

Final Minutes
Gila River Basin Native Fishes Conservation Program (GRBNFCP)
Technical Committee Meeting
Phoenix Area Office, Bureau of Reclamation
November 3, 2009

Attendees: Rob Clarkson (Reclamation), Doug Duncan (FWS), Tim Frey (BLM), David Orabutt (AZGFD), David Propst (NMDGF), Tony Robinson (AZGFD), Jeff Sorensen (AZGFD), Amy Unthank (USFS)

1. Review of Chiricahua leopard frog projects

The committee briefly reviewed and approved the concept proposals for Chiricahua leopard frog recovery actions submitted by FWS, AZGFD, and NMDGF (Appendix 1). Reclamation will include an additional \$100K in the FY2010 fund transfer agreement to fund these projects per stipulations in the 2008 biological opinion.

2. AZGFD process on public input to management actions on native fish-designated streams

This agenda item was requested by Clarkson to receive clarification from AZGFD concerning the potential for new public input to influence management actions on a stream previously designated as a native-only¹ managed stream. For example, does new public input have potential to prevent an action such as chemical retreatment of Bonita Creek from occurring? If yes, Reclamation's investments under the 2008 biological opinion could be negated. Sorensen explained AZGFD's public input process to the Committee, indicating that in some cases it may need to be more comprehensive than the federal NEPA process. In addition, he could not guarantee a certain outcome on a proposed management action following renewed public input. Sorensen added that we need to demonstrate a good faith effort in making the public aware of our planned actions, and that we adequately addressed their concerns (such as providing responses to their input in the EA appendix on public comments received).

Clarkson stated he would recommend to his superiors that prior to Reclamation initiating a fish barrier/native fish restoration project, Reclamation receive a letter from AZGFD committing it to undertake necessary and appropriate actions to manage that stream as a native-only¹ assemblage for the foreseeable future. Sorensen replied that this request was reasonable, but cautioned that these commitments would be subject to an adaptive management process and future changes—such as habitat condition and/or species interactions—that prevent long-term success. Future changes would need to be considered in a long-term adaptive management strategy. Clarkson suggested that this letter would spell out that AZGFD has designated said stream for native-only¹ management, and would support and implement necessary actions to ensure the stream remains native-only¹,

¹ There was misunderstanding between Sorensen and Clarkson on the issue of "native-only" versus "managed for natives," which was not apparent until the meeting minutes were reviewed. Sorensen's response to this agenda item referenced "managed for native species," not managed as "native-only." Sorensen notes that "managed for native species" covers those areas that may have native and non-native species present, but the emphasis of AZGFD actions are on the natives (or desired species)—like stocking and monitoring. Non-natives that are present may be passively managed through open bag limit fishing, less restrictive take methods, or selective removal efforts—like AZGFD does for crayfish populations in many waterways. "Native only" covers a few sites where AZGFD actively removes non-natives through mechanical or chemical means, and attempts to keep that site free of non-natives. Bonita Creek (above the fish barrier), Stillman Lake, and Fossil Creek are examples of the "native only" management. The distinction between the two management concepts may or may not have practical implications for Reclamation's fish barrier program.

including initial and follow-up piscicide applications, species repatriations and augmentations, and fishing closures if appropriate. Sorensen stated that all future NEPA compliance documents for such projects should prominently include these management goals and actions so that the public is adequately informed prior to initiation of the project. Sorensen emphasized that public meetings and press releases are opportunities to focus on the project goals (rather than the methods proposed), to dispel misinformation on rotenone use, present the historic and current status of the project area's fishery (which may not have been all that good in the first place), and to highlight better fishing spots elsewhere for the local anglers.

3. Miscellaneous funding issues

Duncan reviewed the issue of tracking FWS overhead costs from fund transfer tasks identified when overhead costs were low but implemented when costs were higher. He estimated these shortfalls amount to approximately \$13K and \$14K for the two fund transfer agreements (native conservation and nonnative control). When FWS completes their documentation of these shortfalls, Reclamation will review their figures and reimburse them in upcoming agreements. The difficulty of tracking separate budgets for projects that utilize funds from both agreements was discussed, and it was agreed that Reclamation would investigate the potential to include both fund programs in a single fund transfer agreement to simplify cost tracking.

4. Review status of West Fork Oak Creek barrier construction, task 4-79

The controversy with this project (whether the benefit to warmwater native fishes was sufficient for the GRBNFCP to financially support construction of a fish barrier if Gila chub was removed from the mix of species to be repatriated; see Appendix 2 for more details) was reviewed by the Committee. It was agreed that the Program would maintain financial support of the barrier construction project only if Gila chub (Sorensen thought a different chub species might be more appropriate) was included with Gila trout as a species to be translocated to the stream, and if the barrier cost was shared with a trout or other fund. Reclamation will complete its prior commitment to design the barrier using Program funds, and will attempt to provide construction management support (e.g., inspection) if funding can be found. Sorensen stated that Reclamation's construction management support is still very important to the WFOC project partners (even if GRBNFCP funding is not used to build the barrier).

5. Clarification of project selection process and recommendations to Policy Committee

Sorensen stated that Mike Senn of the Policy Committee requested that all future issues with controversies or disagreements among Technical Committee members be described and presented to all members of both groups in a format similar to what was prepared for the West Fork Oak Creek fish barrier construction situation (Appendix 2). The Technical Committee agreed to this request. Propst noted that the West Fork Oak Creek controversy was generated from events that occurred outside the GRBNFCP, not from within.

6. Review of continuation projects

Native fish recovery fund (RPA3) continuation projects:

Topminnow stock maintenance (ongoing) - \$21,000 (for 18 months)

NMDGF spikedace repatriations (yr 4 of 5) - \$12,000

NMDGF private lands (yr 3 of 5) - \$5,000
AZGFD general fund (ongoing) ~ \$137,500
USFS spikedace repatriations (yr 4 of 5) - \$12,000
FWS spikedace repatriations (yr 4 of 5) - \$12,000
Bubbling Ponds Hatchery O&M (ongoing) ~\$65,000
TOTAL - \$264,500

Due to the vital importance of the Bubbling Ponds Hatchery O&M project to the GRBNFCP, the Committee agreed to increase annual funding for this task an additional \$25K per year to cover more of David Ward's (hatchery manager) salary.

Nonnative fish control fund (RPA4) continuation projects:
NMDGF Little Creek mechanical removal (yr 3 of 3) - \$9,000
USFS Little Creek mechanical removal (yr 3 of 3) - \$9,000
FWS Little Creek mechanical removal (yr 3 of 3) - \$9,000
AZGFD general fund (ongoing) ~ \$137,500
Redfield Canyon green sunfish removal (yr 3 of 5) - \$7,500
TOTAL - \$172,000

Already approved new projects:
Roundtail chub ponds at Bubbling Ponds Hatchery ~ \$7,000
Eagle Creek roundtail chub salvage ~ \$20,000
TOTAL - \$27,000

GRAND TOTAL = \$463,500 (\$550,000 available)

7. Discussion and recommendations for new projects:

The Technical Committee recommended the following new projects be forwarded to the Policy Committee for inclusion into the package of the FY2010 fund transfer agreement:

Extra funds for task 3-43 (miscellaneous funding) - \$15,000
New piscicide development project - \$11,500
Fossil Creek nonnative fish monitoring (year 1 of n) - \$30,000
Extension of West Fork Gila River nonnative fish removal - \$30,000
New tasks for to be identified under the AZGFD "mega-agreement"
1. Catfish removal from Blue River
2. Bonita Creek renovation

GRAND TOTAL OF PROPOSED FY2010 PROJECTS = \$550,000

8. Outstanding issues:

1. Final report for chub propagation – This is in preparation by Scott Bonar of UofA
2. Rotenone white paper – Propst expects this to be completed by end of January
3. Ciénega restoration brochure – Propst will develop a proposal for this task, which would possibly be funded by Reclamation's information and education program of the 2008 biological opinion package.

9. Schedule January Policy Committee meeting – January 21, 2010 was proposed.

Agenda
Gila River Basin Native Fishes Conservation Program
Technical Committee Meeting
November 3, 2009

1. Review of Chiricahua leopard frog projects
2. AZGFD process on public input to management actions on native fish-designated streams
3. Review status of West Fork Oak Creek barrier construction, task 4-79
4. Clarification of project selection process and recommendations to Policy Committee (Sorensen)
5. Miscellaneous funding issues (Duncan)

6. Review of continuation projects:

Native fish recovery fund (RPA3) continuation projects:

Topminnow stock maintenance (ongoing) - \$13,800
NMDGF spikedace repatriations (yr 4 of 5) - \$12,000
NMDGF private lands (yr 3 of 5) - \$5,000
AZGFD general fund (ongoing) ~ \$137,500
USFS spikedace repatriations (yr 4 of 5) - \$12,000
FWS spikedace repatriations (yr 4 of 5) - \$12,000
Bubbling Ponds O&M (ongoing) ~\$40,000
TOTAL - \$232,300 (\$42,700 available)

Nonnative fish control fund (RPA4) continuation projects:

NMDGF Little Creek mechanical removal (yr 3 of 3) - \$9,000
USFS Little Creek mechanical removal (yr 3 of 3) - \$9,000
FWS Little Creek mechanical removal (yr 3 of 3) - \$9,000
AZGFD general fund (ongoing) ~ \$137,500
Redfield Canyon green sunfish removal (yr 3 of 5) - \$7,500
TOTAL - \$172,000 (\$103,000 available)

Already approved new projects:

Roundtail chub ponds at Bubbling Ponds Hatchery ~ \$7,000
Eagle Creek roundtail chub salvage ~ \$20,000
TOTAL - \$27,000

7. Discussion and recommendations for new projects:

Extra funds for task 3-43 (miscellaneous funding)? ~ \$25,000
NM native fish database development? ~ \$10,000
NM chub inventory (mainstem Gila)(yr 1 of 2)? ~\$45,000
Extra funding for genetic biocontrol symposium (task 4-72)? ~ \$17,000
New piscicide development project? ~ ???
Fund continuation of Fossil Creek monitoring ~ \$20,000-\$30,000/year

New tasks for AZGFD (already funded)

1. Recovery stream identifications?
2. New River repatriations?
3. Bonita Creek renovation?

8. Outstanding issues:

1. Final report for chub propagation (Bonar)
2. Rotenone white paper (Propst)
3. Others?

9. Schedule January Policy Committee meeting

Appendix 1

Concept Proposals for CAP Funds for Chiricahua Leopard Frog Recovery

1. Title: Support for Arizona-Sonora Desert Museum captive propagation and headstart program.

Materials to upgrade and maintain rearing and breeding facilities at the ASDM. Twelve pumps for the outdoor enclosures @ \$50/pump = \$600, shadecloth and frame materials = \$500, sand pump for tadpole rearing facility = \$500, 2 pumps for rearing facility @ \$200/pump = \$400, two timers @ \$50/timer = \$100, and food (crickets, algae, etc.) = \$2,000. Total material costs = \$4,100.

Staff Support for 2 years of Captive Propagation and Headstarting at the ASDM. \$9,568 per year X 2 yrs = Total staff costs: \$19,136

Total Project Cost: \$23,236

2. Title: Purchase of equipment and gear to conduct field work and disease testing.

300 chytridiomycosis PCR tests, vials, and swabs @ \$30 each = \$9,000

200 ml itraconazole (for treating chytridiomycosis) @ \$1/ml = \$200

5 gallons quaternary ammonia (disinfectant) @ \$25.26/gallon = \$126.30

Total Project Cost: \$9,326.30

3. Title: Development and Maintenance of Chiricahua Leopard Frog Captive Rearing Facilities in Arizona, other than at ASDM

Description: Funds would be used to purchase supplies and materials that would be used at captive rearing facilities such as the Phoenix Zoo, Southwestern Research Station, Douglas High School, Pinetop Arizona Game and Fish Department regional office, and Arizona Game and Fish Hatcheries.

Total Project Cost: \$6,000

4. Title: Operational costs for head-starting facilities at New Mexico FWS Office. \$5,000 per year for 2 years.

Description: To pay for materials (pumps, filters, food, etc.) and partial salaries to operate an existing headstarting and captive propagation facility at the Fish and Wildlife Service's office in Albuquerque, New Mexico.

Total Project Cost: \$10,000

5. Title: Operational costs for Ranarium at Ladder Ranch.

Description: To pay for materials (pumps, filters, food, etc.) and partial salaries to operate an existing headstarting and captive propagation facility at the Ladder ranch in New Mexico. \$7,000 per year for 2 years.

Total Project Cost: \$14,000

6. Title: Refugia in Steel Rim Tanks, New Mexico.

Description: Purchase of 8 steel rim tanks @ \$1,000 each to be used as refugia for at-risk populations in New Mexico.

Total Project Cost: \$8,000.

7. Title: Renovation of Priority Chiricahua Leopard Frog Habitats

Description: Funds for this project would be used to purchase supplies and materials or develop contracts that would lead to the renovation of important Chiricahua leopard frog habitats. Funds would be used range wide to implement projects such as cleaning out earthen cattle tanks, fencing waters, eliminating predators, and enhancing pools in canyons.

Total Project Cost: \$29,437.70

Unfunded Projects

8. Title: Fund to Support Chiricahua Leopard frog Safe Harbor Projects

Description: Funds would be used to purchase supplies and materials that would be used to create high quality Safe Harbor projects for Chiricahua leopard frog. **Note – could be paid for out of project 7.**

Amount: \$5,000

9. Title: Invasive Species Control

Description: Funds would be used to support targeted removal of non native fish and bullfrogs in important Chiricahua leopard frog recovery areas. **Note – funds from project 7 could be used here. Will have significant funds from DHS for these projects in AZ.**

Amount: \$25,000

10. Study to assess and minimize stress in CLF for transportation and repatriation efforts (NMSU and Dexter) (Estimates have not come in yet....maybe \$20,000 per year for 3 years????)

11. Anti-chytrid bacterial study, \$77,000 over 3 years. **Note – funded through other grant process.**

Appendix 2

ISSUE: Should the Gila River Basin Native Fishes Conservation Program (Program) continue to support the construction of a fish barrier on West Fork Oak Creek (task 4-79) now that Gila chub has been pulled from the list of species to be repatriated?

BACKGROUND: The Program's Policy Committee approved task 4-67 in the amount of \$20,000 in 2007 to fund the design of a fish barrier on West Fork Oak Creek. The blurb for that task read:

“West Fork Oak Creek is a perennial tributary to Oak Creek (Verde River drainage) located approximately 11 miles north of Sedona, Coconino County, Arizona. It currently supports populations of speckled dace and desert sucker, and nonnative brown trout and rainbow trout. Several years ago, the Federation of Fly Fishers (Northern Arizona Flycasters chapter) identified West Fork Oak Creek as a potential stream to be repatriated with Gila trout, a federally-threatened native species that has been extirpated from the Verde River drainage. Since then, the Arizona Game and Fish Department, U.S. Forest Service, U.S. Fish and Wildlife Service, Reclamation, and other groups have supported the concept. However, before Gila trout and potentially other species such as Gila chub, loach minnow, and spikedace can be repatriated, the stream needs to be renovated to remove nonnative fishes, and protected against reinvasion from Oak Creek with a fish barrier. Reclamation completed a feasibility analysis of the fish barrier project in 2006, and this task will fund the final design specifications of the barrier. Construction costs for the barrier will need to come from the Fund Transfer Program or other sources.”

The Policy Committee also approved task 4-79 in the amount of \$150,000 in 2008 to fund the construction of the barrier. The project has always been considered primarily a Gila trout project (a coldwater species not eligible for funding within our warmwater species Program), but it was thought the Program could benefit if warmwater species were included in the mix of species to be repatriated upstream of the fish barrier. Following a discussion of Gila trout habitat, Reclamation's October 2005 (not 2006 as indicated in the blurb above) feasibility report stated:

"Habitat for most other potentially-repatriated listed native fishes is limited. A cursory evaluation of West Fork Oak Creek fish habitat undertaken by Ian Reid of the Forest Service shows a dominance (>50 %) of bedrock runs and bedrock riffles in the stream, which is a rare situation in Gila River basin streams. The availability of pool habitats ranged from 1-31 % by reach, and non-bedrock riffles ranged from 0-13 %. Both are rare based on these statistics, and our observations of riffle and pool habitats in the stream support the conclusion that the quality and quantity of those habitats is low.

"We believe that perhaps the best opportunity for repatriation of a warm water native fish into West Fork Oak Creek could be Gila chub (*Gila intermedia*). Gila chub could utilize the same pool habitats that are now occupied by nonnative trouts and in the future by Gila trout. Gila trout and Gila chub likely overlapped in distribution in many areas of their historical range at intermediate elevations, and we specifically recommend the repatriation of the chub into similar areas stocked with the trout.

"Although in general habitats in West Fork Oak Creek do not seem perfectly suited to introductions of species such as loach minnow (*Tiaroga cobitis*) and spinedace (*Meda fulgida*), a renovated and barrier-protected West Fork Oak Creek might support populations of those species notwithstanding our current views of what their habitat preferences might be. The removal of nonnative species may remove many of the factors that now restrict loach minnow and spinedace to the habitat types in which they occur now; our understanding of their habitat requirements are undoubtedly biased by the presence of nonnatives that undoubtedly have altered their historical uses of habitat. If sufficient donor populations for either species are available, we recommend both species be repatriated to the renovated stream."

On July 31, 2009, Technical Committee member Rob Clarkson (Reclamation) transmitted the following email to fellow committee members that explained the issue at hand and requested advice:

"Yesterday I attended a meeting among biologists involved with this project, and FWS (Shaula Hedwall) and AZGFD (Scott Rogers) opposed the repatriation of Gila chub to the stream primarily due to potential predation upon Mexican garter snake [since corrected as narrow-headed garter snake] and potential negative interactions between chub and Gila trout. As our support for the project (based on the blurb appended to the end of this message) included Gila chub as a species to be repatriated, I wanted to get your input to make sure our program still supports the project.

"I strongly believe that Gila chub is the most likely warm water native to take to W Fk Oak Creek, and the stream is marginal for spinedace and loach minnow, which was explained in Reclamation's 2005 barrier feasibility report as follows: [the text from the report is not included here as it was quoted verbatim above]...

"These statements are only my opinions, but I believe the loss of Gila chub from the repatriation mix significantly reduces the value of the project towards meeting the goals of our program. Although I have not reached a firm conclusion, I now question the use of the presently-allocated \$150,000 for this project. I still strongly support the overall project for conservation of Gila trout, but our program is not concerned with that species. The question is whether the project has enough potential benefit for loach minnow and spinedace to justify its cost. For your further information, the barrier construction cost is now expected to exceed \$300,000 in total, the remainder of which is hoped to be funded through receipt of a Western Native Trout Initiative grant.

"I request you please reply with your thoughts on the subject, and specifically if the project still warrants our support. Thanks very much."

Responses from the voting members of the Technical Committee to Clarkson's request follow:

Jeff Sorensen (Arizona Game and Fish), August 5, 2009:

“My opinion is that WFOC should be repatriated with Gila trout, loach minnow, and spikedace. I’m not supportive of Gila chub going into that drainage. The driving forces on this project have always been focused on getting Gila trout in that stream, and having a 2nd native predatory fish would possibly dilute or impact our chances to get the native trout population successfully established. I’ve gotten feedback from a number of AGFD fish and herp folks, and I still feel that this is a good project that the CAP program can partner with. Our herp folks don’t see any issues between fish and gartersnakes for this action, they only recommend that if a renovation is conducted during non-winter months, that salvaged native fish be returned to the stream as soon as possible (as forage for the narrow-headed gartersnakes). If you have any questions for me, please call so we can talk. Thanks.”

David Propst (New Mexico Game and Fish), August 10, 2009:

“Rob--Okay, let me be sure I understand question/issue--initial idea was that West Oak was to provide habitat for Gila trout, which is normally outside funding scope of CAP, correct? Now, potential for West Oak to support CAP-covered species is being considered. And if West Oak deemed suitable for CAP covered fish, CAP funds can be used for barrier construction. I have not seen West Oak so all of my comments are based on photos & habitat report. Based on these, I believe there is low, very low, probability that spikedace stocking will be successful. If there are riffles, there is a chance for loach minnow. But cobble on bedrock sub tends to be very unstable--are there reaches without a surface or near-surface underlying bedrock?. Believe there is greater potential for Gila chub than spikedace or loach minnow. So, if CAP support for barrier is based upon spikedace and/or loach minnow being stocked, I do not support. If Gila chub are stocked, I would support. Is that definitive enough? thanks. dlp”

Doug Duncan (Fish and Wildlife Service), August 18, 2009:

“If I had to decide right now with the information I have now, I would say cancel this Task as a CAP project. Since Gila chub are unlikely at this point as a species to be reestablished, the matter revolves around the suitability of the West Fork of Oak Creek as loach minnow and spikedace habitat. The 2001 stream survey identified potentially suitable habitat for both species. BRs feasibility study was equivocal on whether or not WFOC was good habitat for the species.

“If the proposed species was Gila topminnow, I would say drop it, and look elsewhere. However, the status of spikedace and loach minnow are far more precarious than topminnow. Also, the potential reestablishment sites for SD/LM are far more limited than the ones for topminnow. These facts mean my decision could be changed with the right information. Also, there will be costs to the GRBNFRP in addition to the barrier. It is likely the AGFD CAP crew (and other AGFD staff) would be involved in the project- funded by the "normal" AGFD CAP allocation.

“My preference would be to have a definitive answer on the suitability of WFOC as

habitat for viable SD/LM populations. Since that answer is not possible, some other determination (structured decision making?) on habitat suitability would be extremely helpful. My mind could be changed to support this project as a GRBNRP task if we knew more definitively that WFOC could support a viable population of either loach minnow or spikedace.

“Next steps? Can we get better information or analysis regarding the habitat and do we have the time? If so, let's hold off on making a decision. If we need to move on the decision now, we should involve the Policy Committee since we do not have consensus.”

REQUEST: The Technical Committee thus is in disagreement over whether task 4-79 should be funded through the Program (task 4-67 is basically completed already). One member expressed unequivocal support for retaining the task, and three expressed skepticism and/or equivocal opposition to retaining the task. It is doubtful that additional data could be acquired in a timely fashion to further assess the suitability of West Fork Oak Creek for spikedace and loach minnow, and such data still would not be definitive in predicting how either species would fare if repatriated. Given that the goal of Program is to operate through consensus, the Technical Committee has requested the issue be raised to the Policy Committee for resolution.