

# San Pedro Riparian National Conservation Area - Collaborative Adaptive Management

## Uplands Working Group Meeting Notes

(2021-2025)

### Working Group Participants

Arizona Game and Fish Department - Brit Oleson

Arizona State Land Department - Joshua Grace

Coronado National Forest - John Kraft, Beau Cartwright, Steve Bleumer

Friends of the San Pedro - Renell Stewart, Bob Luce, Linda Stitt

Ft. Huachuca - Shane Hall, Betty Phillips, Debbie Brewer

Hereford NRC - Joanne Roberts, John Ladd

NRCS - Don Decker, Charles Thorpe, Dave Womack

San Pedro Riparian NCA Lessees - Laura True (Three Brothers), Jim Lindsay (Brunckow), Lance Clawson (Lucky Hills), Wyatt Shannon (Babocomari)

San Pedro NRC - Bonnie Wilson

UA Cooperative Extension - Kim McReynolds\*

BLM: Eric Baker, Theresa Condo, Dan Quintana, Colleen Dingman

*Facilitation and documentation* - Colleen Whitaker, Southwest Decision Resources

*\*Working Group co-lead*

### Links

- [E-planning site, grazing decisions](#)
- [National AIM database for external partners](#)

### Acronyms

- AIM - Assessment, Inventory and Monitoring
- AM - Adaptive Management
- EA - Environmental Assessment
- ESD - Ecological Site Description
- LHE - Land Health Evaluation
- RMP - Resource Management Plan

**February 12, 2025 | 11am-12pm | Zoom**

### Participants:

Eric Baker, Colleen Dingman, Joan Breiner, Dan Quintana, Charles Thorpe, Laura True, Nick Shobinger, Jennifer Presler, Aaron Peretz, Kim McReynolds, Theresa Condo

Facilitators: Colleen Whitaker (SDR), Ruby Kernkamp (SDR)

### Agenda items:

- AIM monitoring review - *Eric Baker*

- Allotment vegetation treatments - *Dan Quintana*
- Boundary fencing - *Eric Baker*
- Restoration EA update - *Dan Quintana*
- April All Partner Meeting - topic and/or site visit suggestions

#### **Actions:**

- Aaron - Connect with Kim about sharing raw monitoring data
- SDR - post monitoring data to website
- Next meetings - fall field visit to coincide with monitoring (Sep-Nov 2025); also a meeting during Restoration EA scoping (timing for this is TBD)

#### **Notes**

##### AIM Monitoring review - *Eric Baker*

- Lease renewal EA was signed in 2023. An annual assessment is required to authorize AUMs
- 3 of the 4 allotments saw reductions in AUMs for 2025 (down to 25%). Lucky Hills remains at 50%.
- Babocomari
  - Babo 5 did not meet perennial grass foliar cover and further reductions of AUMS were made.
  - Note that 0.67% is a single hit. There was one hit, and two were required to meet objective.
- Brunckow Hill
  - Three objectives not being met here
  - Shrub foliar cover did meet the objective (unique site, lot more mesquites).
  - Shallow upland site hasn't been grazed in 8-10 years. Results are more from fluctuations in precip. Still not meeting objectives.
- Lucky Hills
  - Meeting perennial grass foliar cover
  - Bare ground not meet objective - needed to make an AUM reduction here
  - Site is being treated this calendar year (was not in last round a year ago)
- Three Brothers
  - Meeting grass and bare ground objectives throughout
  - This is the only one of the four allotments that remained at its current 50% reduction of AUMs for its 2025 grazing application
- Ungrazed areas
  - Four ungrazed sites were monitored. Note that there are not established objectives for these sites
  - Shrub cover is high throughout, grazed or ungrazed
  - We see fluctuations of perennial grass foliar cover with no grazing influence
  - Note that it is difficult to meet grazing objectives even in the ungrazed areas, without treatments.
- Discussion on objectives:
  - Concern about how much of a real difference there is in 1-2%. Recommend doing some statistical analysis on the raw data.

- Within 3-5 years BLM can revisit the objectives, but this will require a new decision. (we are currently about a year into the decision, so need to wait a couple years at least)
- Impact of recent vegetation treatments? → Less than 6 inches of precipitation for whole calendar year; don't expect any real shrub cover decreases and grass increases for at least 3-5 years
- There may also be an issue using perennial grass foliar cover rather than basal cover - it is more variable, but is also more related to precip in a year.
- Using a range in the objectives may be a way to help account for poor and good years. A range would allow for precipitation variability which is biggest driver of production. Even with a bad year, there is still a minimum value which is what we care about. The BLM grazing EIS allows for a range of utilization which can vary and even out over time.
- How does the group want to proceed?
  - Share the raw data. **Aaron connect with Kim to share the data.**
  - Revisit this for the next couple of years and consider how objectives may need to be amended.

#### Allotment vegetation treatments - Dan Quintana

- All upcoming vegetation treatments are on pause due to funding source being IRA.
- This includes seeding and erosion control in Three Brothers and also Lucky Hills allotment
  - If funding is freed up within next month, would give contracts awarded this fiscal year.
  - Work wouldn't start until the Fall
- Firebreaks are continuing forward (switched funding to normal fuels). Generally done before March 15th seasonal cut off for riparian work
  - Majority of areas identified in Lucky Hills will be covered after this last round of treatment
  - Need to take a hard look at the slivers of BLM land that towards Tombstone

#### Boundary fencing - Eric Baker

- 45-50 miles in total in queue to be replaced
  - First round has 17 miles that was awarded (almost 5 miles completed to date)
    - Fairbanks/Highway 82N on east side of boundary was first and includes Three Brothers, Babocomari boundaries
  - In process of awarding second (larger) round which includes 28 miles of new boundary fence. Don't expect movement on construction until Fall most likely.

#### Restoration EA update - Dan Quintana

- On hold - stop work order was issued for the EA to address administration concerns on EJ being in scope of work. Contractor has revised the scope of work, re-submitted it, and is waiting for approval of adjustment.
- The draft proposed action has been presented to contractor. BLM is getting close to having the proposed action and alternatives prepared.
- The next step is scoping internally with BLM and then scoping with partners and the public.

#### Partner updates

- AZGFD - water improvements for 2026 are in discussion between lessees and Eric/Nick.

- Beginning stages of working in Brunckow Hill area with Jim Lindsay. Nick put together a proposal to help Jim fund two new storages and two new troughs (via AZGFD internal funding).
- Charles noted that NRCS could be a potential other funding source or cost share option.
- Future treatments: Nick met with Chris (new ranch manager at Babo) - interested in doing more brush treatments towards West side, herbicide treatments, etc.
- NRCS
  - Recently hired new soil conservationist - Tanya Hanline.
  - Two pre approved contracts near the San Pedro river area. One is a tebuthiuron treatment and the other is couple troughs and storage

#### April 11th All Partner Meeting - topic and/or site visit suggestions

- Laura True: Interested in how BLM measures the different grasses and shrubs - perhaps we can arrange for that to happen when they do data collection in the Fall.
  - Potential to go to plot now but not demo the collection. Could be difficult logistically (takes a long time to access).
  - May be best as a separate meeting when monitoring is occurring in 2025.
- Is there value in visiting a recent treatment site?--> It is difficult at this time to visually see the difference of treatments. State land may be better as its farther along.
- Current federal budget is expiring on March 14th - depending on how long a potential shut down might be, there may not be an April all partner meeting.

#### Next working group meeting:

- A field visit to look at treatments and monitoring at a couple sites and be out on the land together as a working group. Combining this with fall AIM monitoring could work well (BLM is doing the monitoring in-house this year so has more control over schedule). Timing would be Fall (September/October/early November)
- Meeting to coincide with Restoration EA scoping also, timing TBD

### **March 26, 2024 | 10-11am | Zoom**

#### **Participants:**

Kim McReynolds, Lance Clawson, Jo Roberts, Jennifer Presler, Charles Thorpe (NRCS - for Don), BLM - Eric Baker, Dan Quintana, Theresa Condo (SDR - Tahnee, Colleen)

#### **Agenda:**

- AIM monitoring data (2019-2023) - Review and discussion (*Theresa Condo/Eric Baker*)
  - Group feedback on data sharing moving forward
- 2024 vegetation treatments (*Dan Quintana*)
- Restoration EA update (*Dan Quintana*)
- Fencing - St. David completion and upcoming projects (*Eric Baker*)

#### **Actions**

- Get shareable maps of vegetation treatments by allotments in shareable way (Dan/Theresa) - done

- Get monitoring data up on google drive and SPRNCA website (Colleen/Theresa)
- Add Charles to contact list and future invites [Charles.thorpe@usda.gov](mailto:Charles.thorpe@usda.gov) done
- Next meeting - wait to see how Restoration EA progresses and anything that comes out of April All Partner Meeting

## ~Notes~

### AIM Monitoring

- Adaptive Management Objectives are tied to grazing management.
  - Perennial grass foliar cover and bare ground.
  - Monitored on SPRNCA portion of allotments
- In addition there are desired plant community objectives, tied to overall restoration and veg management:
  - Perennial grass foliar cover and shrub cover.
  - Monitored on SPRNCA and non-SPRNCA portions of allotments
- Objectives were developed during the Land Health Evaluation process.
- Theresa shared data from 2019-2023 for all allotments, for AM-related grazing indicators and additional veg health indicators (get this from Theresa)

### *Babocomari*

- Shrub foliar cover: the 30% objective were one of the biggest reasons for the allotments not meeting standard 3. This is consistent throughout the entire watershed. This highlights the need for vegetative treatments to reduce shrub cover.
- Babo 5 (Perennial grass foliar cover) - these are all 0. There is perennial grass in the plot, and there is grass nearby. This was verified.

### *Brunckow Hill* - nothing to note

### *Lucky Hills* -

- Most of the allotment is outside of the NCA
- This is an example of the shrub encroached ecological sites. This is a good candidate for treatment given the high amounts of perennial grass cover.
- Meeting the objectives based on the data

### *Three Bothers*

- One objective not meeting (KA 04 - perennial grass 2023). Want to call out very high shrub foliar covers on these sites. Very good candidates for treatments to reduce shrub covers.

Note that new lease was issued with 50% reduction of AUMs. After some of these treatments and when T&Cs are met we can revisit the reductions made in the original decision. About 3-5 years.

### *Feedback on sharing monitoring data moving forward*

- Would be good to know if these are statistically significant differences, especially with the low percentages?
  - Limy uplands are hard because they deal with very low percentages.
  - Due to how the leases are written, if it's not meeting the objective there has to be a decision. This is a hard line. But it would also be good to look at the standard deviation
- Include map of the allotments
- Share data ahead of the meeting
- Put data on google drive central location so people can access

- Are AIM monitoring locations the same as pace-frequency? (Some yes). Might be good to look at those for botanical condition. BLM will continue to target AIM points within the treatment unit for next 3-5 years to ensure changes following treatments are captured.

#### 2024 Vegetation Treatments - Dan

- Have funding for 5700 acres of tebuthiuron treatments across all 4 allotments
- Currently in process - started yesterday. Anticipating being done by the end of the week. This will complete all allotments, with exception of some areas in Lucky Hills.
- Sticking to uplands and avoiding drainages.
- The moisture recently will help get it soaked in. Hope to begin to see reduction in the next few years.
- Request to share breakout of acres treated per allotment with permittee (get maps from Dan)

#### Restoration EA Update - Dan

- Have a 3 year contract in place. Within next 3 years this NEPA analysis will be in place to allow BLM to work with a variety of partners and start making connections and doing treatments where they actually need to occur, rather than having to follow jurisdictional lines.
- BLM ID Team will meet with contractors next week. They have been in field to look at conditions in watershed.
- This will be similar to LCNCA Restoration EA - prescribed fire, mechanical and chemical treatments. Will include BLM, private, and any other land where folks want to work on restoration treatments or erosion control.
- Planning area - I-10 south to border; Whetstones and Dragoons to Hwy191
- Next steps: will reach out to partners for input and scoping. Maybe early summer. Will know more after meeting with contractor.

#### Fencing update - Eric

- St. David enclosure just finished last month! Has been a long time in the works.
- Mastication and plucking was allowed. Heavy 5 inch pipe with cable on top and bottom. Used galvanized steel in some of the wetland areas.
- Crew was great.
- Project area - tried to capture as much of the cienega as possible. Utilized old roads and trails to minimize impact.
- Lots of coordination with private land owners and gas line
- Hoping to address the unauthorized use in the area.
- Upcoming projects with funding:
  - Large scale water gaps: in procurement for design. These are 300+ feet through the tributaries.
  - SPRNCA boundary fencing (\$3M), 120 miles. Have finished the CX. Anticipate high costs due to terrain - lots of elevation changes. 7-8 phases. 1st phase is Hwy92 north and back down (~20 miles). Big undertaking.

#### Feedback:

- BLM team has put in so much work. Great to see stuff happening on the ground.

**Nov 6, 2023 | 2-3pm | Zoom**

**Participants:**

Kim Reynolds (UA coop extension), Betty Phillips (Ft. Huachuca), Lizann Michaud, Jennifer Prezler (AZGFD), BLM - Colleen Dingman, Joan Breiner, Mark McCabe, Theresa Condo, Eric Baker. Facilitation - Colleen Whitaker

**Agenda items:**

- Update on status of grazing lease EAs and overview of adaptive management protocol - *Eric/Colleen D*
  - AIM monitoring update and timeline for working group review
- Allotments work update - *Eric*
- Landscape Restoration EA - *Eric/Colleen D*
  - process overview; examples from Las Cienegas NCA
  - Which partners can share lessons and examples - *What has/hasn't worked? What issues are you seeing? What types of treatments are occurring? Where is work needed? Monitoring data that can be shared? Who can host site visits to share their successes/failures?*
  - Ways to leverage funding
- Uplands Working Group moving forward - meeting types (virtual, in-person), purpose and topics - *Colleen W*
- March All Partner Meeting - uplands site visit suggestions? - *Colleen W*

**~Notes~**

Grazing lease EAs and adaptive management

- IVM signed was signed in Dec 22, grazing decisions signed in April 2023. Stays were denied. BLM is now moving forward with implementing these decisions.
- Recommendations from land health evaluation -
- Leases were recently signed. In the early stages of implementing the adaptive management.
- Prior to february is when the review of monitoring data will happen to make grazing decisions.
- Adaptive management parameters
  - BLM is responsible for data collection. After this week the majority of SPRNCA AIM key areas will be monitored (prior to any turn outs).
  - After two more years of monitoring, objectives may be updated.
- If conditions worsen, the AUMs are reduced for a given year.
- Each fall data will be collected and analyzed. Then an annual authorization will be made.
- AUM cycle March 1 - February 28. So any changes will be made in February prior to March 1.

Treatment units re: Integrated Vegetation Management

- This is specific to SPRNCA allotments only.

- BLM met with all 4 of the lessees earlier this year.
- Herbicide Treatment areas have been identified for treatments
  - There is an area with 300 acres of erosion control efforts recommended.
  - Currently showing the maximum amount of acres that are available for treatment
- Timeline: Jan-Feb is target date for first round of treatments. BLM is currently contracting to get the work done.

### Landscape Restoration EA

- Will be similar to LCNCA Restoration EA.
  - <https://eplanning.blm.gov/eplanning-ui/project/1500108/510>
- This is for planning area of about 100k acres - BLM, state and private. Maybe also county and other partner lands. Goal is to be able to work at a larger landscape scale with partners in the area (AZGFD, State Forestry)
- Contract has been awarded - expect it to take about 3 years to get through the process. Will include - erosion control, mechanical, chemical treatments. Hope to start scoping in the Spring
- BLM is in early stages of coordinating on this.

### Discussion

- This is good and should help to get more projects done
- Who's doing work?
  - Betty - lots of treatments on the Ft. Have lots of data (spike - depends so much on soil, mastication). Open to sharing data. Can try to make a visit possible. Open to helping.
  - Eric - would be great to see examples with larger-scale mesquite treatments in lower lands. Big need.
  - NRCD made recommendation for treatment rates
- Timing - seeing sites earlier in the process is good. First one early in 2024.
  - Early 24 good for Chihuahuan. Later in spring once things start to leaf out for mesquite?
- Method - field visits (maybe with contractors)
- Would be good to see treatments at different phases, different times post-treatment
- Examples to visit:
  - Ft. Huachuca
  - NRCS units east of SPRNCA
  - Kim's applied research on mesquite failures and TB in Tombstone area (in coordination with Kim and Don Decker) - between Tombstone and McNeal and near border east of Palominas
  - Lucky Hills treatment on state lands
  - Sands Ranch (Kim has studies there, back to 2010)
  - May be some treatments on Babo that go back about 20 years.
- Pre or post session

### Moving forward:

- Sharing of AIM monitoring (Feb/March) - share monitoring with larger group in March 19.
- March 19th site visits:



- An area identified by erosion control to get input on treatments/approaches (talk to Dan to see what he has planned already). Tie in with Pete (hydrologist)
- Possibly to look at a Jan/Feb TB treatment area

## May 3, 2022 | 11am-12pm | Zoom

### Participants:

Eric Baker, Alice King, Amy McGowan, Colleen Dingman, Emilio Carrillo, Jennifer Presler, Kim McReynolds, Lizann Michaud, Theresa Condo, Wyatt Shannon, Colleen Whitaker

### Next steps:

- EA Comment period ends on 29th.
- Oct 22 is tentative timeline for proposed decision (could be subject to change). Final decision expected Nov/Dec 2022.
- Decide what to share with partners on 2022 monitoring
- Next meeting: Possibly fall to review monitoring once we have signed decisions
- Contact Eric if you are interested in fencing materials (BLM can issue materials for shared boundaries)

### ~Notes~

### BLM updates

- Staffing - Margie retired. Jayme is gone. NR AFM also retired last week
- Monitoring -
  - 2020 no monitoring due to covid and work loads
  - 2021 was done in house on SPRNCA portion (Oct/Nov). Data has not been compiled yet (still hard copy). Can review rough draft with this group when ready.
  - 2022 - nothing yet planned for this fall. The State Office Monitoring coordinator asked for more funding to try and get contract crews out to monitor. There is monitoring each year, but not sure if the points fall inside the allotments. Working on compiling official monitoring design worksheet for the AM on these four allotment.
  - Don't yet have decisions signed yet to implement AM. When is the right time to review the data? BLM could develop a simple spreadsheet to share with partners this fall.
- Purchased fencing materials at end of last year. BLM can issue fencing materials for shared boundaries. BLM has materials, but no labor. Share Eric's contact info with anyone who may be interested.
  - Can private citizens volunteer to make fence repairs? →possibly yes. This spring there were contracts with two youth crews to survey and make repairs on 106 miles - waiting on procurement and contracting for this. Eric thinks this can work

### Partner updates

- Emilio Carrillo has taken a new position at State Office (State Conservation Planning Specialist). Don Decker (Douglas) will be main NRCS POC for SPRNCA
- NRCS - State Range Con is currently vacant

## EA overview

### Process update

- May 18-June 24, 2021 was original scoping and comment period. (The Scoping Packet was essentially chapters 1&2 of what would become the EA).
- Over last summer BLM reviewed all public comments.
- Heard a lot of concerns about BLM not achieving Standard 3 for Rangeland Health. Over past several months have been really working on this and revising proposed action to move towards achieving this standard.
- Also working on writing up the analysis
- Have just released preliminary EA for 30 days of comment. Final land health determination is available online as well.

### Amy reviewed the Land Health Evaluation and EA [StoryMap](#)

- 71 comment letters were received during comment period, with 164 substantive comments
  - Does BLM prioritize concerns based on numbers of substantive comments? - No, but it is helpful context for BLM.
- The StoryMap includes a section on changes made to the EA based on issues and concerns raised in public comments. Some of these include:
  - Concerns about riparian habitat - will now implement fence along Babocomari; construction of this is no longer tied to the water quality adaptive management.
  - Need to clarify that fencing is required in the no grazing alternative. Boundary fencing is required in this alternative to ensure no grazing on the SPRNCA
  - Temporarily suspend AUMs in all allotments by 50% immediately due to concerns about not meeting Standard 3. This would be in place until desired plant community objectives are met.
  - Vaccinate all cattle against e.Coli
  - Will consider an additional alternative (A.2) - a way to address water quality concerns without building Babocomari fence (due to concerns about potential impacts of fence). In this case cows would be removed from this pasture, instead of building a fence.
  - Will analyze impacts on wildlife corridors
  - Opportunities for partnerships around avian monitoring (BLM is currently moving forward on working with Audubon on monitoring)

### How BLM respond to public comments

Whether or not grazing is compatible with enabling legislation

- FLPMA and enabling legislation and 2019 SPRNCA RMP all apply here. Grazing is not explicitly prohibited in the enabling legislation, the objectives identified in RMP are what is relied on to guide this.
- This EA creates more allotment specific objectives to be able to assess at this scale if resource objectives are being met.
- AM is used to ensure allotment specific objectives are being met.
- Have tried to make the AM clearer in the proposed action.

Is it possible to retire the 4 leases?

- SPRNCA RMP would have to be amended in order to retire these leases. They were allocated as available for grazing in the RMP. This is an entirely separate administrative process to the EA

Concern about decreasing water flow on Babocomari River

- This is why AM is in the proposed action. AM should detect resource stress and BLM can make management adjustments.

Water quality and E.Coli

- Change made from scoping packet - Babocomari River Canyon fence implemented and constructed immediately after issuing EA decision. Should there be two exceedances of water

Unauthorized cattle presence

- Reporting this to BLM is key

Improving overall conditions

- Integrative vegetation management would be included to improve conditions and move toward meeting Standard 3 (main reason not meeting is high shrub cover and low grass cover)
- Herbicide application would be broadcast. There would be buffers along river and drainages, springs and wells
- Prescribed burning would be included in some locations.

#### Questions/Discussion

- How do you intend to make those areas meet the standards and how often will this get reviewed?
  - There are multiple actions included to try and meet Standard 3 (reducing AUMs, integrated veg management to reduce shrub cover, also AM is intended to make sure progress is being made)
  - Frequency of monitoring - key areas will be monitored at minimum of every 3 years, and ideally every year (EA commits only to every 3 years). Will review AM objectives on a 3 year basis. Broader desired plant community objectives (inside and outside SPRNCA) would be reviewed on 10 year basis.
- For unidentified and unclaimed cattle, would the BLM implement this procedure?  
<https://www.law.cornell.edu/cfr/text/43/part-4100/subpart-4150>
  - Impoundment is a very serious process that both Headquarters and solicitors have to have input and sign off on.
- What is the timeframe for seeding/treatment?
  - Oct - March to occur during gentler winter rains to avoid run-off.

**July 22, 2021 | 1:00 - 2:00pm | Zoom**

#### **Working Group Participants**

In attendance:

Friends of the San Pedro - Renell Stewart, Bob Luce

Ft. Huachuca - Shane Hall

Hereford NRCD - Joanne Roberts (unable - *John Ladd*)

NRCS - Emilio Carrillo, Don Decker, Dave Womack

San Pedro Riparian NCA Lessees - Russell and Alice True, Jim Lindsay,

UA Cooperative Extension - Kim McReynolds

BLM: Amy McGowan, Sharisse Flatt, Eric Baker, Emilio Corella, Lea Schram von Haupt

*Facilitation and documentation* - Colleen Whitaker, Southwest Decision Resources

#### Unable to attend

Arizona Game and Fish Department - Brit Oleson

Arizona State Land Department - Joshua Grace

Coronado National Forest - John Kraft, Beau Cartwright, Steve Bleumer

Friends of the San Pedro - Linda Stitt

Ft. Huachuca - Betty Phillips, Debbie Brewer

Hereford NRCD - John Ladd

San Pedro Riparian NCA Lessees - Lance Clawson, Jeannie Hayhurst

San Pedro NRCD - Bonnie Wilson

BLM: Margie Guzman, June Lowery, Theresa Condo, Dave Murray, John Garrett, Dan Quintana, Mark McCabe

#### **Notes**

**Land Health Evaluations (LHE) and Scoping EA** - *Eric Baker, Rangeland Management Specialist; Amy McGowan, Planning and Environmental Specialist; Lea Schram von Haupt, BLM intern*

- Lea provided a brief overview of the StoryMap created to help orient partners to the Land Health Evaluation and Lease Renewal process. Partners can explore this online resource anytime [here](#). It is also available on the [SPRNCA Collaborative Adaptive Management website](#).
- Amy reminded partners that the BLM put out draft LHE and a scoping packet for lease renewals on the four allotments that are partially located on the SPRNCA (comment period: May 18-June 24). The scoping packet details the proposed action and includes the recommendation of an adaptive management strategy, and some proposed range infrastructure.
- BLM received 71 public comment letters - about half were form letters. The BLM team has been reviewing and working to respond to comments and identify changes to incorporate in the EA. There are over 160 individual comments. Main themes include:
  - Concern that grazing is inconsistent with the public law that established the SPRNCA
  - Concern about how BLM will manage the livestock grazing leases in response to long term drought, and how to incorporate climate change and decreases in ground water.
  - Concern about unauthorized livestock use that generally occurs in areas unallocated for grazing.
  - Concern about water quality issues on Babocomari allotment.
  - Concern that the adaptive management is too rigid and doesn't allow flexibility needed for range management.
  - Concern about some of the identified indicators, and how feasible the monitoring program will be to implement.
  - Concern about cost of range infrastructure.
  - Concern about endangered species habitat.
  - A few recreation specific concerns.

#### **Questions/Discussion:**

- Can lessees get the GPS coordinates for monitoring locations? Can we be included in data collection?

- Yes, these are provided in the LHE. They are all mostly marked with T-posts as well.
- It may be possible for lessees to be included as observers, but the actual recording and monitoring will have to be done by the AIM team.
- In the future this group will be the forum to discuss the monitoring data and associated recommendations, as well as directly with lessees.
- What will be the timeline for implementing the fencing ?
  - Most of the proposed reductions have actually already been made in the last year by lessees due to precipitation. This helps document these reductions.
  - This proposed action includes implementation of the NCA boundary fence line, some of which have never been constructed. BLM has to complete the EA prior to that going forward. Once that is complete, the fencing will be an implementable action. That is also when lessees would implement any changes of use that are needed.
- Will there be a document that addresses the comments received?
  - An appendix to draft EA will show each comment and response. There will then be another 30 day comment period on the draft EA.
- Is fencing the only management tool that will be used? Will there be opportunities to remove brush like whitethorn etc?
  - The biggest recommendation in the RMP was to remove shrub cover. The next priority for BLM is a vegetation treatment plan.
- Do we have to wait for 2-3 years of monitoring before we can do some vegetation management work?
  - The 2-3 years is to adjust the objectives, and that is when AM will begin being implemented. After this there will be assessment on yearly basis.
  - We will need to wait for the Vegetation Treatment EA prior to implementing these treatments.
- Will treatments be only mechanical?
  - No, the EA will include other methods like herbicide and fire, although there will likely be restrictions in the riparian area. We will work with USFWS to develop best plan.
- Are there published range data that indicate removing whitethorn and other desert shrubs actually result in more forage for cattle? Is shrub removal cattle-related only, or is there any other conceivable reason for shrub control on the SPRNCA?
  - We can look for literature moving forward. Usually in the BLM, when we are removing encroaching woody shrubs it is to achieve multiple objectives - including overall watershed health.
  - To clarify we will not be increasing AUMs based on vegetative treatment. The decrease in shrubs is to get each ecological site within expected ranges. Each site was beyond expected ranges with too high shrub cover

#### Discussion related to bare ground and cover numbers

- How were bare ground and cover numbers derived, and how do they relate to recent inventory and monitoring data?
  - 10% was specific to shallow and derived for Ecological Site Descriptions (ESDs) and inventories (past data), and also collected additional sites as ungrazed reference sites to establish feasibility of objective. Limey upland was more unique - the ESDs call for something like 0-5% canopy cover, so this was heavily based on current inventory data.
  - Bare ground was somewhat based on ESD; the hard limitation was based on cited literature explaining the quick degradation past 50%

- Bare ground includes only mineral soil, no gravel, no litter, no rocks.
- So it is not 10% perennial grass cover across the board?
  - Each key area is designated based on what ecological site it is in. Because there is not extensive, repetitive data from each site, the plan is to get another year or two before establishing and enforcing AM objectives.
- Based on experience of working in this area for 20 years, 10% seems pretty high for consistent perennial grass cover.
- Can BLM use past frequency data to help bridge the gap as you transition to AIM? Could ranchers go back and do frequency data themselves? It would be useful to have some way to look back from now, rather than just starting with a blank slate
  - Did try, but the only thing that was possible was bare ground. A lot of cover data was dry weight rank. For these purposes the point data was used, but not necessarily any cover values.
  - In the LHEs we did use pace frequency transect data where possible. But for moving forward we need to use AIM.
- Kim reports that one of her employees did her masters degree on this. In the best grasslands in Cochise, the highest we get is 15% cover. Agree that 10% is high, especially on some of those allotments.
  - Note that this is only for granitic shallow upland sites. By far the limey upland sites are the dominate sites out there. For those it was established at the current level of cover, or 1%.
- Why did you go with foliar cover rather than basal cover for perennial grasses?
  - The biggest reason is the lack of basal cover in the limey sites. Agree that basal is a better long term indicator, but some of the limey uplands sites have 0% basal. Trying to establish a measurable objective that AIM produces.
  - This is a big difference between Las Cienegas allotments and here. The acreage of area grazed here is also a lot less than on Las Cienegas.
- If you are setting an objective that is unattainable, you'll never get there.
  - We feel we've based objectives on existing monitoring data, and do think they are pretty realistic. But please review LHEs and let us know!
- Part of the challenge here is the size of the squares/rings compared to how dispersed these perennials are. Maybe a 10m frame would be better for capturing grasses. And canopy cover could skew data depending on if it was recently grazed or not.
  - Monitoring should be done annually moving forward at same time of year to help deal with some of this (probably fall). We'd like to establish a late fall meeting with this group to discuss recent data collection.

## **BLM updates**

### Fencing outreach - *Emilio Corella, Rangeland Technician*

- Emilio did outreach to 4H, Hereford NRCD, and FFA groups in the area to see if there was interest in Adopt-a-Fence program. Didn't get a lot of interest in this, but did get interest from Hereford NRCD about developing a joint workshop to demonstrate wildlife friendly fencing, fencing maintenance, etc. Working to develop this now.
- NRCS (Don Decker) may also be interested in being involved.
- More soon on this workshop development. If anyone is interested in being involved in planning, or in attending as a participant let Colleen W or Emilio know.

## Wrap up and next steps

- Meeting schedule - would like to establish a standing schedule for this working group. One meeting in the year should coincide with reviewing AIM data (probably late November/early Dec).
- Next working group meeting - Spring 2022
- Upcoming meeting topics: Shared learning on vegetation management - what others partners are doing. What's working and what's not?
  - Group feels this would be useful (reach out to Kim on her mesquite treatment and chihuahuan scrub data, and Shane Hall)
  - Make sure to capture all the information somewhere for future use - likely the SPRNCA website would be good for this.
  - Once vegetative EA gets going BLM will really need input from this group
- SPRNCA Adaptive Management next steps
  - Fall AIM monitoring
  - Virtual partner meeting (September 22)
  - Riparian and Aquatic working group coming soon
  - Recreation and Cultural/Heritage working group fall field trips

## March 2, 2021 | 9:00 - 11:00am | Virtual

### Participants

Arizona Game and Fish Department - Brit Oleson

NRCS - Emilio Carrillo, Don Decker, Dave Womack

Coronado National Forest - John Kraft (*unable - Beau Cartwright, Steve Bleumer*)

San Pedro Riparian NCA Lessees - Russell and Alice True, Lance Clawson, Jim Lindsay (*unable - Mike Hayhurst*)

Las Cienegas NCA Lessee - Ian Tomlinson

Hereford NRCD - Joanne Roberts (*unable - John Ladd*)

Ft. Huachuca - Betty Phillips (*unable - Debbie Brewer, Shane Hall*)

*Unable - San Pedro NRCD*

BLM: Amy McGowan, Margie Guzman, Amelia Taylor, June Lowery, Eric Baker, Theresa Condo, Emilio Corella, Dave Murray, John Garrett, Dan Quintana, Mark McCabe, Lea Schram von Haupt

*Facilitation and documentation* - Tahnee Robertson and Colleen Whitaker, Southwest Decision Resources

### Actions

- Doodle working group for next meeting in April (SDR)
- Reach out to additional participants identified (SDR)
- Field meetings - Eric will schedule with each lessee after the LHEs and lease renewals are out for comment

### Notes

**Overview of the Resource Management Plan and Adaptive Management** - Amy McGowan,  
*Presentation upon request. Summary of main points:*

- San Pedro Riparian NCA (SPRNCA) Resource Management Plan (RMP) - provides a high level framework that guides management decisions. Does not authorize on-the-ground actions.

- Implementation
- Review of conceptual Adaptive Management annual process

### Questions/Feedback

- Is there any information from the new administration that would affect decisions in the RMP?
  - No, the RMP was approved in 2019. Feel the decision is defensible and inline with the enabling legislation, so don't think this will be an issue.

### **Reflections from Las Cienegas NCA Adaptive Management** - Ian Tomlinson, Vera Earl Ranch

*Ian has the allotment on the Empire that includes Las Cienegas NCA. He acquired the lease in 2008 and became part of "Biological Planning" (AKA Bioplanning - this is the adaptive management process with partners on LCNCA). He shared some of his reflection from participating for over a decade.*

- It gives the lessee a seat at the table; a way to participate in the discussion about what is going on. That seat can sometimes get hot, but it does provide an avenue to explain what happened, what you did, and what you might do differently in the future.
- This process was already set up on LCNCA when I started. In this case, SPRNCA lessees and partners have the opportunity to be involved in designing the process.
- The best part of adaptive management is that you can constantly change things. It's a great avenue to show the beneficial effects of grazing based on the science.
- Our operation has become more dependent on the science behind what we do and why we do it. Doesn't mean it's flawless or without mistakes. But this type of forum allows for open dialogue and discussion on what happened, why, and ideas for the future.
- There is no other interaction with the federal government on grazing leases that is quite like this. Good to be able to be involved with all stakeholders and speak with them directly rather than through other avenues. Through this process I have found commonalities with people I never thought we would. Have learned a lot.
- Our operation is not a hobby ranch, we do it to make money. This type of setting is really beneficial to that end.
- When there are 30-40 people involved, and at any time 5-8 different agencies, you'll get a wide spectrum of opinions. With this process we've learned how to do a give and take.
- Example of Johnson grass encroachment in wetlands - Jeff Simms noticed that in the wetland enclosure, Johnson grass was dominant. He had an idea to try and graze it. Got together with Jeff and Theresa, and took photos and developed a plan. Implemented in 2019 and found that we'd gone in too late to do anything. We revised the plan with the help of Bioplanning. In 2020 we grazed earlier and a bit differently and had the desired effect on the Johnson grass. It's very unusual to have a fish biologist come to a rancher and ask if we want to graze an area.
- Example of one section of 4000 acre pasture in a swale that contained a Key Area. One year it crashed and we couldn't figure out why. We looked at it as a group and talked about it. We changed some management and then came back. Without the Bioplanning process I might not have noticed this small portion of a pasture that was being adversely affected.

### Discussion/questions

- This is a learning process for everyone. We do recognize that SPRNCA and LCNCA are very different. BLM is trying to figure out how this will look here, and hoping to build on the successes of Las Cienegas.



- This is a coordinated effort between all stakeholders. That's not new to Arizona or ranch planning. This is similar to a Coordinated Resource Management Plan (CRMP). It's adaptive and focused on getting all the stakeholders together.
  - A handful of the SPRNCA allotments don't have CRMPs. But having the Land Health Evaluations done is a first step. Can incorporate CRMPs in the near future.

## BLM Projects and Priorities

**Grazing Lease Renewals and Land Health Evaluations** - Eric Baker, Theresa Condo, Amy McGowan – BLM  
*Presentation upon request. Summary of main points:*

- One priority identified through the RMP is to fully process the 4 grazing leases and identify allotment specific management to ensure protection of the SPRNCA conservation values.
- Grazing lease renewal process: Develop Land Health Evaluations (LHE) → initiate NEPA (lease renewal EA) → proposed decision → protest period on proposed decision → final decision on lease issuance
- LHEs help determine if the standards of rangeland health are being achieved
- Within the LHE recommendations include:
  - Shrub encroachment treatment / integrated vegetation management EA
  - Erosion control
  - Changes in grazing management
  - Adaptive Management strategies
- Adaptive Management (AM)
  - AM is written into the lease renewal
  - Adjustments will be based on
    - Threshold - the point at which an action must be taken
    - Trigger - the change in management to address the issue
  - Key Area objectives tier off the SPRNCA RMP
  - Percent shrub foliar cover does not appear in AM because it is a longer term indicator, and is not directly affected by grazing. Do use bare ground, as it is a good indicator of overall watershed health.
- Objectives Development
  - Data sources used to develop objectives include - NRCS Ecological Site descriptions, AIM data, scientific literature, professional judgement, and (future) input from this working group as more data is collected.
  - After two more years of AIM data collection, Key Area objectives will be updated.
  - Example of AM for a limy upland key area.
    - Clear Resource Objective: Perennial grass foliar cover  $\geq 10\%$
    - Indicator: Perennial grass foliar cover
    - Hard Threshold #1: Perennial grass foliar cover is reduced by 25% of Key Area objectives = 7.5% perennial grass cover
    - Hard Trigger #1: Livestock numbers will be reduced by 50% in the SPRNCA portion of the allotment
    - Hard Threshold #2: Perennial grass foliar cover is reduced by 50% of Key Area objectives = 5% perennial grass cover
    - Hard Trigger #2: Complete removal of livestock

### Discussion/questions

- Why was foliar area chosen over basal cover? NRCS looks at basal because foliar is so variable from year to year based on many factors. It could lead you down the wrong path if you're not interpreting the data correctly. Might want to also consider other indicators or attributes - doesn't have to be plant based.
  - One factor was BLM wasn't picking up much basal cover, especially in the limy uplands, and it's hard to do AM with numbers like 0.5 %.
- Emilio - using the Ecological Site as a goal/objective may not be possible on some sites. For example, Lehmann's lovegrass sites. If the objective is historic climax community, with Lehmann's already present, you're never going to get back to that native state. There are no treatments for Lehmann's Lovegrass and we must manage for it.
  - Yes, we do hear that and agree. The objectives are not entirely based off of the Ecological Site Descriptions. The information in the Ecological Site Descriptions is just one of the pieces of information that BLM took into consideration when developing the objectives.
- The True's shared that they would appreciate the opportunity to learn more about all this.
  - In coming years BLM will be doing many AIM monitoring transects in-house and can involve lessees and others who are interested.

### **Adopt a Fence Program - Emilio Corrella, BLM**

*Presentation upon request. Summary of main points:*

- This program is just getting started. Looking for input and suggestions.
- Purpose - status of fences is largely unknown. BLM can't survey all of the fences alone. Will look to recruit volunteers to report on boundary fence status while they are recreating. May also include large group volunteer field days to repair fence segments

### Discussion/feedback

- The True's are happy to ride fences in their area and maybe even more. Know there are some that are down and not as they should be.
- Love the idea! AGFD can tap into the local critter groups and hunters for help - they are always looking for ways to get involved. Some local chapters in the area could likely contribute. They know that some hunters ride the SPRNCA already. The National Wild Turkey Federation and Arizona Mule Deer Organization have local Sierra Vista chapters with volunteers. AGFD can also help teach folks how to use their phones to collect GPS information, if that's helpful.
  - Let BLM know what you need (equipment, training, etc.)
- Fort Huachuca could also help with providing information. They generally fix their own fence lines but would welcome input from BLM on how to manage wash areas or other areas that are hard to fence.
  - BLM notes that water gaps have been the biggest problem throughout. There are over 200 water gaps along the SPRNCA boundary
- What about involving our High School Agriculture FFA and 4-H groups for special projects?
- Would be good to get GPS units for lessees to help with this. Once we have GPS points of existing fence lines, will we verify if they are where they are supposed to be? Does BLM supply material?
  - For now we just need to keep existing fences up. And BLM can provide materials to help maintain boundaries.

## **Integrated vegetation management Environmental Assessment (EA) - Amy McGowan**

- Once the lease renewals are done, this is the next priority for SPRNCA RMP implementation.
- Will be more watershed based.
- Want to learn from others what has worked for vegetation treatments. Will include Ft. Huachuca and NRCS because they manage so much land around SPRNCA.

## **Low Impact Erosion Control - Dave Murray**

- Will be working on erosion control in future - will be identifying priority sites.
- Background - take a look at these before and after photos from the Santa Ritas (<https://arcg.is/1veny4>)
- BLM hosted two erosion workshops on March 6 and 20th at Las Cienegas NCA

## **Aligning Priorities and moving Forward**

### **Who else should be involved?**

*The group reviewed the working group draft overview document and updated together.*

- Reach out to the following and add to contact list:
  - State Forestry - Matthew Jewell ([mjewell@dffm.az.gov](mailto:mjewell@dffm.az.gov)). He attends Hereford NRCD meetings.
  - State Lands - Josh Grace ([JGrace@azland.gov](mailto:JGrace@azland.gov))
  - Lessees on adjacent properties
  - The Nature Conservancy - Marcos or Dale?
  - UA Cooperative Extension - Kim McReynolds

### **What are partners excited to work on together? What would make this group most useful?**

- Forest Service (John) - Forest Service does Adaptive Management, but they need more work on monitoring. Excited with this group to integrate any kind of management that we're doing together (fuels, grazing, watershed protections, habitat, etc.). Want to integrate on monitoring re: Huachuca Firescape. Lot of utility in hearing about other plans, successes, failures, etc.
- NRCS (Emilio and Don) - interested to see how things work out after involvement in soil mapping. NRCS is usually considered a technical agency. Want to fund practices with individual ranchers that lead toward objectives in RMP and working with ranchers on CRMPs and erosion control work.
- Three Brothers (Trues) - everything we've talked about would be useful (erosion control, fencing, etc.). Want our ranch to be an example of how this can be done. Want to learn more.
- Bruncow (Jim) - excited to start seeing results on allotments and benefits for the river and the uplands. Looking forward to getting to implementation.
- AZ Game and Fish (Brit) - learning about what permittees are doing and their issues/needs or possible nexus. Want to address law enforcement issues (fence cutting and illegal wildlife baiting). Getting more people involved will be beneficial.
- Hereford NRCD (Joanne) - will share this info with Hereford NRCD BOS. This is important issue for the NRCD.
- Ft. Huachuca (Betty) - big topics are watershed protection, erosion from the fort into the SPRNCA on the east range, invasive species management on the border, and overall watershed health for SPRNCA. Interested to help however we can. Want to share information on how we all gather data/monitoring.

### **Next steps**

- In future the group may meet 2-4 times per year
- Field meeting ASAP would be great (Eric can have field days with each lessee after renewals are moving). Covid - have to keep it small, individual cars, masked
- Engagement post-covid?

- There are some benefits to virtual meetings. Could do a combination of some virtual and some in-person and in the field. BLM thinks it's likely we won't be back to larger field meetings this year.
- After covid restrictions end this could be done similarly to how Las Cienegas does bioplanning - an annual Adaptive Management meeting and data discussion, with an afternoon looking at projects on the ground
- Topics for upcoming meetings:
  - Shared learning on data collection
  - Adopt-a-fence
  - Vegetation management - what are partners doing? What's working and what isn't.
  - Review/update any existing ranch or conservation plans that may be relevant for moving toward CRMPs.