

SPRNCA – Alternatives Development

Field Trip: Fish and Wildlife

March 28, 2014 (8am – 5pm)

Participants:

- Jon McClard, AGFD
- Bob Luce
- Jayne Knoche
- Tricia Gerrodette
- Robert Weissler, Friends of the San Pedro River
- Kristin Terpening, AGFD
- Christina Akins, AGFD
- CT Revere, ADOT
- Rion Bowers, City of Sierra Vista and Cochise County
- Elna Otter, CWA
- Alex Binford-Walsh, CWA
- Colleen Whitaker, SDR (Facilitator)
- Amy Markstein, BLM
- Claire Crow, BLM
- Marcia Radke, BLM
- Jeff Simms, BLM

Stop 1: Whitehouse Wetland

Overview (Jeff and Marcia)

- Wetlands project here is partially complete. When done it will be ¼ acre pond, 6' deep with semi-aquatic vegetation, fish and frogs.
- Bureau of Reclamation has money this year (budget is less than \$100,000). There is the possibility for Friends of San Pedro to also get some money. FSPR portion could focus on education and interpretation at the site.
- Species: Chiricahua Leopard Frog (CLF) could be reintroduced here, the habitat is good. Perhaps Mexican gartersnake also. Fish – Topminnow, Pupfish.
- Challenge will be keeping Bullfrogs out – it will require maintenance.
- Good spot for education – could have a circular path around the pond, maybe a blind and picnic tables.
- Have opportunity now for some reintroductions in the river (only 2 of 13 native species remain). Larger fish might be okay now, but wouldn't be successful at breeding.
- Through the RMP BLM will analyze what species should be reintroduced and where. Will work with Game and Fish and Fish and Wildlife on that.



- The enabling legislation on SPRNCA is clear and stronger than other NCAs. There is even the mention that closing areas to protect resources may be needed. That is certainly an option for the RMP alternatives in some areas, not SPRNCA –wide. BLM need to look at least 20 years into the future and consider impacts of future development (e.g. Tribute).

Questions and discussion

- *Have you ever seen Bullfrog in here?*
 - No.
- *What will slope of pond be like?*
 - Near trees it will be shear. Further out it will be graded gradually like a swimming pool around the edges.
- *Can gartersnakes get over the over the fences?*
 - No. The plan here does include chance for reintroduction. They can't get in, but they could get out via a ramp.
- *What is the timeline for fish and frogs to get established?*
 - About 1 year for a robust population of fish, frogs can take a bit longer. Probably need to monitor for 2 years.
- *Over time will you need to bring in other frogs for genetic diversity?*
 - Will probably bring egg masses from a site in the Huachucas, so the genetics will not be variable. The frogs here would just be for educational purposes; they wouldn't be part of a metapopulation. It could be a source population for more introductions. Bullfrog make a metapopulation here challenging. The pond on the property nearby has Bullfrog and introduced fish.
- *Could a CLF population here emigrate?*
 - Yes, but Bullfrog in the area are problematic.
- *Are CLF and Bullfrog mutually exclusive?*
 - Pretty much.
- *Could Bullfrog be eradicated from nearby private pond?*
 - Just eliminating from that pond would not be enough. You would probably have to do the whole stretch of the river, and that would take years.
- *Idea: Have a contest day to get community out and see who can trap the most Bullfrogs!*
- *What would limit frog and fish populations at this site?*
 - Predators (raccoons, skunks? And great blue heron). If population pressure becomes an issue they can get out via the ramp.
- *Will this be a site for restoration/recovery of T&E species?*
 - Yes. Don't know what all will come in. Could get a lot (e.g. birds – Virginia Rail).
- *Is sport fishing allowed on SPRNCA?*
 - Yes. Have seen some.

- *Will fishing be prohibited in this wetland project?*
 - Yes. There will be signs indicating this.
- *Will the access here be a trail or a full road with parking?*
 - This is something that will be looked at in the TMP route inventory. We'll consider effects to wildlife, fragmentation, etc.
- *Why is there an angled fence in the enclosure in LCNCA and not here?*
 - There is an eave here that the Bullfrog can't get past. We're also considering double fencing.
- *What has been the experience of the double fencing in LCNCA enclosure?*
 - Good. But LCNCA hardly has any Bullfrog left. BLM have identified the source populations and are working yearly to kill them off.
- *Are there other places where BLM thinks fishing should be restricted along the river?*
 - Not just for the aquatic life, but some of the activities could disturb other wildlife. Part of the RMP process will be looking at how to balance recreational value with needs of wildlife.
- *What non-native fish are in the river?*
 - Green Sunfish, Largemouth bass, Channel cats, Mosquito fish, Fathead Minnows. Have even seen goldfish! Long ago there were Rainbow Trout (but the river is too sluggish and warm now).

Stop 2: Del Valle Road



Overview (Marcia and Jeff)

- This is a good example of a degraded upland. In the RMP BLM will look at how we can restore, and *if* we can restore these types of areas. In some places it may not be possible (too much top soil loss, etc.). In each area we'll have to look and see what there is to work with. In many parts of the uplands there are no grasses left, just woody invasives.
- Here we could consider some erosion control – small rock dams, zeedyke type structures, etc. Try to build the soil back up.
- In terms of wildlife, the BLM only has jurisdiction over habitat. BLM work with Game and Fish and Fish and Wildlife on managing the wildlife species.
- This is a good spot to think about the development pressure. Even though it feels wild, it's really not. The river corridor is very close to development here. It will

take a lot of collaboration in the future to manage this area. Already there are problems with cut fences and new trails being blazed. Need to think about our management options into the future.

- Wildlife corridors: There have been several studies in the last 15 years on wildlife corridors (2000 – Christine Hass identified 12 tributaries to the San Pedro from the Huachucas; Ft Huachuca did a study a couple decades ago – Tricia to send to Marcia). Think here about east-west connectivity and how we can continue to provide that.
- River function: In many places on SPRNCA the floodplains are disconnected from the river – this has a lot of effect on recharge. Here the river is pretty sinuous which is good, and also helps with recharge.

Questions and discussion

- *Would an area like this be proposed for herbicide to take out the Whitethorn Acacia?*
 - Yes that could be an option here. It is very site specific in terms of what will work. It also depends on the soil. You could use spike and still get no grasses growing.
- *Will the RMP refer to specific areas for that kind of treatment?*
 - No. The RMP will refer to methods and criteria. Perhaps even the overall number of acres to treat, but not in specific places. An EA later will deal with site specific treatments.
- *Last week (range field trip) we saw areas dominated by Whitethorn Acacia with nothing in between. Here there is at least some plant diversity. The grazed areas we saw were badly degraded. The suggestion solution is removal of Whitethorn Acacia, but what is the impact of the grazing?*
- *How do you know what an area looked like 100 years ago?*
 - BLM have indicators to look at (e.g. pedestals, exposed roots, etc.). Also Ecological Site Descriptions. From NRCS. Each area is different.
- *Are there ways to encourage sinuosity in the river?*
 - Yes. You can nudge the river over; can look at historical aerial photography for the old pattern.
- *Would these methods include structures?*
 - BLM would try to use non-structural methods. Maybe a picket post, something biodegradable.
- *What about gabions?*
 - Don't think that would be used here. Could be an option to be used in some places where gully erosion is severe.
- *Would you consider removing trees in places?*
 - That would have to be looked at carefully, reach by reach.

3rd Stop: Off Del Valle road, in the grass

Overview (Marcia)

- This is where the fire came through in 2003. Of note is that there is no noticeable recruitment (Cottonwood).
- Johnson grass has come in, and so has Seep Willow and Gooding's Willow. It may be there is so much groundcover here there's no bare ground for Cottonwood recruitment.
- When SPRNCA was first formed there was a lot of bare ground (due to grazing), which may have made room for Cottonwood.
- Notice the woody debris in the river. This is an indicator BLM looks for. This is important because it helps stop water flow and the areas become Cienega-like (This is the same goal with beaver re-introduction). How do we balance the needs of the ecosystem (woody material, habitat for small animals, etc.), with the fire danger in the WUI?

Questions and discussion

- *Do you want Cottonwood recruitment?*
 - This is one of the issues that needs to be considered. Should we manage for a Cottonwood gallery forest and all the habitat it provides? Or have some sections with and some without. What should be done about Johnson grass, Bermuda grass, etc.?
- *What is the plan for the grazing allotments?*
 - That will be part of the RMP. The alternatives will likely consider grazing, no grazing, and everything in between.
- *Does the SPRNCA enabling legislation allow you to change the grade of the banks?*
 - This is a somewhat philosophical question, but that argument could be made. You could try to re-establish what was. But it's risky business using heavy equipment in fine soils. We can't predict the future – precipitation events are totally random.
- *Are there plans for prescribed burns?*
 - The existing plan is full suppression, even natural starts. The alternatives will be no action, and everything in between.
 - There have been several thousand acres of prescribed fire. In those areas we may be getting Johnson grass and not getting Sacaton – this needs further study (is it not enough burns? We just don't know).
- *What was the pre-fire fuel load like?*
 - It was grazed hard until 1988. So there was about 15 years of Cottonwood growth. And lots of sacaton to fuel the fire (very hot fire).
- *What type of understory do you need for birds? This area is not as rich as other areas.*
 - That is a big consideration of the RMP. SPRNCA has a rich variety of habitat. It will come down to what are our priority species here and what do they need. There are lots of lists to look to (BLM, Game and Fish, Audubon, etc.).

4th Stop: Off Del Valle road, Huachuca Water Umbel

Overview:

- This is a metapopulation of Huachuca water umbel. Designated critical habitat for the Huachuca water umbel occurs from the International Boundary to just south of St. David. (Marcia pointed out an example).
- Overview (with maps) of fragmentation and perennial reaches along river.



5th Stop: Beaver Dam and Kingfisher Pond

Overview (Tamarisk):

- Have been working to eradicate it. Started on the border, working North. It is highly invasive – want to manage the habitat toward native plants.

Questions (Tamarisk)

- *Doesn't Tamarisk use a lot of water?*
 - Yes. There are issues with density of tamarisk vs. native plants.
- *How deep is the tap root?*
 - It can be 20-40, or even 50 feet.
- *When you treat do you cut and treat the stumps?*
 - Yes. BLM have treated 20 acres this way, from the border to Fairbank, using big crews (22 people and 6 chainsaws).

Overview (Beaver Dam)

- This dam is more downstream this year. The water is backed up quite far.
- Beaver were re-introduced here in 1999 with Game and Fish. 15 Beaver at that time.
- Benefits: The dams create riffing, oxygenation, slow the water and contribute to recharge. There has even been anecdotal evidence of more Huachuca Water Umbel near dams. Some graduate student research (Glenn Johnson) found greater avian diversity in beaver dam areas.



Questions (Beaver)

- *How many are there now?*
 - There are about 10 dams and about 100 beaver. Usually the average is 21 dams.

- Beaver don't start building dams until the water starts to drop. This year is wetter than normal, which may explain why there aren't more dams.
- *What size Cottonwood can they take down?*
 - Although they do prefer smaller trees, they will also go to larger ones. It's been documented that they can take down a 3' diameter trunk.

Overview (Kingfisher Pond)

- Human contact does affect waterfowl. The management questions are what we do with this area: Leave it as is? Close the path on one side of the pond? Build a viewing platform? Dredge to restore depth?

Questions (Kingfisher Pond)

- *Are there fish in here?*
 - You do see fish in here. But it is very shallow now (About 1 foot deep at most)



6th Stop: Little Joe Spring and St. David Cienega

Overview (Little Joe Spring)

- This spring is an old cattle tank. The previous fence was broken down and it was trampled. Once it was excavated, the water really gushed out. It's about 40' and 6' deep.
- Unfortunately once water was re-established and before fences were up, Bullfrog got in – working to get rid of.
- Have stocked the spring with Pupfish, but not Gila topminnow. Game and Fish suggested there are some questions about how well they get along.
- There are also mud turtles and Checkered gartersnake in here.
- Could use this for Chiricahua Leopard Frog, but don't know if it has been contaminated by chytrid. There are 55 private ponds in St. David (primarily fishing ponds), and there are a lot of Bullfrog.
- Whitehouse Well site will be something like this, but 5-10 times bigger, with an extended perimeter for increased habitat diversity.

Questions (Little Joe Spring)

- *How do you catch Bullfrog?*
 - With a dip net
- *What is the temperature of the water?*
 - Pupfish like it warm. They can survive in 100F happily.
- *Do you have to pump any water in here?*
 - No, it is a natural spring
- *Will you have to excavate?*

- Probably not. But will have to clear out cattails and bulrush a couple times per year.

Overview (St. David Cienega, 1st location)

- The El Paso natural gas pipeline was cut through here in the 1950s. It cut off the southwest corner of the Cienega; was dredged for a dike/road on top of the pipeline. It has eroded quite a lot now.
- Used to get bullhead and mosquitofish here, but it's gradually getting drier. There is also just so much bulrush now.

Questions

- *Are you unhappy with the pipeline right-of-way?*
 - It has caused some problems over the years. Some of the erosion problems are being dealt with now.
- *How responsive are Kinder Morgan?*
 - Very responsive and good. They have been very good to work with. They "bent over backward" to accommodate.
- *Are there any plans to open this area up and clear out the bulrush?*
 - That is an alternative that should be analyzed in the RMP.
- *Would spike treatment for mesquite be considered?*
 - It doesn't work for mesquite.
 - Report from LCNCA showed herbicide the least effective and grubbing the most effective.
- *How many acres is this habitat?*
 - About 15-20.
 - Friends of San Pedro River asked if it would be helpful if they mapped this area. The perimeter has been walked, as well as the surface area. But having internal trouble getting the map.
- *Have you put in any guzzlers?*
 - There are several water improvements for wildlife (they're not guzzlers) – Fairbank, Palominas, Summers well.
- *Do you manage the south end differently from the north end?*
 - Primarily stay away from the border because the policy is to not go down there without law enforcement. Although have done stuff down there (e.g. Tamarisk eradication).
- *What is the timeframe for the RMP?*
 - About a year from now.
- *What are the upcoming specific deadlines/milestones?*
 - There's negotiation going on right now with the State office regarding the revised timeline.

Questions (St. David Cienega, 2nd location)

- *Is the water table right at our feet here?*

- The mud in this spot could be perch. There's a couple artesian around here.
- The ditch that El Paso put in in the 50s probably changed the flow some – it is now exiting to the south. The large section that goes behind the hill here is mostly dry now.

De-brief

- *It's so much better to be out here with BLM. Need to go home and do some reading!*
- *It's useful to be out, and see sites not visited before. Good to see St. David and get a taste of what things used to be like.*
- *Friends of San Pedro is interested in restoration work*
- *Great opportunity to see a lot of things I've not seen before.*
- *Good to understand the process and management challenges better.*
- *Always great to be in the field – makes more sense*

