



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

**Technical Advisory Committee (TAC) Virtual Meeting**

Wednesday, January 12, 2022; 1:00-4:00 PM CST

*Meeting held in-person at PRRIP ED Office and virtual via MS Teams*

**Technical Advisory Committee (TAC)**

**State of Wyoming**

Barry Lawrence – Member

Jeremy Manley – Alternate

**Bureau of Reclamation (Reclamation)**

Brock Merrill - Member

**State of Colorado**

**U.S. Fish and Wildlife Service (Service)**

Matt Rabbe - Member

**State of Nebraska**

Dan Sternkopf - Member

**Environmental Entities**

Rich Walters – Member

Andy Caven - Member

Melissa Mosier - Alternate

**Upper Platte Water Users**

n/a

**Colorado Water Users**

Jason Marks - Member

**Downstream Water Users**

Jim Jenniges – Member

Brandi Flyn – Member

Dave Zorn - Member

Mike Drain - Alternate

**Executive Director’s Office (EDO)**

Jason Farnsworth, ED

Malinda Henry

Patrick Farrell

Mallory Jaymes

Kaley Keldsen

Kari Mohlman

Tim Tunnell

Julia Grabowski

**Other Participants**

Erik Skeie – State of Colorado

Mark Coleman – Northern Colorado Water Conservancy District

Jeff Runge - USFWS

Michelle Koch – NGPC

Joel Jorgensen – NGPC

Melissa Marinovich – NGPC



## **WELCOME & ADMINISTRATIVE**

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

## **AGENDA MODIFICATIONS**

Farnsworth added a quick query of TAC members at the beginning of the meeting about their preference for an in-person or virtual Science Reporting Session in February. With no disagreement from the TAC, Farnsworth moved the meeting to a virtual format, with the option for those located near the ED Office in Kearney, NE to use the ED Office Conference Room to gather to attend the meeting if they so choose.

## **MINUTES**

**TAC MOTION:** *Rabbe moved and Walters seconded to approve the October 13, 2021 TAC Virtual Meeting minutes. Minutes approved.*

[10-13-21 PRRIP TAC Virtual Meeting Minutes APPROVED](#)

## **LAND MANAGEMENT**

### *Continuation of Grassland Monitoring Surveys*

Tim Tunnel led a discussion about the current grassland monitoring effort by providing background about PRRIP grassland management, survey objectives, costs, and findings from monitoring to date. He reviewed three potential options for grassland monitoring for the TAC to consider.

Jenniges asked if grassland management is adjusted based on survey results or does the Program rely more generally on land manager judgement? Tunnel said there have not been specific management changes based on surveys/reports. He uses the report to get an indication of how grassland composition changes over time, for example how cool season grasses respond to burning, and how limitations to the timing of grassland burning set by the Migratory Bird Treaty act may impact cool season grass composition.

Zorn mentioned that if other species of concern are tied to grasslands, may be of use to keep/expand surveys. Jenniges said the surveys may not capture elements important for other species of concern. Henry said surveys could be modified to account for species of concern focus. Jenniges suggested the surveys could be picked back up if needed in future.

Caven said this is a good threshold monitoring technique, FQI (floristic quality index) scores can be good indicators of grassland quality and to understand if cool season grasses are regressing in coverage based on current management practices. Decreasing frequency (at 5-yr intervals) could save money, but continuation is important for establishing long term trends. Rabbe said the initial purpose of the surveys was to keep track of wet meadows, but also exotic or invasive high-structure plant species that decrease suitability of crane habitat. Helps to identify areas where immediate actions need to occur to sustain high quality grasslands. Five-year intervals for surveys can be sufficient. Caven suggested that grassland quality could be important to understand if ranking importance of properties. Tunnell noted that low FQI properties like Sowald and S. Wyoming were obtained by the Program with low FQIs. These properties are further west and less relevant for keeping track of wet meadows. Tunnel reminded the group that land management has been focused more on structure than on species composition and asked if that strategy had changed. Caven warned if monitoring too infrequently (10-yr increments),



management actions may not be as efficient or as effective as compared to responses to information over a shorter interval between surveys. Henry said she heard two important questions here to be considered: 1) are we managing for structure or composition? 2) decisions by the GC on other species of concern may have a bearing on whether to continue grassland monitoring and how to proceed. Merrill said if we are not using the data, no need to continue. But if it has value for other things, continuing with some data (5 year intervals) may be sufficient. Zorn said collecting baseline measures for Chapman Complex could be important. Caven agreed, surveys on new properties could be important. FQI of Binfield West is one of best in state.

Henry asking to confirm what she is hearing. Jenniges summarizes: 2022 survey with Chapman Complex added at same effort. From then on continue at 5-yr increments. Wait until after GC makes a decision on other species of concern to decide if methods need to be revised. Merrill agrees with this.

Caven: Could do rotational 3-year design. Are there underlying wet meadow/hydrology questions this information could be helpful for? Tunnell said we have no targeted effort for such information

Farnsworth: Looking forward to the March GC, we need to know what we are using the surveys for, so the GC can decide if it is worth spending the money. Stewardship responsibility is important to consider. Are we good stewards of land? Surveys are helpful in that determination.

EDO Memo: [03-Grassland Vegetation Monitoring Memo Final](#)

**TAC MOTION:** *Jenniges moved and Caven seconded the TAC's recommendation to continue with the current monitoring protocol for 2022, adding the collection of baseline data for newly acquired grasslands in the Chapman Complex. The EDO will work with the TAC to evaluate the relevance of future surveys (uses for the data, any necessary protocol changes, estimated costs) to present to the GC in March. Motion passed.*

## **2021 PIPING PLOVER AND LEAST TERN REPORT**

### *2021 Plover and Tern Monitoring and Predator Management Update*

Mohlman and Keldsen gave presentations to update the TAC on 2021 additional predator management actions and monitoring efforts implemented in 2021. Mohlman provided a summary of plover and tern nesting and brooding in addition to a summary how nest and brood losses have been distributed over various causes through time. Keldsen summarized additional predator management actions implemented in 2021, and the response of potential predators as well as target species to management actions. Changes to the 2021 report were highlighted for TAC feedback.

Jenniges asked Mohlman about the protocol changes relating to days for fledging. He does not recall a 15-day fledge benchmark for either species, rather 21 days for terns and 25 days for plovers. Mohlman said she would get together with Jim to look over the older datasets to make this correct for what was largely NPPD monitoring effort during earlier years.

Rabbe asked how many years do we continue to see such trends before we have conversations about possible actions to consider? Reducing unknown nest fates and documenting predation events begins to address Extension Big Questions, but what measures are being taken to deter avian predators? Rabbe suggested we look further into the literature for additional avian management options. Rabbe asked if



sound had been tested yet. Keldsen said no, lights were used this year because a pilot study had already shown no evident avoidance by target species. Keldsen demonstrated the three types of lights installed at Broadfoot – Kearney South. Jenniges asked whether we had data to address whether avian predation occurred more frequently further away from deterrent lights? Mohlman said we have done nest maps with successful and failed-predated nests in relation to location of deterrent lights (those appear in the report). Henry said no formal analysis has been done yet to test this effect within sites. Rabbe asked about the type of lights being used? Keldsen explained random pattern and motion activated lights. Henry said the fence lights were strobe-like with a pattern for firing.

Zorn brought up the use of nest caging which could be targeted to later during the incubation period based upon current findings for timing of owl predation. Rabbe and Mohlman reminded that we would need to amend our current permit to implement nest caging.

Jenniges asked about Broadfoot South. Hasn't it always had low productivity? Henry, our records have it as a site with high investment, low return over the long term. That is why we chose to implement management there. Learn from it before we lose it. Tunnell said lease is up in 2024. Rabbe said if avian predation is site-specific we could rest a site, let it veg up a year, to see if predators stop focusing on it. Will see if numbers increase at other sites. Broadfoot could be its own experiment when lease ends.

Zorn pointed out some confusion in the report about predation event numbers. Executive summary says 16, but tables sum to 17. Mohlman and Keldsen said the differences in the numbers have to do with predation events registered over all monitoring efforts at the 6 Program monitored sites where cameras were placed (17) vs. those predation events captured on camera (16). Mohlman also said that these numbers do not include data from all sites monitored by the Program. Henry said the EDO will go back and check numbers for consistency and add text to clarify what the number represents.

Rabbe asked if nest camera effort is going to be kept the same in 2022? Increased? Are we concerned about negative effects of camera placement at nests? Jenniges commented that we already have pretty good number of cameras, no need to add. Keldsen mentioned our 2021 nest survival analysis that demonstrated no reduced survival for camera monitored nests. Rabbe asked whether we should remove cameras from Broadfoot South since we are going to lose that site in the future? Keldsen/Henry talked about continuing as done in 2021 rather than changing implementation 1-year in as a path forward. It is possible that our problem is not always the same from year to year. Jenniges stated the problem at Blue Hole are coyotes. He said the traps used don't work. We found snares set in dig outs under Newark West fence works well to catch things box and leg hold traps do not catch.

Caven suggested moving cameras from Broadfoot – South Kearney to an area with possibly different predator problems could be beneficial. Henry/Mohlman said the only place we do not have cameras is at NPPD and GI Non-Program sites. Caven reminded to keep site-level effects in mind and to distribute your effort evenly over sites to get a wider perspective (number of reps and camera density should be consistent over sites). Henry said that the number of cameras per site was determined by site size, distributing cameras in such a way that we have approximately the same number of cameras per acre (site and nest cameras) or per linear foot of shoreline (shoreline cameras) across all 6 Program-monitored sites. We also corrected for camera effort (camera days) when comparing results across sites.



Zorn pointed out another possible error in the report on page 48, Table 5. He noted the 5.5 fledges/BP reported for 2009 listed in the Table. This number is unrealistic. Mohlman said she would check the data and correct the error.

Corrections to be made to the report:

- 1) *Pg 4, line 26: Check the total number of documented predation events over all monitoring efforts (16 or 17) and make the explanation of which number being used (all monitoring efforts vs. camera efforts alone) consistent throughout text.*
- 2) *Pg 48, Table 5: Correct 5.5 fledges/BP.*

EDO Report: [05\\_2021 LTPP Report DRAFT TAC Corrections Made](#)

EDO Presentation: [05-2021 LTPP Monitoring and Predator Management Update](#)

**TAC MOTION:** *Jenniges moved and Lawrence seconded the TAC's recommendation to approve the 2021 Piping Plover and Interior Least Tern Monitoring and Research Report pending revision of the items listed above. Motion passed.*

### **FALL 2021 WHOOPING CRANE REPORT**

#### *Fall 2021 WC Monitoring Update*

Jaymes presented monitoring results for the Fall 2021 whooping crane migratory season. The Aransas Wood Buffalo population estimate relies on a Winter 2021-2022 survey. When that estimate is released, any calculations in the report relying on this estimate will be updated. Jaymes also noted the changes in the Fall 2021 report compared to past reports and the rationales for those changes.

Rabbe provided an explanation of how USFWS protocol calculates crane use days. USFWS calculation is based on the date when the crane group first appears and does not account for partial groups (individual members) leaving during the stay. USFWS has stayed with this method to keep consistent over previous years. USFWS database has some issues with 2021 data and other recent years due to larger numbers of birds stopping and birds grouping during stopovers. The current protocol has produced less accurate crane use days in recent years because of this grouping. Highest crane total numbers and crane use days observed during a migration season in the AHR since 2001. Rabbe asked about Figure 3 on page 10 of the report, whether we needed to go back and recalculate crane use days for previous years (not just as we did for 2021) to reflect the use of only PRRIP observed crane used days. Jaymes said yes, that can be done.

Henry asked the TAC for their feedback on whether the use Fall imagery to measure channel widths and distance to nearest forest from whooping crane use locations would be acceptable for this and future reports. She pointed out that because of the lag in when imagery is flown and when the EDO receives the final product, fall reports may go to the TAC for review without these metrics as it is now, but the benefit is to have imagery that is more appropriate for reporting. Farnsworth pointed out that the EDO just received Fall 2021 imagery. Jenniges said the EDO can always go back and change reports, no problem waiting to input numbers. Caven asked if the EDO is going to use fall imagery for metrics corresponding to fall and spring monitoring results from now on? Farnsworth said yes. Fall imagery corresponds better to fall WC monitoring. Fall imagery is less timely for spring monitoring, but the benefit is not utilizing imagery from a partial growing season in spring from June/July imagery. June



imagery may overestimate unobstructed width if the channel is flooded. Caven said he agrees with this, and asked if the EDO could send the report with the metrics filled in out to both the TAC and the GC in March, concurrently. The EDO agreed.

Corrections to be made to the report:

- 1) *Pg 10, Figure 3: Correct PRRIP crane use days so all annual data points are calculated using only PRRIP observations.*
- 2) *Pg 3, Lines 18-19; Pg 14, Lines 276-279; Pg 15, Table 3: Fill in text and table with channel width and nearest forest measurements from Fall 2021 imagery.*

EDO Report: [06 Implementation of the Whooping Crane Monitoring Protocol - Fall 2021 DRAFT -TAC Corrections Made](#)

EDO Presentation: [07-2021 Fall Whooping Crane Update](#)

**TAC MOTION:** *Caven moved and Jenniges seconded the TAC's recommendation to approve the Implementation of the Whooping Crane Monitoring Protocol 2021 Fall pending revision of the items listed above. Motion passed.*

### **EXTENSION SCIENCE PLAN UPDATE**

#### *Development of Extension Science Plan*

Henry provided a summary of the structure of the Extension Science Plan, reviewing the content of the Executive Summary and the four attachments in support of the Plan that provide more detailed information.

Caven said he was okay with the format and framework for the plan. He does have a few suggested edits that will be sent to the EDO via email.

#### MS Teams Chat

Rabbe: Will there be an opportunity to submit written comments?

Henry said that the idea was to receive TAC feedback. She asked about the type of comments, the scale of revision matters at this point. Rabbe said he has a few more technical comments. He asked whether there will be a round of edits after the ISAC sees the Science Plan again at Feb Reporting Session. Henry said yes, the ISAC always has suggestions. Henry asked that comments from the TAC be submitted to the EDO for review and incorporation before the Reporting Session. Rabbe said he will send his comments to the full TAC by next week.

Jenniges suggested the EDO keep working on the Plan as it has not been finalized yet. Farnsworth reminded the TAC that the EDO is looking to get GC approval on the body of the Plan at the March GC meeting. The supporting materials are living documents that will take time to develop and are structured as such to prevent holding up GC approval of the elements of the plan that are higher level like the Big Questions, hypotheses, and implementation timeline. Farnsworth said that comments/edits need to be communicated as soon as possible if there are structural issues or smaller concerns as GC approval will be sought in March or June.

Merrill asked for TAC comments to be sent to the EDO by January 28<sup>th</sup>.



EDO Document: [08-PRRIP Extension Science Plan DRAFT](#)

EDO Presentation: [09-Extension Science Plan Update](#)

## NO TAC MOTION

### **PALLID STURGEON RESEARCH**

#### *Pallid Sturgeon Habitat, Spawning and Genetic Research*

Henry gave a brief update on SIU and UNL progress toward equipment purchases, set up, and testing; student recruitment and training; field season preparation; project start-up coordination meetings; and timeline for research in 2022.

Jenniges asked about where you place passive telemetry receivers to be effective in covering the lower Platte River. Henry said the UNL team is working together with the EDO to find pinch points along the study area from the confluence with the Missouri up to the Loup River and at key decision points. Farnsworth said that the EDO has previously mentioned that the project may have to rely more heavily on active telemetry tracking to off-set limitations on the passive telemetry system. Rabbe asked what the plan was for moving forward on GC decision-making for acquiring lower Platte LiDAR? Is TAC review and input necessary for making a decision about lower Platte LiDAR? Farnsworth said his takeaway from the December GC meeting was a request from the GC to bring back a contract amendment to our current imagery acquirement contract that would include the lower Platte LiDAR acquisition together with a memo explaining how the lower Platte LiDAR contributes to moving from Step 1 Research to Steps 2-3 Development of a Water Plan (how LiDAR improves inference and provides more detailed data to do 2-D modeling) as agreed upon by the GC.

### **NON-TARGET LISTED AND NON-LISTED SPECIES OF CONCERN**

#### *NT/NL Species of Concern*

Rabbe provided the steps taken to develop the priority species list with the working group. This included the criteria for making the final list. The group took a 3-tiered approach, dividing species of concern into the following categories:

- New Action List (new low cost options available for providing benefits)

- Current Program Actions Provide Benefits

- Important Species but Limited Opportunities to Provide Benefits

Currently, the New Action List includes the plains topminnow, Platte River caddisfly, monarch, and regal fritillary.

Henry said the plan is to provide this list and the criteria for inclusion on the list for each species to the GC at their March meeting. GC wants to see this list and provide guidance before any proposed management actions be developed. Jenniges said it is hard to evaluate and provide feedback on this list of species until there are proposed management actions to evaluate together with the list. Rabbe said GC reaction to the current list and criteria will dictate next steps.

EDO Presentation: [10-Prioritized List Other Species of Concern](#)

### **ELECTION OF OFFICERS**

#### *Nomination and election of officers for 2022*



**TAC MOTION:** *Jenniges moved and Zorn seconded the nomination of Brock Merrill as TAC chair for 2022. Motion passed.*

**TAC MOTION:** *Zorn moved and Caven seconded the nomination of Matt Rabbe as TAC vice-chair for 2022. Motion passed.*

**TAC MEETING REVIEW & WRAP-UP**

Henry asked for suggestions from the TAC on external science presentations to be included in the Science Plan Reporting Session in February. So far, members of the USGS Northern Prairie Wildlife Research Center working on piping plover survival, dispersal, and the contribution of the Platte to metapopulation dynamics have been invited to present recent published work. Henry asked for the TAC to send any suggestions they may have to the EDO as soon as possible.

*Action Items:*

The EDO will work with the TAC to evaluate the relevance of future grassland surveys (uses for the data, any necessary protocol changes, estimated costs) to present to the GC in March.  
EDO will make corrections to 2021 Plover and Tern Report  
EDO will make corrections to Fall 2021 Whooping Crane Report  
TAC comments on Extension Scient Plan to be sent to the EDO by January 28<sup>th</sup>.

*Future calendar events:*

**February 15-16<sup>th</sup>, 2022** Science Plan Reporting Session, Virtual over MS Teams  
**April 13<sup>th</sup>, 2022** TAC Quarterly Meeting  
**July 13<sup>th</sup>, 2022** TAC Quarterly Meeting  
**October 12<sup>th</sup>, 2022** TAC Quarterly Meeting

**TAC MEETING END**

The TAC meeting concluded at 4:05 PM Central Time.