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

Technical Advisory Committee (TAC) Virtual Meeting

Meeting held in-person at Executive Director's Office in Kearney, NE

Day #1: Tuesday, February 4, 2025; 1:00 PM – 5:00 PM CT

Technical Advisory Committee (TAC)

State of Wyoming
Cheyenne Love – Alternate
Michelle Hubbard – Alternate

State of Colorado
Kara Scheel – Member
Emily Zmak – Alternate

State of Nebraska
Caitlin Kingsley – Member
Jennifer Schellpeper – Alternate

Upper Platte Water Users
n/a

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

Bureau of Reclamation (Reclamation)
Brock Merrill – Member

U.S. Fish and Wildlife Service (Service)
Matt Rabbe – Member

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

Colorado Water Users

Executive Director's Office (EDO)

Jason Farnsworth, ED
Chad Smith
Malinda Henry
Justin Brei
Seth Turner
Patrick Farrell
Tim Tunnell
Quinn Lewis
Jonathan Wentz
Alyx Vogel
Ethan Ideus
Nicole Fijman
Ed Weschler

Other Participants

Abe Kanz – Crane Trust
Melissa Marinovich – NGPC
Mike Archer - NGPC
Jack Mensinger – NE DNR
Tyler Martin – NE DNR
Richard Belt - SPWRAP

WELCOME & ADMINISTRATIVE

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

AGENDA MODIFICATIONS

No modifications to the agenda were offered.

Document: 01 – PRRIP TAC Quarterly Meeting Agenda_Feb_2025

MINUTES

Henry asked to address two tasks under this agenda item: review red-lined edits contained within current revised TAC minutes and talk about how the TAC wants to deal with the broader comments the EDO receives on meeting minutes. The TAC discussed the reviewed the red-lined edits and comments within the minutes. Kingsley pointed out what appeared to be a missing thought in line 557, which was corrected to read "avoiding germination suppression". In line 565 the word "remained" was corrected to say " remainder".

Henry asked the TAC for guidance on how to better incorporate sidebar comments from the TAC that are sent to the EDO when editing TAC minutes. Questions, critiques, dissatisfaction with direction of science, and additional thoughts on a topic after the fact are some of the types of comments received. She asked how the TAC would like to deal with comments that were not discussed at the meeting thus do not belong in the meeting minutes but might be helpful for the TAC as a whole to see and discuss. Rabbe suggested to put those comments in the body of an email for TAC rather than in the minutes. Walters suggested the EDO pull those comments together to be discussed at next TAC meeting. Reserve time to do so at beginning of next meeting. Scheel asked whether the Program previously developed such detailed minutes? Do we need so much detail, especially if folks do not think their viewpoints are well represented. Ostrom said she sees benefit from having detailed minutes. Farnsworth said the TAC has generally provided detailed minutes. Can attempt to capture major points or have somewhat less detail than exact wording from folks. Brei said TAC members should be talking directly with their GC member to express and explain their concerns. TAC minutes are more to communicate TAC ongoings to the GC body as a whole, but not for individual communication with each GC member. Farnsworth said the EDO would provide time at the beginning of each meeting if further discussion is needed for any items.

TAC MOTION: *Jenniges moved, and Walters seconded a motion to approve the October 2024 TAC Meeting minutes.* Minutes approved.

FINAL Document: 10-22 and 23-2024 PRRIP TAC Meeting Minutes FINAL

ELECTION OF OFFICERS

Rabbe said the agreed upon process was to move the previous Vice Chair to Chair and refill the Vice Chair opening. That means Walters would move from Vice to Chair. Rabbe asked if the TAC was okay with that process. Merrill nominated Walters to serve as 2025 TAC Chair.
Walters nominated Flyr to serve as 2025 TAC Vice Chair.

TAC MOTION: *Merrill moved, and Ostrom seconded a motion to approve the nomination of Walters to serve as the 2025 TAC Chair.* Motion approved.

TAC MOTION: *Walters moved, and Rabbe seconded a motion to approve the nomination of Flyr to serve as the 2025 TAC Vice Chair.* Motion approved.

ROLE OF THE TAC

Farnsworth reviewed the role of the TAC as defined by the TAC Charter in Appendix G of the Program document. For the TAC, a specific set of roles has been put in place to inform decisions for the GC. The TAC Charter is focused on science and science implementation. The TAC's role is to advise the GC. There is a break between the TAC and the GC such that the decision on what to do with Program science lies with the GC. It is, however, within the TAC's purview to make policy recommendations to the GC. Farnsworth went over the distribution of votes among GC members and how GC voting works. The role of the TAC is to communicate with the GC and prepare them for informed voting. Walters asked, do we have all voting positions covered within the TAC that are appointed by the GC. Farnsworth said he believes so. Each voting member can have a representative and an alternate. Archer asked via Teams chat if both the representative and their alternate get a vote. Farnsworth said no, they are not additive. Farnsworth said it is important to make sure each GC rep has a person at the TAC to communicate information upward. Henry reminded the Environmental Entities that they currently have a vacancy at the TAC level, they are missing a formal designation of a voting member for the TAC.

Document: 03_TAC Charter

TARGET SPECIES MONITORING

2024 PLOVER AND TERN ANNUAL MONITORING REPORT

Vogel presented a summary of plover and tern productivity and predation for the 2024 monitoring season. Hegg asked if additional nests was due to adding sites this year. Vogel said no, same 18 sites as last few years. Rabbe asked about large number of racoons caught. Have we ever documented racoons as predators. Vogel said the river nest last year was lost to a racoon, but we have not documented racoon predation on off-channel sand and water sites. Jenniges agreed, saying racoons do not typically travel toward the middle of nesting areas where nests are. Farnsworth said it may be because we are good at catching racoons. Farnsworth said the USDA/APHIS trapper will focus efforts next year and be more available to deal with documented predators. Zorn asked if cameras are still providing useful information. Vogel yes, we can tailor trapping to species we see on cameras. Farnsworth said idea is to use the cameras we have and phase out cameras as they stop working.

TAC MOTION: *Rabbe moved, and Hegg seconded a motion to recommend the 2024 Plover and Tern Monitoring Report for GC approval.*

Document: 04_PRRIP 2024 Plover and Tern Monitoring and Research Report DRAFT 20250122
Presentation: 05_2025_February_TAC_Plover_Tern_Presentation

LTPP RIVER MONITORING

Rabbe began by asking about the utility of river monitoring if on-channel habitat is limited to MCA island. That led Rabbe to look into what the Program's requirements for surveying the river. He said that in the First Increment BO there was no room for discontinuation of river surveys. But the First Increment Extension BO says to focus efforts on known nesting. There may be room to reduce river survey effort to known nesting or just monitoring the MCA island. Jenniges said he sees little utility in the river surveys. We have discussed putting flow limits on surveying, when flows are too high there is no suitable nesting

habitat. The Program now has better modeling tools to determine if, when there would be habitat on the river. Farnsworth said we could limit river surveys to peak breeding periods but asked if there is a concern that not having the information is a risk if someone asks for it later because there could have been birds out there. Jenniges said all nesting has been on man-made or managed islands, not natural habitat. We can survey those areas directly. Farnsworth said there has been no nesting on the river since 2016 except last year's single plover nest. Henry asked if we need the negative survey to demonstrate no negative impact on plover nesting of our germination suppression release. This is information the Service asks for at release coordination meetings. Rabbe said this warrants more discussion by the Service. Zorn, Farnsworth, Rabbe discussed relevance of the river surveys for flow attenuation plans. Rabbe didn't look through 10A-1A Plover and Tern permit, he asked if river monitoring was required under that permit? Rabbe said the TAC can continue to discuss this and maybe by 2026 we could scale back. Farnsworth asked if we could scale back to once per month in 2025. Rabbe said he was on board with this. Henry said we could schedule the monthly river surveys to hit the peak for plover use of the river on June 15th. Zorn said May 15th is when the flow attenuation plan due, a river survey prior could help inform. EDO would need to revise the monitoring protocol to change it from twice monthly to once monthly river surveys. We could have the TAC review the protocol offline and get a virtual TAC vote. From there need to have the Service review and approve at Nebraska field office level. Then move up to GC for approval. The EDO will move forward to see if we can get a revised monitoring protocol approved this year prior to May, if not, for 2026.

EDO ACTION ITEMS:

- Revise tern and plover monitoring protocol to once monthly river surveys
- Facilitate TAC and Service review and approval of revised protocol
- Take revised protocol to March GC for approval

TAC ACTION ITEMS:

- Offline review of protocol with virtual TAC vote
- Service review of protocol

Document: 06_Excerpts from BO

2024 WHOOPING CRANE MONITORING REPORTS

Henry summarized revisions to the spring 2024 monitoring report as requested by the TAC and a TAC working group following the October TAC meeting.

- Revised draft report to reflect updated unobstructed channel width (UOCW) and nearest forest (NF) measurements that integrate aerial monitoring photos with aerial imagery to hand-delineate UOCW and NF.
- Revised draft report includes WC performance metrics (proportion of AWB population observed on the AHR and crane use days) from 2001-2024.
- No statistical analysis of long-term trends over time.
- Evaluation and annotation of whether or not 2001-2006 survey periods encompassed the 5-95th percentile dates of WC arrivals in Nebraska for the associated 10-year period.

Rabbe asked about page 30, line 16. Rabbe will work with Ideus and Henry to revise the wording so it makes more sense in terms of what was observed across both FWS and PRRIP efforts. Wording changes do not impact final numbers, simply help with interpretability.

TAC MOTION: *Jenniges moved, and Merril seconded a motion to recommend the 2024 Spring WC Monitoring Report for GC approval with the edits to wording on pg 30 mentioned above.*

Document: 07_Implementation of the Whooping Crane Monitoring Protocol -Spring 2024 Report DRAFT w TAC corrections 2.4.2025
Revised Document: 07revised_Implementation of the Whooping Crane Monitoring Protocol -Spring 2024 Report DRAFT w TAC corrections 2.4.2025

SCIENCE PLAN

WHOOPING CRANE STOPOVER VS. FLYOVER UPDATE

Farrell updated the TAC on the progress made on data analysis to address Extension Big Question #4: What factors influence whooping crane decision to stop or fly over the AHR? He reviewed analysis priorities and current state of progress as outlined in the step by step process included in the memo. Hegg asked why the rectangular shape of the area of interest upon approach, not a circle? Farrell explained this as a representation. Imagine a visual perception cone from each location point as the bird flies, would encompass a continuous rectangle of landscape seen on either side of the bird as flying. Upon encounter of the river, it is a circle. Farrell presented an unsupervised classification of on-channel landcover derived from satellite imagery. Farnsworth asked about the imagery source. Farrell said the source for the landcover information was Sentinel imagery at 15 m resolution. Farrell said we can cross-check results from hand delineation of fine scale aerial imagery versus unsupervised classification. There is a tradeoff between fine scale imagery not available at a temporal scale that is relevant and less spatial resolution but better temporal resolution.

EDO ACTION ITEMS:

- Continue to check in with TAC work group as make further progress

Document: 08_WC Stopover vs Flyover Update
Presentation: 09_WC Stopover vs Flyover Update

WHOOPING CRANE RIVERINE ROOST SITE SELECTION

Farrell presented the results of implementing ISAC suggestions for improving the WC Riverine Roost Site Selection Technical Report. Walters asked and Farrell explained bootstrapping and how it improves confidence and ability to determine statistical significance. Rabbe asked why the EDO chose to compare and test for a statistically significant difference between 650 ft and 1200 ft? Why not 900 ft? Farrell picked 650 ft as management related and 1200 ft because that was where the curve for predicted whooping crane use tops out – picked the largest difference in predicted WC response to test to see if significantly different. Ostrom/Rabbe asked the EDO to parse it out and look at areas where you have more data and more selection (like 900 ft). They suggested the EDO look for differences in 100 ft increments from 650 ft upward. Jenniges asked if Figure 2 included side channels. Farrell said no – these are data from the management channel, which does not include side channels. So, side channels are not included in Figure 2. However, Table 1 does include side channels. For Figure 2A Rabbe suggested properties being managed for whooping cranes regardless of ownership (like the Crane Trust) appear all in the same figure together with Program owned and Program managed properties. Farrell said he needs shape files indicating the extents and timing of management by conservation entities to do this. Henry said the ISAC made this suggestion to evaluate how much of roost site selection the Program can take credit for, so it makes sense to include management efforts by Program partners, folks sitting at

this table, working in conjunction with the Program. Farnsworth said the LAC is currently wrestling with this issue, the outcome of which can help inform which properties go into which bin. Jenniges suggested this could be evaluated by bridge segment. Since the goal was to have complex habitat in each bridge segment, maybe a good way to show the contribution of the Program is to show how each bridge segment as a whole differs from the habitat complex within the bridge segment that is managed for WC, regardless of who owns it.

EDO ACTION ITEMS:

- Revise the Whooping Crane Roost Site Selection Technical Report to incorporate TAC suggestions.
- Provide a draft report with revised methods, figures and tables and results to TAC in April 2025 for feedback.
- Put together a group of TAC coauthors to finalize the Technical Report
- Work with TAC work group to rewrite introduction and discussion for a broader publication

TAC ACTION ITEMS:

- Provide EDO with dates and shape files of management actions to create/maintain suitable on-channel roosting habitat for WC.
- Form work group to finalize Technical Report and develop publication.

Document: 10_WC Roost Site Selection Update

SEASONAL PEAK FLOWS

Walters asked to put this agenda item before the germination suppression evaluation plan to provide context for that discussion. Farnsworth reviewed the information summarized in the peak flow memo. He said this was a first draft, we can work further to change direction if needed. Jason said we haven't added any data on peak flows recently, so previous work summarized in the memo and included as appendices represents our current state of knowledge. Germination suppression flow releases are a different type of question – maintenance, not creation. Walters said as we move into Second Increment water discussions, he wants us to keep in mind the power of peak flows for improving channel conditions that favor target species versus just maintaining what we have. Farnsworth, Schellpeper, and Flyr asked about shifts in approaches favoring the value of credits for water projects versus water for improved channel conditions and target species benefits. Flyr said retiming flows has been more difficult than originally expected. Excess flows have been few since 2018, and they usually occur during unfavorable times (winter) when ice is a problem. Schellpeper said it must be the right time and right amount of flow for long enough duration to even consider taking water out of the river for retiming or recharge. Schellpeper said Twin Platte and Tri Basin are looking for more places to recharge water. Mosier asked about considering how peak flows impact our ability to implement other projects. How do all these approaches move together? Farnsworth said it is the duration of peak flows that is important for scouring vegetation. Short duration high flows tend to deposit sand on top of bars and leave them higher for continued vegetation growth.

EDO ACTION ITEM:

- Bring seasonal peak flow memo forward to the GC meeting in March

Document: 13_Peak Flow Memorandum Feb 2025 TAC

GERMINATION SUPPRESSION EVALUATION OF EFFECTIVENESS

Lewis reviewed a data analysis plan with multiple lines of evidence at different scales for evaluating the effectiveness of germination suppression releases. The EDO is checking in with the TAC at this point in the process to determine whether the TAC wants the EDO to move forward with the analysis presented and develop a draft report or slow down and form a TAC work group to become more familiar with the methods proposed, provide feedback and guide the process moving forward. Mosier asked for clarification about the lack of connection between bulk flow metrics and vegetation growth. Lewis said those bulk metrics do not get at process. You need the frequency and duration of flow as well as its distribution over channel morphology, which is directly tied to vegetative process. Rabbe said the initial purpose was based upon cottonwoods and willows. The presented plan seems like it is trying to explain annual vegetation, but the problem is not annual vegetation that ice scours over winter. A single annual snapshot as presented doesn't give us the story of things we are intending to move the needle on. Brei/Lewis said we can use same tool to evaluate the transition from low to high vegetations consistent with succession that obstructs the channel. Rabbe noted germination suppression rarely is 1500 cfs. He asked if annual differences in our ability to put 1500 cfs down the channel, different patterns of flow release, be considered? Lewis said yes. We will quantify germination suppression contributions to flow and the conditions during the timing of each release. Ostrom asked how results from this analysis will expand on the conclusions made in Appendix 2 of the peak flow memo – what the channel width model predicted about what would happen to the channel with and without germination suppression. Farnsworth said we will add the data from years when germination suppression was implemented to the model and compare it to original model to assess whether our original model prediction was right or is the benefit to germination suppression more or less than predicted. Lewis said the channel width model can provide an estimate of the effect of germination suppression flow releases while accounting for other factors. Lewis' work is a validation of mechanism (smaller scale) to support that model (larger scale). Farnsworth asked who would want to be on a working group. Ostrom asked if the purpose was to inform decisions on how to proceed. Rabbe said the goal of this project is to inform how to best use water and when from the EA account and provide evidence for effectiveness of water use to control vegetation. Farnsworth said the difficult question will be how to parse what germination suppression flows do versus spring flow, and winter flow since they are all around 1500 cfs. Rabbe said looking backward to use larger datasets to see if we got what we expected would be helpful. Rabbe asked if geomorphology factors into the channel width model. Currently includes bankfull discharge, but we could incorporate some other metric of topography into the model. Walters called for a TAC work group to work with the EDO.

EDO ACTION ITEMS:

- Develop a process and a timeline for working with the TAC work group as proceed through data analysis

TAC ACTION ITEMS:

- Rabbe, Walters, Mosier, Merrill, Flyr, Kanz, Scheel, Kingsley, and Hubbard will participate in the TAC work group

Document: 11_FEB2025_TAC_GSEval_effectiveness_DataAnalysisPlan
Presentation: 12_GermSupp_Communication_Feb_2025_TAC_final

PHRAGMITES

Henry said at the October TAC meeting the TAC recommended we discontinue the *Phragmites* patch monitoring study. At that same meeting it was also suggested that the TAC talk about the possibility of at least maintaining the three no spray zones that were put in place from 2022-2024 to help parse out the effects of germination suppression from herbicide application on *Phragmites* patches. Since we will be implementing germination suppression in 2025, maintaining those no spray zones keeps patches under the same experimental conditions as in prior years if we need or want to sample them again in the future. Those no spray zones include the Cook tract (Plum Creek Complex), a portion of the Wyoming tract (Ft. Kearny Complex), and a portion of the Robinson tract (Chapman Complex). Henry reviewed patch polygons from 2023 to 2024, especially in those no spray zones. She said in a single year patches have not rapidly expanded past their prior year's boundaries in the absence of herbicide. Merrill said his preference was to spray everything. Jenniges said if you just keep spraying it, you cannot tell the story of how bad it can be. If patches get out of control the Program can always go back in and spray them. Walters said these patches are not a concern as a seed bank. There is enough seed along side channels and under trees. Walters said he doesn't think small patches pose immediate concern. He was in favor of maintaining the no spray zones for 2025 and reevaluating for 2026. Henry asked how you propose to reevaluate if no longer collecting *Phragmites* patch data. She said we haven't been able to identify these patches through remote sensing in the past. Brei said we only began collecting training data to identify *Phragmites* from LiDAR last year. Farnsworth said patches are hard to identify if they are small and sparse which the majority of them currently are, but if *Phragmites* patches explode we will see these on aerial imagery. Farnsworth and Jenniges said we need to check in on these no spray zones. Brei said any extra effort to keep tabs on *Phragmites* would require more technical data collection. Zorn said if leaving these *Phragmites* patches unsprayed helps the resilience fund tell a story, he supports keeping them for now. Walters summarized by saying the TAC supports maintaining current no spray zones for one year, then reassessing for 2026.

EDO ACTION ITEMS:

- Tunnell will communicate with PVWMA and county weed boards
- Tunnell will provide no spray polygons to helicopter pilots for 2025

Document: 14_No Spray Locations

DAY #1 REVIEW AND WRAP-UP

Meeting ended at 4:50 PM CT.

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

Technical Advisory Committee (TAC) Virtual Meeting

Meeting held in-person at Executive Director's Office in Kearney, NE

Day #2: Wednesday, February 5, 2025; 8:00 AM – 12:00 NOON CT

Technical Advisory Committee (TAC)

State of Wyoming
Cheyenne Love – Alternate
Michelle Hubbard – Alternate

State of Colorado
Kara Scheel – Member

State of Nebraska
Caitlin Kingsley – Member
Jennifer Schellpeper – Alternate

Upper Platte Water Users
n/a

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

Bureau of Reclamation (Reclamation)
Brock Merrill – Member

U.S. Fish and Wildlife Service (Service)
Matt Rabbe – Member

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

Colorado Water Users
Jason Marks – Member

Executive Director's Office (EDO)

Jason Farnsworth, ED
Chad Smith
Malinda Henry
Justin Brei
Seth Turner
Patrick Farrell
Tim Tunnell
Quinn Lewis
Jonathan Wentz
Nicole Fijman
Ed Weschler

Other Participants

Abe Kanz – Crane Trust
Melissa Marinovich – NGPC
Mike Archer – NGPC
Jack Mensinger – NE DNR
Richard Belt - SPWRAP
Mark Pegg – UNL
Jonathan Spurgeon – UNL/USGS
Kirk Steffensen – NGPC
Ed Heist – SIU
Junman Huang – SIU
Blair Greimann – Stantec
Chris Jaros – Stantec
Michael Scurlock – GEI Consultants
Natalie Youngblood – GEI Consultants

WELCOME & ADMINISTRATIVE

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

PEER REVIEW AND PUBLICATION

WET MEADOW HYDROLOGY REPORT

Smith started off summarizing where we are at with the peer review process. He said the Program document anticipates a non-agreement peer review. Because the EDO lost their internal ground water modeler, they asked a Special Advisor to help us understand the peer reviewer comments and provide us with some options to deal with those comments. New Special Advisor Dr. Calvin Miller (Ph.D. from Colorado State University) provided some draft notes to help us understand how big of a lift this might be and some options for moving forward. The Special Advisor agreed the groundwater model was likely over calibrated, but the methods are appropriate for purpose of this report. He highlighted a few minor changes that are needed for the report to be finalized, using caveats to justify the assumptions made by the model based on the objectives and utility of the study. Alternatively, for chapter 5, a way forward might be to develop a numerical model as opposed to an analytical model. This would capture more of the physical processes but would take significant effort. Farnsworth asked do we patch up the current model and write-up or redo the modeling framework as a numerical model to address some of Miller's comments and get us closer to a product that will pass peer review for publication? Flyr said all ground water numerical modelers think numerical models are the best, so not surprising that these reviewers think a numerical model is the way to go. She asked what is benefit of doing it if it will not change the answer much. Various models on the Platte do not handle recharge well (COHYST, for example). Flyr thinks we would run into more issues, that this effort may not be as quick and easy as the Special Advisor may think. The reviewer was hung up on North and South channel, assuming those channels are more disconnected or distinct than they really are. Models typically do not handle multiple channels well. Flyr's suggestion is to do something with caveats, putting a disclaimer on Chapter 5 about applicability and making small changes to improve the current analytical model. Flyr said numerical model isn't going to solve the problem and will not change the results. A simpler, more practical tool is more useful in this case. This may be more of an academic hang up rather than an applied, simple solution that is more practical as a tool. Numerical models allow you to plug in information for more variables but are not necessarily more accurate. Kanz said he is okay with patching this up and moving on. So is Flyr. Merrill mentioned that the GC has already agreed to not put in much additional effort. Farnsworth asked a final question about whether we run whatever we do back through the peer reviewer that did not agree. Smith said we are already above and beyond what is required, no extra value added. Do we want to get into the back and forth? Flyr said during publication there are always reviewers wanting more data, and it is ok to say that something is beyond the scope of the current work. Farnsworth wants to make sure that by patching we don't get dinged in the future and have to go back and redo. Want to be able to use information from the study. He cited the stage change study as an example. He asked if we allow room for doubt about conclusions to remain because of a non-agreement peer review, are we running the risk, similar to the stage change study, that years later those conclusions are not accepted for use or decision making.

EDO ACTION ITEMS:

- Work with Special Advisor and TAC to patch up Chapter 5 of the Wet Meadow Hydrology Report
- Bring back to the TAC for review and recommendation
- Take to the GC for approval

TAC ACTION ITEMS:

- Work with the EDO to review/revise Chapter 5 of the Wet Meadow Hydrology Report
- Communicate with GC representatives about peer reviewer concerns, how they have been dealt with, and what this means in terms of using the information generated in the Wet Meadow Hydrology Report

Document: 15_Wet Meadow Hydrology Report_DRAFT & Prelim notes from Miller 2025-02-03

WET MEADOW PUBLICATION STRATEGY

Henry summarized the EDO strategy for publishing results from the Wet Meadow Hydrology Report and the WEST/Ecotope collaboration on WC diurnal use of the central Platte River. She said the EDO would like to develop two publications to provide a link between Program learning and the shift in policy regarding grassland/wet meadow management. Rabbe said the Service does not agree with the wording for WHY subpoints 4 and 5 in the memo summing up take-aways from the Grassland/Wet Meadow policy recommendations approved by the GC in December.

- Transition away from managing for WC to other species of concern. IE, focus on grassland quality instead of structure.
- No EA releases for WM hydrology.

Specifically, Rabbe wanted to clarify that grassland management is not moving away from WC. In addition, the Service takes issue with a statement that puts restrictions on their use of EA water. He would like those bullets replaced by the exact language used in the GC policy memo. Rabbe is on board with the publication strategy outlined for the Wet Meadow Hydrology Data Synthesis Report. For the WEST/Ecotope collaboration, Rabbe will not be a co-author. He believes there are still differences of opinion that steer him away from that, but he is supportive of publication for the Program. Rabbe said as a TAC member he can help with review/revision process, point out areas where he disagrees and make recommendations, which may or may not be adopted in the final publication. The EDO can write up a draft for the TAC to react to. Henry asked Rabbe to provide clarification on how EA water is different from Program water. Her understanding from the GC policy adopted was that EA water was not going to be intentionally used to support wet meadow hydrology. Rabbe said they are both connected and separate. He explained the original purpose and source of water of the EA, and how the Program has contributed to the pot over time. He explained that the Service was given discretion over the use of this water but has a long record of working with the Program to plan for use of this water. EA releases can both benefit the Program's target species and other species. Based upon current science, Rabbe said attempting to pond water in wet meadows requires more water than we have. But as the Service implements flow releases for other purposes like spring maintenance flows, there may be ancillary benefits for wet meadows. Farnsworth said looking ahead he is concerned that water for wet meadows might again be on the table. He understands the need for soft language, but the language still needs to be specific enough that it means something, so Program participants know what to expect. What we agree on today will guide negotiations in a few years. Rabbe said it is unlikely that a science-based number will be the sole factor that guides what the Service specifies as the water needed to sustain target species. Farnsworth said we do not want to still be figuring out how much water is needed for specific actions when we get to Second Increment negotiations. We need to agree to those amounts leading up to negotiations. If we get this research finalized and published, would those be utilized to inform water necessary to achieve goals for the Program? Jenniges said there is no firm answer, negotiations for a Second Increment could be a start over. Rabbe said we are currently in a transition period, so from the Service's perspective everything is pre-decisional. The Service's current intent and understanding is embodied in the GC policy memo approved at the December GC. In addition, the

Service has a history of working well with the Program to administer that water informed by sound science. Rabbe mentioned that the Service hired a new EA Manager with a background in engineering, hydrology, and biology.

EDO ACTION ITEMS:

- For the WEST/Ecotope collaboration, write up draft document that links the results of this effort to the grassland/wet meadow management guidelines approved by the GC.
- Provide a draft to the TAC for feedback

TAC ACTION ITEMS:

- Consider participation in write-up and publication as a co-author.

Document: 16_2025 Wet Meadow Publication Strategy

TARGET SPECIES MONITORING

2024 PALLID STURGEON ANNUAL REPORTS

Pegg gave an update on the University of Nebraska at Lincoln's progress in the field and with data analysis for 2024. He presented updated results for use of the lower Platte River by pallid sturgeon. He also presented initial results from analyses investigating elements of flow and temperature as factors influencing immigration into and emigration from the Platte River. He also provided an initial look at transition probabilities among segments of the lower Platte River and its tributaries. UNL will not be capturing pallid sturgeon in 2025 to place more telemetry tags, as their study ends in 2026. They will continue active tracking and maintaining passive receivers, relying on fish that have already been tagged for their 2025 dataset. Pegg said they have not yet been able to get temperature data from USGS receivers in the Missouri River, so have not been able to examine the difference in water temperatures between the two systems as a potential explanatory variable. Water quality data such as turbidity data are available only from the Louisville receiver, so a more detailed look at the importance of turbidity for pallid use and movement is limited by data availability.

Heist gave an overview of progress on the pallid genetics work he and his lab at Southern Illinois University at Carbondale are doing. He summarized species and origin of samples received from the Platte from 2022-2024, the large majority being hatchery origin pallid sturgeon. He summarized levels of hybridization known to occur in each management unit. Natural recruitment is limited to the lower Missouri River. A random sample of 2021 year class larvae is currently being evaluated to estimate the fraction of wild-spawned sturgeon that are hybrids, pallids, and shovelnose. So far, natural spawning in the lower Missouri River produces similar numbers of pallids and F1 hybrids. Advanced hybrids are backcrosses to shovelnose, representing a loss of pallid reproductive effort. Farnsworth asked if we are primarily producing hybrids and shovelnose, then are we shooting ourselves in the foot by producing suitable habitat for spawning in the Platte? Heist said we do not know what distinguishes pallid spawning habitat from shovelnose habitat. If we did, we could design desired habitat for pallid spawning and non-preferred habitat for shovelnose. We do not know, beyond behavioral evidence like Pegg presented, if/how much spawning actually occurs on the Platte. Heist suggested putting together a small list of fish captured/tracked in the Platte. Heist could look at larvae for the hybridization study to see if they are the product of fish that used the Platte. This is still not a confirmation of spawning there, but rather an indication that fish using the Platte spawned.

Documents: 17_UNL Annual Report
17_UNL Annual Report Supplement
19_SIU Annual Report
Presentations: 18_UNL Presentation
20_SIU Presentation

SCIENCE PLAN

PASSIVE SEDIMENT AUGMENTATION ALTERNATIVES

Consultants from Stantec and GEI summarized a set of passive sediment augmentation alternatives they are planning on investigating and evaluating in terms of effectiveness, efficiency, completeness, and acceptability. After introducing initial alternatives, they paused to ask if the TAC had any additional alternatives to consider. Farnsworth said the alternatives presented are being pursued to understand if they are feasible and do not consider the legal hurdles of putting these alternatives into practice. Farnsworth asked Zorn how he feels about these alternatives that affect Central and other landowners. Zorn said he is okay with doing the modeling investigations first to see if these options would be beneficial, what would be the gain, and the lift. It is a necessary first step to figure out the cost/benefit. Then we will need to start talking about significant changes in infrastructure and the number of landowners on North channel that would be impacted as well. Rabbe said if there are benefits, working to adapt the FERC license is something that can be done. Jenniges said the alternatives need to be cheaper and better to replace mechanical sediment augmentation. Farnsworth said the last augmentation estimate was $200,000 to $250,000. Doubling it would double that cost. Brei said other methods beyond our typical mechanical sediment augmentation may be considered by GC members and are good to explore.

EDO ACTION ITEMS:

- Check in with the TAC in late April
- On track for September finalization of study

Presentation: 21_Stantec Presentation

LAND

GRASSLAND MANAGEMENT WORKING GROUP

Rabbe summarized the plan for managing Cottonwood Ranch grasslands/wet meadows. Shoemaker Island will be the next tract for revision. He said the LAC/TAC plans on having this done by summer to inform tenants for 2026. Rabbe went through plans for 2026-2028 at CWR. He outlined a “paddock” system that allowed rotation of cattle from one paddock to another with a designated “holding paddock” to be used during summer months while allowing the other paddocks to rest. The plan includes higher stocking rates in early spring and late fall across paddocks but moving cattle out of those management paddocks during the growing season into a holding paddock. Potato Island was chosen as a holding paddock at Cottonwood Ranch because it was not going to meet diversity requirements anyway. It serves as a dumping ground for cattle, so they do not remain on your management paddocks during the growing season. The plan rotates grazing such that paddocks are rested every three years. For the southern paddock system in Cottonwood Ranch (Broadscale Recharge area), the wetland areas that once were crop and currently are mostly wheat grass were selected as the holding paddocks. The surrounding plots have good diversity and will be the management paddocks.

EDO ACTION ITEMS:

- Invite LAC to July TAC meeting to review/recommend management plans together

TAC/LAC ACTION ITEMS:

- Finalize CWR plan
- Develop management plan for Shoemaker Island

Document: Cottonwood Ranch Planning Map

GRASSLAND VEGETATION SURVEY RFP

Tunnell said the Program has been monitoring the vegetation community of Program grasslands every three years since 2013. We have one more year of vegetation monitoring agreed upon by the GC for 2025. Tunnell is asking the TAC today if they have changes they would like to make to the RFP scope of work or anything on the survey protocol before we publicize the RFP. Tunnell said he thinks there is value in maintaining a consistent protocol over time. Walters asked if changes in the grazing plan for Cottonwood Ranch affect the monitoring protocol. Jenniges said just need to rename sample areas to match up with paddocks as they are now split up. Rabbe said he hesitates to change the monitoring protocol for this year, he favors keeping the same method used so we have a consistent long term data set to represent the vegetation community BEFORE management changes were made. Hegg said we are not likely to see any changes in the year immediately after management changes, so timing of survey effort seems effective. Henry said we would then at least need to use the same protocol in 2028 to represent the community AFTER management changes were made. Farnsworth suggested for 2025 that we receive bids under the current protocol and see if they come in under or within the estimated and approved budget. If bids are over budget, we can have the discussion to reduce effort, reduce plots in areas like Potato Island that we deem not a target for revised management, or reduce frequency of surveying.

TAC MOTION: *Rabbe moved, and Merrill seconded a motion to recommend the Grassland Vegetation Survey RFP for GC approval.*

EDO ACTION ITEMS:

- Take Grassland Vegetation Survey RFP to Finance Committee in Feb
- Take Grassland Vegetation Survey RFP to Governance Committee in Mar

TAC ACTION ITEMS:

- Let your GC representative know that we need an RFP review and selection committee for this RFP

Documents: 22_Grassland Survey RFP
23_Grassland Survey Protocol

WATER

WELL MONITORING REVIEW

Turner reviewed a list of PRRIP ground water monitoring wells out on the landscape that may no longer be needed and EDO suggestions for either maintaining, de-instrumenting, or decommissioning those wells. Seth will go through the same exercise for wells relevant to the water plan with the WAC next week. The TAC provided the following guidance:

- DeBoer: Remove instruments, remove and formally decommission wells.

- Leihs: Remove instruments and decommission wells 501-504 and 506. Keep 505 as proposed.
- John: No known instruments, if there is any equipment in the two well locations at this point, decommission them.
- Fox: Remove instruments from all 16 wells, lock up and keep well intact in case needed again in the future.
- Minden: Remove what instruments remain and decommission the wells that remain.
- Binfield: Same as Fox, remove all instruments, lock up and keep wells intact in case needed again in the future.

The other 4 sites reviewed (Phelps/Cook, Morse/Cottonwood Ranch, Lakeside/Stall/Edlund, and those at the North Platte Chokepoint) will be confirmed with the WAC next week. Kingsley said she spoke with Twin Platte NRD, and they will take over the GW1 well.

EDO ACTION ITEMS:

- Review list with WAC next week.
- Follow TAC and WAC recommendations.

Document: 24_Monitoring Wells Summary

TAC MEETING REVIEW & WRAP-UP

MOTIONS

- October 2024 TAC Meeting minutes approved.
- Walters will serve as 2025 TAC Chair
- Flyr will serve as 2025 TAC Vice Chair
- 2024 Plover and Tern Monitoring Report recommended for GC approval
- 2024 Spring WC Monitoring Report recommended for GC approval
- Grassland Vegetation Survey RFP recommended for GC approval

2025 TAC Meeting Schedule

- April 29-30, **Kearney, NE***
- July 22-23, **Colorado, location TBD***
  ***Note change in location for these two meetings to accommodate federal employee travel restrictions.**
- September 22-24, Kearney, NE, joint GC/ISAC/TAC Fall Science Meeting
- October 21-22, Kearney, NE

TAC MEETING END

The TAC meeting adjourned at 11:13 AM CT.