



## PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

### Technical Advisory Committee Meeting Minutes

Executive Director's Office Conference Room – Kearney, NE

October 5-6, 2011

**Wednesday, October 5th**

#### Meeting Attendees

##### Technical Advisory Committee (TAC)

###### **State of Wyoming**

Mike Besson – Member (Chair)

###### **State of Colorado**

Suzanne Sellers – Member

###### **State of Nebraska**

Mike Fritz – Member

Doug Hallum – Alternate

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

Martha Tacha – Member

Matt Rabbe – Alternate (via phone)

###### **Bureau of Reclamation (BOR)**

Brock Merrill – Member

###### **Environmental Entities**

Rich Walters – Member

Mary Harner – Alternate

###### **Upper Platte Water Users**

###### **Colorado Water Users**

Kevin Urie – Member

###### **Downstream Water Users**

Mark Czaplewski – Member

Jim Jenniges – Member

Mark Peyton – Member

##### Executive Director's Office (EDO)

Jerry Kenny – Executive Director (ED)

Chad Smith

Dave Baasch

Jason Farnsworth

Steve Smith

Justin Brei

##### Other Participants

Jeff Runge (FWS)

Mike Drain (CNPPID)

Pat Engelbert (HDR)

Tom Riley (Flatwater)

Andy Selle (InterFluve)

Pat Goltl (Nebraska NRD)

John Thorburn (Tri-Basin NRD)

Aaron Pearse (USGS-NPWRC)

Dan Bigbee (EA)

#### Welcome and Administrative

Besson called the meeting to order and the group proceeded with a roll call. Czaplewski asked to add a discussion about the plans the Middle Missouri River Basin Workgroup is developing regarding restocking pallid sturgeon to the agenda. Czaplewski moved to approve the August 2011 TAC minutes with changes incorporated in the draft version the TAC reviewed; Jenniges seconded the motion; all approved. **August TAC Minutes approved with incorporated changes.**



EDO staff passed out an updated list of TAC members for the organizations to review and informed the group the membership list is on the Program's website. Revisions are to be submitted to Baasch so we can keep the membership list and website up-to-date.

### **Update on August TAC Meeting Action Items**

C. Smith updated the TAC on the status of action items from the August 2011 TAC meeting including peer reviews, caddisfly research project (only conduct surveys until GC decision in June, 2012 and seek input from the ISAC regarding how to proceed with research related to species of concern), and IGERT student project (GC supported providing \$25,000 for an IGERT student and supported Trevor Hefley's project).

Runge stated the GC minutes appeared to indicate the Service discouraged tree removal on Program properties; however, the caddisfly documents provided to the GC indicate otherwise. Runge asked if the GC had the proper information to decide whether tree removal should occur in the proposed areas for the caddisfly study or not. Farnsworth said the GC discussed that the Service didn't feel tree removal would impact caddisfly and wouldn't hold the Program responsible for caddisfly listing and that part of the GC discussion was related to early discussions and consultation letters from the Service when the study plan was being developed. Runge stated the Service still encourages vegetation removal for target species in a phased approach when caddisfly are involved. Besson stated he isn't sure where we are regarding tree removal on the McCormick and other properties. Farnsworth and Kenny stated we will not remove trees in the proposed caddisfly research areas where unobstructed views already exceed target species widths and that way we can preserve the possibility of conducting the study in the future.

### **LiDAR/Aerial Photography RFP**

Farnsworth discussed the fact that an RFP is out for bid that includes the collection of LiDAR and Aerial Photography data annually and that the RFP includes potential buy-up options suggested by Nebraska DNR. At this point the selection committee needs guidance on how consider the buy-up options (i.e., what is the value of the additional buy-up options). Hallum stated his biggest concern was that the RFP was for a multiple year contract which might preclude the Program from adding additional technology (fusion, hyper-spectral imagery, auto-correlation, etc) if we decided we should do so in the future. Hallum stated the new technologies could be used to classify vegetation and could augment or potentially replace the Program's Geomorphology and Vegetation Monitoring Research. Besson asked if we would have the ability to apply the new technologies to the Geomorphology and Vegetation Monitoring Research data. Hallum stated he envisioned combining the LiDAR and Imagery collection with the Geomorphology and Vegetation Monitoring so we know the specs for LiDAR and Imagery are applied for the purposes of complimenting or replacing the Geomorphology and Vegetation Monitoring data collection. Brei stated we could apply these techniques, but we wouldn't get accuracies we could use because methods of collecting the data would be different. Kenny asked if we would be collecting the data both ways; Brei said no. Brei stated that the buy-ups would replace portions of the base scope of work in the RFP as methods for collecting data would change (i.e., higher resolution imagery, lower elevation flights, etc).



Hallum stated the new technologies wouldn't provide the Program a bare-ground model, but would allow us to determine relationships such as distance between bare sand areas and visual obstructions (object 1.5 meters tall). Farnsworth suggested we move forward with RFPs as written and collect LiDAR and Aerial Imagery data as we have in the past and consider contractors that have the ability to collect data both ways when selecting a contractor. Hallum and Farnsworth stated that based on the timeline for the RFP, the selection panel could select a contractor based on their ability to collect the base data, but consideration could be given to contractors that have the ability to collect the buy-up data.

### **PRRIP Peer Review**

C. Smith stated that the Stage Change Study Peer Review was completed and Atkins is summarizing reviewer comments, but that he hasn't received the comments from Atkins to date. Jenniges asked if the TAC could review the comments submitted by peer reviewers; C. Smith stated comments would be available for everyone to review.

C. Smith asked if the group for a recommendation of supported for the draft Scope of Work for peer review of the Directed Vegetation Research. Czaplewski noted there was a typo error in the Scope of Work for the peer reviewers in that it said 'Stage Change Study' rather than Directed Vegetation Research; C. Smith said he would correct that error.

### **Czaplewski moved to support the Scope of Work for the Directed Vegetation Research peer review; Jenniges seconded the motion; all supported the motion.**

C. Smith read the names of the panel of peer reviewers Atkins provided to the Program and stated the EDO recommends having John Stella, Anne Lightbody and Andrew Wilcox peer review the Directed Vegetation Research Study. Besson asked if the list of peer reviewers had been contacted by Atkins to determine if they are interested in conducting the review; C. Smith said they had been contacted. Besson asked who conducted the vegetation research; Farnsworth said USDA-ARS.

### **Jenniges moved to recommend support of the list of individuals recommended by the EDO including John Stella, Anne Lightbody and Andrew Wilcox; Czaplewski seconded motion; all supported the motion.**

### **Sediment Augmentation Pilot Study Project**

Engelbert and Trubant discussed background information leading up to the Sediment Augmentation Pilot Study; baseline modeling that has been conducted to date; the various parameters that would be measure, how they would be measured, and what would be done with this information; the various decisions triggers and the decisions that would be made in response to various outcomes of the pilot study; and discussed progress made on obtaining a 401 Permit for the pilot study.

Czaplewski asked if the models consider different flows and changes in sediment transport that occur throughout the year; Trubant said the models did. Czaplewski asked if the models assumed sediment would be augmented year round; Trubant said the models incorporated sediment augmentation during the 2 proposed scenarios; ~30 days and ~45 days. Runge asked river response was modeled with adding 50,000 ton of sediment; Trubant said it was modeled with



adding 50,000 tons of sediment at both Dyer and Cottonwood Ranch. Goltl asked if the stage versus discharge plot represented the entire 20 year period or some subsection of the data as the plot has distinct clusters along 3 lines; Engelbert and Riley stated all data from 1991-2011 and represent field measured data collected during pre-drought (before 2003), drought and phragmites (2003-2008), and high flow periods (2009-2011).

Tacha asked what temporal resolution they will be looking at during sediment augmentation periods (daily, weekly, or instantaneous flow); Engelbert said they would look at flow data on a daily basis. Tacha asked if the measures were instantaneous maximum measure and stated the river fluctuates continuously which could trigger several different decisions; Engelbert said they would look at daily maximum flows, but that they would compare the relationships in the performance measures to historic data (new measure within in historic spread of data or not) to make decisions. Farnsworth stated they will be measuring and looking at the stage/discharge relationship which is not as sensitive as looking at only change in stage so the number of decision triggers would be minimized. Jenniges stated the bed of the river during early 1990's is much different than today and that we could raise the stage/discharge relationship by 2 feet and still not be as high as the river was in 1991 (i.e., not outside the scatter of historic data). Trubant said the stage/discharge relationship plots only include the scatter of change within a 1-year period which does not represent change in the stage/discharge relationship over the past 20 years so a change of 2 feet would fall outside the scatter so a decision trigger would met before this point.

Besson asked what type of water the group would prefer to conduct the Pilot Study. Engelbert stated a normal water year would be most preferred. Besson asked if we should hold off on augmenting sediment until we are more certain of a normal water year. Engelbert, Farnsworth, and C. Smith stated a lot can be learned even during high flow years and that the Pilot Study is designed to learn about how to put sediment into the system, to update the models and determine if they are useful for predicting outcomes, and for revising the means and methods of sediment augmentation so that we are better able to implement full sediment augmentation.

Jenniges asked if we were relying on the monitoring taking place to develop the 2-D models for the Elm Creek Proof of Concept Study which will be completed in a year; Farnsworth indicated the sediment augmentation study will have its own monitoring protocol, but that the other monitoring, LiDAR, and Aerial Imagery data would supplement the data they collect.

Runge asked if there were any trends in the scatter in the discharge rating curves plot over time; Trubant indicated they hadn't looked at that yet, but that it appears maybe there was slightly more scatter in the 2010 data when flows were high; however, the 2010 data were provisional when it was downloaded.

Thorburn asked if they planned to monitor water quality in relation to the pilot study; Engelbert and Riley stated the source material would have to be monitored before it is put into the river, but that they weren't sure what the monitoring requirements will be yet, however, they would used the Program's water-quality monitoring data in addition to other required measures. Selle stated where and what data they are collecting and stated more specific monitoring related to various Program activities will occur in the future.



**C. Smith asked the TAC to review the sediment Augmentation Pilot Study document and to submit any comments, concerns, or questions they had to him so that once the permitting process is complete and the GC approves the study we can start the project.**

### **Whooping Crane Telemetry Project**

C. Smith discussed the background of events that lead up to the current Partnership Agreement (including revisions made by project partners Oct 4, 2011 and shown to the group on the 5<sup>th</sup>) and the Budget projected through 2016.

Tacha asked if we could write into the Partnership Agreement that the Program's monitoring crew (currently WEST/AIM) would not have access to telemetry data to locate whooping cranes. Baasch and others stated the monitoring crew would not have knowledge of any information from the telemetry data other than to re-locate previously observed birds that are lost while monitoring them as written in the Program's 2011 Whooping Crane Monitoring Protocol. C. Smith and Pearse stated information such as this probably should be left out of the Partnership Agreement otherwise other core partners would need to include similar information for their data use purposes.

Tacha stated she hoped Tom Stehn's replacement, as the whooping crane coordinator, would be included in the group of Core Partner Members; Pearse said we definitely revisit Fish and Wildlife Service representation once the whooping crane coordinator is replaced.

C. Smith and Pearse stated the Program will receive migration reports like all other core partners. Czaplewski asked if the Program would receive previously written migration reports; Pearse and Smith stated all previous reports have been written by the Trust and the group discussed the Program has received 3 reports including a 3-page summary report presented at the 2011 AMP reporting session, a 2010 draft report submitted in June of 2011, and a 2011 Spring Report submitted in August 2011; these are the reports written to date. Pearse stated those were the only reports he is aware of.

Pearse discussed that Data Costs in the budget were costs associated with accessing the data from the Argos system and that Data Management Costs were for miscellaneous costs associated with storing, accessing, and processing data. C. Smith stated the Program would be invoiced for costs associated with the Project and would pay the invoices rather than funneling money through another organization as has been done in the past. Jenniges asked if the Program's in-kind-contribution could be added to the budget to reflect actual Program costs; Pearse and C. Smith stated that would be a good idea.

Tacha asked if the title of the project could be changed so that it will be clear in the future that this project is separate from the past project that had the same name; Pearse said he would call Tacha to come up with a different name for the project.

Czaplewski asked if C. Smith felt the agreement fully addressed the concerns the EDO and TAC have raised in the past (data access, core partner assignment, etc); C. Smith and Baasch indicated the latest version of the agreement presented at the TAC meeting fully addressed all concerns.



**Jenniges moved to support Program participation in the Whooping Crane Telemetry Project as proposed in the revised partnership agreement shown during the meeting and as budgeted in the proposed budget... Tacha seconded the motion; all approved.**

C. Smith stated the EDO would arrange a conference call with the GC (potentially during the FC call), to get GC approval for the project.

Czaplewski stated that with all the information collected with this project he hoped that future reports would be more substantial than past reports; Harner agreed and said past reports have been limited because of data sensitivity, but that the core partners are working on ways to improve future reports.

### **Cottonwood Ranch Flow Consolidation**

Selle presented information on the flow consolidation study including background information; work that has been done to date; potential options, benefits, and costs associated with the different options for consolidating flows; locations considered for consolidating flows; and next steps for the project.

S. Smith clarified that the rough-scale model calibration Selle referred to throughout his presentation did not mean they made any changes to the original HEC-RAS 1-D model, but that such area-specific calibrations would likely be needed in the future; Selle agreed. Fritz asked if either of the consolidation methods would require a 404 permit and if additional effort would be required to obtain a permit for either method. Selle said he thinks both approaches would require permitting, but he wasn't sure if there was a benefit to either approach. Jenniges stated he felt NPPD likely would not support permitting the log-jam approach due to risks associated with the Kearney Canal. Peyton added that another thing to consider is the costs of removing each type of structure (log jam versus sand diversion) in the event it was required. Besson asked how we would deal with new channel development as has been observed the past 2 years; Farnsworth stated we would probably need to plug the new channels and could add additional structures in the event new channels are cut around the diversion structures. Jenniges stated one of the next steps should be to identify what the function the south channel really should be. Runge stated one function was that side channels are important habitat for fish and that the Service would like to include that in the study design if possible. Jenniges added that another function would be to maintain the channel for downstream land owners; however, the channel is already consolidated on the Program's Stall Property. Selle stated the channel would still be accessible by fish during periods of high flow (i.e., refuge during flood events) and that the design of the diversion structures would include passage ways for fish during periods of lower flows. Selle added that channel function, however it's defined, could be maintained in either design. Besson said the report indicated the channel may be consolidating on its own so he wondered how active the Program should be in trying to consolidate flows at this site. Jenniges and Runge stated consolidating flows is part of the overall FSM strategy and consolidating flows at this site would add another replication along with the Elm Creek Complex. Runge asked if the project is likely to be permitted under 404 individual permit; Farnsworth stated this project may be tough to permit. C. Smith and Farnsworth stated we should probably move forward with obtaining a permit for the project so that if/when everything comes together to implement the full FSM strategy we could proceed. Besson asked if the EDO had heard any feedback from neighbors at



this point yet; Farnsworth said NPPD has concerns with using log jams as discussed during the meeting, downstream neighbor has concerns with the Program removing all water from the channel used for watering cattle, and upstream neighbors don't want the Program backing water up on their property. Rabbe stated the US Army Corps of Engineers would need to consider how much of the channel will need to be mitigated (entire stream or the area around the structures); Farnsworth said he agreed and that if the Program would need to mitigate the entire channel then flow consolidation may not be a viable option for the Program.

**Farnsworth and C. Smith said the next steps will be to put together a scope of services to move the flow consolidation project into a pilot study. The group agreed.**

### **Executive Session**

**TAC entered Executive Session at 5:20 p.m. Central time** to discuss 2012-2015 Independent Scientific Advisory Committee (ISAC) Membership.

**TAC exited Executive Session at 5:50 p.m. Central time.**

**Meeting adjourned at 5:50**



**Thursday, October 6th**

## Meeting Attendees

### Technical Advisory Committee (TAC) Table

#### **State of Wyoming**

Mike Besson – Member (Chair)

#### **State of Colorado**

Suzanne Sellers – Member

#### **State of Nebraska**

Mike Fritz – Member

Doug Hallum – Alternate

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

Martha Tacha – Member

Matt Rabbe – Alternate (via phone)

#### **Bureau of Reclamation (BOR)**

Brock Merrill – Member

#### **Environmental Entities**

Rich Walters – Member

Mary Harner – Alternate

#### **Upper Platte Water Users**

#### **Colorado Water Users**

Kevin Urie – Member

#### **Downstream Water Users**

Mark Czaplewski – Member

Jim Jenniges – Member

Mark Peyton – Member

### Executive Director's Office (EDO)

Jerry Kenny – Executive Director (ED)

Chad Smith

Dave Baasch

Jason Farnsworth

Steve Smith

Justin Brei

### Other Participants

Jeff Runge (FWS)

Stu Trubant (Tetra Tech)

Mike Drain (CNPPID)

Andy Selle (InterFluve)

Pat Goltl (Nebraska NRD)

Aaron Pearse (USGS-NPWRC)

Trevor Hefley (UNL-IGERT)

Karine Gil-Weir (Environmental Advisors)

Enrique Weir (Environmental Advisors)

### Welcome and Administrative

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

### Whooping Crane Database

Karine Gil-Weir and Enrique Weir discussed the sources of data they compiled, how the various databases were linked, how to access the data in the database, and next steps to complete the project.

Tacha stated since 1999 site evaluation data typically hasn't been collected and asked if the data collected in the site evaluations was left blank in the database; Gil-Weir and Weir said they included as much information in the database they could from the reports and hand-written notes. Tacha asked how GPS coordinates for the various sightings were obtained; Gil-Weir stated





coordinates included in the original databases were not changed, but that missing coordinates that are included in the database are only approximate and were obtained from the legal description included in the report. Runge asked how coordinates were obtained (i.e., center of the field described in the legal description); Gil-Weir said the location of the crane groups were described in the reports. Tacha said it will be important to include the sources of information, the dates and purpose each type of data was collected, accuracy of data, etc in the documentation for the database. Gil-Weir agreed and said in addition to the database, they will submit Excel sheets that describe assumptions made while compiling the database as well as the discrepancies between the databases. Runge agreed with Tacha that a document should be created to document how each of the data were collected and all the assumptions that should be considered when analyzing the data; Tacha said the Service has such a document for their database; Fritz indicated the Heritage database has a similar document. Baasch suggested they add a column to the database that specifies how accurate each location is (precise, within the quarter section, etc). C. Smith suggested they also add a column that identifies the information sources so data users can link sources of information to the “user’s manual” document that describes the type of data, quality of data, and timeframe the data was collected.

Kenny suggested the next step in the whooping crane database project include QA/QC of the database and to work closely with EDO staff and the Service to ensure appropriate metadata is available so users know how, when and why the various data were collected and who collected it. Fritz suggested we also talk to Rachael Simpson (NGPC) because she has developed and included similar information (reference columns, comment fields, accuracy fields, etc) in the National Heritage Biotic Database.

### **IGERT Student Project**

Hefley presented information on his proposed IGERT project (Whooping Crane Habitat Selection in Nebraska Using Observational Data and Expert Knowledge), how expert knowledge will be incorporated into the analyses, how results will be interpreted and reported, work products the Program will receive as a result of this work, and how the Program can use results of this work to guide management decisions.

C. Smith asked if Hefley has had an opportunity to review the Program’s Rapid Prototype Models; Hefley said he hadn’t. C. Smith indicated we would provide those models to Hefley to consider when developing the models so both types of models fit together in the end. Gil-Weir asked how he planned to include a variable of Whooping Crane individuals (site fidelity, etc); Hefley indicated he could include a random effect to account for lack of independence in the data and that he would work with the Program and the experts to get a better understanding of whooping crane ecology. Fritz asked if Hefley intended on using different models for the different habitat areas within Nebraska (e.g., Platte River, Sandhills, habitat south of the Platte, etc); Hefley stated ideally he would prefer to have 1 model for all areas and include habitat type as a variable in the model. Baasch and Hefley indicated the data could be ‘blocked’ based on the various regions as well. Tacha asked if he could block the data by on and off-channel as well for detectability reasons as well; Hefley stated that was possible and that the models he proposed using will allow for such blocking. Jenniges stated it will be prudent for Hefley to have additional discussions with the TAC to refine habitat variables and data blocking to include in



the analyses. Fritz indicated down the road he envisions the Program using the telemetry data into this modeling process to further evaluate habitat selection by whooping cranes in Nebraska.

C. Smith asked the group if they were comfortable with the study as proposed; Jenniges indicated regular updates with the TAC as Hefley works through the process of developing methods and models will be important. Besson asked if Hefley would have the ability to contact Gil-Weir in the event he has questions while compiling the data; Kenny stated the Program will have additional funds in the line items so he can consult with her when necessary. Runge asked if Hefley's work would be used to fill the gaps in the Synthesis Report and Data Analysis Plan; C. Smith indicated moving forward in parallel shouldn't be a problem and that the group will set a meeting to refine whooping crane minimum habitat criteria.

### **Geomorphology/In-channel Vegetation Monitoring RFP**

S. Smith discussed the contents of the Geomorphology/In-channel Vegetation Monitoring RFP (same as in the past except for additional data analyses) and stated the RFP is for a period of 4 years, Ayers and Olson collected this data the past 3 years and that their contract expires the end of 2011, and that EDO staff are currently working on the data analysis plan for this work (hope to have it available for contractors while they are writing their proposals).

Besson asked if the TAC will review the RFP again; S. Smith said the RFP will be submitted as written unless the TAC has additional feedback or comments; however, the TAC will review the data analysis plan that will be included in the RFP at the November joint TAC/ISAC meeting. C. Smith stated Ayers and Olson are going to conduct some basic data analyses for the Program with the remaining budget under the existing contract. The EDO is working on a data analysis plan related to addressing the Program's big questions and priority hypotheses as well as the evaluation showing figures and results to date that the TAC and ISAC will review at the joint meeting in November. Jenniges asked if the TAC was being asked to move to support the RFP, data analysis plan, or both; C. Smith stated we were only asking for a motion of support for the RFP.

**Hallum moved to support the Geomorphology/In-channel Vegetation Monitoring RFP; Jenniges seconded the motion; all Approved.**

### **Water Quality Monitoring**

C. Smith indicated the Water Quality Monitoring did not need to be discussed because the EDO was informed on October 5<sup>th</sup> that 2 signatories at the FC level won't support extending EA's Water Quality Monitoring Contract without re-bidding the project through the RFP process. The EDO will draft an RFP that the TAC can review for the discussion at the November meeting. Runge stated we need to think about how the water monitoring data fits into the good neighbor policy or addressing the big questions. C. Smith agreed and stated turbidity measures fit well with the sediment augmentation study.

### **Pallid Sturgeon Update (agenda modification)**

Czaplewski stated a couple months ago the Middle Missouri River Basin Work Group issued a draft plan that, after review, would be submitted to the Pallid Sturgeon Recovery Team that emphasized pallid sturgeon stocking in the Lower Platte. The plan emphasized an approach working with stake holders extensively and one of the named stake holders was PRRIP; however, the language has changed in the revised version of the plan which de-emphasized



interaction with stake holders. Czaplewski stated 2 points he had were 1) the TAC and Program need to stay informed of their work and 2) Czaplewski urged caution that the Program move cautiously in becoming involved in the work if at all.

Runge stated the draft proposal required an agreement with the Program prior to stocking pallid sturgeon on the Lower Platte. Runge had sent an email to the workgroup stating that the Program has authority over water and land on the central Platte and that there was no financial interested in stocking pallid sturgeon in the lower Platte. Based on the above two reasons, Runge felt that Program authorization or signing an agreement was outside the scope of the Program. Runge's comments supported the need for stake holders input recognizing Program support as a stake holder would be important to gain support from additional stake holders. Czaplewski said this information is good to know and that there are policy decisions that need to be made that will play a significant role in whether we are involved in the work or not. Runge stated that if there is an expansion of the Program's authority into the lower Platte than that could include a need for an agreement with the Program. C. Smith said we will attempt to have a Middle Missouri River Basin Work Group member present information at one of the next 2 upcoming TAC meetings.

### **Time-lapse Camera Project**

Kenny provided an update on the Time-lapse Camera Project and stated about 30 cameras have been installed in the central Platte and listed several sites where cameras have been installed. Kenny said there are several gaps where cameras are not located (Wyoming state line to McConaughy and the south Platte River have no cameras) so that will be the future focus. Kenny and Besson stated 2 cameras have been stolen to date one at Mahoney State Park and one at Pathfinder. Last year Program money was expended from the land management line item budget, but during 2012 we plan on using funds from the education and outreach budget line item and funding will be half (\$25,000) what it was during 2011 (\$50,000) with no long term Program obligation to provide funding to the project. The plan is to have access to the imagery available on the Program's website.

Czaplewski asked if anyone was analyzing the images collected; Kenny stated not thus far. Czaplewski asked that if we decrease funding will we lose access to the imagery; Kenny stated that the Program's initial contribution would allow us access to imagery until the project ends.

Tacha asked if any data analysis will be conducted on the data; Kenny stated imagery at sites such as Elm Creek Complex will be used to conduct species and behavior oriented analyses, but that the analyses will not be as quantitative as other analyses.

### **PRRIP FY 2012 Budget *(only include the TAC and Participants' discussion and revisions)***

C. Smith went through the AMP portions of the draft 2012 Program Budget and updated the table as per discussions at the recent GC meeting and at the current TAC meeting.

**PD-4** Line item was set to \$0

**PD-12** Czaplewski indicated there's a lot of money for various types of advisors and technical support throughout the budget that he felt should all be linked to various project-specific tasks. C. Smith stated that each of the sections of the budget (land, water, and adaptive management), the EDO has built in a line item for special advisors and that the GC has supported including money in the budget in the past so we can seek expert assistance and knowledge when needed.



The money included under line item PD-12 is for assistance with applying the model our contractor developed. Czaplewski stated that, for example we should include an example of how we plan to use the model so it is clear money is needed in the 2012 budget for model application that year. C. Smith and additional item the GC reviews is the Program's Annual Work Plan so we could include this level of detail in our Work Plan. Czaplewski agreed that including and seeing the details in the Work Plan would be beneficial. Kenny and others stated a few examples of how the model has been and will continue to be used including tern and plover habitat availability, developing the unsteady model to view SDHF, probability of inundation given various island heights, etc. Farnsworth stated the limited EDO staff doesn't have time to spend 3-weeks developing water surface DEMs. Jenniges stated that we should include the work products we anticipate receiving for the different special advisors. Runge asked if there would be another TAC meeting to discuss the additional detail for specific items that will be included in the annual work plan. Runge asked when the FC and GC meetings were; Kenny said the FC meeting will be November 9<sup>th</sup> and the GC meeting will be in December. Runge asked the group if they could comment based on the level of detail included in the budget. Tacha asked if the TAC could review the annual work plan. Besson asked when the annual work plan would be ready for review; C. Smith stated EDO staff would compile the work plan soon so the TAC can review it.

#### **PD-13**

#### **PD-19**

**PD-20** Runge asked what the purpose of monitoring ground water; Farnsworth stated wet meadows are directly associated with ground/surface water relationships. Runge asked if we should model the relationship rather than simply collecting the data. Farnsworth stated Brei is conducting those analyses; Runge said there was no need to budget for those costs then.

#### **LP-2**

**PD-15** Urie asked what kind of initial permit activities HDR will be working on; C. Smith stated we have individual permits under consideration for sediment augmentation and Elm Creek and they will also continue to seek a regional permit for the Program. Kenny added we intended on pursuing the regional permit during 2011, but the public hearings and other conflicts have expended the 2011 budget. Runge asked if HDR was retained through a sole source contract of if they were advisors; Kenny stated their permitting work is tied to the sediment augmentation project and has been expanded out to include the regional general permit.

**PD-18/ED-1** Kenny stated Headwaters is going to purchase all Program equipment and will bill the Program for the use of the equipment. Merrill stated the Bureau of Reclamation GC Member would likely prefer equipment costs be separated out in the budget rather than lumping those costs into line item ED-1 or PD-18.

**G-1 & G-2** Combined as per the RFP

#### **G-5**

**H-2** Kenny stated is currently blank, but that money would be included in the final budget to cover costs associated with maintaining USGS gage station on Cottonwood Ranch, support DNR for maintaining the Shelton and Lexington gages, and fees for basic communication lines. Peyton



stated CNPPID is being billed for costs associated water temperature monitoring (\$300-\$600) and asked if the Program would be willing to assume the costs (\$300/year). Kenny asked if CNPPID still needed the information. Peyton said he thought he and Kenny had talked about this, but Peyton just needed to tell Don whether or not CNPPID would incur this cost in the future. Smith stated \$40,000 would be added to line item H-2 to cover costs associated with monitoring and maintaining gages.

**IMRP-2** Besson asked how we planned to evaluate bird cognition. Farnsworth stated most analyses are conducted on CIR imagery; however, birds see in near UV and we keep getting asked by ISAC members to consider this type of analysis. Jenniges and Czaplewski said they were skeptical and that the analysis will need be tied to the big questions and priority hypotheses. Urie stated we could potentially look at other studies to figure out how birds perceive the environment and select habitat. Tacha said research into bird cognition could prove to be valuable for determining why birds select the habitats they do at the landscape level. Urie suggested the Program hire someone familiar with this type of research to review available literature on bird cognition and to determine how useful it has been in other studies. Smith changed the budget line item to \$20,000 to contribute to bird cognition literature review.

Runge asked if the line item should be broken down to specific projects; Kenny said it would be better to have specific amounts of money tied specific projects. C. Smith asked the TAC to think about additional research projects we should conduct during 2012 and provide that to the EDO as soon as possible. Besson asked what we felt the risks of losing funding for the Program are. Kenny stated people are concerned about budgets and the basis for concerns is more justified now than in the past.

**IMRP-3** Farnsworth stated that since we are applying the results of the vegetation monitoring results, we need additional feedback to ensure we are applying their results appropriately. Jenniges suggested we include work products they'll provide the Program in the budget.

**IMRP-5** Caddisfly monitoring during 2012 will be covered with carry over money under contract from 2011

**PD-8** Breakdown work Riverside will be conducting during 2012 will be included in the Annual Work Plan. Urie asked if we anticipate future budgets to be at a similar level; Farnsworth stated we expect costs beyond 2012 to drop to approximately \$100,000. Tacha asked if we planned to include the whooping crane database into the Program's database; Baasch stated we haven't ironed out the details yet, but that there have been discussions to have that database available at some level on the Program's website. Tacha stated there was a considerable amount of work that went into collecting the whooping crane data and that she felt the Program should pay a fee to get the data on an annual basis. Jenniges state that if the Service decides to charge a fee for the data in the future then it will probably have to charge everyone.

**TP-1**

**TP-6**

**WC-1**

**WC-3** Line item changed to \$167,100 based on proposed budget for 2012



## WC-5

**WQ-1** Runge asked if the extended budget was firm given the unknown application of a portion of the collected data; S. Smith stated the estimates are likely conservative where the contractor included 8 monitoring events. Runge suggested we commit to a 1 year budget. The TAC can evaluate the usefulness of the data for answering Program big questions which would dictate a new scope of work for 2013 and beyond. S. Smith stated that it will be like other multi-year contracts in that we will develop future budgets on an annual basis. Runge stated that a lot of the linkages between water quality and species response need to be developed so we can evaluate if we are collecting the right data at the right time of year. C. Smith said we could write the RFP for a 1-year term and we could determine the benefits of collecting water quality data and what data we should collect in the future during 2012.

## ISAC-1

**PD-3** changed line item to \$60,000 to peer review 3 documents, but some of these reviews may happen during 2011 (e.g., tern and plover foraging habits study report). C. Smith indicated the TAC reviewed the report and notice a significant error in fish identification in the report (Topeka shiner now classified as an unidentified shiner). Runge stated USGS has many levels of internal reviews and stated the GC should be made aware of this before deciding to have an additional peer review conducted.

**C. Smith stated EDO staff would try to put together the 2012 work plan for TAC review by October 14<sup>th</sup>.**

### Closing Business

TAC conference call to discuss the 2012 work plan and to revisit any issues related to the budget scheduled for Tuesday, November 1<sup>st</sup>, 10:00AM CST.

Whooping Crane Minimum Habitat Criteria Workshop scheduled for 12 January, 2012, 9:00am–5:00pm CST at EDO conference room in Kearney.

Next TAC meeting scheduled as a joint meeting with the ISAC on 29–30 November, 2011 9:00–5:00MST each day at the Staybridge Suites in Denver.

### 2012 TAC Chair

Besson asked the group if anyone was interested in being TAC chair or was interested in nominating someone to chair the TAC committee for 2012; no one volunteered; Besson was asked and offered to continue to chair the committee.

**Tacha moved to support Besson remain the TAC chair for 2012; Fritz seconded the motion; all supported.**

**Meeting adjourned at 12:20pm Central time.**

### Summary of Action Items/Decisions from August 2011 TAC meeting

- 1) Approved August 2011 TAC minutes with suggested revisions suggested during TAC reviews.



- 2) **EDO staff handed participants a list of ‘official’ TAC members and alternates to review and informed the group the membership list is also on the Program’s website. Revisions are to be submitted to Baasch so we can keep the membership list and website updated.**
- 3) The TAC recommended support of the Scope of Work for the Directed Vegetation Research peer review.
- 4) The TAC recommended support of the peer review panel recommended by the EDO to review the scope of work for the Directed Vegetation Research including John Stella, Anne Lightbody and Andrew Wilcox.
- 5) **The TAC will review the Sediment Augmentation Pilot Study document and submit any comments, concerns, or questions they have to C. Smith so that once the permitting process is complete and the GC approves the study the Program can start the project.**
- 6) The TAC recommended support of Program participation in the Whooping Crane Telemetry Project as proposed in the revised partnership agreement shown during the TAC meeting (October 5, 2011) and at the level budgeted in the proposed budget.
- 7) **EDO staff will put together a scope of services for the TAC to review to move the flow consolidation project into a pilot study phase.**
- 8) **The next step in the whooping crane database project will include QA/QC of the database.**
- 9) **EDO staff will work closely with Gil-Weir, the Service, and Rachael Simpson (NGPC) to ensure appropriate documentation and metadata is available so users know how, when and why various whooping crane data were collected and who collected it.**
- 10) The TAC supported contributing to the IGERT Program and the proposal presented during the TAC meeting on October 6, 2011 and recommended periodic updates for the project (no motion because the GC moved to support both items during the September, 2011 GC meeting).
- 11) The TAC recommended support of the Geomorphology/In-channel Vegetation Monitoring RFP.
- 12) **EDO staff will compile the 2012 Work Plan and provide it to the TAC to review prior to October 14<sup>th</sup>.**
- 13) Scheduled a TAC conference call to discuss the 2012 Work Plan and to revisit any issues related to the budget (outlined above) for Tuesday, November 1<sup>st</sup>, 10:00AM CST.
- 14) The TAC recommended support of Besson remaining the TAC chair during 2012.
- 15) Next TAC meeting scheduled as a joint meeting with the ISAC on 29–30 November, 2011 9:00-5:00MST each day at the Staybridge Suites in Denver.
- 16) Whooping Crane Minimum Habitat Criteria Workshop scheduled for 12 January, 2012, 9:00am– 5:00pmCST



**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM**  
**Technical Advisory Committee Conference Call Meeting Minutes**  
November 1, 2011

**Meeting Participants**

**Technical Advisory Committee (TAC)**

**State of Wyoming**

Mike Besson – Member (Chair)

**State of Colorado**

Suzanne Sellers – Member

**State of Nebraska**

Mike Fritz – Member

Doug Hallum – Alternate

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

Matt Rabbe – Alternate (via phone)

**Bureau of Reclamation (BOR)**

Brock Merrill – Member

**Environmental Entities**

Rich Walters – Member

**Upper Platte Water Users**

**Colorado Water Users**

**Downstream Water Users**

Mark Czaplewski – Member

Jim Jenniges – Member

Mark Peyton – Member

**Executive Director's Office (EDO)**

Chad Smith

Dave Baasch

Jason Farnsworth

Steve Smith

**Other Participants**

Pat Goltl (Nebraska NRD)

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**Welcome and Administrative**

Besson called the conference call meeting to order and C. Smith announced participants on the call. Besson asked if there were any agenda modifications; none offered.





### **PRRIP FY 2012 Budget**

C. Smith discussed the AMP portions of the draft 2012 Program Budget and Work Plan.

**PD-13** \$540,888 in budget of which includes ~\$220,000 for the contract team to finish up design, put bid package together, managing the work, data analysis, etc and ~\$300,000 is the anticipated cost for augmenting sediment at Cottonwood Ranch and at the Plum Creek Complex. Farnsworth added the consultant provided the EDO a fairly wide range of costs associated with augmenting sediment and the EDO developed the budget off the lower end of their estimate.

C. Smith informed the group that the consultant, EDO staff, and Tri-basin NRD met with the Corps and discussed the need of conducting a public hearing and that we expect to have a decision soon and that the Nebraska DEQ informed EDO staff that the Program would not have to mitigate sediment augmentation.

Besson asked how much of the \$540,888 (PD-13) would be spent during 2012 and how much would be carried over to 2013. C. Smith stated \$540,888 is the total remaining budget for the 2-year sediment augmentation pilot study to be spent whenever we can augment sediment (spring and/or fall 2012?), but some of the money would likely be carried over to 2013 to finalize sediment augmentation and data analysis if needed; 2013 Line Item Budget will likely be \$0. Merrill asked if money would be carried over from 2011 budget; C. Smith stated some portion of the \$350,000 budgeted during 2011 would be carried over; however, he wasn't sure how much will be carried over at this point. Besson asked if the \$540,888 in the 2012 budget is for new money; C. Smith indicated it was.

**PD-19** \$230,000 in 2012 budget. \$200,000 for engineering and consulting and \$30,000 for channel plug construction. Besson asked if the estimate was based on sand or log plugs; Farnsworth stated it was based on sand plugs at this point. Merrill asked what the \$200,000 for engineering and consulting would be spent on; Farnsworth stated part of the money is for engineering design, permitting, and construction administration for building the plugs and the other part is for implementation design for flow consolidation including modeling anticipated channel response. Merrill and Jenniges said we should include more detail in the Annual Work Plan explaining what the money will be used for. Hallum asked how much of the \$200,000 would be for permitting; Farnsworth stated it is unclear, but \$200,000 is the EDO's best estimate for what this phase of the project will cost. Besson asked if the money for modeling was for InterFluve or if there were more firms involved; Farnsworth said InterFluve and Tetra Tech plan to team up and will use the Program's 2-D model as the platform for their analysis. Jenniges stated we should break out what the \$200,000 for engineering and consulting would be spent on. C. Smith and Farnsworth will include additional detail to the Annual Work Plan.

**PD-20** \$324,000 in 2012 Budget. Line Item includes costs associated with converting the Fox Tract into wet meadow habitat as well as ground water monitoring. Fritz stated the budget description should include the site name (Fox Tract); Smith said he would include 'Fox Tract' in the description.

**LP-2** \$639,130 in 2012 Budget. C. Smith pointed out Shoemaker Island Complex included the Binfield Tract. Jenniges asked what the money earmarked for Cottonwood Ranch would be spent on; Farnsworth stated the money would be spent on tree removal on the Stahl Tract, prescribed fire, and tree clearing between the river and off-channel sand and water. Farnsworth



and C. Smith said we would include additional complex-specific details in the Annual Work Plan.

**G-1 & G-2** Combined as per the RFP and budgeted at \$118,100.

**G-5** \$450,000 in Budget. Besson asked if the budget includes 1 or more years of work; C. Smith stated it was for 1 year of geomorphology/in-channel vegetation monitoring and data analyses.

**H-2** \$40,000 in the Budget. Includes 2 new DNR gages and fees, Verizon phone bill for downloading data, and USGS maintenance costs.

**IMRP-2** \$35,000 in Budget for ‘white-paper’ report on bird cognition; \$30,000 for report and \$5,000 for Atkins to identify an expert. Czaplewski stated we should get more than a ‘white-paper’ report for \$30,000; C. Smith changed the language to state ‘detailed report.’

**IMRP-3** \$140,000 in Budget.

**IMRP-4** \$203,185 in Budget. Updated estimate from Bob Mussetter; money is for monitoring, 2-D modeling, and data analysis.

**IMRP-5** New Line Item – Shoemaker Island FSM Proof of concept – with \$250,000. C. Smith said this complex would serve as a replicate for the Elm Creek Complex and would cover design costs, monitoring, and applying the model from the Elm Creek Complex to this complex. Rabbe asked if 85% of the channel was consolidated in this reach; Farnsworth said it was not, but that consolidating flows would be impossible with the north channel. C. Smith state this is the best site the Program has to replicate efforts at the Elm Creek Complex. Jenniges said we should implement FSM research activities at this complex because it’s the most downstream site the Program has.

**IMRP-6** \$200,000 in the 2012 Budget. New line item that includes tern and plover habitat availability analyses (2007 & 2012; 2008–2011 will be completed under a separate contract) and whooping crane habitat availability analyses (2007-2012). Baasch state ESO staff will meet with Rainwater Basin Joint Venture on November 3 and we will have a better estimate then.

Czaplewski and Jenniges stated the GC and FC might have a concern with sole sourcing the work out given it is a \$200,000 item. Baasch said we considered putting together an RFP for the work that includes the 8 analyses, but determined it is highly unlikely a contractor outside the Platte basin would be able to compete given the ground truthing that will likely be required for the off-channel land classification.

**TP-1** \$215,000 in the 2012 Budget. Baasch explained the budget includes funds for Wildlife Service to trap for 6 months at Dyer, Cottonwood Ranch, Broadfoot South, and Newark. \$9,000 is included in the budget to cover costs associated with trapping at Leaman off-channel sand and water, Elm Creek islands, or other sites that are created prior to the 2012 nesting season.

Czaplewski asked what the \$40,000 for Program costs associated with implementation was for; Baasch said the money is included to cover potential costs of hiring a technician to assist with monitoring efforts and for other unforeseen costs. Czaplewski asked if USGS and Program staff and technicians would be able to cover additional nesting sites between Alda and Chapman should they arise; Baasch said the budget will cover costs associated with monitoring additional sites.



**WC-1** \$225,091 in 2012 Budget. Budget based on proposal and contract developed fall 2011.

**WC-3** \$167,100 in 2012 Budget. Estimate based on proposed budget for 2012 within the Whooping Crane Tracking Project Agreement.

**PD-3** \$90,000 in the 2012 Budget. Money would cover peer review of the Elm Creek FSM and Bird Response Document, peer review of 3 additional documents, and identifying potential ISAC replacement member(s).

### **General Budget Comments**

Besson asked if we anticipated spending \$26,700,000 during 2012 plus any unobligated funds during 2011. C. Smith stated we anticipate spending ~\$17,600,000 during 2012 and the remaining balance is for money put aside for the reregulating reservoir and other water related items (WP-4) and that the 2011 unliquidated funds is not very much.

### **FWS 2012 Research Suggestions** (blue font)

Wet Meadow Monitoring – Currently, there is \$10 K dedicated to monitoring of groundwater levels on Fox Tract. The Service also identifies a need to: 1) assess the groundwater/streamflow interaction on all Program sites containing wet meadows or those targeted for future wet meadow creation/restoration including the Fox Tract, and 2) develop wet meadow vegetation monitoring protocol. Recent meetings at the LAC and TAC identified the planned development or inclusion of wet meadow habitats for the PRRIP on the Binfield, Cottonwood Ranch, Fox, McCormick, and Stall properties. As indicated in the wet meadow information review, multiple studies have linked Platte River stage to groundwater levels. The Program EDO identified the willingness to develop a groundwater/surface water assessment for Fox tract. The Service encourages the Program to initiate a study that could be used to develop tools to monitor and evaluate the groundwater/surface water interaction for all current and future Program properties containing wet meadows. This may require additional budget allocations. Additionally, the October 12, 2011, LAC land management plan development meeting identified potential impacts and/or benefits that could occur to wet meadow habitat conditions as a result of management actions.

The need to assess initial conditions and to evaluate changes in habitat over time could be accomplished by developing a wet meadow vegetation monitoring program. This would allow an adaptive management approach to achieving target wet meadow conditions (i.e. assess change in vegetative community from management action such as burning).

### *Recommendations:*

- 1) Expand the scope of work for PD-20 to include a process for assessing Platte River effects on wet meadow hydrology for all Program lands with existing or proposed wet meadow habitats. This would include a monitoring protocol that records groundwater levels at wet meadow sites, surface water acres at wet meadow sites, and river stage over time.
- 2) Expand the scope of work for PD-20 to include development of a wet meadow monitoring protocol. This could be combined with the groundwater monitoring study or a stand-alone study. The focus of this protocol would be to monitor changes in vegetation communities over time on wet meadows. This would provide the TAC a tool to evaluate how our management actions affect habitat.



Rabbe lead the discussion and stated the Service felt it would be good for the Program to collect baseline data at wet meadow sites to tract changes associated with land (grazing, prescribed fire, etc) and water management activities. Jenniges said if the Program plans to release water from the EA to meet target flows then the Program should have a monitoring protocol in place to determine if the management actions have the desired result; Besson agreed and said we should consider adjusting the 2012 budget to accommodate this type of research. Farnsworth asked if previous studies could be used to establish baseline information. Czaplewski said a lot of information is out there; however, we probably need more of a system-wide monitoring protocol where wet-meadow response is likely different upstream (ground water gaining reach) than it is downstream (ground water losing reach). Jenniges added if we are using EA water to evaluate wet meadow response we need to continuous recorders to monitor ground water as well as river stage at all Program properties with wet meadow habitat (Cottonwood Ranch, Fox Tract, Binfield, etc). Hallum added we would likely need a climate station at each site to produce good results in a COHYST type of model. Rabbe said a first step would be to set up ground-water monitoring wells at wet meadow sites throughout the Program Associated Area. Peyton said water action committee people would likely be able to provide guidance as to how many climate stations and what level of monitoring we need to capture good data. C. Smith asked if wet meadow monitoring was a Program priority during 2012; Jenniges stated if we release Program water then it should be a priority. Rabbe stated the Service planned to use EA water for target flows during 2012 due to FSM implementation constraints during 2012. Besson asked if the SDHF monitoring could be used for channel monitoring EA use related to target flows. Jenniges stated the monitoring protocols are fairly robust; however, timelier monitoring would likely be needed to determine if the action of using EA water for influencing wet meadow habitat and maintaining channel characteristics has the desired effect. Fritz stated we could use past monitoring as well as methods such as Floristic Quality Indices to monitor the quality of the habitat. Besson and Jenniges stated the group generally seemed to agree monitoring during 2012 would be necessary so the group needed to figure out how to budget for the research (earmark money in the budget or plan to shift unliquidated money later). Peyton asked how expensive it would be to put ground monitoring wells at each of the sites. Farnsworth stated the Program spent \$35,000-\$40,000 to put 5 monitoring wells in at the Fox Tract. Rabbe asked what additional costs would be associated with monitoring the wells. Farnsworth said it would probably cost \$40,000-\$50,000 to monitor a series of wells on a monthly basis. Jenniges indicated ground water monitoring would probably need to be conducted on a regular basis while water is being released. C. Smith asked what the Program would use the ground well monitoring data for; Jenniges and fritz said it be used to monitor the response of ground water and vegetation to target flow releases. C. Smith asked if the target flow releases would replace flows in the FSM management strategy; Rabbe said the planned releases are a way to use EA water to provide species benefit until channel conveyance is improved so that implementing FSM is possible.

C. Smith stated the Program will need to spend time developing questions and hypotheses related to this monitoring research, if it proceeds, so the GC knows what the data will be used for. Besson said it is unlikely the Program will spend all the money so we could probably plan to move money in the future rather than budgeting additional money for this monitoring. C. Smith and Jenniges stated the Program used to have money budgeted for unidentified directed research



projects; however, based on TAC conversations associated with budget cuts; that money no longer exists. C. Smith said the EDO would come up with an estimate, likely between \$200,000-300,000, to be added to IMRP-2 for this monitoring research.

Water Quality Monitoring – There currently is no description of how collected water quality monitoring parameters will be used to address adaptive management needs (or good neighbor policy needs). However, water quality monitoring is expected to continue to be funded at its current rate throughout the first increment. It would be beneficial for the AMWG to assess the role of water quality data in addressing adaptive management information needs. A similar process could be conducted for good neighbor policy issues to ensure that information collected fully addresses information needs.

*Recommendation:* Fund water quality monitoring at current levels for 2012. An assessment of the role of water quality data will help to determine water quality needs or budgets for subsequent years.

Rabbe asked how the Program plans to use data collected with the water quality monitoring protocol. C. Smith said the water quality monitoring was added at the end of Program negotiations and that the protocol is tailored toward specific projects such as sediment augmentation. C. Smith said we need to have a workshop during 2012 to discuss if the Program should continue water quality monitoring and how the data should be used.

Habitat Complex Workshop – One big question in the synthesis report discusses the relationship between Program habitat complexes and species use. To date, there has not been a formal determination as to the number of habitat complexes currently formed or being formed by Program properties alone or in combination with protected environmental properties. The workshop would also identify habitat types within a bridge segment that would be beneficial to complete a habitat complex as well as identifying where future acquisition of habitat complex should be focused.

*Recommendation:* Schedule a habitat complex workshop either under the AMWG or under PD-4 if there is a need to develop a budget activity.

Rabbe said the TAC needs to discuss the Habitat complexes the Program is developing and how this habitat relates to bird use; C. Smith agreed we should hold a workshop during early 2012.

Hydraulic Segmentation Modeling – The TAC looks to continue efforts toward habitat modeling for target bird species. One suitability criterion for bird suitability is depth of water (or proportionate depth). Currently, channel cross-sections are collected to assess proportionate depths for a given flow, but it is not known to what extent the measured cross-section represents the longitudinal extent of a river channel. A hydraulic segmentation study would delineate longitudinal segments that have hydraulic similarities (e.g., similar wetted area or similar proportionate depths for a given streamflow). Longitudinal segmentation could improve habitat selection analyses because longitudinal segmentation categorizes habitat at a two dimensional scale when compared to cross-sections.

*Recommendation:* Develop new AMWG activity and budget or revise IMRP-2 to include this study.



Rabbe said Jeff Runge (FWS) developed this research project and that Runge wasn't sure if data collected at current cross-sections have enough detail to determine use versus availability; Farnsworth stated in the past this was a concern, but now we collect systematic survey data and annual LiDAR data and he's not sure how we could get any better data. Farnsworth and Runge will discuss this topic and determine how the Program can better use the data we are collecting.

### **FWS Water Year 2012 Environmental Account Release Priorities**

Rabbe asked if there was any additional discussion related to EA releases for target flows during 2012. C. Smith said the previous discussion made it clear the Program was not abandoning the FSM management strategy and that the additional planned monitoring will be structured to allow the Program to learn how target flow releases influence wet meadow habitat and channel maintenance. Farnsworth said the Service needs to provide the Program the background and detailed information for the objectives and purposes of the various target flows so we can evaluate the predicted and observed responses of the system; Jenniges and Czaplewski agreed. C. Smith said we will need to have a workshop to develop details related to target flows and habitat and species response.

### **Closing Business**

Next TAC meeting scheduled as a joint meeting with the ISAC on 29–30 November, 2011 9:00-5:00MST each day at the Staybridge Suites in Denver.

**Conference Call Meeting adjourned at 11:45am Central time.**

### **Summary of Decisions from November 2011 TAC Conference Call Meeting**

- 1) EDO will better explain what the \$200,000 in engineering design for CWR flow consolidation will be used for.
- 2) EDO will include more detail about the LP-2 activities that will take place at each Complex
- 3) C. Smith changed “white paper” to “detailed report” for bird cognition (IMRP-2) and Special Advisors (IMRP-3).
- 4) EDO will add \$200,000 – \$300,000 to IMRP-2 for wet meadow research associated with EA releases for target flows
- 5) EDO will include estimate of unliquidated obligations where applicable
- 6) EDO will update the column for 2011 expenditures
- 7) Workshops to be schedule for 2011 & 2012:
  - a. Water Quality Monitoring (future plans and data uses)
  - b. Habitat Complex (update on progress and future plans)
  - c. Wet Meadow and Channel Monitoring Research (discuss protocol for monitoring EA releases to meet Service target flows)