Muleshoe Native Fishes Planning Team
July 30, 2007
9:30 AM

Attendees

Heidi Blasius, Bureau of Land Management (BLM)

Rob Clarkson, Bureau of Reclamation (BR)

Chris Cantrell, Arizona Game and Fish Department (AGFD)

Codey Carter, AGFD

Mark Crites, U.S. Fish and Wildlife Service (FWS)

Jason Douglas, FWS

Suzi Ehret, AGFD

Mark Haberstitch, The Nature Conservancy (TNC)

Don Mitchell, AGFD

Mary Richardson, FWS

Peter Rienthal, University of Arizona

Tony Robinson, AGFD

Bob Rogers, TNC

Ross Timmons, AGFD

Ken Wiley, TNC

INTRODUCTIONS

Brief introductions were made.

AGENDA ITEMS

Appeals Process/Environmental Compliance

Mary and Heidi provided a brief update on the appeals process, noting that the concerns of the private landowner in the area had been resolved outside of the appeals process, and the appeal was officially removed.

Chris discussed the AGFD's internal EA checklist, indicating that it had been largely completed two years ago. Some changes had been made, including updating the status of Gila chub. Updates were being made to species information. Chris noted that it would

be forwarded for signature later in the week, and that he hoped to have everything done by the end of August. He noted that Rebecca Davis had indicated she thought we had all of the necessary paperwork in place.

Source Populations

Peter addressed information on population estimates for spikedace and loach minnow for Aravaipa Creek. He noted that he was working with mean population size, using averages from six years of data collection, and that the numbers developed were conservative. Assumptions in the analysis included that all individuals were caught, the work was done in a closed system, and there was no bias in the survey. The results for loach minnow included the entire creek above the barrier. For spikedace, approximately 4.5 miles of the stream were included.

The population estimates for loach minnow, with a 95% confidence interval based on sample size, were a Spring maximum population of 3600 individuals, and a Spring minimum of 330 individuals; a Fall maximum of 5770 individuals, and a Fall minimum of 1000 individuals.

For spikedace, Peter estimated, with a 95% confidence interval, a Spring maximum of 10,000 individuals, and a Spring minimum of 6200 individuals; a Fall maximum of 11,000 individuals and a Fall minimum of 6700 individuals.

Peter concluded that the withdrawal of approximately 400 spikedace and 400 loach minnow from the stream would not have an impact on the population, and recommended that we should stagger removal of fish with an emphasis on Fall collections, limiting overall take to 10% or less of the population. It was noted that we could collect many loach minnow from below the barrier as well.

Tony noted that spikedace and loach minnow from Aravaipa Creek currently at Bubbling Ponds were to be used in the Fossil Creek reintroduction.

Disease/Predation

It was noted that Asian tapeworm are present in both Aravaipa Creek and the Muleshoe.

Bob Rogers noted that green sunfish were taken two years ago approximately 0.25 miles above the Cliff House, but that there were none from the confluence of Swamp Springs up to The Falls.

Logistics

The team estimated that 200 fish could be carried in each drum per flight, and that species would be kept separate. We approximated 12 trips in 2 days. Much individual discussion occurred on the various sites and whether or not long lines would work. Ultimately, the team determined the following schedule:

Friday

Crew 1 – Swamp Springs (Redfield Canyon) – topminnow and pupfish reintroduced
Crew 2 – Secret Sprigns Pond – topminnow and pupfish
Crew 3 – Cherry Springs – Topminnow and pupfish

At Aravaipa Creek, University of Arizona workers as well as others to handle capture. We estimated four people would be needed. Four people would be needed at Dudleyville as well to collect pupfish and topminnow, and then move on to lower Aravaipa Creek to collect loach minnow.

Saturday

Crew 1 – Redfield Canyon – spikedace and loach minnow
Crew 2 – Hot Springs Canyon – spikedace and loach minnow

Equipment Needs were identified, including:

- Flow through system at Aravaipa Creek to keep fish alive overnight
- Helicopter
- Drums
- Bubblers for all sites
- Collapsible tanks, coolers, or buckets at drop sites to use for tempering fish for reintroduction
- Satellite phones

Pre-work needed to be completed in the field included:

- Marking drop sites for helicopters
- Reconnaissance flight for the helicopter

Assigned tasks included:

- Heidi, Peter, and Mary to supply names of interested agency personnel to Don
- Rob to check on equipment needs for helicopter work, including long lines and drums, radios
- Don to develop crew assignments
    - Rob, Paul Marsh, and Sally and Jerry Stefferud were already scheduled to do survey work at lower Aravaipa, so agreed to cover that assignment, and Ross agreed to join them.
    - Chris noted that he would like to be assigned to Redfield Canyon
    - Tony indicated no preference for a site, but that he would prefer to work on the reintroduction, rather than the capture of fish from Aravaipa Creek.
- Tony and Don agreed to handle the reconnaissance for sites, and develop latitude/longitude coordinates for the helicopter.

<u>Monitoring</u>

Ken reminded the group that we needed to develop a monitoring plan to be applied at each of the monitoring sites. Bob explained the rotational system of monitoring that currently occurs at the Muleshoe. Mary reminded the group of the early commitment to build on that monitoring plan to assist the Muleshoe in completing all monitoring so that Muleshoe staff was not burdened with the workload of monitoring reintroduced populations. Rob noted that there was the possibility of providing funding to TNC to contract out the monitoring. Heidi noted that BLM has staff that could likely help because of BLM lands within the Muleshoe. Bob agreed to send Rob the existing monitoring protocol so that Rob could estimate costs. Ken noted that Dave Gori had set up transects, and completed seining, kick-seining, and habitat surveys. Tony noted that habitat survey work may not be crucial to monitoring the reintroduced populations.