



**SAN JUAN RIVER BASIN RECOVERY
IMPLEMENTATION PROGRAM (SJRIP)
BIOLOGY COMMITTEE (BC)
9 May 2023
MEETING SUMMARY**

Biology Committee (BC) Members	Representing
Sage Dunn	Bureau of Land Management
David Speas	Bureau of Reclamation
Jacob Mazzone	Jicarilla Apache Nation
Vincent Lamarra	Navajo Nation
William Miller	Southern Ute Indian Tribe
Harry Crockett (Chair)	State of Colorado
Matthew Zeigler	State of New Mexico
Sarah Seegert	State of Utah
AJ Keith	The Nature Conservancy
Brian Westfall	U.S. Bureau of Indian Affairs
Benjamin Schleicher	U.S. Fish and Wildlife Service
Stephen Davenport	U.S. Fish and Wildlife Service
Absent	Ute Mountain Ute Tribe
Tom Chart	Water Development Interests

Program Office (PO):	Representing
Melissa Mata, Program Coordinator	U.S. Fish and Wildlife Service
Eliza Gilbert, Assistant Program Coordinator	U.S. Fish and Wildlife Service
Scott Durst, Science Coordinator	U.S. Fish and Wildlife Service
Raphaella Ware, Program Biologist	U.S. Fish and Wildlife Service

Other Interested Parties:	Representing:
Cameron Corley	Arizona Public Service
Mike Farrington	American Southwest Ichthyological Researchers
Stephani Clark Barkalow	American Southwest Ichthyological Researchers
Steve Platania	American Southwest Ichthyological Researchers
John Cleveland	Kansas State University
Sophia Bonjour	Kansas State University
Sanskriti Shrestha	Keller Bliesner Engineering
Dan Lamarra, BC alternate	Navajo Nation
Jerrod Bowman	Navajo Nation
Mel Warren	Peer Reviewer
Ben Zimmerman, BC Alternate	Southern Ute Indian Tribe
Jon Broholm	Southern Ute Indian Tribe
Kara Scheel, CC Alternate	State of Colorado
Adam Barkalow, BC Alternate	State of New Mexico
Christina Noftsker	State of New Mexico

Other Interested Parties:	Representing:
Jill Wick, BC alternate	State of New Mexico
Colleen Cunningham, CC member	State of New Mexico
Katie Creighton, BC Alternate	State of Utah
Joseph Trungale, CC member	The Nature Conservancy
Chris Kitcheyan, CC member	Bureau of Indian Affairs
Kathleen Callister	Bureau of Reclamation
Lee Traynham, CC Member	Bureau of Reclamation
Susan Behery	Bureau of Reclamation
Diego Araujo	U.S. Fish and Wildlife Service
Kin-Lan Han	U.S. Fish and Wildlife Service
Melody Saltzgeber	U.S. Fish and Wildlife Service
Nate Caswell	U.S. Fish and Wildlife Service
Nathan Franssen	U.S. Fish and Wildlife Service
Jason Davis, CC member	U.S. Fish and Wildlife Service
Tracy Diver, BC alternate	U.S. Fish and Wildlife Service
Wade Wilson	U.S. Fish and Wildlife Service
Jamin Wieringa	U.S. Fish and Wildlife Service
Melissa Trammel	National Park Service
Casey Pennock	Utah State University
Carrie Padgett, BC alternate	Water Development Interests

Tuesday 9 May 2023

Introductions and changes to agenda

Westfall requested to briefly discuss Fruitland gage. Zeigler requested an update on nonnative stocking procedures from PO and why stocking and PIT tag information from NAPI were not in STReaMs. Chart requested an update on Bluff Habitat project. All were added to the agenda.

Approve draft summary from 21-23 February 2023 BC meeting; review Action Item list – Franssen

Franssen reported that Zeigler, Barkalow, Chart, and Miller provided some comments and those were incorporated. Miller motioned to approve the summary; Chart seconded. No further discussion, summary was approved.

Action Items from 21-23 February 2023 BC meeting

1. Mata will investigate the Biology Committee's oversight of Four Corners Power Plant mitigation funds. *On this meeting's agenda.*
2. Gilbert will prepare a SOW for 30% designs by TSC for passage ideas at the waterfall. Capital funds will be used so don't need to follow the Annual Workplan process. *On this meeting's agenda.*
3. The Program Office will send out the original NAPI flow-conditioning SOW to the BC. Two weeks for review. *Completed.*
4. BOR and the Service will develop a SOW to obtain 30% designs for improvements at PNM weir. *On this meeting's agenda.*

Consider nomination of Sage Dunn as BLM's BC representative (vote) – PO

Crockett asked if any BC member was opposed to Dunn's nomination, none were opposed. Dunn's nomination was approved.

Update on nonnative stocking procedures - Mata

Mata mentioned that nonnative stocking with Navajo Nation has been discussed as an option in the Cooperative Agreement and the State of Utah has some concerns that are being considered. Mata explained that the next step is pulling New Mexico and Colorado States into the discussion and to make a few more revisions to the Cooperative Agreement to make acceptable to all parties. There will be a call update in roughly 3 weeks to address changes.

Status of PIT tagged fish in STReaMs database – Durst

Durst explained there was an issue with the data collection at Navajo Nation and is waiting to receive an update. Once the PO has the data, it will be uploaded to STReaMs. Mata will follow up with Navajo Nation on the status of this request.

Fruitland Gage - Westfall

Maurice Upshaw with Navajo Nation informed Westfall that Fruitland gage has failed and needs replacement. Although Navajo Nation could cover the funds, it would take at least a year. Behery mentioned that she relies on this equipment to determine if more water needs to be released to maintain baseflows, and that its most important during summer when flows are extremely low. Westfall also uses the information gathered from this equipment. Westfall estimated approximately \$5,000-\$8,000 and asked if the PO could financially provide this. Miller asked if the funding could be covered by Capital Funds. Mata will explore financial options and mentioned the PO will likely need a Scope of Work (SOW) and utilize a contractor which may take some time. Westfall will check with Upshaw on specific equipment and financial needs and will coordinate with PO.

Bluff Habitat – Chart

Chart mentioned that in their review of the Bluff Wetland proposal, Reclamation engineers commented that as written the scope of work does not meet their criteria of producing a "30% design" but does cover information needs for a concept design. He asked if the proposal sent to the CC had been modified to recognize that distinction. Mata stated no revision were made prior to sending the CC consideration and it will be discussed tomorrow at the CC meeting. Mata will be clear that this scope of work for the Bluff Wetland project is to achieve conceptual designs.

Discuss draft FY2024 Annual Work Plan (SOW numbers and titles in Appendix) – BC

Crockett mentioned the SJRIP received eight new scopes of work (SOW) submitted and the BC, Peer Reviewer, and PO provided extensive comments on both new and ongoing SOWs. Crockett stated that there was not enough funding to support all submitted SOWs but there was approximately \$400,000 available to fund new SOWs if all ongoing SOWs were funded. Crockett suggested BC should rank the new SOWs based on what they would like to recommend for the CC consideration. Durst mentioned, most new scopes of work generally supported, except New 1, New 2, and New 7 which had more skeptical comments that should be addressed.

Crockett directed the conversation to start with new scopes of work that seemed to have consensus support. V. Lamarra commented that he saw validity in the three new scopes of work that focused on sampling fish below the waterfall (New 3, New 5, and New 8) where the SJRIP does not have much information. V. Lamarra emphasized the importance in the ability to quantify the loss of larval fish from the river system. Chart asked if V. Lamarra wanted larval fish collection to be included in these proposed scopes of work, to which he responded that he included that feedback specifically with New 8 since ASIR is already focusing on the larval life stage. V Lamarra concluded that his modeling indicated that to recover the fish, the river and Lake Powell need to reconnect. Platania pointed out that he had submitted a proposal several years ago (but withdrew it), trying to find the best way to answer the question of drift. He mentioned that drift netting is labor intensive and would be expensive (~\$200,000). Ultimately, Platania stated that there were many questions regarding the methodology, logistics, and whether the information sought would be generated within a year; and ASIR withdrew the proposal because they had not found an ideal way to implement this kind of project. Miller asked Platania if they could implement the project with bead-surrogates and if they could calculate travel time and percentage of loss. Miller suggested that the proposal focus on the volume of hydrology, and instead of a date that can be impacted by unpredicted weather, the project would be based on the hydrograph. Chart asked if an existing dataset could be used to help quantify larval accumulation below the waterfall. Platania responded that a challenge is determining if the accumulation of larvae below the waterfall is due to drift or were they spawned there, however, Farrington mentioned that the genetics projects could help distinguish that. ASIR will put together another scope of work addressing the quantification of larval drift for another fiscal year and discussions with the BC regarding methodology, logistics, and other details will continue.

Trammell asked why quantifying larval drift is an essential effort, given that our management action of translocating back up the waterfall would stay the same. V. Lamarra pointed out that by quantifying larval drift, we could better understand the retention potential of the river and possibly determine if the bottleneck is from a lack of progeny or lack of available habitat at the right time; the data suggests we have good habitat, but that is not reflected in fish production/captures above the waterfall. Miller added that this information could also indicate the necessary volume needed to have a self-sustaining population and if there is a problem with the effort of moving enough fish to meet that number.

Miller then asked if Principal Investigators (PIs) could blend their three proposals and avoid overlap of location and life stage. Davenport reiterated the importance of identifying distinct untagged cohort of fish. Schleicher stated that the level of recruitment in wild fish below the waterfall indicates a need to focus projects in that area. Schleicher said he envisioned this being a 2–3-year project to collect and then evaluate whether the data encourages more work below the waterfall, and afterward, compartmentalizing between lake and river studies, given the major fluctuations of hydrology that changes habitat dynamic. Westfall asked how practical it is for the PIs to blend their scopes of work. Schleicher responded that the PIs discussed how they could blend projects, but none of them felt comfortable with what their end-product would be if they were to do so. Miller suggested if the PIs divided their focus on life stage, they could produce an individual report and a synthesis report on how they all tie together. PIs agreed to coordinate with PO on whether collaboration is feasible, including logistical support.

Zeigler stated he was not in favor of New 5 or New 8 because they focus on monitoring and not management actions. He continued that larval monitoring below the waterfall has been conducted and further monitoring is not necessary to continue to translocate fish and help towards recovery. Speas

retorted that although the inflow work could be viewed as more monitoring, it could reveal possible recovery options that have not been considered yet. Chart asked if there is something provided below the waterfall that is critically important and utilized that has not been recognized; whether early life stages below the waterfall indicate that the lower river is providing something the upper river is not, and if the lower river habitat is more important than previously considered.

Keith said he would like to see a blended scope of work that addressed recommendations and management implications, including what is the amount of larval drift, how many larvae are leaving the river and entering Lake Powell relative to those spawned. Understanding this can enlighten us on the habitat situation of the river, including how to make it “more sticky” and how important passage is for the fish. Farrington said larvae being below the waterfall implies they are susceptible to drift and that there is good habitat down there because the river is slower and there is often more water connection. Miller pointed out that historically razorback sucker seemed to be a lower basin stronghold that were found sporadically throughout the upper basin, and asked if we currently have the upper habitats they need, can we create them, and should we create them in Lake Powell? He emphasized a need for a realistic understanding of what the system can support. Trammel, Keith, Seegert, and Speas agreed that a refined understanding of where and when larvae are produced, and the proportion found in Lake Powell is worth pursuing.

Seegert mentioned understanding early life stage use and recruitment below the waterfall and how that changes with lake water levels would also be important to pursue. Schleicher asked about increased accessibility to Piute Canyon. Trammel discussed this with the National Park Service (NPS) a few years ago but had just missed the window for an Environmental Assessment on backcountry roads. NPS did not want to reopen right away, but Trammel said she would follow up. Currently only two boat ramps are open: Wahweap and Bullfrog.

Miller vocalized his support for New 4 and acknowledged its logistical issues. He said there can be a lot to gain from collecting data without having to handle every fish (repeatedly). A. Barkalow said with this technology there were fewer detections at higher flows, but good number of detections at 300 cubic feet per second (cfs). A. Barkalow acknowledged the challenges of using Colorado pikeminnow in this study but stated that there is good adult monitoring in the upper river, and this should give a clearer idea of untagged adult Colorado pikeminnow. Additionally, last year and in future years PIT tagged young fish are being stocked. A. Barkalow concluded that Colorado pikeminnow are difficult to handle and can suffer from electrofishing and this project is a valuable way to answer questions about the species and avoid some potential harm. Data would be collected digitally in two places, the master recording software log and BioMark. Durst mentioned some challenges with digital data collection – internal duplicates, lost data, misread information, etc.

Chart recognized the value of New 6 and how it is related to baseflows, however, he suggested to focus further downstream to account for larval drift. Farrington pointed out that these are a list of candidate sites. Platania added that NM Interstate Stream Commission (NMISC) specifically wanted to see some upper stream sites as this project would be addressing diverse interests. Westfall asked if there was a strategy for water being shepherded downstream given the opportunities for diversions. Mata responded that timing is strategized and Noftsker added that diversions have gages and NMISC will be on alert when there are releases. Miller added this is a good opportunity to track water, even with the risk of diverters. This will also assist in describing persistence or increase and decrease of habitat.

There was acknowledged overlap between New 6 and New 2. V. Lamarra had discussed with TNC and announced that he is amenable to a combined scope of work and conceding implementation to TNC if data on when and where fish are related to flow levels and habitat availability are collected or can be extrapolated from TNC and ASIR dataset. Miller and V. Lamarra agreed that determining if a habitat is unoccupied because it is not useful, or because it is undersaturated is an important distinction. Crockett brought up McKinstry having mentioned utilizing multiple flights at different flows to gather information on habitat and fish needs at various flow levels temporally. Miller said there is a difference between distributional range of where habitats occur and where the fish are present. V. Lamarra pointed out that efforts are constantly restricted to the main channel and not sampling smaller secondary channels in higher flows and suggested looking at transient habitats. Miller asked if V. Lamarra was willing to forego fall monitoring to financially be able to achieve this scope of work, he said yes and that he would rather fly the river closer to Colorado pikeminnow spawning than in late fall. V. Lamarra explained that the mapping this scope of work proposes would allow samples found in various habitats to be extrapolated to the entire river, which can direct focus towards which areas need to be sampled. Overall, the BC seemed supportive of combining New 2 and New 6.

As the BC continued to discuss new scopes of work Mazzone and Seegert directly opposed New 1. Miller mentioned originally being supportive, but hesitant due to concerns of the unsettled determination of whether catfish are a big problem and what regulatory hurdles would need to be overcome to implement this kind of project. Ziegler retorted that the BC has been undecided to dismiss channel catfish as a concern, and although there have been regulatory hurdles, they have been overcome in instances with brook trout and (likely) brown trout. Speas added that YY technology related to stocking more predators (albeit YY) is still controversial and won't be resolved until more programs try it. Trammel vocalized her support. Mazzone and Seegert expressed concerns with applying this type of project to such a large water system, how much stocking of a predatory fish would be necessary to have an impact and pointed out that this has only been successful in small creeks, in small populations, while utilizing mechanical removal. Chart expressed that this project is lower in his prioritization when considering all the new scopes, and believes the bottleneck is related to habitat issues. Schleicher acknowledged this scope of work as a novel idea that has the potential for success, but added concerns about stocking a predatory fish, adding to an already existing problem, while simultaneously stocking our endangered fish. This would require a huge commitment, and Schleicher said that the BC has struggled with the ability to commit to long-term management actions. Diver mentioned an additional method of utilizing feminized YY channel catfish to spawn with wild males to produce in-stream production of male YY channel catfish to increase the rate of population declines without needing nonnative removal efforts. Warren noted that removal efforts have not been successful enough to have a significant impact, and that maybe YY could. Speas noted that nonnative fish is a global problem and thinks biological effects are the only way to successfully manage them. Speas also suggested both Recovery Programs collaborate and divert a small amount of funds toward biocontrol research for long-range solutions. V. Lamarra voiced his support for this project, noting that the BC should take advantage of the opportunity that biocontrol technology allows. Franssen and Davenport requested to see the model, Ziegler agreed to share it. Ziegler also mentioned methods to speed up the process, such as utilizing mechanical removal, stocking YY males, and stocking feminized YY channel catfish.

New 7 had a lot of conditional support and comments from most of the BC, however Mazzone and Schleicher clearly stated that they did not support this scope of work. Schleicher mentioned that SDM requires two variables, a high level of uncertainty and a high level of control, he said that although the river system has a high level of uncertainty it does not have an ability to apply a high level of

control. Westfall mentioned he had the same concerns as Schleicher. Mazzone stated that the BC is missing expertise in habitat work, large-scale management activities, and a project manager representing Navajo Nation. He emphasized that these are the components and players necessary to build on-the-ground projects. Ziegler supported this project and said SDM could help focus the SJRIP and direct it away from monitoring and towards management actions. Chart recognized that SDM could direct high priority questions and could help guide habitat projects. Gilbert mentioned Charles Yackulic has worked with Middle Rio Grande and has a lot of experience working with similar groups as the BC. He and Mike Runge bring modeling data and on-the-ground experience with indecisive groups. Lacking decisions and management actions in a timely fashion towards recovering the fish has been acknowledged throughout the group. Speas and Mata mentioned that stakeholders buying into the SDM process is a condition of SDM, the CC and BC would need to trust the process. Franssen and Miller stated that has always been a challenge for the BC.

TNC habitat project planning – Trungale

Trungale from TNC provided the BC with an informational update about helping to develop applications for one of two Reclamation grants through their Water Smart program (Aquatic Ecosystem Restoration Program and Environmental Water Resources Project). Each grant could cover planning or construction and the difference is that one grant opportunity is focused on single location while the other grant is better for a selection of a suite of habitat projects.

FY2023 and FY2024 funding update – Traynham

Traynham provided the BC with a funding update and if the U.S. President's budget was passed the SJRIP would receive a little less than \$3.5 million which is not the full \$4.2 million that was recommend for the SJRIP post-2023. Mata mentioned that the SJRIP's Cooperative Agreements were set to expire in fiscal year 2023 but are being extended.

Process for spending Four Corners Power Plant mitigation funds – Mata

Mata and Franssen discussed the Biological Opinion and Reasonable and Prudent Measure (RPM) associated with funding and the implementation of the recovery program. U.S. Fish and Wildlife Service (Service) is the authority for implementation associated with compliance needs, so Section 7 funds will be administered by the Service not SJRIP.

FY23 Navajo Reservoir operations – Behery

Behery provided an update on Navajo Reservoir operations and said there was enough water for a spring peak release of the full 21-days at 5,000 cfs. The release may begin around May 15th with 5,000 cfs released around May 25th and there would be a 10-day ramp down. Based on Animas River hydrology the San Juan at Farmington may be flowing at 10,000 cfs in late May. Behery stated the Animas seemed high enough that flow goals can be met, and that its percentage average would be far above previous years. NMISC is talking with their leadership as to whether this would change water release from Jicarilla.

Project presentation for FY22 habitat monitoring – D. Lamarra

Distortion issues from the past have been resolved throughout this gathering of data. The average cfs at Four Corners was 930. Sediment that was getting flushed down the canyon is building up and

created islands, which in turn creates side-channels. This increase in islands has created the most low-velocity habitat observed in the canyon since the 1990s. However, too much sand can plug up lateral washes, and is something to be wary of as river conditions change. Sediment seemed to be driving the formation of three large secondary channels in the upper river, along with large sand and cobble bars, and islands in the upper canyon. V. Lamarra mentioned that maintaining 5,000 cfs flow past the allotted 21 days could help push the sediment to Lake Powell. Chart asked if there was an interest in gathering aerial imagery at the forecasted high flow this year. Keith supported the idea of flying imagery during the spring peak but cautioned before devoting scarce SJRIP funds.

30% design on fish passage at Piute Farms waterfall from Technical Service Center and 30% design for improvements at PNM weir and fish passage – Gilbert

The SJRIP Program Office met with Lee Traynham on 28 April to determine the best way to proceed with development of 30% design on fish passage at Piute Farms waterfall from Reclamation’s Technical Service Center (TSC) and designs to improve fish passage at the PNM weir. Traynham will contact TSC to determine their availability and request development of the designs with priority given to development of designs for the Piute Farms waterfall. They also discussed that TSC design development should include input from Reclamation’s Grand Junction construction office, Service’s Passage engineering office, and support from the SJRIP’s Program Office. The next step is to obtain agreement to participate in this planning from TSC and development of a written scope of work.

New Mexico Office of Natural Resources Trustee funding of proposed projects of potential interest to SJRIP – Gilbert

The San Juan Soil and Water Conservation District (SWCD) contacted the SJRIP Program Office for support in writing their application for New Mexico Office of Natural Resources Trustee (ONRT) 2015 Gold King Mine spill mitigation funds. The SWCD application included upgrades to diversion inlet infrastructure at five ditches (Jewett, Farmer’s Mutual on the San Juan and Animas, North Farmington, and Halford) through installation of automated radial gates. These radial gates are designed to take a few inches of water from the surface and automation provides a method to respond to changes in the river’s stage. Use of these radial gates should reduce fish entrainment. The SJRIP Program Office provided a letter of support, assisted SWCD with development of the application, and provided supporting SJRIP documents (Long-range Plan and the 2021 “San Juan River Basin Recovery Implementation Program prioritization of diversions for fish passage and entrainment evaluation”). The SJRIP Program Office also supported the applicant in responding to ONRT’s request for additional information once the application had been reviewed. The SWCD was a finalist for funding and currently ONRT is receiving public input on their projects they selected for funding.

Facilitated passage at Piute Farms waterfall – Schleicher

Grand Junction Fish and Wildlife Conservation Office, New Mexico Fish and Wildlife Conservation Office (NMFWCO), and Utah Division of Wildlife Resources sampled below the waterfall March 15 through March 31 using the Reclamation electrofishing cataraft. Fish capture totals were 11 Flannelmouth Suckers, 4 Flannelmouth by Razorback Sucker hybrids, and 33 Razorback Suckers. One Razorback Sucker was recaptured after being transported above the waterfall. Only a single untagged Razorback Sucker was captured this year. Both male and female Razorback Suckers were captured, however only the males were running ripe. Flows were consistently higher than anticipated and water temperature was lower than anticipated.

APS fish passage – Franssen

A meeting was held April 25, 2023, among Reclamation, APS, and Service to discuss the recommended fish passage design at the APS weir. The group reviewed the original pros and cons of each alternative and the BC's rationale for choosing the 'center' of the river option over potential passage designs on river right. APS had some concerns about sedimentation issues and hydraulic changes that could occur with the fish passage being constructed in the center of the weir. However, they voiced support for continuing with the design and requested that sedimentation and hydraulics be modeled to better inform potential effects to APS's pumping. Reclamation will continue with initiating the 30% designs for the Recommended Alternative with the suggested modeling. After completed, Reclamation's design team, APS, and the SJRIP will follow up to identify appropriate design criteria.

Operations at PNM fish passage – Bowman

Passage had both trap screens removed on February 27th with the assistance of Service, FWCO and Program Office. Jake Cryer from Biomark arrived on the 28th of February and assisted with the setup and operational procedure of the new Oxygen Infuser System. The flow through system went into operation on the 28th of February and is set for a 4-days on with Oxygen and 4-days off schedule.

March 3rd installation of HOBO data loggers were installed at three locations: inlet screen, inside trap and at antenna just outside of fish trap. There still is daily cleaning of the inlet screen and pump monitoring this is conducted by NMFWCO Remote Biologist or Navajo Nation Team. During off days complete cleaning is conducted of the inlet screen, water canon blasting and trap cleaning to minimize sediment build-up. On April 13th NMFWCO Remote Biologist downloaded the HOBO data loggers for evaluation on infuser efficiency. On May 1st the decision to relocate the inlet suction hose was made to reduce or eliminate sediment intake into the system. This minor relocation has allowed for minimal sediment to be introduced into the infuser system and no alarms have been set since.

As of May 2nd, a total of 595 fish have passed through the Passage and of that, 18-Colorado pikeminnow and 452-Razorback sucker have successfully passed through the system.

Razorback sucker flow conditioning facility at NAPI – Bowman/Cole

There will be a proposal submitted for funding design, but as of now there has been no activity to move forward with the project.

Outreach Scope of Work – Mata

Mata had proposed a short film in 2020 and at that time the CC asked what story would be told. Since that time the Service paid for Freshwater Illustrated to obtain some imagery and help design a "storyboard." During this time, the Service contracted with this company to produce other films. Mata was able to join the contract and use unspent salary to produce a SJRP film. This means no separate funds to support this film will be requested from SJRIP. However, as the film is produced there will be full coordination with BC and CC. The plan is to focus on tribal coordination and benefits of the SJRIP. The result will be an ~ 45-minute film and a few 1–2-minute films that can be used for social media and outreach events.

Next BC meetings and meeting venues

Next BC meeting will be 18 July 2023. This will be held virtually.

Action Items from 9 May 2023 Biological Committee Meeting

1. Update Sage Dunn on BC roster – Ware will do. *Completed.*
2. PO will prompt BC members to rank new scopes via email and include whether they would replace any of the existing scopes with the new ones. *Completed.*
3. Find out from NPS if getting access from Piute Canyon is possible location for a takeout (where it currently is non-existent). Trammell will follow up.
4. PIs will discuss amongst themselves and PO on whether collaboration is truly feasible, even just logistically for scopes of work New 3, New 5, and New 8.
5. Platania/ASIR will put together, for another year, a scope of work to quantify larvae that drift below the waterfall that can be further discussed with the BC.
6. Brian Westfall will check with Maurice Upshaw on specific equipment that will need to be updated and will coordinate with PO.
7. Mata will follow up with Navajo Nation on the status of dataset that is missing from STReaMs.

Appendix: Scopes of Work

SOW	Title	Responsible Party
7	Rearing endangered fish at the Horsethief Canyon Native Fish Facility Ponds	GJFWCO
11	Razorback Sucker Augmentation at NAPI Grow-Out Ponds	NN, NMFWCO
12	SJRIP PIT TAGS and EQUIPMENT	BOR
53	Experimental CPM Stocking (yr 2 of 6)	NMFWCO, SNARRC
9 & 10	Colorado Pikeminnow Production and Razorback Sucker Rearing at Southwestern ARRC	SNARRC
13	San Juan River Basin Hydrology Model Operation and Maintenance	BOR
14	Improve Stream Gaging and Flow Measurements	BOR
15	Operation of Public Service Company of New Mexico Fish Passage Structure	NN
16	SJRIP San Juan and Animas Rivers Temperature Gauges	BOR
C-1	Capital Projects Management	BOR
51	Data synthesis to inform nonnative fish management in the San Juan (yr 2 of 3)	OSU, USU
52	Evaluating temporal and spatial spawning patterns of Channel Catfish to provide alternatives for nonnative fish control in the San Juan River (yr 2 of 2)	KSU, NMFWCO, ASIR
2	Molecular Techniques to Determine Effective Number of Breeders (Nb) for Razorback Sucker and Colorado Pikeminnow in the San Juan River	SNARRC
18	Development of a Centralized PIT Tag Database for the SJRIP	CSU
19	Sub-adult and adult large-bodied fish community monitoring	GJFWCO
20	Small-bodied Fishes Monitoring in the San Juan River	NMDGF
21	San Juan River Larval Razorback Sucker and Colorado Pikeminnow Monitoring	ASIR
21a	Larval Endangered Fish Monitoring RM 180.6 – 168.4	ASIR
22	MSB Curation of Colorado River Basin Larval Fish Collections and Digital Files	UNM
25	San Juan River Annual Habitat Monitoring	RFP
32	SJRIP O&M of Existing PIT Tag Antennas	BOR
41a	Facilitated passage of Razorback Sucker over the Piute Farms Waterfall	GJFWCO, UDWR, NMFWCO
41b	Estimating reproductive contribution of translocated Razorback Sucker	SNARRC
35	Reclamation Program Management	BOR
36	Peer Review for 2024	BOR, PO
37	San Juan River Recovery Implementation Program	NMESFO
38	Remote Biologist for San Juan River Basin Recovery Implementation Program	NMFWCO
FCPP	SJRRIP Biologist (FCPP/NMEP)	NMESFO
39	SJRIP Communication and Public Involvement Plan	NMESFO

New-1	Implementation of the Trojan Sex Chromosome Approach in the San Juan River: Investigation and Validation of Feminization Methods for Channel Catfish	UA, NMDGF, NMFWCO
New-2	Spatial Distribution and Persistence of Low Velocity Habitats Utilized by Colorado Pikeminnow and Razorback Sucker in the San Juan River	ERI, MEC Inc
New-3	Early Life History of and Potential Spawning Areas for Endangered Fishes in the San Juan River – Lake Powell Inflow Area	OSU
New-4	Using mobile PIT tag antennas to evaluate movement, passage, population demographics, and aggregations of Colorado Pikeminnow and Razorback Sucker	NMDGF, ASIR
New-5	Recruitment Monitoring of Razorback Sucker and Colorado Pikeminnow in San Juan Arm of Lake Powell	GHFWCO, NMFWCO
New-6	Assessment of Jicarilla Apache Nation Supplemental Flows	NMISC, TNC, ASIR
New-7	Adaptive management plan development to increase efficiency of native fish recovery action implementation (yr 1 of 3)	NMSU
New-8	Endangered Larval Fish Monitoring Downstream of the Piute Waterfall	ASIR