



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)

Technical Advisory Committee (TAC) Virtual Meeting

Meeting held in-person at ED Office in Kearney, NE

Tuesday, January 16, 2024; 1:00 PM – 5:30 PM CST

Technical Advisory Committee (TAC)

State of Wyoming

Barry Lawrence - Member
Jeremy Manley – Alternate
Michelle Hubbard - Alternate

Bureau of Reclamation (Reclamation)

Brock Merrill – Member

State of Colorado

Emily Zmak – Alternate

U.S. Fish and Wildlife Service (Service)

Matt Rabbe – Member

State of Nebraska

Caitlin Kingsley – Member

Environmental Entities

Rich Walters – Member
Amanda Hegg – Member
Bethany Ostrom – Alternate
Melissa Mosier – 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

Executive Director’s Office (EDO)

Jason Farnsworth, ED
Chad Smith
Malinda Henry
Justin Brei
Tim Tunnell
Patrick Farrell
Mallory Jaymes
Jason Bruggeman
Seth Turner
Libby Casavant
Ed Weschler
Kristen Cognac
Jonathan Wentz
Alyx Vogel
Ethan Ideus

Other Participants

David Baasch – Crane Trust
Brooke Mott – NE DNR
Shuhai Zheng – NE DNR
Ryan Kelly – NE DNR
Joel Jorgensen – NGPC
Melissa Marinovich – NGPC
Mike Archer - NGPC
Kevin Urie –CO Water Users
Richard Belt –CO Water Users
Matt McConville - HDR



WELCOME & ADMINISTRATIVE

Rabbe called the meeting to order at 1:00 PM Central Time.

AGENDA MODIFICATIONS

Walters asked for an update on whooping crane telemetry data request. Henry/Farnsworth/Smith said at the December GC meeting it was decided that the GC would set up a meeting to discuss the Program's data request with the WC Tracking Partnership. The current GC Chair is leading that effort. Smith updated Pearse as to next steps from the Program's GC.

Document: [01 - PRRIP TAC Quarterly Meeting Agenda January 2024](#)

OFFICER ELECTIONS

At the January 2023 TAC meeting, the TAC agreed to a rotating TAC Chair, whereby the previous TAC vice-chair rotates into the chair position, and a new vice-chair is elected. Following this pattern, Rabbe (former vice-chair) would rotate in to serve as TAC chair for 2024.

TAC MOTION: *Zmak moved and Ostrom seconded a nomination of Rabbe as Chair and Walters as Vice-Chair. There was no TAC discussion and no opposition. Motion APPROVED.*

MINUTES

No corrections were offered to the minutes from October 10, 2023 TAC meeting.

TAC MOTION: *Flyr moved, and Jenniges seconded a motion to approve the October 10, 2023 TAC Meeting minutes. Minutes approved.*

Document: [10-10-23 PRRIP TAC Meeting Minutes FINAL](#)

MEETING SCHEDULE AND LOCATION

Scheel expressed a preference via email for rotating meeting locations. Rabbe summarized options as two meetings a year rotated between WY and CO; one meeting a year rotating between WY and CO every other year; or three meetings a year in Kearney, NE. Flyr asked if TAC meetings held in locations other than Kearney could be held in conjunction with WAC meetings to minimize travel? Farnsworth suggested meeting in Ogallala, where in-person WAC meetings are held. Brei said it may be too much overlap between WAC/TAC personnel and content. Farnsworth said the Oct TAC/WAC held together would be an option. Henry said we need to move April TAC due to overlap with NCER conference and suggested the April TAC be moved to April 23-24th. Smith said peer review for Sed Aug Data Synthesis won't be back before April TAC even if pushed back a week. Smith suggested maybe wait until May so have peer review back to integrate into Sed Aug discussion during Q2 TAC meeting. Kingsley echoed Scheel's request to avoid federal Monday holidays. Farnsworth proposed May 7-8 in Ogallala, a single TAC meeting rotated outside NE for 2024. The TAC meeting would follow the May 7th a.m. WAC meeting. The TAC would meet on the afternoon of May 7th and the morning of May 8th. Lawrence has water committee meetings on the 8th and 9th of May, WY will need to send an alternate in his place. Manley said he thinks he can attend the proposed May TAC meeting. He will work with Lawrence and Hubbard to cover WY attendance. Smith will send out peer review comments ahead of time and ask for WY feedback before the meeting. EDO will put sediment augmentation items on May 7th afternoon so WY folks can participate.

**EDO ACTION ITEM:**

- Send out updated May 7-8, 2024 TAC meeting calendar invite
- Smith will send out peer review comments ahead of time and ask for WY feedback before the meeting.
- Henry work with WY to make sure we get their feedback on Sediment Augmentation and participation at least remotely for this meeting.

PROCUREMENT***G-1 REMOTE SENSING RFP***

Brei introduced the multi-year contract for acquiring aerial imagery and LiDAR for the AHR. He asked for questions or feedback from the TAC on this item before it goes to the GC in March. There will be no changes in acquisition or timing from current contract. Zorn asked about cost? Brei said around \$300,000 annually. Estimate approximately same cost or a little lower moving forward. Farnsworth said the cost comes down to the plane flight and post-processing of data. Brei said post-processing on a sandbed river is a heavy lift. Turbidity is always an issue, but contractor has been able to handle this well. Our previous contractor also calibrated the data for multi-year comparisons to be able to detect change over time. Previous contractor doing a good job but put out for competitive selection as GC preferred.

EDO ACTION ITEMS:

- Bring RFP to the GC in March for their review.

TAC MOTION: *Jenniges moved and Zorn seconded a motion to recommend the G-1 Remote Sensing RFP to the Governance Committee. Motion APPROVED.*

Document: [03_P24-002_2024-2026 Annual Lidar and Aerial Photography RFP](#)

STRUCTURED DECISION-MAKING CONTRACTOR

Farnsworth provided EDO thoughts on getting started to put a SDM tool together in advance of when we need it to make sure we are getting the data we need to work through the process. Service wanted some input on this. Farnsworth presented some options:

- Compass Resource Management could be hired as a special advisor.
- We could shift amount budgeted to this as a Special Advisor to another line item and go through process of approval.
- We could work through a sole source process.

Marks asked about previous investment in time/effort by Farnsworth and Smith to get Compass up to speed for mock negotiations. Would we need to reinvest this if we move to another company?

Farnsworth said if go another direction, would need to get someone else up to speed. Who else doing this kind of work besides Compass? Smith said there are not a lot of other people who specialize in SDM, Jim Peterson at OR State, but may be affiliated with USGS through Coop Research Unit. Georgia group affiliated with FWS focused on small model development. Some crossover expertise but comes with links to Department of Interior. Philip Harteman at Compass has the institutional knowledge, but it is



important to contract this work through proper channels. Farnsworth said whoever this is will play important role in helping Program make decisions. Smith said we are starting now to make sure we have the expertise and data/information to plug into those tools. Rabbe asked if it is it easy to pull special advisor in? Was Compass a sole source? Farnsworth said Compass was a special advisor, recommended by Marmorek. They helped us with LTPP SDM and Extension Framing Document. Farnsworth said the easiest way is to sole source if TAC is not in favor of this role being played by an EDO Special Advisor. Merrill said specialized expertise fits well with sole source, thinks we have justification for a sole source we could take to GC. Flyr asked if can find out who else is out there? In case something falls through, what would be our options? Not opposed to sole source with Compass but likes having other options to look at if needed. Smith said we can talk to Compass regarding a second person in place of Philip Halteman if he were to move on. Marks said during First Increment negotiations, there was no SDM facilitator involved, is it something we need? Smith said it is something for GC to think about. Could Farnsworth and Smith provide the SDM role? Probably not as well as someone specialized in this. Farnsworth said no SDM going into the Extension because not changing anything (no large scale management changes). He believes SDM is the Program's best shot at negotiating a Second Increment that balances science with policy and values. Zmak said there are a host of facilitation support structures, SDM is one approach, but there are many. Zmak said most important is to have someone stakeholders have confidence in and trust. Flyr said it would be helpful to understand how Compass is unique and what role they played in past interactions with the Program.

EDO ACTION ITEMS:

- Relay information talked about today to the GC via a sole source memo for discussion in March.

SCIENCE PLAN

2022 ADDENDUM TO SEDIMENT AUGMENTATION DATA

Casavant summarized contributions from 2022 data to the sed aug synthesis chapters in an addendum. There were no TAC questions or comments. Farnsworth noted the incision seen at station 70,000 filled itself in for now.

Document: [04_Sed Aug Report Addendum](#)

2024 SEDIMENT AUGMENTATION DAY#1

Rabbe started off with FWS perspective on why we are doing sediment augmentation. Service sees sediment augmentation as a system process needed to prevent further impacts downstream. He cannot say if it is a negotiated requirement, this is a decision for the GC. Today the TAC needs to focus on what alternatives we have, not on whether we should or should not augment (which is a GC decision). Henry asked if the Service cares where we augment. Is the purpose of augmentation to directly address incised area, or is the purpose to prevent migration downstream and prevent impacts to WC habitat? This makes a difference in deciding where to augment.

Weschler presented options for 2024 implementation of augmentation. He presented volumes, costs, pros and cons of each design. Note, the estimated volume for the Plum Creek design is lower than what was stated in the memo (now at 22,000 CY) because can take advantage of sediment from lateral erosion upstream. Zorn reminded TAC that the breakthrough channel was active a few weeks this summer, it provided a source of sediment we could not quantify. He suggested augmenting in the



downstream Plum Creek area so we can learn about what happens upstream without augmentation. Ostrom asked, how much can we realistically learn in one year if not doing anything or changing something? It is a long-term process and might take several years to see a signal. Brei reminded, TAC is tasked with how to do it in 2024, not if we are doing it. Flyr curious what sediment from high June flows out of the South Platte do for us. Casavant said learning limited over one year, harder to make a pattern, but one year of information is better than none. Rabbe clarified we already have one year of do nothing, so leaving Jeffrey Island alone for 2024 (with augmentation downstream) gives us two years of “no implementation” at Jeffrey Island data. Flyr, if we cannot see what natural flows did this spring at that magnitude, how can we expect to see a signal of what we are doing at a smaller scale? Brei reminded evaluations are a year behind because of the lag in receiving LiDAR data. We need a plan for 2024 action before we can look at what happened in 2023. Flyr recommended we do nothing until we can look at what high magnitude natural flow could do. Farnsworth thinks with six years of augmentation at current volume, we have learned all we can. If want to do augmentation to learn, either double it up to eliminate all degradation in the south channel reach or augment downstream to protect downstream while learning about rate of incision and natural flow from breakthrough channel. Walters asked what impacts on WC habitat complex. Any WC usage at Cook/Dyer? Farnsworth said pushing in the sand seems to be ok for WC, they seem to like it. Rabbe in favor of downstream augmentation this year, then alternative with double up in south channel next year to see if can eliminate all degradation in south channel. Jenniges said one year of anything is not a magic pill without any control. Farnsworth asked how hard to interpret alternating augmentation strategies. Would probably need five to six years of doing something consistently to learn about effects. Brei said even in a five-year period we have seen there is a lot of variability in flow and other factors. Walters said we agreed as a Program to do it regardless of learning. Jenniges said too much out of control to learn much. Rabbe favors doing what we have been doing until we can find a passive alternative, then views mechanical sed aug as our failsafe. Ostrom asked if we are putting in enough to offset deficit? Weschler/Casavant said no. Farnsworth said without augmentation you learn how much deficit you need to supplement. Kingsley asked why Plum Creek is an option if want to keep incision from reaching below Overton bridge? Casavant explained that Plum Creek contains sites that are already permitted for sediment augmentation and this location is upstream of the Overton Bridge, allowing sediment to move downstream to Cottonwood Ranch. Casavant said it is likely there is a sediment deficit throughout AHR because of infrastructure that blocks sediment. Farnsworth added that Plum Creek augments to try to hit a sediment balance at the confluence without messing with anything further upstream. Ostrom said she is not okay with allowing degradation of upper reach WC habitat by not augmenting there. Zorn clarified that according to the Program’s definition, there is no suitable WC habitat upstream of Overton bridge. Baasch said Program’s definition is of highly suitable habitat but does not mean WC will not use it. Mosier asked which approach, doubling augmentation for example, helps provide information for assessing a passive option for the future? Casavant said yes. Farnsworth said there is no policy direction on this issue to establish a common objective for what we want to achieve. Henry asked the TAC to clarify what they mean by WC habitat degradation – is that in the south channel at prior augmentation area or is that at Plum Creek, or is that downstream of Overton bridge at Cottonwood Ranch? Marks asked what conclusions were reached regarding sed aug at the GC meeting where it was decided to take a pause for 2023? Farnsworth said we know how much sediment needs to be augmented. Riley suggested learning about passive method to reach amount of sediment needing to be augmented. Riley questioned whether we are going to push sand forever to learn what we already know and suggested trying something different. Flyr said we cannot continue to augment forever. Casavant said initial analysis indicates we could continue to augment for 75-100 years. Henry/Farnsworth said TAC was getting off track. The issue to



resolve today is to decide which option is technically more sound, GC will decide if we augment or not? Marks asked when this decision is going to the GC? Farnsworth said what TAC recommends today will go to the GC in March. Ostrom said stick with what we have done in the past while we examine passive methods. Maintain consistency to reduce uncertainty about how our actions influence sediment balance. Casavant, if do not augment for a few more years we will learn how our incision rate progresses, info on what is happening, at what rate, and how aggressively we need to go after it. Brei said incision in 60 years has not gone past Overton, moves slowly. Farnsworth summarized: IF objective is to avoid risk and maintain as much habitat as possible, keep augmenting in J-2. If objective is learning, stop at J-2 while you augment at Plum Creek. Depends on what you are prioritizing. Rabbe/Walters in favor of maintaining regular sed aug at J-2, continue what we did for six years. Take a year to work on passive alternatives while avoiding risk. Zorn asked what the ISAC had to say about sed aug? Farnsworth said ISAC comments on this topic were not specific enough for decision-making. Peer review comments might provide additional guidance. Scheel said (via email to TAC) her preference was to stop altogether while we examine passive alternatives. Marks/Zmak said CO wants to take a pause, continue to monitor channel conditions, while we learn more about the results of six years of augmentation. Jenniges asked if downstream augmentation could provide other learning in the meantime? Rabbe said he thought J-2 reach as sed aug location was decided to target the incision problem without spending a bunch more money on alternative locations. Marks supports keeping the pause going for learning. Flyr not in support of doubling volume. Farnsworth suggested TAC take a vote, each side writes a brief to support their view to inform the GC.

TAC MOTION: Walters moved and Ostrom seconded to take a pause at Jeffrey Island augmentation, while we augment 1-year at Plum Creek with full scale volume of 47K CY (not 22 CY) at eastern end of the complex, working our way westward (upstream).

Points in favor (see discussion above): Briefly summarized, this represents a compromise that provides an option for learning what happens in the absence of sediment augmentation in the J-2 reach, reduces risk to WC habitat downstream of the Overton bridge by providing sediment just upstream of the confluence and closer to highly suitable WC habitat, and checks the box to mitigate the impacts of channel incision due to the J-2 return.

Points of concern (see discussion above):

CO (Zmak and Marks) voiced concerns about the MOTION. Zmak said CO concerns are policy related, not technical in nature. What are the objectives? What do we hope to accomplish? Rabbe asked for more context on those reservations, are they science uncertainties? Marks said CO doesn't oppose the concept but wants to make sure it is a good use of money. Wants the GC to better understand why doing sed aug, what we are accomplishing, what is sustainable, what are we trying to fix? Urie said initial objective was framed around nesting habitat for LTPP on-channel (to avoid significant sed deficit so we could continue to maintain/create on-channel habitat). Concern with continuing to implement when Program has backed away from this concept. Not fully on board with what the data are showing us and wants additional time.

TAC VOTE on the MOTION was tabled until tomorrow morning to let CO stakeholders talk to see if they can get behind the motion.



2024 SEDIMENT AUGMENTATION DAY#2

TAC MOTION from Day #1: Walters moved and Ostrom seconded to take a pause at Jeffrey Island augmentation, while we augment 1 year at Plum Creek with full scale volume of 47K CY (not 22 CY) at eastern end of the complex, working our way westward (upstream). **NO VOTE TAKEN ON THE MOTION.**

Suggestion was made to take a TAC vote on the motion that includes points of support and points of concern to pass on to the GC. Jenniges not comfortable with voting without reading CO reservations as part of the motion. On board with augmentation but wants to see full motion with CO concerns in writing. Urie reminded TAC can work on non-consensus with a majority and minority opinion to inform the GC. Jenniges said this body works on consensus. Merrill agreed. He suggested the TAC lay out the MOTION with points in support and points of concern in the minutes. Take all that information to the GC and let them have the policy discussion. Walters asked if we are back to discussing whether we need to do sed aug and away from the original intent of this discussion which was: “if you have to do it, here is our technical recommendation on the options presented for location and volume”. Farnsworth asked if the State of NE had anything to say? Kingsley said it will be important to have this discussion at the GC.

EDO ACTION ITEMS:

- TAC MOTION with points in support and points of concern documented in TAC minutes to be distributed to GC for consideration and discussion at March GC.

TAC ACTION ITEMS:

- Communication with GC representatives regarding discussion had by TAC (refer to minutes) and need for clear direction from GC.
- Following GC direction, TAC make recommendations on the technical aspects in early May.

Document: [05 Sed Aug Memo](#)

[ISAC Feedback on October 2023 ISAC Meeting](#)

Presentation: [05 SedAug PrelimDesign2024](#)

PASSIVE SEDIMENT AUGMENTATION ALTERNATIVES

Casavant gave an overview of some alternatives for passive sediment augmentation. She asked if the TAC had other ideas to add? What ideas does the TAC want to move forward? Can we eliminate any? Do you want the EDO to do some sediment transport modeling prior to inform feasibility of options #4-5? EDO would like to make sure the RFP is more focused on the questions the Program wants answered. Jenniges suggested and Zorn confirmed that the channel Libby showed for reconnecting side channels under option #6 is not owned by CNPPID – it is Carlson’s. Jenniges asked about other landowner issues associated with this option. Casavant said there are several other channels to choose from. Flyr said the side channel reconnect is a good option to look into. Farnsworth said during first year of augmentation this channel reconnect was done, so have some data for this. Ostrom supports option #3, to encourage lateral erosion via vegetation management. Ostrom remembered Tal (ISAC) suggestion that planform change is less of a problem if vegetation does not fix banks, islands, or bed. This option parallels disking elsewhere in the reach. Ostrom’s concern is that side channels will receive water that would otherwise go through the main channel, so need more flow. Zorn said in this reach flow coming out of J-2 is known. Casavant said option #4 is to reconnect north channel with upstream sediment supply; she wants TAC feedback on options for these structures. These structures probably put us in sediment deficit by the time we reach the AHR. Jenniges said the Tri County diversion is the only one that dredges sand. Others



are small, only run May – Sep, rest of year river gates are open without restriction to flow so sediment deposited while running is washed out. Jenniges does not think this will supply a large volume of sediment to help us out. Farnsworth said maybe small volumes over the short term but a bigger long term supply. Jenniges said not a lot of flow to keep the sediment moving where you want it. Casavant asked about using EA water pulses to get sediment moving to AHR. Jenniges said channels are pretty narrow so sand ends up on vegetated islands. Brei asked if this is something the TAC wants the EDO to investigate or end up on an RFP? Rabbe said these small amounts are probably undetectable, we may never know if it helps or is working. Jenniges said the only “new sand” would be the dredged material from Tri-County. Jenniges suggested talk to Mike Drain as this has been tried before. Casavant asked about option #5 sand dam for breakthrough channel. EDO could do a pre-feasibility analysis using sediment modeling to address some of the concerns expressed about the sand dam. Jenniges asked how this amounts to augmentation? We are not augmenting, we are just changing where the confluence, or injection point is. Not bringing more sand into the system, just changing where it comes in (rob Peter to pay Paul). Ostrom reminded that ISAC was not in favor. Jenniges said pre-feasibility would address those concerns. Jenniges asked if at Dec GC the GC still wanted the sand dam to get a look? Farnsworth said the GC approved those budget line items in December. Flyr supports pre-feasibility of sand dam to see if we can eliminate it as an option. Rabbe wants us to explore everything, maybe can do it cheaper internally, but wants another set of eyes on this. Farnsworth said EDO can work to tighten it up to things that sit in the EDO playing field and what sits on the shoulders of a consultant. Rabbe also summoned TAC for ideas to add to the list. Zorn asked about examination of sediment size as source material. Casavant said EDO is currently doing sediment size sampling on terraces used for augmentation. Rabbe said to look back at sediment pumping data. Did it cost more to find and pump appropriate sediment supply vs. just pump anything as much as you can? Better to separate fines (to pump) from marketable material (to sell).

Option 1: Mechanical augmentation – need GC direction

Option 2: Predict yearly deficit - Year lag in LiDAR data makes it difficult to predict what you need to augment. Can EDO develop a way to predict and test to see how well you did? Maybe use a running average from multiple years?

Option 3: Encourage lateral erosion is of general interest to TAC. Keep it.

Option 4: Reconnect north channel to sed supply – drop it from the list.

Option 5: Sand dam – Yes, explore criticisms with feasibility study.

Option 6: Reconnect side channels – Yes, explore.

Farnsworth said for EDO to tighten up list for EDO work and list for RFP for May TAC.

EDO ACTION ITEMS:

- EDO can work to tighten it up to things that sit in the EDO playing field (done internally with a plan for how to accomplish with supporting data from pre-feasibility study) and what sits on the shoulders of a consultant for an external RFP to come back to TAC in May.
- May TAC check in
- If decide in May on RFP content – EDO will develop RFP, RFP will go out to TAC for virtual review and recommendation ahead of June GC.

TAC ACTION ITEMS:

- Send any additional ideas for alternatives to EDO.



Document: [05_Sed Aug Memo](#)

Presentation: [05_SedAugPost2024](#)

TARGET SPECIES

2023 PLOVER AND TERN MONITORING AND PREDATOR MANGEMENT REPORT

Bruggeman provided an overview of 2023 LTPP Monitoring and Predator Management results. Jenniges mentioned that after about 140 acres, not getting much additional gain in plover nests/adults. We are just trading birds among sites. Johnson and Lexington NPPD sites getting little use, whereas others are gaining. Jenniges asked how long track surveys take, maybe not getting much out of them. Wentz said 30 min or less once a week. Henry said track surveys are performed as check/maintain shoreline cameras and fence integrity (where present) so is multi-tasked. Baasch asked about water/veg coverage photos in figure on page 4 of report. He asked if bottom row of photos was the MCA island. Did the MCA island get sprayed this year or was herbicide ineffective? Bruggeman said no, not a photo of the MCA island. Bruggeman/Tunnell said the MCA island was sprayed and disked in 2023 and is still present. Bruggeman/Henry asked for TAC input – Do you want cameras on all plover nests or do you want some with and some without so you can formally test effect of cameras? Flyr said probably have enough data to say no effect over the last few years. TAC is okay with gathering camera data on all PP nests. Baasch asked what is the value of the camera monitoring data, what are you going to do about it anyway? Henry said we are gathering information on impact of predation and on our predator community and how they respond to fences or lights. What works, what doesn't. Does our management reduce predation, improve productivity? Henry provided a timeline for first multi-year analysis in 2024. TAC should have initial results in July, then more final evaluation by Oct of 2024, so we can decide how to move forward with management: stop, continue, adjust.

TAC MOTION: *Jenniges moved and Rabbe seconded a motion to recommend the 2023 LTPP report to the GC for their approval. Motion APPROVED.*

Document: [06_PRRIP 2023 Plover and Tern Monitoring and Research Report DRAFT 122223](#)

Presentation: [06_Jan2024 TAC 2023 plover tern report](#)

2023 FALL WHOOPING CRANE REPORT

Bruggeman summarized monitoring efforts and results for the Fall 2023 whooping crane monitoring season. Baasch asked to see a figure similar to Figure 11 (discharge range vs frequency of occurrence) that included only data for when the birds arrived. Baasch also pointed out a typo (Nov 16 change to Nov 15). He said to check the report to make sure the 5-95th percentile date ranges were consistent throughout the report. Bruggeman replied that the dates in the report were correct as the monitoring season was extended beyond Nov 15 during 2023, which was detailed in the report. Ostrom, Baasch, and Jenniges said to keep the group that arrived in the fall of 2023 and stayed into January of 2024 in the fall report, do not generate a winter report. Henry asked how long the TAC wants to continue presenting non-adjusted and adjusted metrics for proportion of population and crane use days? We have now presented both figures in spring of 2023 and fall of 2023 so TAC could see any changes resulting from this standardization. TAC said to keep presenting both figures. Henry also asked the TAC to think about whether correcting crane use days (a duration of stay) by cutting it off to duration of stay within the 5-95th percentile of use dates makes sense? Baasch, Rabbe, Jenniges don't see the reason for cutting off the duration of stay to fit in that interval. If the report continues to contain both adjusted and non-adjusted metrics, the full duration of stay will be reflected in non-adjusted crane use days. Henry



asked Rabbe how public sighting database deals with long group stays where composition changed throughout. In the past, it has been the number of individuals at first sighting that is carried throughout, but these long stays may require rethinking this. Henry asked about the two birds remaining, that started out as a group of four, with two birds leaving earlier on. According to public sighting database those four birds look like they stayed into January, when we know it was only two. Henry also asked Rabbe if he will assign new FWS ID if they are still here in the spring? Rabbe said he had been thinking about that as well.

Bruggeman said this year's fall report is a bit unique. WC are still present, so we do not have final metrics. Flow data are not approved by USGS yet. We do not have fall imagery yet for habitat metrics. Bruggeman asked if TAC wants to approve report conditional on these updates or wait to see the report again after the EDO has the data to finalize. TAC will wait for the data to be finalized. EDO will bring back to TAC to review virtually and make recommendation to GC.

EDO ACTION ITEMS:

- Generate figure similar to Figure 11 (discharge range vs frequency of occurrence) that includes only data for when the birds arrived. Send out to TAC.
- Incorporate edits received by Baasch
- Finalize WC stay length and use sites after group leaves
- Finalize flow with approved metrics
- Update habitat metrics when receive fall imagery

TAC ACTION ITEMS:

- Review finalized report and make virtual recommendation to GC

Document: [07 Implementation of the Whooping Crane Monitoring Protocol – Fall 2023 Draft Report 010524](#)

Presentation: [07 Jan2024 TAC 2023 fall whooping crane report](#)

WHOOPING CRANE MONITORING PROTOCOL UPDATES

Bruggeman reviewed changes in monitoring dates for 2024. The spring monitoring period will be changed to March 5 through April 19. The fall monitoring period will be changed to October 15 through November 18. Given the fall to winter stay of the group still present, he asked if the TAC wants to consider alternative methods for monitoring over these extended stays? Rabbe summarized from the Services' perspective why the Program is still monitoring via airplane. He said the Program's incidental take compliance is linked up with implementation of the monitoring protocol which says the Program monitors by plan until the birds leave. Rabbe advised Program to develop alternatives to include in the monitoring protocol and formally run through the new protocol through the TAC and have it approved by the GC. Henry asked if Rabbe had received any more guidance on the feasibility of drone monitoring given the lower drone altitude requirement. Rabbe said reduced 400ft altitude for a drone is probably ok, given airplane is ok at 500ft. Jenniges said there are some FFA rules about flying drones around birds we will need to get more information about. Jaymes will look into these requirements. Zorn suggested we add something about discontinuation of flights after a certain point. It is also a good to provide an alternative for ground surveys vs. plane surveys beyond regular monitoring season if drone gets a no. TAC suggested process for moving forward: 1) EDO will take its best shot at revising the monitoring protocol with options for monitoring over extended stays; 2) that protocol will go to the TAC for review;



- 3) Rabbe will take it through FWS/FFA channels to see if it checks boxes and gets an ok from their end;
- 4) then we will take it to GC.

EDO ACTION ITEMS:

- Look into FFA requirements
- Update monitoring protocol and bring back to the TAC for review

TAC ACTION ITEMS:

- Rabbe look into FWS and FFA requirements

DAY #1 REVIEW & WRAP UP

TAC VOTE on the Sediment Augmentation MOTION was tabled until tomorrow morning to let CO stakeholders talk to see if they can get behind the motion.

DAY #1 TAC MEETING END

The TAC meeting adjourned at 5:23 PM Central Time.



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)

Technical Advisory Committee (TAC) Virtual Meeting

Meeting held in-person at ED Office in Kearney, NE

Wednesday, January 17, 2024; 8:00 AM – 12:00 NOON CST

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Seth Turner
Libby Casavant
Ed Weschler
Jonathan Wentz
Alyx Vogel
Ethan Ideus

Other Participants

David Baasch – Crane Trust
Brooke Mott – NE DNR
Shuhai Zheng – NE DNR
Jack Mensinger – NE DNR
Joel Jorgensen – NGPC
Melissa Marinovich – NGPC
Mike Archer - NGPC
Kevin Urie –CO Water Users
Richard Belt –CO Water Users
Matt McConville - HDR

**WELCOME & ADMINISTRATIVE**

Rabbe called the meeting to order at 8:00 AM Central Time.

AGENDA MODIFICATIONS

TAC started off by circling back to the 2024 sediment augmentation MOTION that was proposed yesterday to check in with CO representatives (having had a chance to talk more among themselves since yesterday's discussion). *Minutes for this discussion on DAY#2 have been appended to DAY#1 discussion above for continuity.*

SCIENCE PLAN***PALLID STURGEON 2023 ANNUAL REPORTS***

Henry reviewed context for doing collaborative PS genetics, habitat, and spawning research with UNL and SIU. Extension Big Question #7 is "What effect do Program flow management actions to benefit WC, PP, and LT in the central Platte River have on pallid sturgeon use of the lower Platte River?". She reviewed each project's objectives, progress toward those objectives, and key takeaways over the last two years. She said today's discussion with the TAC is an opportunity to let TAC weigh in on progress and report content from 2022-2023, talk about expectations (where we are more likely to get questions answered vs. where we might get only anecdotal information based on fewer fish numbers), and consider changes for 2024. She presented data from UNL's 2023 Annual Report to support her concerns about answering questions about the factors important for pallid movement through the system upstream of the Elkhorn River. Large gaps in data in space and time make it difficult to associate movement with environmental conditions because we don't know when that movement occurred or if it was linear between gapped data points. She said UNL's report proposes changes to consider for 2024, including receiver fortification and discontinuation of larval trawling efforts. She asked the TAC for their feedback on how to prioritize efforts? Baasch asked if any sampling has been done on the central Platte? Henry said a passive receiver is positioned in the Platte above the Loup confluence with the Platte in addition to receivers in the Loup to detect movement further upstream into the Platte vs. into the Loup. So far, the receiver has not indicated pallid movement beyond the Loup further upstream into the Platte. Ostrom asked what is meant by receiver fortification. Henry said adding receivers to fill gaps across channels where we do not have adequate coverage. Dynamic flow and channel geomorphology make it hard to predict where and when receivers will be effective, and limit where additional receivers can be placed. Henry asked the TAC to consider focusing efforts on the confluence where have more fish detected more contiguously through time and space to facilitate answering the Extension Big Question #7. Baasch said reducing effort to gather information for the upstream reach may be an issue since water coming from the central Platte makes its largest contribution to that segment of the river. Henry said she has that same concern, that is why she pushed for capture effort and receivers in that reach. She asked how likely we are to figure out what pallid habitat is in Segment 2 with such few fish? We also have larger gaps in detection for fish moving through Segment 2. Farnsworth said we could focus on gathering information on the conditions under which fish move into Segment 2 of the Platte versus go up the Elkhorn, this may be our best opportunity to learn about flow metrics. Archer said we have had drier years to work with thus far, if fish are using Segment 2 we could learn more about fish movements in a wetter year in Segment 2 if we added more receivers there. Henry asked if it is harder to detect fish in dry years when water availability limits where they can be, or in wet years when they have the full channel to move through? Henry agrees both segments are important, she is simply bringing up options for prioritization after two years of UNL max effort in light of the data we now have to consider. We don't want to get to the end of five years and not have enough data to do good analyses to answer our



question for at least some portion of the lower Platte. Is getting a good handle on what factors are associated with entry/exit to/from the Platte at the confluence enough, is it better than qualitative information throughout? Overall, the TAC does not want to see any reduction in receivers from the system. Jenniges/Ostrom/Baasch say upstream of Elkhorn is important. Cannot say fish aren't there if we aren't looking. It is where our small bucket of water could make the biggest difference. Keep doing what you are doing. Do not scale back.

Henry asked what about eliminating trawling for embryos/larvae? Archer said trawling is a lot of effort with minimal return. Rabbe asked about success of trawling in the Missouri? Archer said they found some larval pallids but after lots of effort and experience. Farnsworth said trawling at the confluence of the Platte with Missouri is best chance of being able to genetically identify as pallid as. It is a main objective to know if spawning occurs in the Platte system, and if viable fertilized offspring are produced in the Platte. Ostrom agrees high effort, low reward, may be less useful compared to other efforts. TAC is ok with eliminating those high effort, low reward activities just downstream of observed behaviors typical of spawning. Henry asked about the confluence where a third UNL/NGPC team is working. Collect few eggs/larvae, but those collected cannot be identified because there is not enough DNA (not enough developmental time). Rabbe said you have less of a chance of the larvae making it to the confluence but more of a chance of getting it identified if has had more time to develop (assuming spawning site is upstream in the Platte system).

Henry said this item is also on the agenda for the February Science Plan Reporting Session. Henry encouraged the TAC to review the reports provided so they understand what we are and are not getting and attend the Reporting Session to ask prioritization type questions that help the Program get what it needs to inform water management out of these research efforts.

TAC ACTION ITEMS:

- Review UNL and SIU annual reports in preparation for the February Reporting Session

Documents: [08 UNL Pallid Sturgeon 2023 annual report 12 1 23](#)

[09 SIU Interim Report December 2023 FINAL](#)

Presentation: [08 09 UNL SIU PS Research Update](#)

SCIENCE PLAN

WHOOPING CRANE RIVERINE ROOST SITE SELECTION

Farrell summarized methods and results for WC Roost Site Selection analysis. He asked for TAC feedback on:

- Conclusions from the research
- What are we more certain of?
- What are we less certain about, remaining questions?
- Management Implications? What do we do with this information?
- TAC recommendation on Program internal peer review and/or publication in peer reviewed journal

Baasch asked if OTHER land category included in-channel sand and water and why omitted from your analysis? Farrell clarified, on channel sand and water is blue, not included as other. Other category are other vegetation types. Henry said OTHER is accounted for in the proportional area within the buffer around a roost or available site. More OTHER in a buffer means less sand and water in the buffer



because everything in the buffer adds to 100%. Farnsworth clarified that we had specific off-channel landcover types that TAC wanted to test, that were hypothesized to impact roost site selection. Other in-channel vegetation was not one of those categories, but proportion sand and water was. We also tested hypotheses regarding specific on-channel metrics. Henry said we did not ignore other in-channel vegetation, it was quantified within the buffer. We had to make some choices about landcover types to test, cannot test all of them, because of collinearity. As proportion other in-channel vegetation increases, proportion sand and water decreases, so picked the explanatory variable hypothesized for roost selection. Farnsworth said if we redo this analysis (or use the landcover product) in the future instead of other, we can rename as in-channel herbaceous for clarity. Jenniges also disagrees with marsh meadow classification for Lloyd Island, where did that come from? Ecotope landcover product added NWI (wetland index) info which changed the classification from Brei/Bishop to marsh meadow in Ecotope article. Jenniges said it isn't a big issue, but he isn't happy with it. Baasch asked why side channels included when don't meet highly suitable habitat criteria. Farrell /Henry said objective was to reexamine suitability, by including all in-channel locations (side channels were included) we let the behavior tell us what is suitable without pre-defining it. This was a decision made together with the TAC as the analysis was developed. Baasch said he is ok with going forward with most parsimonious model, but suggested better explanation for this in text. He said first two models already accounted for the penalty of adding a variable, so third model has to overcome 3 AIC units really. Rabbe said marsh meadow did come out in 3 of top 5 models, and asked what does that mean in terms of those that didn't show up? Baasch said marsh meadow had little influence and suggested replacing the wording of "no influence" with "little influence". Rabbe is ok with that. Baasch asked about on-channel tree removal, why classified as upland grassland? Farrell said the general classification rule was followed, not separated out by on and off channel, assuming following tree removal would be maintained as grassland. Henry said the landcover product was developed for each year over a wide temporal and spatial scale, so used best available information to do this over a larger scale. Henry asked over this spatial and temporal scale, how do we feasibly get better information than what we used to do this? Baasch thinks would have to make corrections to the landcover product by hand. Farnsworth asked TAC to give a specific large block example where tree clearing transition to upland grassland was problematic? Jenniges/Rabbe said Dippel, but not all Dippel is marsh meadow either. Landcover needs more ground truthing. Rabbe said it is worth looking more closely at in channel vs off channel tree removal to classify more appropriately? Baasch asked why lump wet prairie with upland grassland? Farnsworth said we were asked to separate these to separate drier upland ridges from wet swales to identify marsh meadow at a finer scale, to address criticism in Ecotope article of Program's definition of a wet meadow. Baasch said maybe create a new classification for ridges in wet meadow tracts that does not lump with upland dry grasslands, not the same thing. Takeaway from TAC for EDO is that moving forward with diurnal use analyses and also in addressing EBQs 4-6 with telemetry locations we need to get more agreement on land classifications (what to lump, what to split). Jenniges said eCog is not doing a great job, needs ground truthing. Farnsworth said putting 50-year-old NWI on land-truthed 2005 data is the problem. Farnsworth said telemetry data with finer scale positional accuracy associated with WC locations (2017 forward) can be coupled with better CIR imagery we get currently to tell what is wet and what is not. Baasch asked whether it is wise to perform roost and diurnal analyses with different landcover products (published with different data sources)? Farnsworth said If you have specific areas you are concerned about – we can hand delineate it as the quickest way forward.

Ostrom said no models are right, but they are useful. She said the point of the report is to explain nuances that may not necessarily come out in the data analysis. Rabbe/Ostrom want us to capture



uncertainties in a “Limitations” section. Farnsworth cautions that we are providing information to the GC to make decision on what management levers to pull. If you want to spend money on management, likely to get bigger bang from your buck from unobstructed channel width, nearest forest, and development. What you will get out of meadow marsh and agricultural wetlands is highly uncertain with little bang for buck expected. They are of little importance compared to the others for explaining WC roost site selection within the AHR. TAC is on board with this general takeaway message to the GC. Baasch asked about marsh meadow directionality, can EDO add an appendix showing how relationship changes if use first unique only vs. all locations to establish that relationship? Farrell talked about large availability of meadow marsh along narrow side channels (under a roost site selection analysis birds don’t use side channels that often). Rabbe asked if bridges are what are being avoided under development. Farrell said they are a big factor. Jenniges asked how many houses it takes to classify as forested vs. rural development? Farrell couldn’t recall the threshold used.

What is more certain from TAC point of view?

Unobstructed channel width, nearest forest, and development are 3 top parameters in influencing selection. Nearest forest relationship is in line with previous analyses and pretty certain.

What is less certain from TAC point of view?

Rabbe said that with regard to unobstructed channel width, statistical significance and biological importance are different. Clearly more unobstructed width is better. Flyr disagreed, for her the figure demonstrates a large amount of uncertainty; so much uncertainty that the relationship is not useful. At that point the statistical modeling isn’t informative. Zorn pointed out J-2 channels were narrow, but they have gotten more use.

What is the benefit/feasibility of managing for wider unobstructed channel widths beyond what we already do?

Baasch said he thinks what we are doing is probably working. Why spend a lot of money to widen a channel that will not maintain itself with water. Rabbe, a lot of Program lands are at or above 650 ft, but where are there other opportunities? Farrell said Cottonwood Ranch, Jerry F. Kenney Pawnee, and Ft Kearny are the complexes below 1000 ft unobstructed channel widths on average. These complexes have multiple channels and a lack of flow consolidation that limits contiguous unobstructed channel widths. Would need to rely on heavy mechanical management. Farnsworth said flow in your main channel will drive how wide it is and how you maintain it. Greater flow splitting reduces unobstructed channel width you can maintain. TAC Takeaway: Focus less on a number, Program already managing for an estimate. Set up a Working Group from TAC/LAC and EDO gather data to see where we could take advantage of opportunities (narrower than we could be and have water to maintain it for us) at three complexes named above. Identify those with data, then site visits to determine feasibility. Working group will write management implications after receive full TAC feedback from process.

Working Group Members: Jenniges, Rabbe, Baasch, Ostrom, Zorn, Hubbard, Flyr, Tunnell, CO representative (Marks will name after meeting).

Henry asked the TAC about trajectory for this report: Internal Program peer review? Publication in peer review journal?

TAC didn’t feel internal peer review was warranted. Farnsworth said the results are not likely to have large scale management implications, and methods were already reviewed as part of the WC Synthesis Chapters. Rabbe/Baasch said they supported external publication citing the need to publish for



biological opinion and because results are a slight revision from our original publication of findings. Farnsworth said the EDO will seek TAC contribution to the writing team to turn Program technical report into a broader external publication. Smith was reminded of a previous conversation he had about PRRIP participants contributing as co-authors. Farnsworth feels co-authorship is warranted for folks that contribute to writing team for publication. Hubbard and Flyr expressed interest in contributing via Teams chat. Smith said Program will need a TAC recommendation to GC to publish and GC approval prior to submitting for publication.

EDO ACTION ITEMS:

- Work with TAC to get more agreement on land classifications for future analyses.
- Develop relationship for relative selection ratio and meadow marsh using only first, unique locations and share with TAC at Baasch request.
- Incorporate better explanation of model selection including AIC penalty for additional variables into methods.
- Replace “no influence” with “little influence” to describe importance of meadow marsh and agricultural wetlands for roost site selection in results/discussion.
- Establish working group to identify opportunities for improving unobstructed channel widths and develop/write management implications.

TAC ACTION ITEMS:

- Working Group Members (Jenniges, Rabbe, Baasch, Ostrom, Zorn, Hubbard, Flyr, Tunnell, CO representative) identify opportunities for improving unobstructed channel widths and develop/write management implications.
- CO needs to name someone to Working Group

Documents: [10 WC Roost Site Selection Report](#)

[11 WC Roost Site Selection Comments Matrix](#)

Presentation: [10 WC Roost Site Selection Report](#)

WHOOPING CRANE DIURNAL SELECTION WEST RERUN

Farrell summarized where we are at for onboarding information from the Ecotope article. The EDO has worked together with Ecotope authors, Baasch, Rabbe, and Caven to establish a process for understanding divergent conclusions on the importance of wet meadows for WC diurnal use. Farrell outlined what analytical steps the EDO is taking to step our methods closer together to see where differences originate. He also outline the steps Ecotope authors were willing to take to come closer to the WEST analysis. The collaborative group will work together in February to bring results of each of their steps together and develop a memo to summarize information for the May TAC meeting. TAC feedback will be incorporated to revise the memo to inform GC at their June meeting.

EDO ACTION ITEMS:

- Stepwise analytical process documented with results and interpretations written into a TAC/GC memo

TAC ACTION ITEMS:

- Review memo and provide feedback at May TAC



Presentation: [WC Diurnal Selection WEST Rerun](#)

SCIENCE PLAN IMPLEMENTATION TIMELINE

Henry ran through the Extension Science Plan Implementation Timeline which sets out a schedule for Program science implementation, multi-year analyses, and points for adjustment to implementation based upon analyses for the Extension. She pointed out items that we have accomplished and those that are behind schedule. She summarized 2024 priorities, and those items like 5-year check-in on LTPP nest site selection that may need to take a back burner so we can get through the backlogged items of higher priority. Jenniges said he was ok with sliding 5-yr PP habitat selection analysis back. Henry said that off channel habitat is static right now, so no direct management implications at this time. Henry asked for TAC input on how to get items through the committee structure faster. How do we get more continuity and forward progression of analyses, product development, and review through the TAC? The workload is not going to lighten up moving forward through the extensions, so we need to adjust.

The following suggestions were made:

Ostrom said there are too many projects/products for TAC to keep up with progress, causes members to forget what has been done and what we need to know. Rabbe suggested maybe drop some check-in activities and live with some uncertainty there. Have the group look at Implementation Timeline and prioritize. Ostrom suggested maybe divide and conquer. Stakeholder groups denote subject matter experts to review in more detail and report back to the TAC. Henry cautioned this may come with less buy in from full TAC, but good to incorporate subject matter experts into the process throughout. Baasch suggested we reduce Program context and introductory materials that lengthen document review to reduce time and effort on both sides. Jenniges asked to narrow presentations to results. Henry said EDO will try to scale back framing but need a balance to provide context needed for newer TAC members. Henry said she anticipates a lot more committee involvement moving forward with a new Science Plan. Farnsworth said he estimates about 40 hours/month time dedication to review work and provide feedback at a minimum from TAC members. The TAC supported the idea of the EDO communicating to GC in March that they need to allocate more time to TAC members to accommodate Program workload. Manley/Walters/Jenniges suggested more frequent, but single topic focused meetings. Smith thought this was a good idea to revert back to more regular, workshop type meetings. Jenniges said the Program was not meant to be a continued improvement project, intention was to make the AHR better than baseline conditions. Walters asked at what point do you have enough information to call it and quit repeating analyses? Baasch suggested we wait until after 2024 germination suppression release to do the multi-year analysis of effectiveness scheduled for 2024. Henry said the plan was to use 4 years of data we have to develop and test analytical tools, then do final analysis after have Fall 2024 LiDAR in 2025.

EDO ACTION ITEMS:

- Talk to GC in March about increasing TAC member time dedicated to Program work
- Actively incorporate subject matter experts in the process.
- Reach out to the TAC to schedule meetings outside of quarterly schedule as products are ready for TAC review. More frequent, single topic discussions.

**TAC ACTION ITEMS:**

- Speak to GC representatives about time allocation for Program work, realistically a 40 hours/month commitment
- Think about division of labor as an option for reducing overall time allocation and receiving subject matter relevant feedback.
- Work in between meetings to keep up to speed and prepare for upcoming meetings to avoid kicking topics to the next meeting.

Document: [Extension Science Plan Implementation Timeline pg 80](#)

WATER***2024 ENVIRONMENTAL ACCOUNT AOP***

Rabbe briefly summarize USFWS priorities for Environmental Account releases for 2024. First priority is the germination suppression release. Second priority is a spring WC release. Service is thinking of a lower volume release for spring, somewhere along the lines of 200-400 cfs to take advantage of natural flow and top it off if needed. Service minimizing other flow release considerations to keep germination suppression release possible.

LAND***LAND PLAN MANAGEMENT FRAMEWORK UPDATE***

Tunnell summarized revision process and introduced clean version for TAC consideration. Rabbe asked how wet meadow sections have been revised. Are we still waiting on implications from riverine roost site selection analysis? Henry said the current text was updated to reflect the ongoing process of integrating results of roost site selection, diurnal use site selection, and wet meadow hydrology peer review to better inform land management. It is a living document that will have to be updated to reflect learning. Baasch asked about grassland structure management. Rabbe said working group is addressing that. Tunnell said the document provides a general framework for Program land management to meet general Program management objectives but does not make tract specific management recommendations. Tunnell said next year is another 3-year vegetation monitoring rerun. He asked if we are getting the data we need to make good management decisions? Rabbe asked what was needed from the TAC at this point? Tunnell asked the TAC to make a recommendation to the LAC. The LAC then recommends to the GC. Hegg and Jenniges need more time to review. No TAC MOTION at this time. TAC review offline, send edits to Tunnell by Feb 1st. Tunnell sending a calendar reminder. Tunnell will integrate those comments and send back out to TAC for virtual motion to recommend to the LAC in early Feb. LAC meeting is mid-Feb.

EDO ACTION ITEMS:

- Tunnell sending calendar reminder for TAC review by Feb 1, 2024.
- Tunnell integrate TAC feedback, send document back out to TAC for virtual MOTION to recommend to LAC in early February.

TAC ACTION ITEMS:

- TAC feedback to Tunnell by Feb 1, 2024.

Documents: [12 Restoration and Land Mgmt Framework revision 2023 all edits](#)
[13 Restoration and Land Mgmt Framework revision 2023 clean](#)



RELEVANT SCIENCE ONBOARDING

RELEVANT SCIENCE ARTICLES

Henry gave an overview of the recently published articles the EDO has prioritized for TAC awareness and review based upon their relevance to Science Plan Big Questions, Program target species, and/or with implications for Program management. Henry asked if there were publications missing from this short list that the TAC would like to add? None were offered. Henry asked the TAC how they would like to deal with these articles. Which would the TAC like to talk further about, and in what order? Farnsworth asked if there were any for which the TAC would like to invite their authors to speak and answer questions about their work? The EDO can include these items on future TAC agendas.

Jenniges said thanks for putting these together so folks are aware and can read as they choose. He was not interested in having authors present their work or any formal TAC group discussion. Rabbe said the USGS publication and FWS report won't change what the Program does as the piping plover remains listed, so why spend the time. Henry suggested WC stopover length paper as relevant input on how to address EBQ 5 on factors important for WC stopover length. Article provides a list of explanatory variables of interest to stakeholders, analysis framework, etc. to consider.

EDO ACTION ITEMS:

- Continue to add articles as they arise for TAC awareness

TAC ACTION ITEMS:

- Suggest items to add to list as they arise
- Review list for awareness and advise GC rep of potential Program implications

PRRIP webpage: [Relevant Science Onboarding](#)

SCIENCE PLAN REPORTING SESSION

AGENDA ITEMS AND TAC ATTENDANCE

Smith provided an overview of plans and content for the Science Plan Reporting Session in February. Meeting will be centered around the State of the Platte Report. The EDO is incorporating a section in the report for TAC to collectively give their feedback on the report. ISAC will do that as well. A final version of the State of Platte is scheduled to go to the GC by June. Smith asked how the TAC want to orchestrate the process for developing TAC feedback on the report? Rabbe said it's a tough ask to get a single consensus TAC opinion. Rabbe is willing to take a crack at it but will depend on the content of the report. Baasch thinks a summarized statement of what the TAC agrees upon and what they don't (two sections), to express multiple viewpoints would be a good approach. Rabbe agreed.

DAY #2 REVIEW & WRAP-UP

Future calendar events:

- Feb 20-22, 2024 Science Plan Reporting Session, Omaha, NE
- May 7-8, 2024 TAC Meeting, Ogallala, NE
- July 16-18, 2024 joint TAC/ISAC Meeting, Kearney, NE
- October 22-23, 2024 TAC Meeting, Kearney, NE

DAY #2 TAC MEETING END

The TAC meeting adjourned at 12:07 PM Central Time.