PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP or Program)
Technical Advisory Committee (TAC) Webinar Minutes
Thursday, April 30, 2020

Technical Advisory Committee (TAC)

Bureau of Reclamation (BOR)
Brock Merrill – Member (2020 TAC Chair)

U.S. Fish and Wildlife Service (Service)
Matt Rabbe – Member
Jeff Runge – Alternate
Tom Econopouly - Alternate

State of Colorado
Jojo La – Member

State of Wyoming
Barry Lawrence – Member
Jeremy Manley – Alternate

State of Nebraska
Carol Flaute – Member

Environmental Entities
Rich Walters – Member
Andrew Pierson – Alternate

Upper Platte Water Users
N/A

Colorado Water Users
Jason Marks – Member

Downstream Water Users
Brandi Flyr – Member
Jim Jenniges – Member
Dave Zorn – Member

Participants
Mike Drain – CNPPID
Andrew Caven – Trust
Elizabeth Esseks – Nebraska DNR
Dan Sternkopf – Nebraska DNR
Michelle Koch – NGPC
Melissa Marinovich – NGPC
Joel Jorgensen – NGPC

Executive Director's Office (EDO)
Jason Farnsworth
Chad Smith
Patrick Farrell
Kevin Werbylo
Tom Smrdel

Welcome and Administrative

Merrill called the meeting to order at 1:03 PM Central Time and the group proceeded with introductions. No agenda modifications.

TAC DECISION – *Walters moved and Zorn seconded to approve the February 24, 2020 TAC Meeting minutes as amended.* Minutes approved.

PRRIP AMP – New Learning

Smith summarized the rationale to have a formalized process to address new learning relevant to the Program. He emphasized assessing new learning against the structure/conclusions of the current Adaptive Management Plan (AMP) and the revised AMP for the Extension is important for communicating findings to Program participants. This includes the conceptual ecological models (CEMs), Big Questions (BQs), priority hypotheses, and AMP management objectives.

The group proceeded with an in-depth discussion. Discussion highlights:

- Discussed standardized development of EDO technical or science policy briefs to address new information and have TAC assess the EDO's response to new learning related to the Program and what further actions should be taken. A technical brief example was presented to address new learning from Alexander et al. paper.
- Drain – Agreed with approach, suggests communicating this process/thinking to GC in next meeting.
- La – To add value, decisions are science oriented, but policy also drives actions so input from GC on how process occurs would be helpful. Does this affect something decided/negotiated by the GC?

Alexander et al. paper

Farnsworth provided background and context for Program work and the Alexander et al. paper:

- Related article back to First Increment BQ #1 in original AMP. Described Flow #1, flows of 5,000-8,000 cfs for three days (short-duration high flows or SDHF) will create tern and plover suitable nesting habitat on-channel. Presented and described BQ #1 including the development and peer-review of tern and plover synthesis chapters. Conclusion of BQ #1 was "two-thumbs down".
- Presented to current state of the AMP update CEM. Model specifically splits on and off-channel nesting habitat, but future Program emphasis will be creation and management of off-channel habitat.
- Program developed a sandbar-habitat model (assuming constant bar-height), coupled with tern and plover nesting data, to predict success of on-channel nesting in the Platte River.
- Described two parts of discussion section recommending management actions are related to Program decisions/management.
- Alexander et al. bar-height model improvement over constant bar-height model Program used.
- Suggests caution using mean bar-height to assess bird nest inundation.
- Presented plot of height above stage of mean annual discharge and peak discharge from Alexander et al. 2020, with PRRIP constant depositional gap relationship overlaid.
- Described rational for looking at lower Platte River for Program purpose. Due to lower Platte River being a proxy to historic central Platte River.
- Described how Alexander bar-height model relationship changes the percent of years emergent sandbar habitat is inundated described in Farnsworth et al. 2017 Found Alexander depositional gap increases percent of years ESH inundation occurs. Farnsworth further presented relationships of bar-height depositional gaps from Farnsworth et al. 2017 and Alexander et al. 2020.
- Drain – asked if this new information will be incorporated into an updated technical brief, with specific suggestions of data presentation

- Farnsworth presented table 3 from Farnsworth et al. 2017 to verify successful nesting on the lower Platte compared to predictions of nest inundation potential from Alexander et al. 2020 and Farnsworth et al. 2017 depositional gap relationships. Suggested Farnsworth relationship would over predict breeding success window and underpredict inundation potential. Alexander relation would likely under predict success. Findings supported our transition to off-channel habitat emphasis and analysis suggestions parallel that course of action.
- Runge – Reference to 15,000 cfs and creation of suitable on-channel nesting sandbar heights but not captured in the current CEM (AMP update). Farnsworth stated bar heights are essentially constant in CPR, in relation to stage, so is of less importance to present in CEM. Runge suggested linking report findings to Programs decisions or management actions. Farnsworth said the GC made decision to focus on off-channel and new learning would strengthen that decision. Runge said that both papers currently have limited application to the AMP because: 1) we do not have nesting on sandbars within the AHR, 2) there is not a clear link between findings and Program management actions; and 3) GC decided to focus on off-channel nesting habitat. However, both papers could be revisited if the above circumstances would change.
- Caven – Suggested a quarterly document of relevant new learning or a form to address if implications are Program related, in support/dispute of Program findings, and additional materials developed only if need be.
- Drain – Agreed with Caven's idea, with ideas to finalize the process up to the GC/policy level.
- Koch – Important for authors to describe/explain research directly for TAC and have EDO describe implications. Will this current memo incorporate structural elements discussed at this meeting for a technical brief? Farnsworth stated that will happen and a technical brief will do so.
- Jorgensen – Suggested authors should have access to the memo and have the ability to respond the memo findings as a courtesy and to provide basic transparency and fairness. Drain stated EDO memo implication has no implication to Alexander's research findings as currently stated. La and Flyr agree most cases providing authors opportunity to respond to Program memos is likely not necessary and very Program specific. Caven stated if most relevant research addressed quarterly, could have discourse with research authors in a limited capacity. Smith suggested presenting new learning implications at AMP reporting sessions. Also developing a process that the Program is comfortable with to address this type of new learning is highly important. Caven suggested early contact with authors to have them communicate applications to the Program may help process efficiency. Drain concurred with Caven that an efficient process and only most relevant new research be discussed/addressed. La iterated the financial implications for new learning discourse should be considered as part of the formalized process. Smith suggests talking with GC about process in June and help develop process specifics, especially for time allocation considerations. Need to understand the possibility for new assessments of original AMP due to new learning and how to address that situation if it arises. Smith further suggests beginning of process maybe to present new learning at TAC level but Drain stated we need some sort of initial thought and limited analysis before talking with group. Rabbe suggested manuscript first be presented to TAC, discuss what TAC members thinks implications are, what EDO thinks implications are and then make next step decisions, which may include development of documents, invitation to authors, etc.
- Jenniges (comments from email to TAC following meeting) – There is new information published or being obtained by the Program itself on a constant basis. If that new information is directly applicable to hypothesis or Program management actions, then it should be brought to the attention of the TAC either by the EDO or a TAC member. Regardless of who brings it, they can do so with their interpretation of what it says, or they can just bring it as an FYI and why they think it is relevant. I also think we should all remember we do not have to agree with others interpretation of data or articles. Adaptive management can be used to address those disagreements if they are stated clearly. If

the new information is proposed to facilitate a change in Program actions, then it is appropriate to have an in-depth discussion that may include the original authors if people think it would have value. However, for the most part, other than data collected to directly address a hypothesis or big question most information will provide more understanding but is unlikely to be relevant enough to dictate change. When I look back, I can think of very few instances where data other than that collected to specifically address hypothesis was used in decision making. Therefore, while I do not disagree with your proposed approach, I do question the need for it. I think a simple approach is to just point out new information and let those who believe it should dictate a change in Program actions make the argument of why that change should occur and let others respond to it. The EDO can do that but so can any other stakeholder. If no change is needed or proposed I would just go with the old philosophy of letting the sleeping dog lie.

Caven et al. paper

- Rabbe introduced the reasons for this research to be conducted and provided some management implications for whooping cranes. Habitat limitations may be creating larger groups, potentially due to smaller groups joining together (conspecific attraction) during migration in some areas of the migration corridor. This was most pronounced closer to the center of the migration corridor, at staging areas, and were wetland habitat was most limited regionally and the frequency of these large groups is increasing over time. Caven provided more result details and emphasized larger groups are increasing more so in the southern Great Plains, where wetland habitat limitations may be more pronounced. Smith stated this is relevant to the Program and important, current life-history information to for EDO and TAC to understand, but conclusions do not influence Program policies at this time.
- Runge presented different types of uncertainties in natural resource management and how it applied to whooping cranes. Specific to the whooping crane CEM, it appears as if the paper could have implications on structural uncertainty (modeling species response to management) and partial observability (detecting species response to management). Caven stated the findings could be associated with multiple types of uncertainties. He suggested that the Platte River is the first region on the northward spring migration with a large amount of dependable quality habitat for crane stopovers. Caven also stated Platte is not a focal area for large group increases and developed hypotheses to explore for why group size increases are region-specific. Rabbe iterates these are initial trend results and further research would be needed to make any implications for the Program and central Platte River. Runge asked if larger group sizes would be more visible and Rabbe suggested we may have a higher detection rate of groups with increased group size. In conclusion, Caven and Rabbe said that research findings did not substantially affect certainty/uncertainty, so there was no need to consider findings when updating CEMs, big questions, and/or hypotheses.
- Farnsworth addressed the CEM and how it broadly captures the uncertainties discussed and if a different version of CEMs would be more useful. Runge suggested only detailing those aspects of the CEM that have a high degree of Program controllability and where management actions are linked to habitat and species response. Under these circumstances, numerical relationships and analytical models could be expanded in CEM's. Smith stated CEMs are more so management conceptual models reflecting what the Program can control.

Smith asked the TAC to submit suggestions for how this process of reviewing new learning should be conducted based on the TAC discussion today. For example, how do we record the process we just conducted about Caven et al. paper?

Future Meetings and Closing Business

Smith will work with Farrell to develop TAC items for next meeting and will send out a Doodle poll to schedule.

Summary of Decisions from the April 30, 2020 TAC Webinar

1) Approved the amended February 24, 2020 TAC Meeting minutes.