



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

Technical Advisory Committee (TAC) Virtual Meeting

Meeting held in-person at Petrified Wood Gallery in Ogallala, NE

Tuesday, May 7, 2024; 1:00 PM – 5:00 PM MT

Technical Advisory Committee (TAC)

State of Wyoming

Jeremy Manley – Alternate

Bureau of Reclamation (Reclamation)

Brock Merrill – Member

State of Colorado

Kara Scheel – Member

U.S. Fish and Wildlife Service (Service)

Matt Rabbe – Member

State of Nebraska

Caitlin Kingsley – Member

Jennifer Schellpeper - Alternate

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

Seth Turner

Patrick Farrell

Jason Bruggeman

Libby Casavant

Ed Weschler

Quinn Lewis

Nicole Fijman

Other Participants

David Baasch – Crane Trust

Brooke Mott – NE DNR

Avery Dresser – NE DNR

Ryan Kelly – NE DNR

Jack Mensinger – NE DNR

Mike Archer - NGPC

Richard Belt – SPWRAP

Kevin Urie –CO Water Users

Kyle Whitaker – CO Water Users

Jon Altenhofen – CO Water Users

Nathan Baker – CO Water Users

Jeff Shafer - NPPD

Tyler Thulin – CNPPID

Scott Schaneman – NP NRD



WELCOME & ADMINISTRATIVE

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

AGENDA MODIFICATIONS

Henry asked for two agenda modifications. State of the Platte update will be moved to Wednesday morning. The time slot it occupied on Tuesday will be taken by NE DNR request for a recap of GC discussion regarding additional time commitment for TAC members and a check in on meeting location for the Q4 TAC meeting in October.

The following items from Wednesday's agenda were moved up to Tuesday, given the time remaining on Tuesday for discussion.

Phragmites RFP

WC Winter Counts at Aransas

WC Riverine Roost Site Selection – Channel Widening Options

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

MINUTES

No corrections were offered to the minutes from the January, 2024 TAC meeting.

TAC MOTION: *Merrill moved, and Flyr seconded a motion to approve the January 16-17, 2024 TAC Meeting minutes. Minutes approved.*

Document: [01-16 to 17-2024 PRRIP TAC Meeting Minutes FINAL](#)

WATER

USFWS – CNPPID: Spring WC EA Release and Changes to J2 Hydro Release Schedule

Rabbe gave the background for the Spring WC EA Release. He said this year water was available in the EA Account for both a spring release and a germination suppression release. Channel conditions are also good. Release was planned to focus on a three week period over peak WC use period. The release was designed to eliminate very low flow periods during hydrocycling. Rabbe went through stage increases associated with previous hydrostepping schedule and compared those patterns to those resulting from the change in hydrostepping for 2024. The goal was to use EA water to fill the troughs. Target water use was set at 30,000-40,000 acre feet. The 2024 spring release ended up using 35,700 acre feet compared to the 52,300 acre feet used in the last full spring WC release in 2018. Daily average discharge was around 700 cfs of EA water. WC presence on the Platte peaked during this EA Release, so timing was good. The release also corresponded with the highest single season whooping crane count and highest proportion of the population documented using the Platte River.

Mosier asked if there were plans for a fall WC release? Rabbe said no. The germination suppression release is our next release in June. Fall system maintenance makes any releases in the fall difficult. Henry asked Rabbe what he was thinking about in terms of evaluating WC response to the change in hydrocycling? Rabbe said that discharge and variability in discharge are of interest. Urie asked about the 200 WC on the Platte this Spring. Rabbe said yes, that was individuals not crane use days. Jenniges reminded that these are not individually identifiable.



Presentation: [2024 Spring WC migration EA release Rabbe](#)

2024 GERMINATION SUPPRESSION RELEASE

Turner reminded the TAC of the germination suppression release coming up in late May. Target is 1500 cfs at GI from June 1 to 30. With eight days travel time, release scheduled to start around May 24th. Over Past releases were between 30,000 and 80,000 acre feet. This will be the fifth year of implementation. 125,000 -130,000 acre feet in EA currently. Biweekly coordination calls will be set up to implement. Hegg asked what is the monitoring plan moving forward? Henry asked if she meant the plan for evaluating success? Henry said EDO put a draft plan together for the reporting session with several ideas for using remotely sensed and field data to evaluate success. So far we see good support for water working where we get good channel coverage, but where there are flow splits, like Rowe, not working. EDO will be starting data analysis this year continuing into 2025. Hegg asked if we will be using 2024 data as well. Henry said yes, start with what we already have, add in 2024 when we have it. Multi-year analysis provides information to help us decide to continue/modify/stop the germination suppression release. Hegg wanted to know if conservation organizations should hold off one more year for disking (like at Rowe). Farnsworth said Rowe reach has already lost the battle, and our machine learning models allow us to incorporate disking. It may be our last germination suppression release year, Rowe stretch has not been maintained well without disking. Audubon will continue working with PRRIP to mechanically manage Rowe as needed. Rabbe asked about getting the WY flow split fixed so Rowe does get water this year. Farnsworth said the result of this is uncertain in terms of amount of water coverage. So, If Rowe needs to disk to maintain WC habitat, they should do what they need to do. Water coverage after fixing the flow split may not be enough to deal with current vegetation.

EDO ACTION ITEMS:

- Begin EA Release Coordination in late May for a release start date of May 24th.

Document: [03_PRRIP Germination Suppression Release Implementation Plan UPDATED 2023-09-29](#)

SCIENCE PLAN

NO SEDIMENT AUGMENTATION MONITORING PLAN

Farnsworth recapped the discussion at March GC about whether or not to augment sediment for 2024. He said the GC decided in favor of halting augmentation for up to five years to set up an experiment to collect the baseline data on sediment balance without augmentation. The GC views this as a learning opportunity to compare to prior augmentation. To deal with risk they asked the EDO to develop a monitoring plan with impact triggers to be evaluated annually.

Weschler presented the monitoring plan framework as an initial draft. He requested TAC feedback on monitoring plan (data to collect) and action triggers (things to keep an eye on that might indicate a need to begin augmenting again). The timeline is to flush out this framework to get a draft document with TAC input back to the TAC/ISAC in July. After integration of feedback, the plan would go to the GC in September.



Whitaker asked where the 70K area mentioned is located? Weschler said about 5 miles upstream of Cottonwood Ranch. Jenniges/Walters/Rabbe were concerned about the action trigger of 10 acres of incision in the AOI1 (Area of Interest 1). They said 10 acres seems like a lot for AOI 1. Henry said incision progressed over four acres in a single year during augmentation, so we would expect to hit at least that without augmentation. She said we need a trigger beyond what we saw annually while we were augmenting. Farnsworth asked the TAC what their risk tolerance was for the incision area. In general the TAC was uncomfortable with the action triggers initially proposed, and waiting for two years of incision progression before evoking a response. Farnsworth said what he was hearing is that the TAC feels better with 6-8 acres of incision each year without augmentation. Casavant/Brei/Lewis said we are looking for something we haven't seen before as a trigger because the point of the experiment is to gather information about how incision progresses without augmentation, so jumping early to stop the experiment is not informative. The TAC further discussed the proposed amount of incision that would trigger a response. The TAC was generally more comfortable with keeping an eye on the metrics proposed and presenting this information at annual TAC check ins, rather than establishing hard number triggers that had to be hit before a warning light went off. Kingsley asked about the timeline for 2023 LiDAR results to inform development of action triggers. How long does this area need to be evaluated before triggers are assessed? Brei said we will evaluate annually after we get LiDAR each April. Kelly asked if the AOI2 trigger of 24 acres was total area or only areas that were connected? He also asked if the incision seen is usually connected? Weschler said that was total area. Schellpeper asked to summarize what additional efforts are proposed that add to time and money invested? Casavant said the field transects and sediment sampling are additional. Weschler/Brei estimated about three field days for these. Farnsworth said this is EDO time with an RTK unit. Farnsworth said the USGS stage gage to be installed in the J2 Return channel is the only significant cost involved. This is on the agenda to discuss after this. Mosier asked about monitoring upstream of AOI1 using a deeper depth class. She asked if we should keep an eye on that portion of the reach too? Brei/Casavant responded that the EDO can use the same method to look at any depth class. If large change is seen upstream of the AOI proposed, this can be discussed with the TAC. Zorn asked about 2018 vs. 2019 flip in aggradation to degradation in a year in AOI2. Casavant/Brei explained that places where incision progressed one year may aggrade the next year. The south side channel at Cottonwood Ranch captured the majority of flow in 2018, but by 2019 the majority of flow returned to the main channel and the side channel aggraded. This variability may be a reason for not setting hard action triggers. Farnsworth said an option may be not to set a hard trigger, rather have a hard discussion every year in May with the TAC to make this decision annually. Jenniges said, if we are going to set hard triggers, we should make them moderate. Walters suggested we establish a hard line with no further incision past the Overton bridge. Farnsworth asked for a high number that everyone is comfortable with. What is our green light? No TAC response. Scheel said the multi-year check in is good, it accommodates for recovery one year from another. Lewis said that high flow years are important. He asked if it might be a good idea to establish an incision trigger under high flow years and under low flow years. Scheel supports continuing with the proposed monitoring actions, no hard numbers, and revisiting every year without triggers set in stone. Farnsworth said the EDO could check in with the TAC every year providing annual results in relation to the range of variability we have seen. We would do a thorough assessment as soon as we can after we get the LiDAR (May?) and have a thorough discussion with the TAC to make year-by-year decisions. Jenniges said to include amount of effort for transecting/sed sampling. Rabbe said annual evaluations are encouraged. Henry summarized what the TAC asked for in terms of the monitoring plan in EDO action items below.

**EDO ACTION ITEMS:**

The EDO will revise the monitoring plan outline in May to include information about data that has been and will continue to be collected, data collection that has been added with the amount of effort involved, and the metrics we will be keeping an eye on with the range of variability we have seen in the past. EDO will eliminate hard numerical “action triggers” and replace with annual TAC check ins and discussions to make annual recommendations on how to proceed.

TAC ACTION ITEMS:

TAC does offline work on the draft in June. TAC will meet virtually as needed if there is disagreement on content in June. Revised draft will go to July TAC/ISAC. July -August incorporation of ISAC feedback with TAC working offline or meeting virtually as necessary to finalize. Ready to recommend to Sept GC.

Document: [04 Sed Aug Monitoring Plan Framework](#)

Presentation: [04 No Aug Monitoring Plan](#)

J2 CHANNEL USGS STAGE GAGE INSTALLATION

Casavant proposed addition of a USGS real time monitoring stream gage in the J2 Return Channel at the Plum Creek Complex. It will give us information on flow through the J2 channel prior to the confluence with the north channel. It will also help us answer how much flow we need to move how much sediment through that reach. Cook property site is a good option for USGS installation. USGS will develop a stage discharge curve with ADCP measurements. Cost is an initial \$11,970 for installation – one time. Annual cost will be \$9,857.

Jenniges suggested moving installation one mile east to avoid drain coming across Cook Property downstream of the gage. Want to measure flow after water drains to ditch. Brei said we have a gage in that ditch to help us keep track of water there. Casavant said we want the gage far enough upstream to precede any flow from the north channel. Henry said this action item requires the TAC recommend an amendment to the 2024 Water Plan budget under Water Monitoring Activities to include installation plus annual cost. Brei said from 2025 forward, this gage will be included in annual Water Plan budget. Rabbe asked if this was normal a “pay to play” strategy where USGS gets paid to install and maintain these gages? Flyr/Jenniges/Schellpeper said their organizations have all paid to have gages installed.

TAC MOTION: *Jenniges moved, and Walters seconded a motion to recommend a change in the 2024 Water Plan Line Item WPWM-1 Water Monitoring Activities Budget to include the installation and maintenance of a stream gage in the J-2 Return Reach at the Plum Creek Complex. Motion approved.*

PASSIVE SEDIMENT AUGMENTATION ALTERNATIVES

Casavant reviewed passive augmentation alternatives the TAC looked at in January. She gave an overview of the timeline options for incorporating TAC feedback and getting the RFP to the GC in June. She presented her updated sand dam feasibility analyses including the original plan for a canal directing water and sediment between N and S channels. The idea for Sand Dam Mod A is to convey bedload from the N channel to the S channel through a canal with the N channel serving as the sediment source. She also presented an option for modification of the Sand Dam idea as suggested during the Reporting session. This idea for Sand Dam Mod B is to use the sediment below the sand dam between the N and S channel as a sediment source rather than the N channel as a source. Use N channel flow to mobilize sediment in this area. Other options include a pilot channel on Jeffries Island to move sediment from N



channel to S channel. Feasibility, cost, and risk of these and other options are all things the RFP asks the contractor to address.

Scheel asked what flow was modeled. Casavant said 2500 cfs. Schellpeper asked why model 2500 cfs if you expect to operate only under high flow events? Casavant said she does not have a good high flow, flood model. She used the model already developed. Altenhofen asked if sand dam options included hard fixed structures? Casavant said yes. Scheel asked what exists in this area currently? Zorn said this is all Central property. It is owned and operated as wildlife habitat under FERC license. They operate grazing and recreational leases here. Mosier noted RFP asked for consultant to consider up to two additional options, and asked why? Brei said it is a cost constraint. Rabbe said two of the four options to investigate are alternatives of the same concept, and asked aren't we limiting ourselves? Walters said he thought Sand Dam Option A, the Rob Peter to pay Paul scenario had been eliminated – ISAC didn't like it. Farnsworth said he sees it as the only long-term, permanent option. Option B gives you 13 years of sediment max for a high cost. Scheel said maybe wouldn't operate every year, will depend on flow to transport it. Casavant said Option A breaks even according to sediment transport capacity modeling. N channel loses some transport capacity, as S channel gains some transport capacity. Option B also loses transport capacity in N channel because will divert its flow. But, Option B may have a net gain because adds a source of sediment from erosion. Urie asked for clarification. He expressed concerns about unknowns and risk. He asked how we get the benefits of sediment inflow into the S channel without negative impacts to the N channel. Jenniges said there are risks of N channel abandonment. Brei said a good sediment modeler should be able to get information on under what conditions, and how long it would take for N channel abandonment. Jenniges said that one of the reasons we cannot detect our sediment augmentation actions at Overton is because of the large amount of sediment transported by the N channel. He asked whether these proposed efforts to inject sediment into the S channel were likely to be detectable or make any difference? Mosier reminded us about the Jan TAC meeting where we talked about vegetation management to facilitate lateral erosion. Brei/Casavant said this was not included in the RFP for the consultant to investigate as it is easier for us to try it and see if it works rather than pay a consultant to model it. Casavant asked if there are other options the TAC may want to see in the RFP? Farnsworth said consultant may have other options to consider as well. Jenniges asked if the TAC needs to recommend this to the GC? Brei said the TAC should provide technical guidance to revise and sign off on the scope of work. The TAC should consider whether we are asking the consultant to investigate the right things? Altenhofen asked whether we would need a 404 permit? Farnsworth said, yes, will need that. Better to get a feasibility study done first. Program objectives for this project may facilitate the 404 permit acquisition. Getting the permit may be easier because the project creates a "functional lift" that prevents downstream incision and protects endangered species habitat. Brei said there are still a lot of questions that need to be investigated with this RFP. The best product to help would be the 2D Mobile Bed Hydrodynamic Model we are asking the consultant to develop. It will be useful for informing sediment augmentation options moving forward even if the options investigated turn out not to be feasible.

Farnsworth asked for a TAC temperature check. Rabbe's concern is the RFP puts too much focus on Sand Dam A and B with less consideration of additional alternatives. He requested we put the list of all alternatives first with the two Sand Dam (A and B) options we are interested in, following. Rabbe suggested we highlight that the consultant focus on passive options that you walk away from, without additional input. Casavant said we will be developing the Scope together with the consultant. Walters asked that we don't give them a list, we let them come up with the original list and give them the sand



dam options A and B as the level of work they will be doing? Flyr asked if we want an RFP or RFQ? Brei said it is a modification of scope of work to an RFP. Casavant would like an external check on modeling unsteady flows in 2D, which is necessary for calibrating a sediment model. Previous 1D models of the Platte parameterized bank storage to achieve calibration, but this issue has not been solved yet for 2D models of the river. Rabbe suggested we add into the Background section that PRRIP has already tried pumping sediment in addition to mechanical pushing in banks. Jenniges said what the TAC is saying is to modify the RFP language to add ideas if consultant has any.

EDO ACTION ITEMS:

- EDO revise RFP scope of work and send out for TAC review and email approval in May to go to GC in June.

TAC ACTION ITEMS:

- TAC offline review revised RFP scope of work in May, electronic vote to recommend to GC for their June meeting.

Document: [05 Sand Dam Memo](#)

Document: [06 Passive Augmentation RFP DRAFT](#)

Presentation: [05 Passive SedAug](#)

TAC MOTION: *No motion made on RFP.*

MEETING LOCATION and TAC TIME COMMITMENT

Kingsley asked for a recap on the time commitment discussion had with the GC in March. Farnsworth said the GC were informed of the increased time commitment necessary to evaluate Program science questions. Farnsworth said the EDO understands this is not your only commitment. The key is communication. If you do not have the capacity or time to provide input within the timeline set, communicate so we can adjust. Kingsley also asked about revisiting TAC meeting locations. Farnsworth said the July TAC/ISAC meeting is in Kearney due to field visits. In January we agreed on one meeting a year rotating out of Kearney. This meeting in Ogallala is the one meeting out of Kearney for 2024. Marks/Scheel said the shorter drive today was appreciated and makes a difference. Farnsworth said at the January 2025 TAC meeting we can discuss it again to set up a 2025 location schedule.

PROCUREMENT

PHRAGMITES RFP

Bruggeman provided an update on the Phragmites RFP. Contract was awarded to GEI Consultants with Tom Smrdel as the project leader. Initial virtual startup meeting to put schedule together went well. Field team will be in Kearney on May 9th to work with EDO to go over methods in the field and get started.

TARGET SPECIES

WC WINTER COUNTS AT ARANSAS

Jenniges informed the TAC that were not present at the Reporting Session that the USFWS did not conduct a WC survey at Aransas during the winter of 2023-2024. Without this survey, the Program has no annual estimate of the Aransas Wood Buffalo Whooping Crane population. So, we have no denominator for our performance metric “proportion of the AWB population” that uses the AHR each migratory season. If it is a funding problem, we should look at how to get some funding to them. Rabbe



update said that FWS has already committed to doing a winter 2024-2025 survey. For 2025-2026 FWS is in the process of reaching out to partners for contributions. Jenniges asked if the Service will be matching funds? He said the total cost is \$50,000 for a flight over a couple days. Rabbe is waiting until there is some formal action item from the FWS. Jenniges asked if PRRIP paid for the plane, is FWS willing to put the man hours into the effort? Jenniges said this survey effort becomes more difficult as the population grows, now not a census but rather a distance from transect population estimate. Marks asked if Canada partners were surveying at that end? Rabbe said they do nest counts. Jenniges said summer breeding grounds are hard to access and survey. Henry asked if PRRIP wanted information on survey methodology and to stay informed about how decisions are made with regard to adding survey areas and making population estimates? Rabbe said we would want to stay out of their methodology to keep methods consistent for comparability. Farnsworth reminded that population estimate seems to have leveled off over more recent years, but that isn't entirely consistent with what we are seeing here. He asked if that might be due to range expansion at Aransas and not counting birds outside traditional surveyed areas? He said the Program would just want to stay informed about how the population estimate was derived. Rabbe will keep TAC informed of FWS plans for moving forward with contributing partners.

WC RIVERINE ROOST SITE SELECTION – CHANNEL WIDENING OPTIONS

The five-year update on WC Riverine Roost Site selection demonstrated a shift in WC selection of riverine roost sites toward wider unobstructed river channels. In response to this finding, a TAC work group was established to evaluate opportunities and limitations to channel widening within Program habitat complexes throughout the AHR. Rabbe and Farrell summarized the information considered by the work group which led to the identification of two complexes with opportunities for channel widening, Cottonwood Ranch and Pawnee. There are areas in both complexes where channel widths could be improved through mechanical means then maintained by river flow. These are areas where we have adequate channel consolidation to get enough water coverage to maintain unvegetated channel widths once they are created. Rabbe reviewed the management that was done on Volentine (Pawnee) and Stall (CWR) and the gains in unobstructed channel width achieved over time.

Henry/Farnsworth said the plan moving forward is to add these minimal mechanical/chemical management actions to annual work plans for these complexes and implement them each year, keeping track of any changes in channel width over time. Henry reminded the TAC of the preliminary Management Implications that were included in the draft WC Riverine Roost Site Selection Technical Report. She suggested the EDO draft a more detailed description of management implications that follow from today's discussion to be included in the report. TAC can review and revise these management implications to finalize the technical report offline. A final draft would then go to the July TAC/ISAC for recommendation. Then to the Sep GC for approval.

EDO ACTION ITEMS:

- EDO will draft a conceptual plan for mechanical/chemical management to promote channel widening at the Cottonwood Ranch and Pawnee complexes to be included in annual work plans.
- EDO will revise Management Implications section of the WC Riverine Roost Site Selection Technical Report for TAC review, incorporate feedback, and provide for TAC recommendation at July meeting.



TAC ACTION ITEMS:

- TAC will review revised Management Implications section of the WC Riverine Roost Site Selection Technical Report and provide feedback offline.
- Recommendation of report scheduled for July TAC for presentation to GC in September.

Presentation: [Channel Width by Complex](#) [Stall Valentine Maps](#)

DAY #1 REVIEW & WRAP UP

MOTIONS

January 2024 TAC Meeting Minutes Approved

J2 Channel USGS Stage Gage Installation and 2024 Water Plan Budget Revision Approved

ACTION ITEMS

For June GC

Passive augmentation RFP

For July TAC/ISAC, to GC in September

No Sediment Augmentation Monitoring Plan

Conceptual plan to promote channel widening at the Cottonwood Ranch and Pawnee complexes

WC Riverine Roost Site Selection Technical Report – Management Implications Revised

Dinner served at 6:00 PM at meeting location.

DAY #1 TAC MEETING END

The TAC meeting adjourned at 4:55 PM Mountain Time.



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

Technical Advisory Committee (TAC) Virtual Meeting

Meeting held in-person at Petrified Wood Gallery in Ogallala, NE

Wednesday, May 8, 2024; 8:00 AM – 12:15 PM MT

Technical Advisory Committee (TAC)

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Bureau of Reclamation (Reclamation)

Brock Merrill – Member

State of Colorado

Kara Scheel – Member

U.S. Fish and Wildlife Service (Service)

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**WELCOME & ADMINISTRATIVE**

Rabbe called the meeting to order at 8:01 AM Mountain Time.

AGENDA MODIFICATIONS

Henry reminded TAC of items on the agenda for today that were covered by the TAC on Tuesday. This included:

Phragmites RFP

WC Winter Counts at Aransas

WC Riverine Roost Site Selection – Channel Widening Options

We will lead off today's agenda with the State of the Platte update originally scheduled for Tuesday.

STATE OF THE PLATTE***STATE OF THE PLATTE UPDATE***

Smith provided an update on State of the Platte Report. The EDO received ISAC comments that were subsequently sent to the TAC. Feedback included some easy fixes, others requiring more in depth consideration. Chad noted that the ISAC had pointed out a need to go more in depth on items that are already described in detail in other documents. EDO is working through a plan to freshen up the interaction with the ISAC, using meeting time to hear ISAC feedback and encourage ISAC/TAC dialogue rather than presenting to ISAC and waiting for their internalization and feedback. EDO will want to use ISAC time in July to do this. TAC feedback on State of the Platte Report is expected by the end of May. The joint TAC/ISAC meeting in July will be a good opportunity to address feedback from both committees. That means we are not going to get a finalized State of the Platte Report by the June GC. Smith said the report would probably be finalized early in 2025.

Rabbe asked the TAC to try and stick to established deadline for TAC feedback. The date set was May 10th. Will need time to integrate and get to EDO by the end of May. Marks asked about the "stale" interaction with the ISAC that Smith mentioned. Smith said that is an EDO observation. Multiple comments from the ISAC to provide information that has been presented in other documents and prior meetings says to the EDO that we may need to think about how we are communicating with the ISAC and about ways to keep them engaged. We are not really getting what we need out of the ISAC. Altenhofen asked whether ISAC had a formal structure with a Chair etc. and whether they have a regular meeting structure and dialogue. Smith said that the structure exists and the EDO provides documents, questions to consider and respond to following document review, and we receive that feedback but maybe not along the timeline or level that makes it effective. Altenhofen asked about cost. Smith said PRRIP is paying for 18 days of work at \$220/hr, around \$30,000 per year stipend for each ISAC member. He is revising ISAC contracting and annual pattern of work. Farnsworth gave a specific example. EDO presented to the ISAC in February a relationship between unobstructed channel width and WC roost site selection probability. ISAC feedback was that they were uncomfortable with EDO interpretation of confidence intervals surrounding this relationship. The EDO asked for ISAC advice on how to interpret these confidence intervals, but ISAC provided an unrelated citation that was not helpful. We would like to be able to interact with the ISAC in a way that they are able to provide us some useful alternatives to try moving forward. It would be more effective to treat it as a working relationship rather than a peer review type of interaction.

**EDO ACTION ITEMS:**

- EDO rethinking engagement with the ISAC and will come to July TAC/ISAC with a revised plan for interaction that provides more useful feedback on the State of the Platte Report.

TAC ACTION ITEMS:

- TAC feedback on State of the Platte Report due to Rabbe by May 10th.

TARGET SPECIES**2023 FALL WC REPORT**

Bruggeman gave an overview of the fall 2023 WC monitoring season, noting additional data from two individual whooping cranes that remained within the AHR until January 10th. Record fall in terms of stay length because of two birds that remained until Jan 10th.

Baasch asked about location for 1600 ft channel width observed at a WC riverine location. Bruggeman/Farrell said they would review data and get back to TAC. Jenniges said looks like that observation was located around the Dippel property. Rabbe asked about adjusted vs. non-adjusted performance metrics. He said we are reporting both metrics in report. Over the years we have had a few years when our surveys did not cover the 5-95%, but we cannot go back and fly those to get the data. Bruggeman said there were only a few years when this occurred, and it occurred more frequently in the spring. Bruggeman says those seasons occurred prior to 2014, so 2014 forward data are used for linear regression for longitudinal trends. Rabbe suggests we leave adjusted and non-adjusted metrics in the report indefinitely. Non-adjusted and adjusted WC metrics are included to ensure all data collected following the current monitoring protocol are reported as well as limiting longitudinal reporting over time to data that fall within the 5-95% time window for standardization purposes. Rabbe said FWS typically has fall's public sighting finalized by February, and asked Bruggeman to coordinate with him for report numbers before finalizing for GC. Rabbe pointed out language on page 34, second paragraph, line 858, stating "It is unlikely that WC metrics would have been significantly adjusted during those years". He said this is an assumption, and asked Bruggeman to change the language to reflect that we cannot go back and get the data, so using best available at the time.

EDO ACTION ITEMS:

- EDO will make the two changes to the report mentioned by Rabbe above prior to sending the report to the GC for approval in June.

Document: [07 Implementation of the Whooping Crane Monitoring Protocol – Fall 2023 Draft Report 041524](#)

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

TAC MOTION: *Marks moved, and Jenniges seconded a motion to recommend the Fall 2023 WC Monitoring Report to the GC for approval contingent upon making the revisions noted above. Motion approved.*

WC MONITORING PROTOCOL UPDATES

Bruggeman reviewed changes to the WC Monitoring Protocol for consideration by the TAC. He went over the items that have been consistent with previous versions. He also covered changes for TAC consideration include calculation of 5-95% dates, methods for evaluation of and modification of



monitoring period based upon dates of 5-95% of observations, options for monitoring during extended seasons, rules for extending and discontinuing monitoring periods, alternative monitoring methods for extended monitoring seasons.

Marks asked if PRRIP had used drones in the past. Bruggeman said no, this is an addition to the protocol for consideration. Marks asked about types of drones being considered. Farnsworth said it would be a battery powered small quad copter. A year ago, someone inquired about remote surveillance using a gas-powered large drone. However, no bid was ever submitted. Manley said there have been issues with China being the main drone manufacturer, this could make the use of drones problematic. DJI makes a drone that carries payload that may serve a dual purpose for monitoring and herbicide applications. Baasch said he was not opposed to drones, but he thinks use of drones will get us data that are not comparable to what we have collected prior. He asked why PRRIP was extending flights if cropping the data to 5-95% dates. Henry said the reason for extending surveys is to complete data collection on groups that arrived within the 5-95% monitoring window. Rabbe said we will keep full, non-adjusted dataset. Bruggeman said stay length is the principal metric we can obtain by extending monitoring. Baasch said we can look at stay length moving forward, but it won't be comparable to past data collection prior to when we extended monitoring periods. Henry mentioned that the 2017 monitoring protocol included extending surveys if WC were still present in the AHR. However, the 2017 protocol specified ending extended surveys outside the regular monitoring period after 5 days without observations rather than the 2 days we are currently implementing. She also mentioned that Science Plan EBQ #5 is about learning more about the factors associated with stay length, so this is an important response variable to collect. Baasch asked if a bird shows up in February, are we going to start flying earlier as well to collect complete stay length data? Henry said this would not be a systematic observation, it would be an opportunistic observation. Bruggeman said it could be added to the protocol, put a drone up prior to the season. Rabbe asked how to deal with an opportunistic drone observation for analysis. Bruggeman said non-systematic, not used for habitat use, but could be used for stay length information. Just want best available information. Farnsworth asked about the data used for roost site selection analysis. Farrell said using systematic data only for roost site selection, but for stay length information want to use all observations. Zorn asked about the dataset for stopover vs. flyover analysis. Farrell said we would be using only systematic telemetry data because collected as the bird is deciding whether to stop or not. Circling back to Baasch's question, Henry asked how the TAC wants EDO to deal with public sighting and telemetry birds that show up before we survey. She said we don't currently put effort into confirming these even during the regular monitoring period. Does the TAC want us to put a drone up to confirm it now? Zorn asked if EDO goes out to confirm group size of these birds. Henry said no, not unless we pick them up systematically or happen upon them as we are doing ground confirmations or looking for previously sighted birds when flights are canceled. Urie asked why the Program does not get real time telemetry data. Rabbe said it would create a bias in monitoring having this information prior to survey. Program will get these data in yearly data acquisition, just not in real time. Henry said those observations are included in the FWS public sighting database and the data are included in the annual monitoring report as a table comparing PRRIP and FWS observations, so the Program does get that information from the FWS and the Whooping Crane Tracking Partnership telemetry data acquisition. Henry said EDO is looking for a TAC recommendation on revised protocol before it goes to FWS for their review and consideration. Rabbe clarified FWS does not include telemetry sightings unless they are detected and confirmed as public sightings at some point, independent of telemetry (observed by people during their stay who did not detect them due to telemetry knowledge). Zorn asked about having the lights shut off on drone to minimize disturbance. He



said we should check FAA regulations to see if no lights are allowed. Marks asked about elevation limits. Bruggeman said window is between altitudes of 350 – 450 feet. Marks asked if FWS is aware of any other bird monitoring using drones? Rabbe said FWS is discussing this with other species for cost effectiveness. Rabbe said BO has take coverage by implementing current approved protocol. When you change the protocol FWS needs to review it and decide whether it still provides coverage when using drones. Bruggeman asked about rules for ending extended seasons. Do we need 2 consecutive days of no observation flights or just 2 flights without observations (not necessarily on 2 consecutive days)? It may be hard to put a plane up 2 days in a row with weather conditions. Jenniges said two consecutive flights with some evidence birds have left. Could add this language to the protocol. Bruggeman also asked, what about ending your regular monitoring period? If your last few days within the regular season are not flown, can you stop? Rabbe said we don't need a systematic flight in this case, we can use the drone to confirm whether or not the birds are gone. Jenniges said we end flights at the end of the monitoring period and use any additional information you have to make decision to stop. If no additional information, Bruggeman suggested just put a drone up to provide that information that bird has left.

CHANGES TO DRAFT: Farnsworth said to add something about the potential for adding drones opportunistically if you have information on early arrivals. Bruggeman said as a second addition we will add rules for stopping regular monitoring period if not able to fly at the end. Rabbe asked for a change to the text on pg. 8, line 363 in Data collection from state and federal agencies section. Change his title to WC Migration Tracking Coordinator. Also on pg. 8, line 337 Public sightings where it states "Project leader attempts to confirm all probable...", change to "The project leader will collaborate with the FWS to capture..." Rather than go through red-line changes at this time Farnsworth asked the TAC to send final red-line version back out to the Committee for review and electronic vote for TAC approval.

EDO ACTION ITEMS:

- EDO revise protocol based upon TAC discussion above and integrating changes in red-lined versions received from TAC in May.
- EDO send revised draft protocol back out to TAC for review and electronic vote in June.
- EDO send TAC approved monitoring protocol to FWS to review and evaluation June to July.
- Goal of sending updated monitoring protocol with TAC and FWS approval to Sep GC to have it in place for fall WC migration.

TAC ACTION ITEMS:

- TAC send their red-line version to the EDO to incorporate changes in May.
- TAC review revised draft and take an electronic vote to recommend in June.

Document: [08_DRAFT_PRRIP_Whooping_Crane_Monitoring_Protocol](#)

Presentation: [08_whooping_crane_monitoring_protocol](#)

TAC MOTION: *No motion made at this time.*

WC DIURNAL SELECTION ANALYSIS: WEST RERUN WITH ECOTOPE AUTHORS

Farrell began by reminding the TAC of the onboarding process to bring the science within the Ecotope article into the Program. He then reviewed the TAC recommendation and GC approval to rerun the WEST analysis collaboratively with Ecotope authors to reduce uncertainty about why these two



technical works came to different conclusions about WC selection of wet meadows. Farrell summarized the change in methods to bring the WEST report closer to the Ecotope publication and the results from that effort. Baasch summarized the change in methods to bring the Ecotope analysis closer to the WEST analysis and the results of that effort. In sum, all participants agreed that using a modeling framework where available sites were not limited to locations nearby the use site they were being compared to was the reason these two efforts came to different conclusions.

Belt pointed out that lower availability with same use gives a stronger signal for selection. Altenhofen asked if target flows might be modified based upon importance of wet meadows. Rabbe said that had been a discussion in the past, but it is no longer considered an effective strategy. Altenhofen asked about irrigating wet meadows, is that still an option? Farnsworth pointed out the Fox tract restoration and pumping to fill during WC season. Baasch noted that pumped swales on that tract are better duck habitat with the cattails present. Altenhofen asked if WC use the channel in this area? Farrell said yes, and pointed out an area downstream of the NGPC Kearney Hike Bike Trail. Baasch said the meadow marsh landcover are the swales. Wet prairie is the upland ridges. Baasch said the Ecotope paper never intended to say that WCs used only the meadow marsh component. Farnsworth asked if that doesn't take us right back to the tract level ridges and swales included as wet meadow landcover that the Program used. Altenhofen asked about WC roost vs. diurnal use patterns. Farrell said this analysis looks only at what WC are doing during the day. Flyr asked what qualifies as an invasive wetland? Baasch said purple loosestrife and *Phragmites*. Scheel asked if meadow marsh is wet meadow. Farrell said meadow marsh are the wetter, lower swales with a different vegetation community. Rabbe said let's not get hung up on the definition since we have not and will never agree upon it. Farnsworth said this was the hypothesis of the Ecotope paper. Farnsworth asked Baasch how much of wet meadow in the WEST report he considers actually meadow marsh or wet prairie? Baasch said he thinks John's tract, for example, was classified as wet meadow, but he says none of it is meadow marsh or wet prairie. Jenniges said the point here is that choice of analysis can change the results. Only a small percentage of landcover is wet meadow, so what do we do with this? No one is looking to get rid of wet meadows. Belt asked if you have two analytical frameworks accepted in the literature, how do you pick? Farrell said PRRIP wrestled with this in 2000s and chose the paired, discrete choice type of framework. Rabbe says there is a world outside of the Program working with this kind of data, and that was considered when the Ecotope analysis was planned. Rabbe said he made some additional points about interpretation of the results from this exercise in the [Collaborative Research Group TAC Memo](#), but those don't really matter in terms of making a decision moving forward. Service will not support getting rid of any of PRRIP owned wet meadows and one FWS vote (as a signatory) will kill any attempt to sell these properties. Rabbe said we have all these grasslands; we need to figure out how to manage them. He said it does not matter if people agree whether they get selected or not. Wet meadow get used by whooping cranes every year. Jenniges said we can't make Mormon Island on other tracts. The wet meadow hydrology report illustrated this. Rabbe suggested we continue with the draft wet meadow document that a TAC workgroup started, get it in front of the entire TAC for review, then take it to the GC. Rabbe said the FWS isn't saying you need to change target flows, too much of an administrative lift. The FWS is also not prioritizing releasing water to hit February-March pulse target flow of 3400 cfs with the intent of increasing saturation or ponding in wet meadows, as research to date indicates we would need to release more water than capacity constraints allow and it may not be an effective use of water. The FWS would like to shift focus on how to manage properties we will keep in the suite of Program lands. Walters said, we will keep them and we will play with the management. Walters said there is no need to do any more science on wet meadows. Jenniges said the Program document says we need a certain



amount of wet meadows in complex habitat and this group is not looking to change that. We may want to alter how we keep them wet if that is an available option. Henry asked Walters to clarify what he meant by saying “We do not need to do any more wet meadow science”. We have EBQs with landcover proposed as alternative hypotheses for why WC stop and stay longer. Walters says we don’t need any more science to define what a wet meadow is. We can still do the work to classify it for EBQ landcover designations. Rabbe went further and said maybe we don’t need to do that, we know WC use corn and wet meadows over larger spatial scale, but the amount of these in the landscape are outside our control. Farnsworth asked what the TAC wants him to communicate to the GC in June? What information do we need to put ourselves in a good position to negotiate a Second Increment? Farnsworth needs technical support from the TAC specifying why they are saying we need every grassland we have? Rabbe said grasslands serve as buffer at a minimum and protection to riverine grounds. Jenniges does not want to renegotiate a Land Plan even if WC don’t use them. Schellpeper said maybe GC will want to reevaluate the amount of grassland they own. Rabbe said he had discussed this internally with FWS leadership and reiterated that FWS will not support excessing. These grasslands get variable use and provide a buffer. Walters says there is no blanket answer, depending on the complex some grasslands may get more or less use. Farnsworth asked again for a technical reason for keeping wet meadows to provide to GC members. Fly said she thinks it is premature to talk about excessing land when we are having high use years, as crane numbers increase those birds need to go somewhere. Farnsworth said if that’s a values thing, let’s just say it. Belt asked if we have a number for how much money is spent annually on managing grasslands vs. wetlands? Farnsworth said yes Belt said maybe we can use money spent on management as an input for SDM. Farnsworth said he is not proposing we excess lands, but he suspects budget will become more of a constraint in the future. Farnsworth wants to construct a technical framework around grasslands to keep them from being the first thing to cut. He suggested giving them value through their contribution as buffer or to Other Species of Concern. Altenhofen asked if the Program will be acquiring more land in Second Increment and if the ISAC is involved in decision? Farnsworth said we don’t know about the land acquisition as there has been no negotiation yet. He said we try to keep the ISAC out of things like this. Rabbe said let’s get back to the draft document and get it to the TAC for review. Henry suggested the TAC working group including Rabbe, Jenniges, Walters, and Zorn who participated in writing the draft, add technical detail and specificity to provide the type of information Farnsworth requested. Farnsworth suggested looping the Grassland Working Group into this overarching collaborative effort to create one group, Rabbe agreed on that approach. The draft can then go to TAC for review and revision, then out to the GC.

TAC ACTION ITEMS:

- TAC working group revise draft wet meadow document and provide to TAC for review.

Document: [09 Collaborative Research Group – TAC Memo](#)

Presentation: [09 WC diurnal selection analysis](#)

EBQ #4 WC STOPOVER VS. FLYOVER

Henry summarized the objectives of Science Plan EBQ#4: Factors associated with WC Stopover vs. Flyover. The EDO will be using the WC telemetry dataset received by the Whooping Crane Tracking Partnership for this analysis. Henry asked for a TAC workgroup consisting of one member of each stakeholder group to meet over the summer months to develop the experimental design and analysis framework to answer this question. Henry suggested in person meetings to start off in late May to



provide guidance to get the EDO started, then less frequent (2x/month) meetings in June and early July as needed to check in. Goal would be to get a draft data analysis plan to the ISAC for their review in July.

Rabbe/Baasch/Jenniges questioned the need to get this draft within the next couple of months. The Program will continue receiving more telemetry data moving forward, so why start the analysis now? Baasch asked about the scale of the data we received. Farrell explained that after going back to Pearse to address missing data in the first dataset the Program received, the second dataset received contains all migratory locations from one stopover prior through one stopover following a stopover or a flyover of the Nebraska sand bed rivers. Flyr said she understand the purpose for getting started with initial dataset to see if proposed methods will work or if go another direction. Manley asked if these in person meetings were planned for Kearney. Henry said yes, but they could be moved around. Manley said with these types of drive times and for only two hours of work, he cannot see WY being able to participate. Henry said she can be flexible, maybe make initial meeting virtual to get us started. Henry suggests the first meeting be an hour to introduce the question, hypotheses, explanatory variables already suggested, and the dataset. She would then give a small dataset to participants to work with to see what it is like to work with over the larger spatial scale and landcover. Rabbe said this meeting schedule is not tenable over the summer months with other things folks have planned. Flyr wants to work with data first in order to be able to give better insights and feedback. Walters said maybe get started with indication of participants. Farnsworth said good idea to start with an initial meeting to develop project timeline, level of effort, meeting frequency, etc.

TAC volunteers for Work Group included Merrill, Rabbe, Schellpeper, Kingsley, Scheel, Walters, Baasch, maybe Ostrom, Zorn, and Flyr. CO Water Users and Wyoming will discuss and appoint next week.

EDO ACTION ITEMS:

- EDO will schedule an initial virtual meeting once we have a full participants list.

TAC ACTION ITEMS:

- CO Water Users and Wyoming will discuss and appoint their work group members next week.

TAC APPOINTMENT OF WORK GROUP

Merrill, Rabbe, Schellpeper, Kingsley, Scheel, Walters, Baasch, maybe Ostrom, Zorn, and Flyr.

USFWS PP STANDARDIZED MONITORING PROTOCOL

Bruggeman informed the TAC of the USFWS Piping Plover Standardized Monitoring Protocol. The protocol provides suggested monitoring methods to collect data FWS needs to assess plover population viability. He said the Program collects the majority of the data requested by the FWS, though monitoring methods are less intensive (no grid searching or floating eggs). Rabbe said PRRIP is probably in good shape, our protocol is more robust than most and gets at the metrics FWS needs like fledge ratios though there are minor differences in data collection.

Document: [10 FWS Missouri River Office Draft NGP PP Standardized Monitoring Protocols 2.28.2024](#)

EBQ #8-9: PREDATION IMPACTS ON PP PRODUCTIVITY AND MANAGEMENT EFFECTIVENESS

Bruggeman introduced the BACI data analysis method suggested for use to address Science Plan EBQ#8-9 to evaluate the impact of predation on plover productivity and to evaluate the effectiveness of



additional predator management implemented since 2021 on three PRRIP OCSW sites. Initial run at a simple analysis of plover fledge ratios showed no effect of additional management on plover fledge ratios, but using fledge ratios as the response variable confounds losses due to all sources and does not look specifically at nest predation.

Jenniges asked if we just look at data anymore, and whether we really needed to model everything? Henry asked what information the TAC would like to see to inform a decision on how to proceed for 2025? After 3 years of data collection, we are at a data analysis step to help the Program decide whether we continue doing what we are doing, try something else, or just stick to status quo baseline level of predator management. Jenniges asked if we were planning on removing the fence from Broadfoot South? Henry said, no, the question is whether we might want to add exclusion fencing at other sites if it is effective at reducing predation. Altenhofen asked how much we spend on additional predator management. Henry said the big cost at the onset was the fence at Broadfoot South. Bruggeman said once that was implemented (fence, lights), some basic maintenance is required, but cost is almost exclusively personnel time. Altenhofen asked which predators are most problematic. Bruggeman said it varies. Owls have been a consistent problem, but coyotes, badgers and other mammals have also been problematic. Schaneman asked if we had looked into using guard dogs? They have been used effectively to mitigate predators by his organization. Henry said what the EDO is looking for is a TAC work group to keep informed and provide input for this data analysis effort so the TAC feels comfortable with the outcome and the information generated and can make a recommendation to the GC about how to proceed in 2025.

EDO ACTION ITEMS:

- EDO will schedule an initial virtual meeting with work group participants in May

TAC ACTION ITEMS:

- TAC consider any additional stakeholder participation in work group

Document: [11 LTTP fledge ratios predation management analysis](#)

Presentation: [11 LTTP predation management analysis](#)

TAC APPOINTMENT OF WORK GROUP

Merrill, Ostrom, Kingsley, Mensinger, and Marks

PS UNL FIELD UPDATE

Henry gave a spring 2024 update from UNL reflecting UNL's priorities for field data collection this spring and summarizing documented use of the Lower Platte River thus far in 2024.

Altenhofen asked if PRRIP was paying for this project. Henry said yes, 100%. He asked if why the focus on lower Platte River and not above the Loup in the central Platte? Henry said most documented use has been in the lower Platte, and we have a passive receiver system set up to detect fish that continue up the central Platte past the Loup, like the detection we had this spring. It is our first detection on that receiver since starting the project in 2022. Rabbe asked about the timing of the central Platte River detection. He would like to know if it was during the spring WC EA Release? Henry said she would find out and get back with Rabbe.



EDO ACTION ITEMS:

- EDO will get back to TAC with date when pallid sturgeon was detected on central Platte receiver just upstream of Loup confluence.

Presentation: [UNL PS Spring 24 Update](#)

DAYS #1-2 REVIEW & WRAP-UP

MOTIONS

January 2024 TAC Meeting Minutes Approved

J2 Channel USGS Stage Gage Installation and 2024 Water Plan Budget Revision Approved

Fall 2023 WC Report Approved with suggested revisions

ACTION ITEMS

TAC feedback on State of the Platte Report due May 10th

TAC revise draft wet meadow document

CO Water Users and Wyoming will discuss and appoint their work group members for Stopover vs. Flyover analysis. EDO will schedule initial virtual planning meeting.

EDO will send TAC the date when pallid sturgeon was detected on central Platte receiver just upstream of Loup confluence.

For June GC

Passive augmentation RFP

Fall 2023 WC Monitoring Report Revisions

For July TAC/ISAC, to GC in September

No Sediment Augmentation Monitoring Plan

Conceptual plan to promote channel widening at the Cottonwood Ranch and Pawnee complexes

WC Riverine Roost Site Selection Technical Report – Management Implications Revised

Revised plan for ISAC interaction and feedback on the State of the Platte Report

WC Monitoring Protocol updated with TAC and FWS approval

WC Stopover vs Flyover Draft Data Analysis Plan

LTPP Predation Initial Results and Revised Data Analysis Plan

Future calendar events:

- 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 Mountain Time.