a 30-day public comment period. SPRNCA partners will be invited to attend a presentation on the draft plan when it is ready for sharing

Riparian

Fencing- *Eric Baker, BLM*

- The St. David Cienega fence enclosure was recently completed. This encloses the Cienega, with the exception of the outlet which has a breakaway fence in the event of high water flow.
 - The contracting officer was great and had good construction experience.
 - Cost - \$1.2 million on 6 miles of cable, pipe and wire fencing.
 - Hoping that regular burns will also help to improve this area.
- Upcoming fencing: Willow Wash water gap
 - BLM has \$300k to design a large scale water gap. This is a very remote area.
 - The hope is that this design will be suitable for other areas such as Walnut.
 - The proposed design is a large hanging structure with 60' drill depths outside of the 100 year flood zones.
 - There will always be ongoing maintenance.
 - Eric recently found the need for 40 water gap structures within a 5 mile area while working on phase 1A of the boundary project.
- Upcoming fencing: SPRNCA boundary fencing
 - This is a very large project. BLM has \$3 million for this work. Costs are very high right now. Hope to stretch the funds as far as possible.
 - Work will occur over 8 phases. The first phase will start at Fairbank, and is currently in procurement.

Discussion/Questions

- *Current status of cattle in the Cienega*
 - BLM has traps and this is being actively monitored via cell game cameras. There is a third party working along with the neighbors and the cattle owners. This is being actively addressed - BLM is unsure exactly how many cattle are within the Cienega right now, but it is very few as compared with a few months ago.
 - The third party involvement has been helpful. They are working with livestock inspectors and reporting to the state on what is removed. This has made people more willing to be part of gathers.
 - BLM has no permitted operators within that area.
- *Water gaps*
 - BLM clarified that the purpose of water gaps are as the legal boundary fences of the NCA.
 - There was a request to share a map of the 40 water gaps Eric found during his work. This was done as a way to try and get an accurate cost estimate. Not sure if that exact map could be shared at this point.
 - A partner noted that the recent water gap at the Babocomari was very costly and wondered if the new ones would be similar in cost. BLM shared that it is hard to say - the landscape is different across the gaps, and there has to be engineering at every site. As of now there is no standard design, which increases costs. BLM is hopeful that the Willow Wash project can be scaled up to help with costs.
- *Fencing materials for partners*
 - Four years ago BLM requested 100 miles of fencing materials. Due to cost increases this ended up only covering 80 miles. To date 80% of the materials have been used and there are only 12-15 miles left. These were all done through cooperative agreements.
 - BLM believes the fences are having a positive impact.
 - Interested adjacent landowners can contact Eric to find out more.
- *Boundary fence surveys*
 - BLM gave the Arizona Conservation Corp Youth Crew \$250k to survey the NCA boundary.
 - They identified 600 points of impact or non-functioning fence within 87 miles.
 - Over their last two weeks they were able to begin making some repairs.
 - This was tough work for the young people, and retention was hard.
- *Allocation of resources on SPRNCA*
 - A partner shared that it seems most of the damage in SPRNCA is caused by cattle, and wondered if resources that are being allocated to other things (e.g. recreation) could make a difference in the cattle situation.
 - BLM noted that all the project funds come from different sources and have different restrictions. For example, the ADA work at Fairbank came from deferred maintenance money that was applied for 3-4 years ago. All the fencing projects mentioned are from different sources, such as BIL or IRA.

Uplands

Herbicide treatments and Restoration EA - Dan Quintana, BLM

Herbicide treatments

- Tebuthiuron (spike) treatments were done at the end of March to treat creosote and cat claw on the four SPRNCA allotments. The purpose for the treatments is that these areas are not currently meeting objectives for shrub canopy cover on the ecological sites. The shrub ratio was too high for it to be a healthy functioning system. There is less grass cover and more bare ground which leads to erosion issues.

- Treatments were done by aerial application. The per acre amount of spike is small. A little over 5700 acres were treated across all four allotments. BLM hopes to see changes in the shrub and grass cover in the next few years.

Restoration EA

- BLM is in the process of developing a Restoration EA for the San Pedro Valley. This will include BLM, State, and private lands. This process will include an evaluation of the condition of vegetation communities, and identify if objectives are being met based on ecological sites.
- This is similar to what was done on Las Cienegas NCA. It is a partner approach to vegetation management with the ability to do the work where it is needed, and not be stuck in the narrow corridor of the SPRNCA or just on BLM lands.
- Public scoping will occur in mid-late summer.
- Everyone here is on a list of interested parties and will be notified.
- Expect a draft in 1.5-3 years.

Discussion/Questions

- *Selection of areas for treatment*
 - An analysis was done on these areas as part of the grazing permit renewals process.
 - These are the only areas that have NEPA right now. The Restoration EA will enable treatments across the whole watershed.
- *Negative impacts of herbicide*
 - There are not many impacts to other species from Spike. It doesn't hurt grasses or impact mesquite.
 - It can't be applied on steep slopes or in drainages. It is not applied in large quantities.
- *Possible causes of decreased grasses*
 - A partner wondered if it is possible the grasses are struggling primarily due to grazing.
 - BLM noted that across Arizona and the southwest in general there is a lot of research about shrubs outcompeting grasses.
- *Future vegetation treatments*
 - Future treatments will be based on the Restoration EA. In areas where objectives are not being met, BLM will identify target species (e.g. creosote or mesquite) and an associated treatment plan.
 - Mesquite removal could potentially occur in some areas in the future based on an assessment of the resource objectives for the specific ecological community, but specific thresholds are not currently defined for this and no removals are planned.
 - Maintenance on all treated sites is ongoing. Initial treatments will be smaller, and maintenance treatments are likely to be larger.
- *Mechanism for working on non-BLM land*
 - This is done in partnership with groups like the Arizona Association of Conservation Districts (AACD), Nature Resources Conservation Service (NRCS), Arizona Department of Fire and Forestry Management (DFFM) and Sentinel Landscapes.
 - In other places on the district, BLM works closely with private landowners, NRCS and AACD, utilizing existing conservation plans.
 - All work on private land is with landowner permission, of course. All NEPA regulations have to be followed, even on private land.
- *Archaeological sites and vegetation treatments*

- A partner noted that the whole SPRNCA is essentially an archaeological site and enquired about salvage archaeology in areas where ground disturbing work will be done.
- Any ground disturbing work requires Class 3 surveys. This is one of the first things that occurs.

Grazing - Eric Baker, BLM

- With the issuance of the four SPRNCA allotment leases and the Integrated Vegetation Management decisions, the BLM is moving forward with 50% reduction of AUMs (Animal Unit Month) for the leases. This is on all four allotments until desired plant community conditions are met. The purpose of these reductions is to align with the Adaptive Management protocols.
- The current changes apply to the 2024 grazing season. A grazing season is March 1 - February 28.
- There is funding available for both pre and post treatment vegetation monitoring.
- The monitoring data is being shared and discussed with the Uplands working group who are working to develop best methods for sharing and engaging with this data. The information is also posted on the [SPRNCA Adaptive Management website](#).

Discussion/Questions

- *Monitoring reports for grazing allotments*
 - Data from 2019 - 2023 has been shared with the Uplands working group, and can be accessed on the SPRNCA Adaptive Management website.
 - Ideally moving forward the monitoring data will be shared each fall prior to the grazing season.
- *Communication with Hereford NRCD*
 - A partner noted it would be valuable to share this information at an upcoming Hereford NRCD meeting.
 - Two of the SPRNCA permittees are part of the Hereford NRCD. Eric can prepare a brief update.
- *Implications of vegetation treatments*
 - Best management practices call for two consecutive growing seasons of no-grazing post-treatment. BLM is working with the lessees to make these long-term plans.
- *Mesquite removal at Charleston*
 - Partners inquired about recent mesquite removal near Charleston bridge.
 - This is private property and the owner has a grant with the NRCS to do treatments for grassland restoration. The intent is to utilize the western portion of the allotments for grazing.
 - Note that the owner has willingly maintained public access here for many years.

Partner updates

- Jennifer Martin - Sierra Club Water Sentinels monitor water quality on the SPRNCA. One Monday per month May - Oct. Volunteer effort. The annual training is a week from this Monday at 9:30am. (
- Friends of San Pedro River (Ron Stewart) – April 27 Celebrate the San Pedro. Will include a Birding Big Day, art show and kids activities.
- Sierra Club Grand Canyon Chapter (Cyndi Tuell) - This group was formerly known as the Rincon Group and covers Southern AZ. It is now reformed as the Nopales Group. They meet once a month on Zoom. Get in touch with Cyndi if you want more information.

- The Nature Conservancy wet-dry mapping will be June 15 this year (contact Bailey Winston if interested)

Murray Springs Clovis Site

Ron Stewart, Friends of the San Pedro River

Ron provided an overview of the site history and importance for the group:

- In 2012 Murray Springs was designated as a National Historic Landsite.
- In the 1980s this was one of the most well-known archaeological sites in US. It was the first place the Clovis culture was really explored in detail. Much of this has faded from public knowledge now.
- In 1952 Ed Lehner discovered mammoth bones and a Clovis point near to here. In total, 12 mammoth kill sites have been discovered in this area.
- In 1966 mammoth bones were discovered here at Murray Springs, along with multiple Clovis points. Dr. Vance Hanes from the University of Arizona led the dig. At the time he was the most famous archaeologist in the US. He is now 96 years old and still comes out here.
- What made this site so significant was how much of the culture it revealed. This was the first ever Clovis campsite to be found, there were hearths, and evidence of tool making and butchering.
- Since then many extinct animal bones have been found at this site.
- A prominent feature of the site is a geologic layer known as the "black mat" (see image below). This dates to about 13,000 years ago. All Clovis sites are immediately below this, but not above. The culture disappeared very quickly. The reasons are debated - some believe it was the result of a comet and an extinction level impact event, others believe this became an uninhabitable marsh area. The origins of the black mat are still being researched.
- There are some concerns for the continued stability of the site. Effluent recharged into the aquifer through Sierra Vista's treatment ponds at the Environmental Operations Park ends up here through Curry Draw. This has led to the vegetation growth we see at the site. Dr. Haynes is concerned there are more bones and artifacts here that are being damaged by this growth. In addition, all the arroyos around here are head cutting, and sites are being destroyed. Vandalism of the site is also a concern. Ron noted that Friends of San Pedro River are in support of the recent BLM decision to close the site for awhile to deal with these impacts.



Management issues - *Colleen Dingman, BLM*

- BLM recently decided to close this site due to illegal activities, repeated vandalism and concerns for staff safety.
- The gate is now closed, but pedestrian access is still available. The hope is to be able to re-open it in the future. Could perhaps also consider the development of a pedestrian walkway if the road closure becomes more permanent.
- Friends of the San Pedro River are hoping to be able to have a volunteer here on weekends to welcome people and provide information. This may start in the fall.

Riparian topics (San Pedro House)

Beaver

Citizen science efforts to track beaver populations in the San Pedro River - *Catlow Shipek, Watershed Management Group*

- Watershed Management Group (WMG) are in the third year of a community science survey on 40 miles of the SPRNCA, documenting beaver sign. This includes over 70 volunteers who receive training on what to look for; no previous experience is necessary. Data is collected with the Survey 123 platform.
- There is coordination with BLM, AZ Game and Fish Department and Cochise College – especially if there are any questions about what has been recorded.
- WMG are able to make population estimates based on observations.
- In 1999/2000 there were about 20 beaver released into the San Pedro. By 2010 there were over 100. Current estimates are about 12-16 beaver (3-4 groups). There has clearly been a slow decline, the question is why?
- There are beaver downstream on the Lower San Pedro. The Nature Conservancy's Muleshoe reserve used to have them and now does not.
- On the Mexico side the population is remaining stable because they have off channel reservoir systems to access that are maintained by ranchers (similar to large stock tanks). There is more activity and diversity there. On the Arizona side we don't have this.
- WMG are interested in learning from experiences in the SPRNCA to inform areas of new reintroduction, like Las Cienegas NCA.

Discussion and questions

- *Possible reasons for declining population*
 - During peak population there was anecdotal evidence of beaver traveling north from Mexico, perhaps this isn't happening as much?
 - Maybe there is increased predation from mountain lion?
 - Beaver are still permitted for trapping, but WMG doesn't know how many are being trapped, if any.
 - One partner noted that when photographing beaver here in 2008 the river was much larger and the beaver dams created much larger ponds. It seems likely the ongoing drought must be having some impact on population size.
- *Possible population augmentation*
 - Some partners wondered if perhaps they reached carrying capacity and numbers were naturally reduced. If this is the case, augmentation may not be helpful to the existing beaver.
 - WMG is curious if there are opportunities to enhance river geomorphology and restore the wetland environment to make augmentation a better idea in future. They note that there is historic evidence of beaver throughout the system, but now the populations are in clusters. How viable are these clusters, and is there sufficient connectivity between them?

- Wet-dry mapping is a good dataset to reference, and there may be correlations with the population clusters, or the possibility to identify missed opportunities in certain reaches.
- A partner shared that 17 years ago there was a beaver lodge in the middle of Green Kingfisher Pond. Currently this pond is about 6" deep, but partners have talked over the years about dredging it. This could be an opportunity to also enhance beaver habitat. There may also be opportunities at the logjam downstream of the Hereford bridge.
- BLM clarified that beaver management is AZ Game and Fish Department's authority, not BLM.
- *Nuisance beaver*
 - WMG has helped relocate nuisance beaver from a private landowner. They are also exploring the idea of a "hatchery" to pair nuisance beaver and then release them in family groups.
 - There is currently no tagging or collaring of released nuisance beaver.

Collaborative Water MOU

The *Collaborative Monitoring and Management of the San Pedro Riparian NCA and Surrounding Areas within Cochise County MOU* is a memorandum of understanding between the BLM, DoD Ft. Huachuca Cochise County, and the City of Sierra Vista.

SPRNCA 2023 Riparian Health Assessment - Holly Richter, Resilient Rivers

Handout available upon request

- The [2006 USGS Stromberg report](#) set up a framework for assessing the riparian health of this system over 14 reaches. This framework is the basis of the MOU.
- Models are being developed now to be able to predict conditions in ten years, based on current trends. Until these models are complete, the group has decided to look at health over the last 26 years, using the wet-dry mapping.
- For each of the 14 reaches they have identified management or monitoring needs.
- Most reaches look like they have retained their riparian health, and a few have actually improved.
 - Reach 13 - this was originally in "poor" class, and is now in "intermediate" class. Wet-dry data indicates this reach is doing well. Does anyone have info about landowners or activity in area?
- The assessment identified two reaches as potentially "at risk"
 - Reach 1 - remains in "intermediate" status for riparian health. The wet-dry trends here are statistically in decline for wetted length. This is a priority reach. Cochise County's work to establish an effluent project here is critical for this reach.
 - Reach 5 - further investigation revealed this was due to the lack of herbaceous riparian/wetland plants on the streambanks that was more attributable to erosion and channel instability due to log jams, instead of declining groundwater levels-as evidenced by photographs taken in the field, and accounts from USGS staff who maintain a stream gage there. Groundwater levels were ultimately not found to be why riparian health was in question here.
- The full riparian health assessment can be viewed on the [Upper San Pedro Partnership website](#)



Cochise Conservation and Recharge Network update - Mark Apel, Cochise County

- The Cochise Conservation and Recharge Network (CCRN) was established in 2015 by a subgroup of the Upper San Pedro Partnership (USPP). Members of the CCRN include Cochise County, City of Sierra Vista, Hereford Natural Resources Conservation District, City of Bisbee, Fort Huachuca, Bureau of Land Management and The Nature Conservancy. Projects are planned, designed and constructed adjacent to SPRNCA to enhance baseflow and alluvial flows of the river.
- The EOP (Environmental Operations Park) has been operational since 2002 and is the largest of the CCRN's recharge projects. The purpose is to provide a source of water to support the base flows of the river as well as create a barrier to the nearby cone of depression.
- They are learning that effluent is a much more consistent and assured source than stormwater; both types of projects are being pursued..
- Inventory of other projects:
 - Palominas Stormwater Recharge and Flood Control Project - Originally built as a flood control project and retrofitted as a demonstration site to test different infiltration treatments that will help plan and design other recharge projects.
 - Bisbee Effluent Recharge Project - Not yet built. Implementing a project close to the border is important since that reach of the SPRNCA has seen declining flows in the last decade. Will pipe Bisbee effluent close to the SPRNCA international border (reach 1)
 - Horseshoe Draw Sediment Control and Stormwater Recharge Project – Constructed by Hereford NRCD. Have seen good results here in the last 6 years, including instream recharge downstream of the detention basin.
 - Three Canyons Conservation Site – Retired agriculture pumping. While pumping stopped some years prior to the CCRN, future ag pumping has been precluded and permanently retired through a conservation easement held by the City of Sierra Vista. There are also regenerative grazing experiments to help build up organic material to increase infiltration and reduce runoff.
 - Riverstone Effluent Recharge Project – This is an old ranch site. Working on ephemeral streamflow monitoring and designing an effluent recharge project that will take a portion of Sierra Vista's effluent from the EOP.
 - Bella Vista/Coyote Wash – The County acquired this old ranch that was slated for development in partnership with The Nature Conservancy. The project, when constructed in the near future, will capture urban enhanced runoff (UER) from the City of Sierra Vista to recharge and restore the wash to its natural flood regime.
 - Babocomari – The County acquired this property along the Babocomari and has precluded any future development. While no recharge project has been implemented here yet, the CCRN has seen an incredible groundwater response in monitoring data to flood events.
- Overall, the CCRN projects have protected approximately 6000 acres from future development through conservation easements and recharge projects.
- Since the founding of the CCRN in 2015 there have been 46,700 acre feet of water benefits from these efforts.
- The partnership aspect is critical - none of these single entities could do these projects alone.

Discussion/Questions

- *Pollutants and run-off*
 - A partner enquired about the impacts of pollutants that are carried by storm runoff.
 - The MOU group has worked with ADEQ on this, who were pleased that the water is moving through soil which has a filtration effect (soil-aquifer filtration). It is better than sending it straight into the river.
- *Bisbee effluent project*
 - A partner shared that some community members in Bisbee were concerned about this project.
 - Holly and Mark shared that some people thought this project would involve direct discharge into the river, which it does not. There is a need for ongoing conversation

and communication to help people understand the purpose of the project and its impacts.

- *Cananea well projects*
 - Subflow and surface water in Mexico are very important to the SPRNCA, and increased pumping in Cananea will have effects here. There have been various efforts over the years to try and increase cross-border collaboration.

Monitoring

USGS monitoring - Pete Christensen, BLM

- Last August the BLM was awarded federal water rights on the SPRNCA. This is a unique situation and very important. BLM wants to do due diligence and monitor the wells properly.
- They have brought in USGS to help, understanding that when a federal agency monitors alone the data is not always held up in court.
- USGS will take over the monitoring of nine wells in the SPRNCA. All nine are protected and ready to go. As soon as next week the sensors will be in the wells. These will be checked quarterly. This data should appear soon on the USGS website.
- The wells are fairly evenly distributed across the SPRNCA from Palominas to Fairbanks.
- The baseline period used for the water rights is 1988 to 2015. Although the BLM presented data back to the 1970s during the case, the rights were only granted 1988 to 2015. Happy to at least have this in place.

Huachuca water umbel and Arizona eryngo - Theresa Condo, BLM

- Huachuca water umbel was last surveyed in 2022
 - 12 metapopulations were found in the river (Boquillas to Hereford).
 - Prior to this surveys were done by Ft. Huachuca.
 - BLM continues to monitor introduced populations in Horse Shoe and Murray Springs.
- Arizona Eryngo
 - There is a metapopulation in Lewis springs. Plots were set up in 2019.
 - Have seen some decline since the plots were established. Not sure if this is due to recent high temperatures. There is some overcrowding of vegetation at the wetland. BLM is looking at what could be done to support the population through vegetation removal and treatment.
 - There are also plantings to reintroduce eryngo at Las Cienegas NCA and St. David Cienega. Now that the cienega is fenced, BLM is looking at what can be done to create another population at that site.

Long-term fish monitoring of the San Pedro River - Christina Perez, BLM

- Historically the SPRNCA had 13 native fish species. Currently there are only two.
- Long-term monitoring started in 1990. BLM selected four sites on the SPRNCA and one on the Babocomari to track trends and fish populations.
 - Christina has continued most of these sites. She now samples three fixed sites (2 previously selected sites and 1 new)
 - Two areas were dropped - Hereford is a losing reach and Fairbanks always dry.
 - One new site has been added.
- BLM has sampled for the past three years at the end of April (to capture surviving fish from the previous year)
 - Data suggest that Desert sucker populations are decreasing, perhaps due loss of habitat and lack of sufficient water for spawning. Maybe just a natural fluctuation in population.
 - Longfin dace and desert sucker are not federally listed, but they are BLM listed
- There are many invasives in the system – black bullhead, green sunfish, bullfrogs, crawdads, etc.
 - Non-native removal would be very challenging here; it is more achievable in closed systems. Removal of bullfrog and crawdad would probably not be achievable here.

- Cienega creek was a good example of bullfrog eradication, but this requires ongoing monitoring of the buffer zone.

Appendix A: Agenda
San Pedro Riparian NCA - All Partner Meeting
April 12, 2024 | 9:30am - 3:00pm
Meet at the San Pedro House

9:30am – San Pedro House Arrivals

10:00 – Welcome, introductions, meeting overview – Southwest Decision Resources

10:15 – BLM Updates – Colleen Dingman, Tucson Field Office Manager

10:30 – Working Group Updates

Other updates not shared here will be done in the field at relevant stops

- Recreation + Cultural/Heritage - Robert Walter, BLM
- Riparian
 - Fencing - Eric Baker/Christina Perez, BLM
- Uplands
 - Herbicide treatments - Dan Qunitana, BLM
 - Restoration EA - Dan Qunitana, BLM
- Grazing - Eric Baker

11:15 – Partner Updates

11:30 – Drive to Murray Springs

11:40 – Murray Springs Clovis Site

Site overview - Ron Stewart, Friends of the San Pedro River

Management overview - Colleen Dingman, BLM

Group discussion - current interpretation and site needs

12:20pm – Drive to San Pedro House

12:30 – Lunch at San Pedro House

1:00 – Drive to Charleston Bridge

1:20 – Charleston Bridge

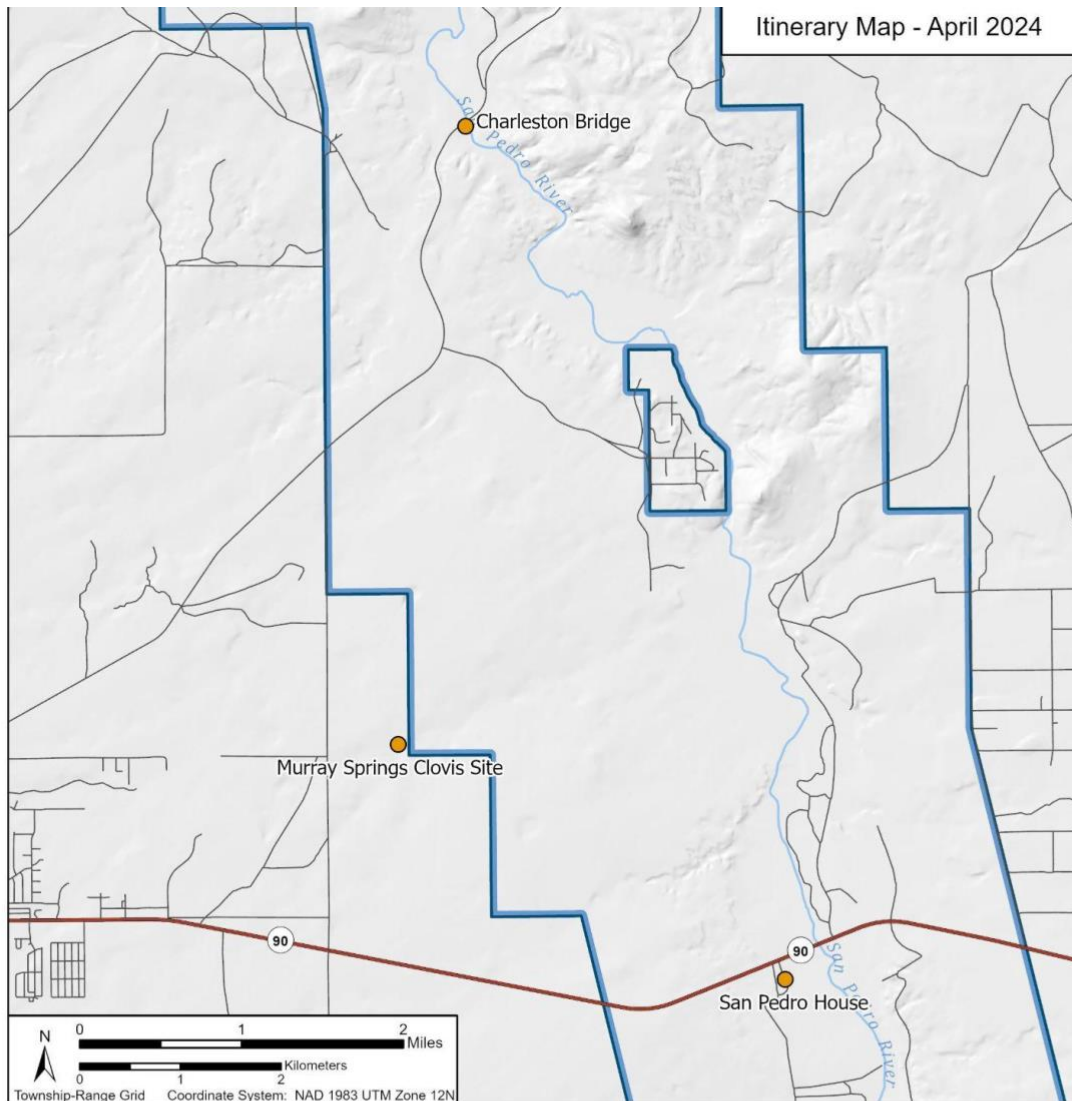
Riparian topics

- Collaborative Water MOU
 - SPRNCA 2023 Riparian Health Assessment - Holly Richter, Resilient Rivers
 - Cochise County Recharge Network update - Mark Apel, Cochise County
- Monitoring
 - USGS monitoring - Pete Christensen, BLM
 - Huachuca water umbel, Arizona erylgo - Theresa Condo/ Aaron Peretz, BLM
 - Beaver: Citizen science efforts to track beaver populations in the San Pedro River - Christina Perez, BLM and Catlow Shipek, Watershed Management Group

Long-term fish monitoring of the San Pedro River - Christina Perez, BLM

2:20 – Wrap up and Next Steps

2:30 - Adjourn



- Itinerary Point
- BLM National Conservation Area
- Road
- State Highway

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Bureau of Land Management
Tucson Field Office

Map Prepared: 4/8/2024



Appendix B: Participants

Name/Affiliation

Alex Binford-Walsh, Archaeology Southwest
Christa Perez, BLM
Theresa Condo, BLM
Mark McCabe, BLM
Alexia Williams, BLM
Robert Walter, BLM
Hannah Pierce, BLM
Ralph Burrillo, BLM
Michael Dixon, BLM
Peter Christinsen, BLM
Clint Dalton, BLM
Dan Quintana, BLM
Joan Breiner, BLM
Colleen Dingman, BLM
Sharon Rock, Citizen
Sharon Flissar, City of Sierra Vista
Mark Apel, Cochise County
Ron Stewart, Friends of the San Pedro River
Renell Stewart, Friends of the San Pedro River
Joanne Roberts, Friends of the San Pedro River
Holly Ballantyne, Ft. Huachuca
Betty Phillips, Ft. Huachuca
Alanna Riggs, Ft. Huachuca/FHSCP
Mary Darling, Representing City of Sierra Vista
Joy Banks, Property owner
James Mahoney, Retired
Tricia Gerrodette, San Pedro 100
Jennifer Martin, Sierra Club
Haylee Short, The Nature Conservancy
Kim McReynolds, University of Arizona Cooperative Extension
Meaghan Conway, US Fish and Wildlife Service
Dave Pratt, USGS
David Morales, USGS
Catlow Shipek, Watershed Management Group
Cyndi Tuell, Western Watersheds Project and Sierra Club

Facilitation: Tahnee Roberston and Colleen Whitaker (Southwest Decision Resources)