



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Technical Advisory Committee Meeting Minutes
ED Office Conference Room – Kearney, NE
January 21, 2010

Attendees

Mark Peyton – Central Nebraska Public Power & Irrigation District (Chair)
Mike Besson – State of Wyoming (Voted chair for 2010)
Jerry Kenny – ED Office
Chad Smith – ED Office
Dave Baasch – ED Office
Jason Farnsworth – ED Office
Justin Brei – ED Office
Jim Jenniges – NPPD
Jeff Runge – U. S. Fish and Wildlife Service
Felipe Chavez-Ramirez – Whooping Crane Maintenance Trust
Rich Walters – The Nature Conservancy
Mark Czaplewski – Central Platte Natural Resource District
Martha Tacha – U.S. Fish and Wildlife Service
Matt Rabbe – U.S. Fish and Wildlife Service
Greg Wingfield – U.S. Fish and Wildlife Service

Welcome and Administrative

Peyton called the meeting to order and the group proceeded with a roll call.

Agenda modifications – None

2010 TAC Chair Election

Czaplewski moved to appoint Besson as Chair of TAC, Wingfield seconded the motion. **All approved.**

Besson asked for a motion to approve the November TAC meeting minutes

Czaplewski asked if the November TAC meeting minutes included information pertaining to the decision to elevate the Wet Meadow RFP to the GC for a decision on how to proceed. Smith indicated information related to this issue was included at the end of the November TAC meeting minutes.

Peyton moved to approve the November TAC meeting minutes; Czaplewski seconded the motion. **November 2009 TAC meeting minutes approved.**

2009 PRRIP Monitoring and Research Reports

2008/2009 Tern and Plover Monitoring Report – Baasch led discussion and presented changes Rabbe (FWS) suggested after sending the 2008-2009 Tern and Plover Monitoring Report to TAC members on 11 January, 2010 and asked if anyone had additional changes they wanted to see made.



Rabbe asked if personnel from USGS-Northern Prairies Wildlife Research Center (NPWRC) monitored Rowe Sanctuary on a weekly basis. Baasch indicated he was not aware of NPWRC monitoring this site weekly and stated he would review their report to be sure. After reviewing the Foraging Habits Study Report and email communication with Mark Wiltermuth (NPWRC) Baasch confirmed that Rowe Sanctuary was not monitored weekly

Smith asked for a motion to approve the 2008-2009 Tern and Plover Monitoring Report with suggested changes including: 1) changes Baasch presented he made after the Report was sent to TAC on 11 January, 2010 (management actions and snowy plover observations; i.e., changes suggested by Rabbe via email); 2) update Management Section and tables 3 and 4 in the report to indicate pre-emergent herbicide was applied at Dinan Tract, Dippel Tract, Triplett Trail, and Rowe Sanctuary during spring 2008; and 3) include management actions taken at Rowe Sanctuary separately in the Management section and tables 3 and 4 if NPWRC personnel monitored the site for tern and plover reproduction weekly.

Chavez moved to approve the 2008–2009 Tern and Plover Report with suggested changes and Tacha seconded the motion; all approved.

2009 Foraging Habits Study Report –

Smith led discussion and indicated received the report until last week, but the ED Office reviewed the report had a few questions about a few tables in the report. Smith indicated Mark Sherfy (NPWRC) would present their findings and be available to answer questions at the AMP reporting session in February.

Jenniges noted no fish or insect species information was included in the report; Smith indicated he would mention it to Mark Sherfy so the information was included in the report.

Besson asked what the questions the ED Office had with the report. Smith indicated Baasch and he were uncertain what tables 4 and 5 in report were indicating; were birds that nested at Lexington sandpit actually documented at Triplett trail on 3354 occasions (Table 4). Jenniges indicate there is uncertainty in when observations occurred and how frequently data was collected at each receiver station. Smith indicated he would visit with Sherfy about these uncertainties and would like to see the ‘filtered’ data that is presented in tables 4 and 5 of their report. Jenniges stated that it would be nice if the report had a table indicating which radio-transmitted birds were detected by monitoring stations at each site and the date detections occurred.

Jenniges indicated there were some discrepancies in the number of nests and fledged birds observed at various sites.

Smith indicated that if anyone had suggested changes to make to the report they should send them to him; **comments on the Foraging Habits Study report due to Smith by 5 February, 2010.**

2009 Whooping Crane Monitoring Report –

Smith indicated the ED office received the report in December and commented that Tacha provided many relevant comments that were forwarded to Gary Lingle (contractor; AIM).



Smith indicated the whooping crane monitoring contract is up for renewal in 2010 and that the ED Office was considering changes to the protocol that could be implemented spring 2011.

Smith stated the report indicated high flows prevented safe access to river to collect information at river transects and stated that we need the data and that there may be alternative methods to obtain the information.

Smith stated if anyone had comments on the report they can send them to him; **Comments on the Whooping Crane Monitoring Report due to Smith by 28 January, 2010.**

2009 Forage Fish Monitoring Report –

Smith stated the Forage Fish Monitoring Protocol has been implemented for many years. Jenniges has been the point person and he and others have led data collection efforts during the past and the Program has adopted Jenniges' report annually. Smith indicated Runge provided comments on the report and asked him to express and elaborate on his comments.

Runge stated many of the Program's monitoring reports summarize annual findings and asked whether or not reports should attempt to relate findings to Program activities. Smith indicated that other monitoring protocols (whooping crane monitoring, etc.) are not required to relate findings to Program actions. Runge stated that Program protocols typically don't ask for a lot of synthesis of findings and suggested discussion section should be removed. Jenniges state the discussion sections states how the protocol does not meet the objectives of what the Program wants to know. Jenniges, Czapski, Fritz, and others indicated they would rather have suggestions of ways to improve the Protocol outlined in the summary reports. Smith indicated we could include a 'management implications' section; Runge agreed. Jenniges indicated stating whether protocol can meet stated objectives or not is not a 'management implication'.

Smith stated that maybe the ED Office could analyze all data collected under the Forage Fish Monitoring Protocol (1999, 2003, 2005, 2007–2009) and write a summary report including the hypotheses, objectives, findings, 'lessons learned,' and a critical evaluation of whether or not the data being collected under the current protocol is meeting the stated objectives. If data we collected under the Forage Fish Monitoring Protocol indicate either we can or will never be not able to answer questions related to forage fish (i.e., 'forage fish limit tern reproduction'), we can present the report and summary of findings to the GC and determine how to proceed (continue or abandon current monitoring protocol or implement a focused research protocol).

Besson asked if whooping crane monitoring protocol would be handled similarly; Smith said no.

Jenniges asked if report to ISAC is supposed guide our decisions on how to proceed and indicated all our data appears to show is that there are a lot of forage fish in the river, but there is no statistical power in our data due to the variability. Smith said it isn't really a report to the ISAC, it's a combined analysis of data collected since 1999 to determine whether our data can or will ever be able to answer whether or not forage fish limit tern reproduction. Smith stated this summary report would be a good place to include paragraph 2 of the discussion section in Jenniges 2009 forage fish report. Tacha indicated doing this would be very helpful.



Wingfield asked if the intention of the annual monitoring protocol was to gather information on trends in forage fish abundance and if so, are we trying to pull too much out of the data. Jenniges stated that was the intention. Smith stated the protocols were written prior to AMP

Chavez asked how many years of data we had; Jenniges stated the monitoring protocol has been implemented since the 1980s, but the protocol has been modified. Chavez indicated he agrees we should analyze all the data, in any way we can, to determine how to proceed.

Runge asked if a research protocol could better address forage fish questions than a monitoring protocol. Chavez and others said yes. Wingfield stated we don't necessarily need to know trends in forage fish abundance just to know it, but we need to know what circumstances abundance is limiting to terns. Jenniges stated we need clear objectives related to flows and indicated the sites we monitor usually have water flow and that forage fish abundance appears to be higher at lower flows.

Smith suggested we remove the 2nd paragraph of the discussion section and include it in a summary document that outlines what we learned, problems with monitoring protocol(s), and suggestions as to how we suggest moving forward to address priority hypotheses stated in Program document.

ED Office will summarize the data that has been collected in the past and the TAC will make suggestions for improving the protocol or implementing other protocols to the ISAC.

The 2nd paragraph of the discussion section will be included in the final version of 2009 Forage Fish Report, but will be included in a separate section entitled 'lessons learned'. Czaplewski asked if the data will be included in Appendix B and Jenniges indicated Appendix B was the spreadsheet sent out with the report. Jenniges emailed the TAC the spreadsheet.

Forage Fish Report approved with suggested changes.

2009 Geomorphology/in-channel Vegetation Monitoring Report –

Smith stated the draft report was sent out in December, met with Ayers and Olson in December, and that they are finalizing the report and will provide suggestions on how to improve the protocol to ensure we get the data we need. Their suggestions will be considered along with suggestions provided by peer reviewers. Ayers and Olson will assemble an 'atlas' of the data collected that will accompany the report. Rabbe suggested changing the recommended flow level from 5,000cfs to a lower level. Brei indicated problem with collecting data below that level is in the methods; they are trying to deal with that now.

Geomorphology/in-channel Vegetation Monitoring Report approved after including the 'atlas', change recommendation to collect suspended sediment sampling data during periods when flows are <5,000cfs, changing graphs (Lexington to Chapman), add more graphical representations of the data, and other minor changes suggested by ED Office.

2009 Water Quality Monitoring Report –

ED Office does not have report yet, but Dan Bigbee will get flow data from DNR and send out the report soon.

2009 Final Stage Change Study Report –



The Stage Change Study Report was reviewed at 2 TAC meetings in 2009 and is final and they will present findings at the AMP Reporting Session in February and at the March GC meeting.

Besson asked the ED was satisfied with the consultants and the reports we discussed. Kenny said yes and indicated we have had good responses to RFPs and have been fortunate to have good proposals submitted.

ISAC “Response to Findings” Document

Smith stated he has not finished the Response to Findings Report yet. Smith indicated he would write a summary to respond to ISACs findings which he would distribute to TAC next week. Responses to findings will be provided to ISAC prior to the AMP Reporting Session in February.

2010 AMP/IMRP Activities Update

Smith will put together a packet of the Executive Summaries from the contractors to distribute to TAC and ISAC and will put together the agenda soon. Smith indicated he has started working on the Mock Report.

Smith gave a presentation outlining Program and AMP objectives and priority hypotheses and how we are attempting to meet the objectives through research, develop the Mock Report, and how land management plans attempt to address objectives. Parts of the AMP experimental design were covered in Smith’s presentation (habitat selection, paired design, proof of concept, etc.).

Complex Land Management Plans

Wingfield indicated the Service is comfortable with the concepts and conceptual design of land management plans, but would like to see more detail and want to know if and how the land plans could be changed if needed. In general, the Service believes more habitat meeting criteria laid out in Table 1 (wider channels, unobstructed view widths, etc.) should be provided on Program lands and private property with narrower channels can be used as a comparison for crane selection. Runge indicated whooping cranes select wide, unobstructed channels disproportionately to availability and would like to create more of this habitat to document bird response. Runge stated the whooping crane model indicated an association between site selection and unobstructed view/channel width at the river segment and transect level. Kenny asked how close non-Program controlled and Program controlled segments need to be. Runge indicated there would be multiple opinions on this, but he felt we should focus on how MCM and FSM management strategies will affect Program and non-Program lands and the bird’s response to our actions.

Jenniges stated a concern with meeting 1150 feet of channel width at all Program property and asked what flows are used to determine if Table 1 values are met in a given area? Runge stated 1150 feet of channel width could be obtained with dozers. Jenniges stated that would mean pushing a half million yards of material into the water and that we wouldn’t be able to maintain that width with the water we have. Brei indicated Table 1 does not specify minimum unobstructed view only 1150 minimum channel width. Smith asked the group if we should make the channel at all Program property 1150 feet wide rather than the approach the ED Office has proposed and having various channel widths on Program property to see what the birds select.



Wingfield stated if we removed the trees and widened the unobstructed view width at McCormick property we could meet Table 1 criteria and also possibly provide wet meadows, or at least grassland habitat, to benefit other species of concern. Jenniges asked for a definition of ‘wet meadow’ and if the neighboring property that was cleared 25 years ago met the Service’s definition of a wet meadow. Wingfield indicated it probably didn’t, which may be a result of not fully pursuing all practical actions to manage it as a wet meadow. Runge stated tern and plovers have been documented to select wider channels so wider channels could benefit terns, plovers, and whooping cranes. Jenniges noted that at channels as wide as what was referenced in the manuscript that Runge cited, the central Platte would be too wide to provide quality habitat for terns and plovers. Runge stated the Program is planning to change the hydrology with short duration high flows, but Jenniges doubted all participating states are willing to change the hydrology enough to produce nesting habitat with 1150 foot wide channels on all Program properties. Chavez asked if our goal is to have a minimum channel width of 1150 feet at all program lands? Runge stated he was uncertain, but that there is a disproportionate selection towards areas with wider channels. Chavez stated if all river channels were mechanically maintained at 1150 feet, we wouldn’t be testing any hypotheses to determine what the birds select. Tacha agreed we wouldn’t be able to test hypotheses only on program lands, but narrower channels would be available on private grounds to compare crane use to. Jenniges stated if all channels on Program lands were 1150 feet, we couldn’t determine if terns and plovers would select habitat in areas with 700 foot wide channels because it is unlikely the Program would build islands on non-Program land. Wingfield stated the Service wasn’t intending on having an 1150 foot minimum channel width on all Program lands, but that maximizing the unobstructed width within the channel and unobstructed view overall on the McCormick site made sense with the openness to the west of the property. Farnsworth showed areas south of the channel where trees could be cleared, but clearing trees on the north side wasn’t practical with the canal. Farnsworth stated it wouldn’t be a big deal to remove the trees to increase unobstructed view distance, but increasing the channel width to 1150 feet at the site would require us to push about 1 million yards of material into the river.

Smith asked if there is an agreed upon minimum habitat criteria for all Program lands (i.e., all channel on Program land will be immediately widened to 1150 feet). Wingfield said he was not aware of anything that stated this should be done. The Service’s perspective is to provide benefits for the species as best we can and use adaptive management to verify and adjust; not designing an experiment to test everything to start with. Besson asked if we widened the channels, would we be able to test FSM and MCM strategies. Wingfield indicated we shouldn’t do actions that would inhibit us from implementing adaptive management. Runge stated that testing different channel widths on Program lands may result in large changes in habitat at the local scale, but may not be much when considered at the system scale. Chavez stated we needed to look at different levels of channel width on Program lands. Kenny stated that FSM could maintain the river at 750 feet, but if we widen all program lands to 1150 feet we could be setting FSM up for failure. Runge stated the Sed-Veg model tested areas like McCormick property when artificially increased to 1150 feet and the model indicated the river could be maintained by the additional water the Program will supply. Wingfield clarified that the Service would like to see trees removed at McCormick, not necessarily increased channel widths at this time. Wingfield re-stated land management plan comments sent to Justin and indicated channels could



be widened in the future if more water is available. Wingfield said he would re-write his comments he sent to Brei to more clearly indicate the Service was suggesting removing trees on the south bank and not widening the active channel to 1150 feet at this point. Jenniges stated West Company's analysis indicated whooping crane selection increased as unobstructed view increased to 1200 feet, but selection decreased when widths exceeded 1200 feet. Runge stated the models were sensitive at 900-1000 feet because availability of this habitat was low so a few observations in these area really increased the apparent selection.

Smith highlighted a section of Wingfield's comments relating to 'adaptive management preventing active pursuit of Table 1 habitat criteria' and asked if he was referring to tree removal at McCormick property, channel width at other places, or the wet meadow concerns. Wingfield said it was a message that the Service believes the complex habitat should be developed early and use adaptive management from that point. Walters asked why the McCormick property would be wet meadow habitat if the Program removed the trees when the adjacent property (John's) was identical to McCormick before the trees were removed, but now is not considered wet meadow habitat. Wingfield stated we haven't done all we could to make the John's property wet meadow habitat. Chavez stated that management has increased at the John's property and that the sloughs were made deeper last year. Farnsworth indicated we need to know what future plans for the McCormick property are so we don't clear, burn, and bury the trees that we have to dig back up and move in the future if we want to create wet meadow habitat. Wingfield stated he would like to review the plans, but he did not remember seeing any major problems in the land plans that would result in the need to go back and fix problems we create now in the future. Tacha stated by removing trees to the north of the channel at McCormick would get us a 2 mile reach of river with grassland habitat and unobstructed view for cranes. Jenniges asked what a 2-mile river reach of grassland would get us. Tacha stated from the aerial perspective of a searching crane, it would provide 2 miles of open grassland habitat to improve the open aspect of the river.

LUNCH BREAK!

Besson summarized the Service has expressed concern with the amount of wet meadow habitat available and Wingfield indicated he would update his comments to the land plans to specify the Service's position. Chad asked if the Service had any issues directly related to plans to build river islands. Wingfield indicated he would review the plans, but didn't recall any specific problems with the island building or any other parts of the experimental design.

Besson asked if the timing of providing wetlands was the biggest issue. Chavez stated the Trust has restored wetlands to wet meadows; however, many of them do not look like wet meadows. Jenniges asked Chavez what he was considering wet meadows on the properties they restored and Chavez said it was the actual wet area and not the grassland surrounding it. Wingfield stated the Service's definition considers the actual wetland features within an upland grasslands context. Jenniges, Chavez, and Runge indicated the biggest problem was with the definition of wet meadow. Runge indicated the Services definition of wet meadow includes the openness the grassland provides for whooping cranes as opposed to considering wetlands within a forest at wet meadows. Chavez stated it appears as though the Service's definition of restoring wet meadow is more of definition of restoring open water area within grassland and one needs to look at the function of the wetland.



Wingfield stated the Service doesn't like the fact that there is a place holder on everything they think should be converted to grassland-wet meadow habitat and said the Service's reason for supporting the purchase of the Fox Tract was for the wet meadow features on the property.

Kenny asked if by changing all Program lands so they have the same features, are we going to be able to learn from our Adaptive Management strategy. Besson stated that if the trees were cleared at the McCormick property, it wouldn't impact our ability to learn from an Adaptive Management strategy.

Farnsworth stated the TAC needed to decide if the Program can wait to develop wet meadows until we have further guidance. Chavez stated the wet meadow has already been elevated to the GC. Chad asked if land plans and wet meadow could be addressed at the same time? Tacha said there is a lot we could do with the land plans that does not involve converting forests into wet meadow grassland, we could removed the trees to benefit terns and plovers.

Wingfield indicated the Service TAC members wouldn't suggest vetoing land management plans at the GC level; however, they would like some level of assurance that wet meadows can be developed on Program lands in the next year or two. Service doesn't want the Program to be bound by a multi-year farm lease on the property that would preclude development of wet meadow habitat. Farnsworth stated we would visit land plans every year even though the land plans are for a 5 year period. Kenny asked if we needed to include information in the land plans indicating land plans can be modified. Brei indicated amendments to the land plans can go through the committees and be approved as needed. Farnsworth and Kenny indicated the land plans would clearly state that plans will be evaluated annually and that all leases would be year-to-year.

Chavez indicated we may need to learn more about whooping crane habitat selection prior to modifying all Program habitat to conditions laid out in Table 1 or we will not learn about whooping crane habitat selection. Jenniges stated whooping cranes for the most part have historically selected areas with trees bordering the river; within the area around McCormick property. Runge indicated Service does not recommend increasing active channel width for all Program properties to reflect Table 1 characteristics at this time. However, the Program should attempt to develop one habitat complex reflective of Table 1 characteristics at a site near Elm Creek.

Besson summarized that the Service (Wingfield) will amend comments and the remaining TAC committee approved the land management plans as long as management did not interfere with AMP strategies, included a place-holder for wet meadows at McCormick site, include statement that land leases will be for a period of 1 year, and that plans will be evaluated annually.

Farnsworth stated, down the road, the Program will need guidance on specific habitat criteria and restoration targets for species of concern to show defined benefits for these species.

Smith asked if we could get a formal indication of support of land plans for the direction of our experimental design. Jenniges indicated he supported the conceptual experimental design. Wingfield stated the Service would like to see trees south of the channel at the McCormick property removed.



Czaplewski says the land plans needs to describe all levels of Smith's presentation: Part 1 - Habitat Selection, Part 2 - Paired design, Part 3 – FSM Proof of Concept test site at Elm Creek, and Part 4 – System-wide monitoring and research. Czaplewski said the land plans need to encompass all of this. Smith agreed.

Wingfield said he's comfortable with the 4 parts, but that he's nervous about the criteria we're using to guide land management as the criteria were developed fairly rapidly. Smith stated the approval the ED Office was seeking did not include proposed data collection or minimum habitat criteria in Rapid Prototype Models. **Besson stated the TAC approved the conceptual experimental design under these conditions. The experimental design includes:**

Part 1 – Habitat Selection (terns/plovers and whooping cranes)

- Opportunistic island building at several Program complexes and habitat sites for tern/plover research
- Channel and unobstructed width for whooping cranes
- Intensive data collection and monitoring
- Data for rapid prototype model

Part 2 – “Paired Design” – River Nesting versus Off-Channel Sand & Water (OCSW) Nesting

- Tern and plover nest success/productivity comparison between river nests and OCSW nests
- Data for rapid prototype model

Part 3 – Flow-Sediment-Mechanical (FSM) “Proof of Concept”

- FSM Test Site at Elm Creek Complex
- Clear and level area where flow is currently consolidated
- Determine impact of Short-Duration High Flows (SDHF) and sediment augmentation
- Intensive research, such as vegetation scour and bar creation/maintenance/movement

Part 4 – Monitoring and Research

- System-level monitoring: terns/plovers, whooping cranes, geomorphology/in-channel vegetation monitoring, water quality
- Directed research to answer specific questions: Lower Platte River Stage Change Study, Tern/Plover Foraging Habits Study, whooping crane telemetry tracking, vegetation scour research, tern/plover nest- and brood site-selection and survival research, other projects as identified

Smith stated we need to set a meeting to define minimum habitat criteria for Program lands. Smith also stated the ED Office would update Rapid Prototype models and that the ISAC supported them, but indicated we needed to include additional parameters.

Program RFPs

Smith led discussion

Final 1-D Hydraulic/Sediment Modeling RFP –



Smith indicated TAC members were provided the RFP that was sent out and that many people/groups have expressed interest.

Draft Vegetation Research RFP –

Smith stated participants of the FSM Workshop held in December indicated we needed to do research to figure this out. Steve Smith wrote the RFP; the ED Office, Chester Watson, and Brad Anderson offered comments and we provided it to the TAC to review. The ED Office is seeking ‘smart people’ to design the protocol to develop and implement the research, but the timeline is short. The idea is to develop coefficients to include in the Program’s 1-D model to predict what might happen to the vegetation. Runge indicated Paul Kinzel and Diane Larson are doing something similar and are looking at inundation effects on seedling plants.

Smith stated the Program has money in the budget approved for this research. Jenniges indicated we need to include reed canary grass to the list of species

Czaplewski indicated time lines may need to be backed up (Smith agreed) and that the selection committee should include members of WAC.

Smith asked for approval of RFP and for suggestions for selection committee members.

Besson asked if everyone had a chance to review the RFP. Tacha indicated she hadn’t, but stated her review may not be very valuable to this type of modeling RFP.

Jenniges moved to approve RFP; Chavez seconded the motion.

Evaluation team: Jenniges, Czaplewski, Chavez suggested Mary Harner, Fritz, Farnsworth, Smith, and we’ll ask for a volunteer from the WAC to join the committee. Farnsworth stated that the ED Office would send proposals to Watson and Anderson to get their input also.

Potential Cottonwood Ranch OCSW and Flow Consolidation Conceptual Design RFP –

Smith stated the trees at Cottonwood ranch were removed and that we need to start developing the off-channel site if we want it to be available for the 2011 tern and plover nesting season. The ED Office and NPPD have also discussed channel consolidation at the site and have committed to design it, but not necessarily implement the design. Farnsworth and Smith indicate the 2 projects were fused together and would be handled that way. Jenniges suggested the TAC decide whether we want to consolidate the river in a portion of the property or the whole thing. Smith stated this wouldn’t be decided at this meeting, but wanted everyone to know what the ED Office was working on with NPPD. Wingfield asked if the flow consolidation involved the south channel; Farnsworth said yes, but that the consolidation would have different thresholds of flow. Jenniges stated the consolidation would reduce the flood plain by a maximum of 600 meters.

Tacha asked what the time frame for the flow consolidation ‘test’ was. Jenniges stated this will be permanent and Farnsworth stated the dikes could be removed in the future if needed.

Tern and Plover Research Protocol

Smith stated Baasch wrote the draft nest- and brood site-selection and survival research protocol, the protocol was sent to independent reviewers (Mary Bomberger-Brown, Larkin Powell, Josh Millsbaugh, and Drew Tyre), and Baasch incorporated many of their suggested changes prior to



sending the research protocol to the TAC. Smith mentioned Jenniges, Smith, and Baasch discussed the protocol on 20 January following Jenniges expressed concern in an email about the protocol. Smith also informed TAC members the ED Office was not looking for approval of the protocol, but wanted feedback on it. Baasch presented the concepts outlined in the protocol.

Chavez stated data collection at the micro-habitat nest-site selection scale should be smaller. Baasch said we could consider a smaller level with images collected at the 1-yd² area or we could possibly consider an additional level of selection. Fritz asked how the models would determine selection between 3 sites with identical features. Baasch stated if the selected and 5 available sites were identical in a given feature, the model would show no selection for that feature. If, however, the selected site and 3 of the 5 random locations had the same measure for a given feature and the other 2 random sites had a different measure, the model would indicate some selection for or against the feature, but the selection or avoidance would not be very strong.

Chavez asked if this level of research (2 observations/week) is normal. Baasch stated he believed the lower Platte and Missouri researchers were doing this type of surveying. Smith stated there are 2 issues we need to deal with; disturbance and effort related to defining available habitat. Jenniges asked what we expect to change during the nesting period. Baasch and Tacha stated vegetation and other factors would change. Jenniges stated observations subsequent to nest discovery would only be included in survival analyses. Baasch agreed that only data collected during the initial observation period would be included in micro-habitat nest site selection analyses. Jenniges suggested if we took a photo during the initial observation period and the period when the nest hatched or failed we would know conditions during these periods. Baasch agreed, but stated the 2 observations/week would help answer questions related to factors that influence nest or brood survival. Chavez pointed out the data collected during micro-habitat scale collection periods would not be expected to change very quickly; Jenniges stated elevation above water may change during each period. Runge asked if this data is being collected on the lower Platte and Missouri is there a need to collect it on the central Platte; Baasch clarified an earlier response that as far as he knew personnel in these areas are not collecting this type of data, but that they were observing nest and collecting data twice/week. Runge asked if data collected in other river systems could be used to determine selection in the central Platte and about the application of our model to other areas. Baasch stated other areas and systems are different (lower Platte builds and maintains natural nesting habitat) and that our goal is not to determine selection on other rivers; it is to guide management actions on the central Platte. Tacha expressed concern with entering sites twice/week and stated predation in other areas increases with increased visits to nesting sites. Baasch stated where we are sampling nesting sites and non-nesting sites weekly; he doesn't feel the risk of predation would increase due to the presence of human odor. Fritz disagreed with Baasch and felt predators would pick up on human odors and would continue to search sites until they find nests. Chavez asked for a suggestion for collecting data if not twice/week; what would be considered tolerable. Tacha said the current Monitoring Protocol states we will visit the colony weekly and not enter the site, but wondered what the advantage of collecting micro-habitat scale nest-site selection data were. Baasch said he proposed the micro-habitat scale to determine what it is about the sites they actually selected (substrate, elevation, distance to water, etc.) that determined their selection. Chavez asked if we needed to physically visit each nest twice/week other than to determine egg survival. Baasch



indicated survival issues were the reason for collecting data this frequently and that observation-period specific habitat measures would be related to nest survival. Chavez stated frequent data collection might be crucial for determining egg survival. Jenniges, Tacha, and Peyton indicated survival analyses don't include human induced factors (nest visits). Peyton stated during a study he was involved with last summer, he strongly felt nest survival or lack-of was related to daily nest visits and that predators (snake, grackles, etc.) will return to nests if they only take a portion of the eggs so counting eggs was not important; he also indicated they changed the protocol to monitor from a distance to respond to this concern. Peyton suggested we could use remote cameras to collect data and Chavez indicated the Trust has a camera that we could use to zoom in on specific nests to collect the data. Smith asked if everyone generally agreed there was value in the research, but a concern is of human disturbance; all replies were yes. Fritz stated something in between the Monitoring and Research Protocols might be acceptable, but it's the human activity that predators will pick-up on. Besson asked how reliable the cameras that were mentioned were and how much they cost. Chavez stated the camera the Trust has (remotely zoom and collect data) cost \$14,000 a couple years ago and Jenniges stated the cameras Peyton referred to (camera placed at each nest) cost about \$1000/10 cameras with software.

Besson asked if the only major objection to the protocol is the disturbance/predators issue; Chavez indicated he thought that was the only issue. Smith asked the question again and Tacha stated that implementing the protocol in the 'real world' during June could be problematic due to the ability to detect broods when the vegetation grows; best way to detect broods when they are young is to watch adults fly in to feed chicks. Jenniges expressed a concern with the brood site selection data in that once we enter a site to collect brood-location data we will displace the brood to another area and that the broods may not return to potentially better habitat because of the disturbance. Baasch stated he assumed the chicks would return within 3 days if the habitat they initially selected was better than the one they were displaced to.

Tacha stated the habitat conditions on the central Platte are very different from the lower Platte on the Missouri which supports collecting this type of data, and those differences need to be considered when determining whether or not to implement this protocol. Baasch asked how we might go about collecting information on factors that influence brood survival if we don't enter sites and collect the data. Peyton said he assumed this protocol would be implemented this summer when USGS is out collecting data; Jenniges asked if the data USGS is collecting is similar, why we don't we wait until they are gone to see what they find. Baasch indicated USGS is not collecting data at potentially available sites. Chavez indicated USGS data will not address nest-site selection or survival issues.

Tacha asked if our sample size would allow us to answer the questions we are after. Baasch stated he felt we could answer questions pertaining to nest- and brood-site selection and survival, but that it would be nice to have a larger sample. Fritz stated if we negatively influence survival by visiting nests, the population may not return to nest. Fritz and Tacha stated that it may be better to wait until the numbers of birds increase or only collect micro-habitat scale nest-site selection data at 1/2 of the nesting sites. Jenniges suggested going with NPWRC personnel and collecting data at available sites. Could set up cameras at a couple sites to test cameras ability to collect data. Wingfield stated we could possibly collect site-selection data and hold off on collecting survival data. Jenniges stated we should consider double-observer counts from



outside the site to address detectability issues. Farnsworth asked what factors the Program could control related to brood survival; Baasch stated we could control vegetation, management actions (pre-emergent herbicide on ½ of a site), substrate, elevation, flow, etc.

Jenniges suggested possibly implementing the protocol at a couple of smaller areas (Blue Hole and Dippel). Tacha suggested the possibility of placing cameras at nests to monitor them.

Besson and Chavez asked if data collection as proposed was within the confines of our permits. Baasch stated the only permitting issue he was aware of was that site visits had to be limited to 20 minutes. Tacha indicated she thought there were temperature and other restrictions; Baasch stated he would look into this.

General consensus was the protocol would provide valuable data if we can address disturbance issues.

Program Monitoring Protocols

Revised Tern and Plover Monitoring Protocol –

Discussed briefly; protocol will be discussed as part of small-group meeting on January 29.

Revised Forage Fish Monitoring Protocol –

Protocol discussion will be incorporated in evaluation of forage fish data and recommendations for moving forward.

Water Quality Monitoring Protocol –

Protocol still being updated and will be addressed at a future TAC meeting.

Geomorphology/In-channel Vegetation Monitoring Protocol –

Protocol still being updated and will be addressed at a future TAC meeting.

Closing Business

AMP reporting session in Denver scheduled for February 17 & 18.

Set small group TAC meeting for 29 January, 2010, 1:00 p.m. – 5:00 p.m. to finalize the Tern and Plover Monitoring Protocol, the Tern and Plover Research Protocol, and if time permits to discuss ‘minimum habitat criteria’.

Next TAC meeting will be 3 March, 2010, 9:00 a.m.– 12:00 p.m. Central time

Meeting adjourned at 4:00 p.m. Central time.

Summary of Action Items/Decisions from November 2009 TAC meeting

- 1) Approved November 2009 TAC minutes.
- 2) Elected Mike Besson to Chair the TAC Committee effective 21 January, 2010
- 3) Approved the 2008–2009 Tern and Plover Monitoring Report with suggested changes.
- 4) Comments on the Foraging Habits Study report due to Smith by 5 February, 2010.
- 5) Comments on the Whooping Crane Monitoring Report due to Smith by 28 January, 2010.



- 6) Forage Fish Report approved with suggested changes.
- 7) Geomorphology/In-channel Vegetation Monitoring Report approved with suggested changes.
- 8) Approved the conceptual design of Land Management Plans under specified conditions.
- 9) Approved the Vegetation Research RFP and proposed a proposal selection committee including: Jenniges, Czaplewski, Mary Harner (suggested by Chavez), Fritz, Farnsworth, Smith, and we'll ask for a volunteer from the WAC to join the committee. Farnsworth stated that the ED Office would send proposals to Watson and Anderson to get their input also.
- 10) Set small group TAC meeting for 29 January, 2010, 1:00pm – 5:00pm to finalize the Tern and Plover Monitoring Protocol, the Tern and Plover Research Protocol, and if time permits to discuss 'minimum habitat criteria'.
- 11) Next TAC meeting scheduled for 3 March, 2010, 9:00am – 12:00pm Central Time