

**Gila River Basin Native Fish Program -Technical Committee Meeting  
December 11, 2019  
City of Cottonwood Riverfront Water Reclamation Facility  
1083 E. River Front Rd. Cottonwood, AZ 86326**

**MEETING NOTES**

**Technical Committee Meeting Objectives**

- Provide updates on 2019 accomplishments and changes to 2020 work planned
- Discuss 2021 proposed projects and Tier 2 projects
- Provide updates on other projects

**Participants** – see page 4

**Next Meeting(s)**

- March 10, 2020 – Technical Committee Meeting/Call
- December 8-10, 2020 – Annual Reporting and Technical Committee Meeting

**Immediate Action Items**

- Update strategic plan progress - **Bill**
  - Send to Technical Committee - **SDR**
- Send project template out - **Bill - completed**
  - edits due by first week of January - **All - completed**
- Doodle for meeting/call on removal targets to group - **Bill**

**Process overview and update for GRBNFCP- *Southwest Decision Resources***

- Strategic Plan goals progress update –
  - Review of 5-year plan, this is the 4<sup>th</sup> iteration, and is good until 2022
  - Timeline review within the Strategic Plan – Coop agreement can modify the schedule a bit – USFWS comment
  - Review of color-coded spread sheet showing progress towards Strategic Plan goals
    - **Technical Committee to review and comment, see Appendix A**
  - One area needs work – Acquisition of easements/water rights/etc. Goal #6.
    - Cooks Lake was just acquired by BOR. 40 acre/foot water right
    - FS may be pursuing water rights – through Dave Merrit’s work – interest in having some discussion with this group on the March call.
    - Gila National Forest – puts water rights it in a Water Conservation Plan.
      - **Dustin will share the document**
  - AGFD - Vegetation removal, dredging, to address Goal #7. Top minnow pond
  - **Overall, the spreadsheet needs to be updated**
- Date for March Technical Committee Meeting/Call
  - Call will be **Tuesday, March 10<sup>th</sup> 1-4pm**

**FY 2020 Workplan – *Bill Stewart, Bureau of Reclamation***

- Project Blurbs/descriptions: Template has been updated, more detail, more background, etc.
  - **Bill to send out revised project template. Comments to Bill by January 6th**
  - Proposal template will make for easier scoring because they will all look the same
  - Scoring form has not been changed
- Process issue: Conflict between 5-year agreements and annual project review.
  - Funding: Requirements for Co-op agreements have tightened. Must be tied to specific projects and it can’t be more general “native fish conservation” for example won’t work.

- FY 2020 Work plan clarifications – would like to get to the Policy committee by the end of the year
  - 2020 adjustments
    - NM - Mule Creek monitoring removed from 2020 plan.
    - AZ- Project 7 (Fresno Canyon) cancelled and replaced with Sweetwater Dam restoration project. Removal of non-natives. Sweetwater is a tributary to Gardener Canyon - Removing mosquito, goldfish and crayfish by pump dry, with multiple passes. Will also look in nearby sawmill canyon for non-natives. Threat to Cienaga Creek.
      - **Tony will send the write up - done**
      - Led to broader discussion on taking a more comprehensive approach to non-native monitoring, instead of a rapid response. Consider adding tributaries to the contract to be certain that Cienaga Creek isn't invaded.
    - See track changes in the FY2020 Work Plan for AZ adjustments
    - Discussion of AZ adjustments
      - Project 10 – Blue River: Question of whether the monitoring contract can pick this up later. Is it worthwhile to spend conservation \$\$.
      - Project 11 – Tim Question on A Fria. Assessment to see if the whole section can be treated to remove non-natives.
      - Project 12 – Sunfish detected 2017, NM would need to be involved as well. A shift in funds from 11.

## 2021 Proposed Projects

### New Mexico BLM

- Lower and Middle Box surveys

### Arizona BLM

- Aravaipa and Bonito Creek, non-native removal continuation

### Arizona Game and Fish Department

- Continued work
  - Project 7 - Sweetwater continuation if funded,
  - Eagle Creek continuation – Barrier dependent
  - Harden Cienaga – continue
  - Red Tank Draw continuation – access to private pond still needed, removal continues, suppression yielded 300 chub moved and spawned. Lower effort at this point however eradication is not likely, translocation success needs to happen. Metrics to determine when to taper down or up? Look back at other removals for learning. At what mean size do we see and not see spawning? Targets needed.
    - **Brian H. will make changes**
  - Blue River continuation – snorkeling in bottom to look for sunfish
  - Spring Creek – 2021 will be the final year
  - Boyce Thompson project – Question over whether to fund, or utilize funds from elsewhere. Valuable for an education and recovery. Recognized as important but HOW it gets funded is the question. Project ranked low last year, but there is support to keep it for now until there is funding for it elsewhere. If it gets funded elsewhere roll \$\$ into topminnow stocking.
  - Sharp Spring – Renovation. State parks issue, drop or place holder? USFWS is working on setting up a meeting with State Parks to try move on it. Top minnow and chub. It will stay but may get ranked low and fall off the funding list.
  -
- New projects
  - Verde River (work in advance of barrier -question of timing now, put in draft form now)
  - Add West Fork of the Black removal in 2021. Group discussion on effort it would take for the entire system.
    - **Tony will talk with Julie in R1 and put proposal together**
  - Bear Wallow – ready to go 2020/2021 for treatment. Barrier is fixed. Post stocking monitoring put in for 2020? CAMP has funded this in the past. Source of loach minnow TBD.

- Add AGFD time to Arivaipa? West Fork of the Black? Where?
- Top minnow projects – see handout..
  - [Natural barrier database -Dave Weedman has one and can share it.](#)
- Gila topminnow continue

### New Mexico Department of Game and Fish

- West Fork removal
- Repatriation tasks
- Remote site inventory – West Fork, permanent site monitoring – Also need targets to determine longevity of effort moving forward. Fire changed the fish community. Expand efforts above and beyond? Can't do it all, but could expand beyond current sampling areas. Stronghold for loachminnow. Suppression project to protect spikedace and loachminnow. Idea of thresholds, decision tree, something.

### Discussion/Next steps

- [Small group needs to meet to talk about removal targets \(e.g., reduce by X amount\)](#)
  - [Bill, Tony, Jill, Brian, Kent, Doug, Mary, Yvette/Dustin](#)
  - [Bill will initiate a doodle and getting the conversation started.](#)
- ASU agreement ends soon
  - Need to determine if they will renew based on results of genetic. April 30<sup>th</sup> 2021
- Spring Creek update *Matt O'Neil, US Forest Service, Coconino National Forest*
  - Property changes/zoning changes. 2 acres-7000 sq ft plots, more houses, ponds, Spring Creek Ranch down stream of Spring Creek.
  - Another development: Villa Bellagio. Downstream of Willow Point road and above the fish barrier.
  - May block off spring creek.
  - FS has written letters of concern. Lakes and ponds could have impacts on spring creek for non-natives.
  - Spring Creek ranch public meeting later this month. Located in Yavapai County outside of Sedona.
  - Shaula/USFWS has not made comments yet
  - With walls and bridges the Army Corps is likely to get involved.

### **Tier 2 Project discussion**

- Review previous lists
- New Project Updates
  - Razorback Sucker project
  - Gila Chub Habitat Suitability project
- Ideas
  - Crayfish biocide
  - Habitat restoration
  - Movable weir
  - How to manage excess hatchery fish
  - Research on antimycin feeds

### **Wrap-up & Next Steps**

- Schedule/next steps from now until March technical committee call.
  - [FY2020 adjustments due to Bill - ASAP](#)
  - [Template adjustments/edits due to Bill - Jan 6, 2020](#)
  - [New template out for completion with FY2021 project info: Jan 13](#)
  - [FY2021 Proposed Projects due \(in template format\) to Bill : Feb 3<sup>rd</sup> \(Bill to compile\)](#)
  - [FY2021 Workplan Evaluations: send out Feb 10, due Feb 27 \(send to Carrie\)](#)
  - [Compiled scores/rankings to Tech Comm for review: March 6th](#)
  - [Technical Committee Meeting: Tuesday, March 10, 2020 from 1pm – 4pm \(AZT\)](#)
  - [Policy Committee Meeting: SDR to doodle](#)

## Participants

Brian Hickerson	Arizona Game and Fish Department
Elizabeth Grube	Arizona Game and Fish Department
Tony Robinson (Committee Member)	Arizona Game and Fish Department
Heidi Blasius (Ex-officio Member)	Bureau of Land Management
Timothy Frey (Ex-officio Member)	Bureau of Land Management
Kurt Shollenbuger	Marsh & Associates
Brian Kesner	Marsh & Associates
Bryan Ferguson	New Mexico Department of Game and Fish
Jill Wick (Committee Member)	New Mexico Department of Game and Fish
Nate Coswell	US Fish and Wildlife Service
Andy Dean	US Fish and Wildlife Service
Doug Duncan (Committee Member)	US Fish and Wildlife Service
Angela Palacio ( <i>phone</i> )	US Fish and Wildlife Service
Dustin Myers ( <i>phone</i> )	US Forest Service
Yvette Paroz (Ex-officio Member)	US Forest Service
Matt O'Neill ( <i>phone</i> )	US Forest Service
Kent Mosher	US Bureau of Reclamation
Bill Stewart (Committee Member)	US Bureau of Reclamation
Andi Rogers (Facilitator)	Southwest Decision Resources
Carrie Eberly (Facilitator)	Southwest Decision Resources

## Appendix A – Strategic Plan: Progress towards goals (May 2019)

Scientific Foundation			
No	Goal	Objective	Status
1	Investigate novel methods to control nonnative aquatic biota.	a) Seek at least one opportunity to partner or fund new control methods or improvements upon existing methods.	YY male project (2018-2022) (U of A)
2	Update and assemble existing knowledge of life history needs and ecology of Gila River basin native fishes.	a) As opportunities arise, initiate ecological/life history studies of native biota where such understanding can assist with conservation goals of the Program.	KSU rangewide habitat assessment for spikedace and loach minnow (2018-2020)
3	Improve propagation techniques for spikedace and loach minnow.	a) At a minimum, identify and implement at least one research project aimed at improving propagation.	ARCC rearing density study (2018-?)
4	Develop genetic management plans for priority species.	a) Develop genetic management plans for spikedace, loach minnow, and gila topminnow by 2022.	Spikedace and loach minnow (UofNM) and Gila Topminnow (SWSNARRC) conducting genetics. Plans still need to be developed.
5	Investigate new stocking strategies to improve survival of repatriated fish.	a) At a minimum, document existing stocking strategies, identify locations with poor survival, and identify likely causes of poor survival.	No progress. Study proposed in 2019.

Preventing Extinction and Managing Toward Recovery			
No	Goal	Objective	Status

1	Identify critical streams and populations in need of protection and potential replication.	a) By December 2018 create a document to be appended to the strategic plan that identifies and prioritizes streams in need of protection (habitat enhancement and threat removal) and potential repatriation.	Population prioritization for conservation of imperiled fishes in an arid-region drainage (Clarkson et al 2012). Need to append to strategic plan.
2	Maintain and operate ASU topminnow holding facility and the Aquatic Research and Conservation Center (ARCC) to support the Program's recovery efforts for imperiled fishes in the Gila River Basin through the establishment of refuge populations of genetically distinctive stocks as insurance against extinction in the wild, captive propagation for repatriation, and applied research.	a) Identify key populations of other native species that may need refuge protection.	No formal document produced
		b) Develop a broodstock management plans for captive populations.	Not complete. Waiting on results of genetics work.
		c) Augment hatchery populations as outlined in broodstock management plans.	In draft. Waiting for genetics work to be complete.
		d) Ensure that ASU has the staff support and supplies necessary to maintain genetically viable refuge populations of Gila Topminnow.	Ongoing work. Funded in work plan.
		e) Ensure the Aquatic Research and Conservation Center (ARCC) has the staff support and supplies necessary to improve propagation of spikedace and loach minnow by 25% from the previous 5 years provided wild fish are available.	14.7% increase in spikedace production (2017 to 2018) and 61.9% increase in loach minnow production (2017-2018) for all lineages.
		f) Develop a hatchery management plan for ARCC.	Plan is in draft form.
3	Protect native fish populations from nonnative fish invasions.	a) Complete the scoping, environmental compliance, and design of four additional fish barriers, and initiate their construction.	Two Verde barriers in planning phase, Eagle Creek in NEPA phase, need to identify an additional barrier location.
4	Remove nonnative aquatic species threats.	a) Eradicate nonnative aquatic species from a minimum of five surface waters to prepare them for repatriations of native fishes.	Spring Creek and Blue River
5	Replicate populations and their associated native fish community into protected streams and other surface waters.	a) Replicate Gila topminnow stocks into a minimum of 10 surface waters.	9 locations stocked in 2018
		b) Replicate each of the other priority species into a minimum of one surface water.	3 spikedace locations in AZ, 1 loach minnow in NM, 1 gila chub in AZ
6	Acquire or work with other programs to acquire easements, land, or water rights to protect key surface water.	a) Identify major surface and groundwater rights in perennial stream reaches of the Gila River basin where acquisition can contribute to conservation goals of the Program.	No progress
		b) Develop a sub group to investigate acquisition potential for a minimum of five water rights/properties/ easements to improve watershed protection for Gila River basin native fishes.	No progress
7	Protect, maintain, and restore degraded aquatic habitats to use for native fish.	a) Restore habitats in locations with existing populations and in locations planned for repatriations.	No progress
8	Inform and educate the public about the conservation status and values of	a) Develop an I&E working group to implement no less than two opportunities per year.	Group established in 2017 - native fish in the class room, gila topminnow ID,

	native fishes and the problems nonnative fishes create for them.	b) Update USBR website by December 2018.	New website created in fall 2018
9	Monitor to quantitatively measure and evaluate project success in improving the status of target species and their habitats.	a) By 2019, contribute to a basin wide long term survey strategy to ensure streams are being adequately monitored.	Initiated a contract to conduct multiple monitoring workshops and expert panel evaluation.
		b) Develop/identify monitoring standards as necessary to adequately evaluate fish barrier function, success and failure of eradications, and success and failure of repatriations.	Red Tank Draw and Aravaipa removal plans have been developed.
		c) Incorporate eDNA and associated database and/or other technologies into monitoring practices.	Initiated a range wide spikedace and loach minnow eDNA sampling project in 2017. Collections will continue through 2021.
10	Maintain accurate Program tracking records.	a) Continue to develop annual workplans and reports that track program accomplishments.	FY19 work plan approved.