



**SAN JUAN RIVER BASIN RECOVERY
IMPLEMENTATION PROGRAM (SJRIP)
BIOLOGY COMMITTEE
29 October 2020 MEETING SUMMARY**

BIOLOGY COMMITTEE (BC) MEMBERS:

Matthew Zeigler (Chair)
Harry Crockett
Jacob Mazzone
William Miller
Vince Lamarra
Absent
Brian Westfall
Stephen Davenport
Mark McKinstry
Benjamin Schleicher
Ryan Besser
Tom Wesche
Absent

REPRESENTING:

State of New Mexico
State of Colorado
Jicarilla Apache Nation
Southern Ute Indian Tribe
Navajo Nation
Ute Mountain Ute Tribe
U.S. Bureau of Indian Affairs
U.S. Fish and Wildlife Service
U.S. Bureau of Reclamation
U.S. Fish and Wildlife Service
U.S. Bureau of Land Management
Water Development Interests
Conservation Interests

COORDINATION COMMITTEE (CC) MEMBERS:

Ryan Christianson

U.S. Bureau of Reclamation

PROGRAM OFFICE (PO):

Melissa Mata, Program Coordinator
Scott Durst, Science Coordinator
Eliza Gilbert, Biologist

U.S. Fish & Wildlife Service
U.S. Fish & Wildlife Service
U.S. Fish & Wildlife Service

OTHER INTERESTED PARTIES:

Adam Barkalow, BC Alternate
Jill Wick, BC Alternate
Carrie Padgett, BC Alternate
Ben Zimmerman, BC Alternate
Nathan Franssen
Wade Wilson
Tildon Jones
Susan Behery
Steve Mussmann
Melody Saltzgeber
Alyssa Richmond
Aaron Chavez
Nate Caswell
Steven Platania

New Mexico Department of Game and Fish
New Mexico Department of Game and Fish
Water Development Interests
Southern Ute Indian Tribe
U.S. Fish and Wildlife Service
U.S. Fish and Wildlife Service
U.S. Fish and Wildlife Service
U.S. Bureau of Reclamation
U.S. Fish and Wildlife Service
U.S. Fish and Wildlife Service
San Juan Watershed Group
San Juan Water Commission
U.S. Fish and Wildlife Service
American Southwest Ichthyological Researchers

Michael Farrington

Emily DeArmon

Tracy Diver

Stephani Clark Barkalow

Manuel Ulibarri

Cameron Corley

American Southwest Ichthyological Researchers

Museum of Southwestern Biology

U.S. Fish and Wildlife Service

American Southwest Ichthyological Researchers

U.S. Fish and Wildlife Service

Arizona Public Service

Introductions and changes to agenda

Mata announced that Gilbert was selected for the vacant assistant coordinator position and will start in that role 8 November. Gilbert's position as program biologist will be back-filled sometime in the future.

Mata will be going on maternity leave for up to 12 weeks starting on 23 November and Durst will be acting program coordinator during her absence.

Durst alerted the group that the Researchers Meeting will be held online 12-13 January 2021 and additional details will be shared as they become available.

Gilbert informed the group of the initial stages of a Federal Energy Regulatory Commission (FERC) application to build a hydroelectric power plant along the San Juan River downstream of Shiprock, NM. The facility would have an initial 38,000 af water withdrawal from the San Juan River near the Phase 2 restoration site to fill a reservoir and annual withdrawal of 3,000 af to maintain the reservoir. The water will be obtained via the purchase of an unspecified water right. The Service will provide comments on the proposal and recommend the project proponents (Kinetic LLC) engage with the SJRIP as the project moves forward.

Approve draft summary from 20 August 2020 BC meeting; review Action Item list – Gilbert and Mata

Gilbert received no edits/comments on the August summary. Mazzone motioned to approve the summary as written, Wesche seconded. There was no further discussion and the summary was approved unanimously. The final summary will be posted to the SJRIP website.

Mata indicated all action items originating from the last BC meeting have been completed. Zeigler and Miller have completed action item #30 (Write a path forward paragraph for habitat workshop summary and send to BC for review) but a new agenda item will be added to reflect a summary of BC rankings that will be discussed at the December BC meeting prior to forwarding this work to the CC.

Prioritizing diversions in the San Juan River to minimize entrainment and provide passage – PO, Davenport, Mazzone, Miller, Zeigler

A small group was convened to develop an actionable plan to address the potential recovery threat of diversions in the San Juan River Basin. The BC previously identified the need for work to minimize entrainment and provide passage as management activities to conduct post-2023 but sites where work would occur were not identified. Gilbert reported that diversions have been identified in the Long Range Plan and prioritized by the CC to conduct work to minimize entrainment and provide passage. Some are completed like Hogback and PNM although there

may be a need to continue to evaluate the efficiency and potentially modify these facilities (especially Hogback). There's been progress on others like APS, Fruitland, and the waterfall but some are to be addressed by 2023 including Jewett and Farmers Mutual. However, to date there has been no action at Jewett and Farmers Mutual.

Miller detailed the small group's tiered prioritization approach for the diversions identified in the Lyons et al. report. McKinstry brought up the need to consider the waterfall that's not included in the Lyons et al. report. The primary evaluation focused on spatial components like the distance from Lake Powell, distance to next upstream diversion, and total distance between the next upstream and downstream diversions. The primary evaluation also included the presence of endangered fish and appropriate seasonal water temperature to identify the upstream limit of range expansion. A secondary evaluation separately addresses the degree that the diversion could entrain fish or limit passage. The most current available data will be used to complete this evaluation. In general, entrainment and passage threats would be addressed from a downstream to upstream fashion.

At this point the small group is looking for feedback from the BC on this tiered approach. The BC expressed support for this approach. Some considerations that were discussed as part of the evaluation include an assessment of passage efficiency at in-stream barriers where passage has been provided, an assessment of the degree an unmodified barrier restricts passage, the willingness of water users to participate, and incorporating seasonal drying in some reaches of the Animas River. The group also suggested investigating corrugated screens as a potentially cost effective method to minimize entrainment (this is a design from Brent Mefford).

The BC will provide written comments on the proposed approach to Gilbert by 20 November 2020 and the small group will provide a draft evaluation for discussion during the BC meeting 15-17 December 2020.

Results and discussion of Razorback Sucker flow-conditioning experiment – Franssen

Franssen detailed the results of a flow conditioning experiment stocking ~1,000 Razorback Sucker in 2016. First-year survival of flow conditioned fish was about double the survival of control fish (0.28 versus 0.14). Total length and Fulton's Condition Factor were positively associated with first year survival but had a similar effect across flow conditioned and control fish. Subsequent year (after the first overwinter period) survival was similar between groups. Distance moved downstream post-stocking was negatively associated with fish size (i.e., larger fish moved less from the stocking location). Because the age-structure of Razorback Sucker in the San Juan is relatively young, improving first-year and subsequent year survival will result in more fish reaching older age classes. The SJRIP should investigate what it would take to conduct flow conditioning for Razorback Sucker at all of its hatchery/rearing facilities.

Westfall questioned the cost-benefit of flow conditioning. This will be an important consideration in potentially moving forward with this as a broader management activity. McKinstry asked how these results compare to other systems. It's difficult to compare results across species but survival of control fish (not flow conditioned) is similar for Razorback Sucker in the San Juan, Colorado, and Green Rivers. Davenport asked if stocking fish at older age classes would result in getting more fish in the San Juan River at older age classes. Possibly, but

there are also higher costs and potentially lower survival for these fish post-stocking since they would be so accustomed to hatchery conditions. The group discussed the age structure needed for the San Juan to be self-sustaining and what is causing the 20% annual mortality for fish after their first overwinter period. The SJRIP can focus its stocking effort on quality of fish or quantity of fish and the BC is moving towards the need to improve the quality of fish stocked into the San Juan River. BC recommended that the PO investigate what it would take to conduct flow conditioning of Razorback Sucker at all of its hatchery/rearing facilities

Update/recap on projects impacted by COVID-19 in FY2020 – PIs and PO

Because of restricted access to the Navajo Nation and strict protocols across many agencies related to the COVID-19 pandemic, some approved 2020 SOWs were postponed or modified. The Demographic Monitoring effort was shifted to sampling for wild age-0 Razorback Sucker. Small-bodied and Larval Monitoring were conducted over a shorter reach than planned (Bluff to Clay Hills instead of Shiprock to Clay Hills). Only parts of the Facilitated Passage Study were conducted (fish were moved upstream of Piute Farms Waterfall but not PMN Weir). Some 2020 work was not conducted but funds will be carried over to conduct that work in FY2021 including Spring Age-1 Razorback Sucker Study, Enhancing Channel Complexity and Low Velocity Habitat, and Backwater Productivity Assessment. The PO is proposing an addendum to the FY2020 AWP that summarizes changes to SOWs due to COVID but will seek input from the CC during their 4 November 2020 meeting to see how they would like to see this addressed.

Continuing Resolution and FY2021 funding update – McKinstry

The current Continuing Resolution that expires 11 December 2020 does not include funding for the Recovery Programs and in legislation that has passed the House, there is no funding for the Programs from WAPA. Funding the Recovery Programs in 2021 will require a revision to the legislation to identify a funding source. Each office/agency will need to make an assessment on the work they can do in FY2021 given the current funding situation. Hopefully leftover 2020 funds will carry PIs into the first part of 2021 until there is a resolution to this issue.

Update on post-2023 planning and I&E update – Mata

Mata detailed the regular meetings of a group dedicated to identifying and securing funding for the Recovery Programs post-2023. Because of the COVID-19 pandemic, funding from the States is limited and the group is discussing other possible sources of funding but has made little progress to-date. This will likely delay the Report to Congress about the Recovery Program's progress and future.

Mata mentioned that she's still pursuing a short I&E film to highlight the SJRIP given the lack of public outreach during the COVID-19 pandemic. This effort will be discussed further at the 4 November CC meeting. Additional input will be solicited from the BC and CC as details become clearer.

Invitation to participate in the San Juan Watershed Plan – Alyssa Richmond

The San Juan Watershed Group (SJWG) is a collaboration among citizens and local agencies working to protect and restore water quality in the San Juan River watershed. The group conducts water quality sampling to identify impairments and implements projects to reduce bacteria and nutrient levels to acceptable standards. Lamarra highlighted that the SJWG and

SJRIP may have different ideas about restoration in the San Juan River so coordination would be good to ensure activities are mutually beneficial. BIA has water quality data that Westfall will look into sharing with SJWG. He will also share KB's GIS website. Zeigler and the PO will look to provide fish health data from NMGF and FWS, respectively. The SJRIP can provide further input to Richmond at:

alyssa.richmond@sanjuanswcd.com; 505-234-6040 Ext 3

Recap discussion points and assigned action items

The PO will explore options for hatchery enrichment across facilities used by the SJRIP.

The BC will provide comments on the diversion prioritization to Gilbert by 20 November 2020 and the small group will conduct an evaluation of structure in the San Juan River Basin for discussion at the BC's December meeting.

Miller and Zeigler will summarize the worksheets as a next step to finalize the habitat workshop.

BIOLOGY COMMITTEE ACTION ITEM LOG (Updated November 5, 2020)						
Item No. *	Action Item	Meeting/Origin	Responsible Party(s)	Due Date	Revised Due Date	Date Completed
1	Provide RBS/CPM stocking/capture/recapture data		PIs to PO	Before Jan. 1		
2	Provide Preliminary Draft Report Presentations		PI	At Feb. meeting		
3	Review LRP		BC	At fall meeting		
4	Review Peer Review Comments from the February and May meetings		BC	At fall meeting		
5	Provide Draft Reports		PIs to PO	By end of March		
6	Scopes of Work		PIs to PO	By end of March		
7	Provide Final Reports		PIs to PO	By end of June		
8	Annual Data Delivery		PIs to PO	By June 30		
9	T&E Species Data		BC to PO	By Dec. 31		
10	Compile T&E data and Program progress into summary to address overall Program recovery goals/objectives for presentation		PO/BC	At May meeting		
11	Distribute consolidated data and list of annual data collected and available in the Program's database		PO to BC	By Jan. 31		
12	Recapture analysis on PIT tagged fish		Durst	By March		

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13	Coordinate CPM stocking closely with BOR to avoid negative impact due to high flows/releases		PIs	Annually		
14	Revise RBS Augmentation Goals (based on the outcome of experimental stocking and analysis by Franssen and Durst). What is the appropriate numbers of fish to stock?	5/10/10	NMFWCO/PO	05/2011 – provide update and extend as needed	Ongoing	
15	Pursue effects study on Hg/Colorado Pikeminnow with other groups/programs	1/14/10	PO lead		Ongoing	
16	Include benchmarks for recovery in LRP (amended to also included in Pathways document and monitoring protocols)	12/5/14	Mata	01/5/2015	Ongoing	
17	Status updates for the LRP	12/2/15	PIs to Mata	02/23/2016	Ongoing	
18	Make Program peer-reviewed publications available to Program participants	11/29/16	PO (Mata)	02/21/2017	Ongoing	
19	Disposition of Razorback <300 mm TL	02/21/17	NMFWCO	05/16/2017	Ongoing	11/28/2017 TBD 2019
20	Draft a plan for Colorado Pikeminnow stockings	02/21/17	PO, NMFWCO, and NMDGF	02/21/2017	Ongoing	
21	Coordinate aerial flights for base flow imaging	11/28/17	BC (Lamarra)/PO (Franssen)	Fall	Ongoing	

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22	Rank entrainment risks for diversions included in the Diversion Study	02/019/2020	PO	Ongoing		
23	Coordinate with Upper Colorado Program on enhancing CPM broodstock	02/019/2020	PO	Ongoing		
24	Planning document for Colorado Pikeminnow rearing at NAPI	5/12/2020	NMFWCO and PO	None given		
25	Explore options for hatchery enrichment across facilities used by the SJRIP	10/29/20	PO	None given		
26	Provide comments on the diversion prioritization approach	10/29/20	BC to Gilbert	11/20/20		
27	Summarize the worksheets as a next step to finalize the habitat workshop	10/29/20	Miller and Zeigler	12/15/20		
28	Finalize the trap and transport SOW	8/20/2020	Pilger, Durst, Gilbert	None given		8/24/2020
29	Memo to CC recommending trap and transport options	8/20/2020	Zeigler, BC	None given		9/23/2020
30	Demographic monitoring PIs send memo to CC if revising the SOW effort	8/20/2020	PIs	9/14/2020		10/23/2020
31	Schedule a BC calls for October for focused discussion and another longer meeting after Thanksgiving	8/20/2020	PO	None given		10/29/2020
32	Update long-range plan to reflect change in Colorado Pikeminnow stocking	5/12/2020	PO	6/30/2020	Prior to Oct mtg	10/29/2020
33	Write a path forward paragraph for habitat workshop summary and send to BC for review	7/14/2020	Zeigler and Miller	None given	9/14/2020	10/29/2020

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Item No. *	Action Item	Meeting/Origination	Responsible Party(s)	Due Date	Revised Due Date	Date Completed
34	Send the final Razorback Sucker augmentation plan to PO and then BC	7/14/2020	Davenport	None given	End of Aug	10/29/2020

Yellow highlight indicates annual action items
 Green highlight indicates new action item
 Red highlight indicates completed action items