

## Middle Rio Grande Endangered Species Act Collaborative Program Science Work Group Meeting

13 November 2012 Meeting – 9:00 AM-11:30 AM

**ISC**

### MEETING SUMMARY

#### Actions

- Stacey Kopitsch will follow up with Gary Dean to make sure all of Yvette Paroz's action items will be addressed by Gary or Yvette's replacement(s).
- Alison Hutson will contact Ali Saenz to determine the process of assigning security (access) levels to users of the DBMS.
- Stacey Kopitsch will contact Gary Dean to get clarification on how much direct contact the ScW work group can have with the Museum of Southwestern Biology since the work group is requesting information that is not tied to specific funding or project. If the work group is limited in the amount of contact, it was suggested that the COTR assist in setting up a conference call between the Museum and the work group.
- Comments and edits on the ScW 2012 Accomplishments and 2013 Work Plan are due to Stacey Kopitsch by November 30<sup>th</sup>.
- It was requested that Reclamation provide a status update on the Genetics Monitoring RFP and Genetics Peer Review. Specifically: what has been done?, has an RFP gone out?, what is the current funding for each, etc.
- Stacey Kopitsch will update the ScW 2013 Work Plan with edits discussed during the meeting. Suggested revisions included:
  - Under *Attend CC Meetings*: the Lead will be change to “*Co-chairs, PMT Liaison, or other ScW representatives as needed*”
  - Under *Prioritize Future Activities*: the Due Date will be changed to “*As needed depending on available funding*”; and the Deliverable will include “*Provide the Project Description Template to the CC*”
  - Under *Review of Relevant RIP Documents*: the Due Date will be changed to “*Ongoing*”
  - Under *Coordination with COTR*: change Task to “*Coordination by appropriate COTR with ScW*”; the Due Date will be changed to “*Ongoing – Quarterly*”
  - Under *Review of Genetics Peer Review Report*: the following clarification will be added to the Task: “*Project on hold with no current funding and no new status or information is known at this time*”; the Due Date will be revised as “*TBD - pending update from Reclamation*”
  - Under *Attend Annual Workshop*: the Due Date will be changed to “*TBD - pending scheduling for 2013*”
- Alison Hutson will try to send the most current LTP to ScW members as a refresher on ScW priorities, projects, etc. for continuing members and as information for any new members.
- Comments and edits on the ScW 2012 Accomplishments and 2013 Work Plan are due to Stacey Kopitsch (copied to Yvette McKenna and Ali Saenz) via email by November 30<sup>th</sup>.
  - ScW members were asked to specifically review/correct/edit their agency primary and alternate ScW assignments.
- Stacey Kopitsch (or Yvette McKenna or Ali Saenz) will revise the ScW 2012 Accomplishments and 2013 Work Plan and redistribute to ScW members as read aheads for the December 11<sup>th</sup> ScW meeting.

- Alison Hutson and Mick Porter will work together to explore the use of mixed model tools on the CPUE datasets for the Adaptive Management Recruitment Analysis work.

### Ongoing Actions

- Gary Dean ~~Yvette Paroz~~ will redistribute the ScW project tracking spreadsheet to work group members. (*continued and reassigned from 10/16/12*)
- Gary Dean ~~Yvette Paroz~~ will provide/distribute the previous Spawning Monitoring SOW and reports as guidance documents for the work group to develop the new SOW in November. (*continued and reassigned from 10/16/12*)
- Gary Dean ~~Yvette Paroz~~ will provide Stacey Kopitsch with contact information and phone numbers for the museum. (*continued and reassigned from 10/16/12*)
- Gary Dean ~~Yvette Paroz~~ will update the Population Monitoring Scope of Work with the following suggestions/changes from the ScW work group: (*continued and reassigned from 10/16/12*)
  - In Section 4.1 Monitoring Locations, remove the language about the potential modification of site locations since no sites can be added without additional money; only the 20 original sites will be kept; there will be no change unless solely specified by site access issues;
  - Incorporate language explaining that dried sites are sampled but recorded as “0” instead of switching or modifying or adding another replacement site;
- Gary Dean ~~Yvette Paroz~~ will check with Ali Saenz on the DBMS data template(s) to include in Scopes of Work. (*continued and reassigned from 10/16/12*)
- Rick Billings will email the ScW the draft HR planning/objectives document. (*from 07/17/12 meeting*)

### Decisions

- The October 16<sup>th</sup>, 2012 ScW meeting notes were approved for finalization with no changes.

### Requests

- ScW respectfully requests that Reclamation provide a knowledgeable person (COTR or other contracting specialist) attend meetings where contracting discussions will be taking place. This is one way to help facilitate information sharing and address questions immediately.
- ScW respectfully requests that Reclamation and the CC inform the workgroup on any SOWs it is responsible for completing and the due date. This includes any SOWs Reclamation requests the workgroup to help re-write, as well as any new SOWs needed after the CC determines the FY13 budget and workplan. Currently, ScW is only aware that the spawning monitoring SOW may need ScW input, but the workgroup has received nothing on this.
- ScW respectfully requests that Jericho Lewis or another Reclamation contracting specialist attend the December 11<sup>th</sup> ScW meeting in order to address: (1) the reason behind grant versus contract decisions (specifically for the Genetics Monitoring), (2) to discuss if/how the genetics monitoring will reflect the scope developed by ScW, and (3) the current status of the Genetics Peer Review given that it was funded and then put on hold (see below).
- Regarding the Genetics Peer Review, the ScW would like: (a) to stress that unless there is an overriding reason to change, the Genetics Peer Review should be the next one completed as it is the priority; (b) Reclamation to provide a status update on the Genetics Peer Review which had been funded and initial meeting completed – is the money still available and if no, why not?; and (c) for ScW to be notified when the Genetics Peer Review is reactivated.
- It was requested (suggested) that ScW could help inform what needs to happen adaptively this year (FY13) in terms of on-the-ground actions and decisions in order to secure a silvery minnow spawn

and recruitment. Individual members were encouraged to discuss within their agency any ideas, suggestions, opportunities, etc.

- The Reclamation Primary representative was asked to continue to provide updated ScW project tracking information – at least on a quarterly basis.

### Recommendations

- ScW recommends that if the Genetics Monitoring is moving ahead, it makes sense to move ahead with Genetics Peer Review as well. There was a concern expressed that if the peer review is not completed soon, the genetic monitoring will continue “as is” which may or may not be beneficial. The peer review was intended to inform possible changes to the genetics monitoring program.
- ScW members discussed that all the ScW projects could be considered “equally important” and that if any funding should become available, it would be beneficial at that time to reevaluate which ScW project should be funded and what would be most beneficial given conditions at that time – for example, there may be a less expensive project that could be funded instead of “waiting” to have enough money to fund a more expensive project.

### Meeting Summary

- Alison Hutson brought the meeting to order.
- The Captive Propagation Update was postponed until the December 11<sup>th</sup> meeting. This update will include information on the final numbers, how many fish were released and where, etc.
- The October 16<sup>th</sup>, 2012 ScW meeting notes were approved for finalization with no changes.
- Attendees completed an October Action Item review. All of Yvette Paroz’s actions items will be relayed to Kelly Oliver-Amy and/or Gary Dean for completion.
- It was announced that today is Stacey’s last ScW meeting before taking her maternity leave. She expects to return at the April ScW meeting. Yvette McKenna and Ali Saenz will be covering all her PMT duties in her absence. Please make sure to copy them on any work group correspondence during this time.
- There is still no non-federal nomination for ScW co-chair. This will remain an agenda item until filled.
- Attendees then reviewed the 2012 Accomplishments and 2013 Work plan. Since the 2012 Accomplishments are basically an “update” on the 2012 activities that capture the details on completion or explanation for uncompleted tasks, attendees agreed that this review could occur via email. Comments and edits should be provided to Stacey Kopitsch by November 30<sup>th</sup>.
  - Attendees discussed the potential SOW work that might be requested because Reclamation is redoing all of its contracts. However, it is unknown what will be brought to ScW for review/input, if anything. The deadline for scopes is the middle of December but ScW does not know what it may be asked to complete by that date, which does not leave much time for the work group to address any late-coming requests. Members expressed concern with the unrealistic timeframe for ScW to develop (or provide input) SOWs by the December deadline and requested from Reclamation and the CC an update on what SOWs the workgroup will be asked to complete.
  - ScW also discussed the news shared by an attendee that the genetics monitoring work was being issued as a grant instead of a contract.
  - In response to a question on the ScW priorities, the work group discussed that the priorities have not changed in the last 2 to 3 years. ScW prioritized work has not been funded nor completed. However, in light of the decreasing budgets and transition to a RIP, it was suggested the work group could consider revisiting priorities to make sure everything is appropriate. It was also suggested that the workgroup should wait to see if additional funding becomes available this year, and then given the amount of funding, re-evaluate the ScW

- priorities at that time to determine the highest priority projects given the funding amount, current conditions, and what the management needs are for the species.
- Attendees discussed the lack of communication to the workgroup regarding the status of the Genetics Monitoring and Genetics Peer Review. It was shared that the Genetics Monitoring was going to be issued as a grant instead of a contract. ScW requested that a knowledgeable Reclamation contracting person attend the December meeting in order to provide status updates on the genetics work including the peer review.
  - Attendees then completed a line-by-line review of the 2013 Work Plan. Suggested changes and edits will be captured in a revised version that will be distributed electronically. Additional comments and edits will be accepted until November 30<sup>th</sup>. Approval of the 2013 Work Plan will occur at the December meeting.
  - Attendees agreed that more information/direction was needed from Reclamation before there could be any serious discussions on the Spawning monitoring SOW development. ScW will request that a knowledgeable contracting person attend the December meeting to discuss: (a) why a grant was chosen instead of a contract for the genetics monitoring; (b) provide updates and status on the genetics peer review; and (c) inform the Spawning Monitoring SOW development and any other SOWs that might be coming to ScW before the mid-December deadline.
  - In a brief Program Update, it was shared that the EC is scheduled to meet on November 29<sup>th</sup> from 9:00am to 4:00pm at Reclamation. The agenda includes a “high-level” Question and Answer session on the Revised Draft RIP documents. At their last meeting, the EC provided the instruction that work groups should stay on current missions during transition process. The CC met on November 7<sup>th</sup> and continued budget discussions. Reclamation has opened 2 modeling sessions to any interested Program participants. These trainings were close to full but may still have 1 or 2 slots available.
  - Mick Porter then presented his Cochiti Deviation Analysis, which was given at the last EC meeting and is now renamed his Adaptive Management Recruitment Analysis work.
    - The purpose of this analysis is no longer focused on Cochiti and the Deviation, but rather to evaluate the spring runoff flows for minnow recruitment (reproduction) in the Middle Rio Grande (MRG) valley. The analysis is focused on recruitment trends of the young fish sampled in May, June, and July.
    - This analysis could be very informative to the Minnow Action team – especially as it addresses the question “how is recruitment determined by (a) spring volume?, (b) spring hydrograph?, and (c) inundation area?”
      - The analysis includes a strategic look at how the minnow responds to any number of hydrologic variables to determine any correlations of the biology to the hydrology.
      - Factors being considered include: peak flow, April-June volume, May-July volume, inundated area, mean or minimum flow over a specific time period, magnitude of flow, etc.
      - If we can identify what is driving the recruitment, then we can focus on optimizing those things that provide the greatest impact.
    - Using R statistical software for “industrial strength” data crunching in this analysis has produced some interesting observations. There is a stronger correlation with flow days *after* the peak (compared to symmetry around the peak) and with the *minimum* flow (compared to the average flow). There is usually still some recruitment, even in really bad years. The 5 to 10 CPUE interval seems to be important for understanding recruitment in terms of the population trends. The 11 day period following the peak flow has a higher  $r^2$  value, showing this period is an important parameter. It has a higher  $r^2$  value than either the 9 or 15 day flow duration.
  - The Research Symposium 1-page document review will be conducted via email. The document will be up for approval at the December ScW meeting.

- The Science Team Organization Plan will be reviewed via email as well. The document will be up for approval at the December ScW meeting.

**Next Meeting: December 11<sup>th</sup>, 2012 from 9:00am to 11:30am at ISC**

- Tentative agenda items include: (1) Revised 2013 Work Plan - approval; (2) 2012 Accomplishments – approval; (3) Science Team Organization Plan – approval; (4) Research Symposium 1-page document – approval; (5) Captive Propagation Update – final numbers, info on releases, etc.; (6) Contracting Discussions with COTR or contracting specialist – (a) why a grant for genetics?, (b) updates on the genetics peer review; (c) spawning monitoring SOW and any other states of work?; (7) revisit/review the ScW project priorities - ??; (8) election of ScW co-chair (ongoing item until filled); (9) tentative field trip ideas and dates (ongoing item); (10) continued discussion of draft RIP documents – if necessary/appropriate; (11) Happy Birthday to Alison
- Agenda items for consideration: (1) the work group consider developing and instituting a process where by one of the Program staff has copies of everything so that it can be imported to the database (for draft and old SOWs).

**Important Dates/Events:**

- November 16<sup>th</sup>—~~Service intends to issue a partial draft BO to action agencies; update – this will most likely not occur by November 16<sup>th</sup> as the Service has not yet initiated formal consultation and therefore cannot issue a draft BO at this time;~~
- November 19<sup>th</sup> – Habitat Restoration Rapid Assessment Tool/Assessment Metrics for SWFL and RGSM joint work group presentation, 1:30-3:00 pm at the Corps;
- November 28 – Sediment Modeling in Streams with SRH-1D at Reclamation; *this is a modeling training class that is being opened to Program members;*
- November 29<sup>th</sup> – EC meeting, 9:00am to 4:00pm at Reclamation
- December 4 – Hydraulic Flow Modeling in Streams with SRH-2D @ Reclamation; *this is a modeling training class that is being opened to Program members;*
- December TBD – EC meeting, tentatively scheduled for **December 20<sup>th</sup>**; agenda to include endorsement of the RIP Final Draft documents
- April or May 2013 – new estimated time frame for the CPUE workshop due to contracting issues

## Middle Rio Grande Endangered Species Act Collaborative Program Science Work Group Meeting

13 November 2012 Meeting – 9:00 AM-11:30 AM

ISC

### Meeting Notes

#### Introductions and Agenda Approval

- Alison Hutson brought the meeting to order and introductions were made. It was pointed out that only 3 agencies were represented at the meeting – out of 16 signatories.

#### Captive Propagation Meeting Update – W. Furr

- The Captive Propagation Update was postponed until the December 11<sup>th</sup> meeting. This update will include information on the final numbers, how many fish were released and where, etc.

#### Approval of the October 16<sup>th</sup>, 2012 ScW meeting notes

- The October 16<sup>th</sup>, 2012 ScW meeting notes were approved for finalization with no changes.

#### October 16<sup>th</sup>, 2012 ScW Action Item Review

- Yvette Paroz will redistribute the ScW project tracking spreadsheet to work group members. – *ongoing*;
  - Stacey Kopitsch spoke with Gary Dean. Kelly Oliver-Amy will be Reclamation's primary representative and Gary Dean will be the alternate. Gary was aware of Yvette's assignments.
- Yvette Paroz will provide/distribute the previous Spawning Monitoring SOW and reports as guidance documents for the work group to develop the new SOW in November. – *ongoing*;
- Yvette Paroz will provide Stacey Kopitsch with contact information and phone numbers for the museum. – *ongoing*;
- Yvette Paroz will update the Population Monitoring Scope of Work with the following suggestions/changes from the ScW work group: – *ongoing*;
  - Clarify the language under Section 2.0 to specify that the Program would pay for the contractor to attend the CPUE workshop;
  - Attendance to the CPUE workshop will be added to the tasks as well;
  - In Section 4.1 Monitoring Locations, remove the language about the potential modification of site locations since no sites can be added without additional money; only the 20 original sites will be kept;
  - Incorporate language explaining that dried sites are not sampled (recorded as "0") instead of switching or modifying or adding another replacement site;
  - Make the language regarding the monthly frequency (Section 4.2) consistent throughout the document;
  - Reinstate the statement in the last paragraph in Section 4.3 regarding the reporting of data; work group members expressed support for having all the data in the report since it is a stand-alone document;
  - Clarify (clean up) the mesohabitat language;
  - Clarify the comment on adding language on the R program analysis and analysis of the DBMS (after discussing with Mick Porter).

- All but 2 items were incorporated. Stacey spoke with Gary Dean specifically on the 2 remaining items.
  - Regarding the language in Section 4.1 about the site locations, Gary clarified that sites could not be changed unless solely for access reasons. He also explained that dry sites are still sampled but recorded as “0.”

**Action:** Stacey Kopitsch will follow up with Gary Dean to make sure all of Yvette Paroz’s action items will be addressed by her replacement(s).

- ✓ Yvette Paroz will check with Ali Saenz on the DBMS data template(s) to include in Scopes of Work. – *completed during meeting;*
  - There have been discussions in the past about including all the data templates in new scopes of work. It was shared that the DBMS contractor has some templates that they have used, but there has not yet been an exchange of these templates. It will probably take the Contracting Officer making a request with D.B. Stephens to get copies of the templates. There will also need to be a process by which new contractors will be assigned a login ID and initial password with the appropriate security level that allows them to directly upload data.
  - In response to a question on who is responsible for determining “who is able to do what” in the DBMS, it was shared that there are different levels of access depending on user security “clearance” and need.

**Action:** Alison Hutson will contact Ali Saenz to determine the process of assigning security (access) levels to users of the DBMS.

- ✓ Yvette Paroz and Dana Price will clarify with Mick Porter the intentions and recommended language on the R-program statement and suggested analysis of the DBMS. – *completed during meeting;*
  - As of yesterday, the DBMS system was up again for use. Everyone is encouraged to explore it. Regarding the suggestion for inclusion of R scripts, it was shared that archiving the R scripts in the DBMS could be a really useful rather than waiting for annual reports. The scripts would be available for running the “latest and greatest” analysis at any time. Standards could be developed on the scripts already in use and for adding new ones. The R program is still open-source and free.
  - It would take a couple of years to build a library of R scripts but maybe there could eventually be a Program-wide workshop to explain and facilitate its use. Once the library is “going”, the scripts could be run with updated data and used to inform the adaptive management process. However, this suggestion is not a “critical necessity” for this iteration of the population monitoring scope.
- ✓ Yvette Paroz will clarify the language in the Population Monitoring Scope of Work specifying that the Program would pay for contractor attendance to the CPUE workshop. Attendance to the CPUE workshop will be added to the tasks as well. – *complete;*

### Ongoing and Continued Actions

- Yvette Paroz will continue to communicate with the museum to express ScW requests to have a “print out” list of what is currently included in the collection, including information on each year, and how they are preserved. If needed, she will organize a meeting with museum staff in order for ScW to express the requests/needs verbally and answer any questions the museum might have. (*from 08/21/12 meeting*) – *ongoing;*
  - In her conversation(s) with Gary, Stacey suggested that maybe the museum staff could be invited to attend a ScW meeting as a way to clarify and finally resolve this action.

However, there are some concerns that there is no way to reimburse them for their time. There are specific “channels of communication” that are supposed to be followed but the specifics in this situation are not clear (who to contact, how to contact, etc.).

- If attending a meeting will not work, a conference line could always be set up.

**Action:** Stacey Kopitsch will contact Gary Dean to get clarification on how much direct contact the ScW work group can have with the Museum of Southwestern Biology since the work group is requesting information that is not tied to specific funding or project. If the work group is limited in the amount of contact, it was suggested that the COTR assist in setting up a conference call between the Museum and the work group.

- Rick Billings will email the ScW the draft HR planning/objectives document. (*from 07/17/12 meeting*) – *ongoing*; HRW is still working on the document but expects completion at the 10/16/12 meeting.
  - ScW originally was asking for a copy of the draft working document in order to use it as a model for the potential development of a ScW planning/objectives document.
  - Rick will be asked for an update at the Joint Meeting (Climate Change presentation) following today’s ScW meeting.
- ✓ Mick Porter will draft a 1-page strawman proposal on a Program-wide research symposium for the ScW work group to review and discuss. (*from 07/17/12 meeting*) – *complete*; Mick will send this proposal out to ScW via email for review and discussion at the December ScW meeting.
- Alison to contact Teresa on the wild fish health surveys conducted by Dexter and how that could be done in the MRG – further discussion will be had at the next Propagation and Genetics meeting on 08/22/12 (*from 08/21/12 meeting*) – *ongoing*;
  - This action has been ongoing for quite some time and the options have all been explored. However, with the declining budgets it is not likely that funds will be available anytime soon to pay for the fish health surveys in the MRG. Unless there are new ideas or suggestions for accomplishing this task, it will be omitted.

### Announcements

- Today is Stacey Kopitsch’s last ScW meeting before taking her maternity leave. She expects to return at the April ScW meeting. Yvette McKenna and Ali Saenz will be covering all her PMT duties in her absence. Please make sure to copy them on any work group correspondence during this time.

### Election of ScW Co-Chair

- There is still no non-federal nomination for ScW co-chair. This will remain an agenda item until filled.
- Brooke Wyman expressed the possibility of filling the non-federal co-chair position when she returns in early 2013.

### Review of 2012 Accomplishments and 2013 Work plan

- Attendees then reviewed the 2012 Accomplishments and 2013 Work plan. Since the 2012 Accomplishments are basically an “update” on the 2012 activities that capture the details on completion or explanation for uncompleted tasks, attendees agreed that this review could occur via email. Stacey Kopitsch drafted the initial responses that the work group should review. The documents are due to the CC in December, therefore comments and edits should be provided to Stacey Kopitsch by November 30<sup>th</sup>.
  - The agency representatives for 2013 need to be reviewed and updated, but the members listed on the 2012 Accomplishments need to match the designations on the 2012 Work Plan.



- The EC clarified at their last meeting that the work groups should continue on their current missions and stay on current work plans through the transition to a Recovery Implementation Program (RIP). This means that most of the projected 2013 tasks will not be much different from previous years. The draft 2013 Work Plan builds from the 2012 Work Plan and accomplished tasks.
  - *2013 Work Plan review:*
    - *2013 Task: Develop Scopes of Work:* Developing scopes of work is an annual task that always continues as needed.
      - Attendees discussed the potential SOW work that might be requested because Reclamation is redoing all of their contracts. However, it is unknown what will be brought to ScW for review/input, if anything. The information on the spawning monitoring SOW task was never provided by Yvette Paroz. The deadline for scopes is the middle of December but ScW does not know what it may be asked to complete by that date, which does not leave much time for the work group to address any late-coming requests. Members expressed concern with the unrealistic timeframe for ScW to develop (or provide input) SOWs by the December deadline and requested from Reclamation and the CC an update on what SOWs the workgroup will be asked to complete.
      - A member expressed frustration that the work groups are giving very tight deadlines (which they work very hard to meet) but then it seems that the work sits for long periods of time in the contracting office before being addressed.
      - Regarding the genetics monitoring, some members expressed concern that the genetics monitoring work appears to be moving forward without a renewed effort at conducting the genetic peer review.
        - It was explained that in the absence of any contracted peer review, the intent was to develop an “interim” period to make sure things continued (i.e., no gap) until the peer review could be completed. However, with the redoing of the contracts, it does raise the question on if/how the genetics monitoring will reflect the scope developed by ScW. It is assumed that if the genetics peer review is not initiated this year, there will have to be 2 or 3 more years of “interim” genetics monitoring before the peer review is complete and recommendations can be used to inform the monitoring.
          - The “interim” genetics monitoring was intended to be 1 contract year with 4 options years. That way, when the peer review was completed, any revisions to the contract could be implemented that contract option year. However, if the recommendations deviated “too far from the original scope”, not implementing the option year would allow for rewriting the scope and a complete rebid.
          - A participant then shared that the genetics monitoring was being issued as a grant instead of a contract. It was stated that the CC does not have power over what type of contracting vehicle is used.
          - In terms of the ScW priority for the genetics peer review (and project priority in general), the work group discussed that the priorities have not changed in the last 2 to 3 years. ScW prioritized work that has not been funded nor completed. However, in light of the decreasing budgets and

transition to a RIP, it was suggested the work group could consider revisiting priorities to make sure everything is appropriate. It was also suggested that the workgroup should wait to see if additional funding becomes available this year, and then given the amount of funding, re-evaluate the ScW priorities at that time to determine the highest priority projects given the funding amount, current conditions, and what the management needs are for the species.

- It was clarified that the genetics peer review was a direction from the CC and EC. Peer reviews have been viewed as separate work from the work group project priorities. Unless there is an overriding reason for change, the ScW recommends that the priority on the genetics peer review remain first over other peer reviews.
  - It makes sense to move ahead with the genetics peer review if the genetics monitoring is moving forward.
  - The genetics peer review was intended to inform the monitoring. The genetics monitoring will continue on as is until that review is completed. If it doesn't get reviewed for 5 years, then we are looking at continuing 5 years of the same. It was acknowledged that the monitoring could not just be changed arbitrarily.
  - The work group also discussed that they have not been informed on the status of the genetics monitoring RFP after the Program decided to put peer reviews on hold – what has been done, has it gone out, what portions were funded, etc.?
  - The data synthesis task had been given to the ScW to develop a recommended approach, and ScW informed the CC of the recommendation and need to contract the work out. ScW is just not in a position to be able to do the work at this time. ScW did complete all the assigned CC tasks including the development of a data synthesis plan.
  - As the Program transitions to the RIP, ScW will most likely be structured differently and it is expected that there will be a new Science Coordinator position.
- Attendees briefly discussed the yet-to-be funded ScW projects: synthesis of data, fecundity, and life history. The original larger Life History was broken down into several smaller projects. Having not been completed, members discussed whether or not it was necessary or wise to attempt a re-evaluation of rankings at this time.
    - ScW members discussed that all the ScW projects could be considered “equally important” and that if any funding should become available, it would be beneficial at that time to reevaluate which ScW project should be funded and what would be most

- beneficial given conditions at that time – for example, there may be a less expensive project that could be funded instead of “waiting” to have enough money to fund a more expensive project.
- It was also suggested that if the priorities were to be revisited, it should be at a better attended meeting, with more signatories represented. Revisiting the priorities might help new members get “caught up” and could be advantageous as the Program moves toward adaptive management.
  - It was also suggested that ScW could help inform what needs to happen adaptively this year (FY13) in terms of on-the-ground actions and decisions to order to secure a silvery minnow spawn and recruitment. Individual members were encouraged to discuss within their agency any ideas, suggestions, opportunities, etc.
  - Some attendees voiced concern with the lack of participation that adds to the work load of those who do participate. This is a big issue – there have been no volunteers for the non-federal co-chair for months.
- **Request:** ScW respectfully requests that Reclamation provide a knowledgeable person (COTR or other contracting specialist) to attend meetings where contracting discussions will be taking place. This is one way to help facilitate information sharing and address questions immediately.
  - **Request:** ScW respectfully requests that Reclamation and the CC inform the workgroup on any SOWs it is responsible for completing and the due date. This includes any SOWs Reclamation requests the workgroup to help re-write, as well as any new SOWs needed after the CC determines the FY13 budget and work plan. Currently, ScW is only aware that the spawning monitoring SOW may need ScW input, but the workgroup has received nothing on this.
  - **Request:** ScW respectfully requests that Jericho Lewis or another Reclamation contracting specialist attend the December 11<sup>th</sup> ScW meeting in order to address: (1) the reason behind grant versus contract decisions (specifically for the Genetics Monitoring), (2) to discuss if/how the genetics monitoring will reflect the scope developed by ScW, and (3) the current status of the Genetics Peer Review given that it was funded and then put on hold (see below).
  - **Request:** Regarding the Genetics Peer Review, the ScW would like: (a) to stress that unless there is an overriding reason to change, the Genetics Peer Review should be the next peer review completed as it is the workgroup’s priority; (b) Reclamation to provide a status update on the Genetics Peer Review which had been funded and initial meeting completed – is the money still available and if no, why not?; and (c) for ScW to be notified when the Genetics Peer Review is reactivated.
    - **2013 Task: Attend CC Meetings:** Unfortunately, as written, this task would fall to Dana Price as she is currently the only co-chair. The work group has previously discussed sending other ScW members to the CC meetings as needed. It is assumed that the CC or Program Manager or PMT liaison would let the work group know when work group members are needed at the CC. It was suggested that the Lead will be change to “Co-chairs, PMT Liaison, or other ScW representatives as needed.”
    - **2013 Task: Member Review of Relevant ScW-related documents:** This is an ongoing task that the work group does as needed. Yvette Paroz assisted the work group by developing the project tracking spreadsheet – so work group members would know the anticipated document review work load and due dates. It is requested that Gary Dean will take over the tracking spreadsheet.

**Action:** Gary Dean ~~Yvette Paroz~~ will redistribute the ScW project tracking spreadsheet to work group members. (continued and reassigned from 10/16/12)

- **2013 Task: Prioritize Future Activities:** Although this is captured on the work plan, there are no expected future projects at this time. Some members expressed caution to not spend too much time reviewing and revisiting the activity priorities at this time – the Program is transitioning to a RIP and the focuses could change. Also, the CC has not given this directive at this time.
  - Should the budget increase or unexpected funds become available, then the work group could determine the priorities and possibilities for the value of the money (i.e., match what could be most beneficial for that year for the money available at that time).
  - Members discussed that all ScW projects could be considered “equally important.” This means that if any funding should become available, it would be beneficial at that time to reevaluate which ScW project should be funded and what would be most beneficial given conditions at that time – for example, there may be a less expensive project that could be funded instead of “waiting” to have enough money to fund a more expensive project. This is one of the reasons ScW developed the Project Description template – to be able to communicate the risks of *not* completing a project, explaining how the project would be beneficial to management, etc.
    - It was cautioned with the transitions to a RIP, projects might “happen” in a different manner than has happened before.
- It was recommended that the Due Date will be changed to “*As needed depending on available funding*”; and the Deliverable will include “*Provide the Project Description Template to the CC.*”

**Action:** Alison Hutson will try to send the most current LTP to ScW members as a refresher on ScW priorities, projects, etc. for continuing members and as information for any new members.

**Recommendation:** ScW members discussed that all the ScW projects could be considered “equally important” and that if any funding should become available, it would be beneficial at that time to reevaluate which ScW project should be funded and what would be most beneficial given conditions at that time – for example, there may be a less expensive project that could be funded instead of “waiting” to have enough money to fund a more expensive project.

- **2013 Task: Review of Relevant of RIP Documents:** It was suggested that the Due Date be changed to “*Ongoing.*”
- **2013 Task: Coordination with COTR:** Members discussed that communication with the contracting office is a “2-way street.”
  - For the work groups part, members have been assigned to agency-related projects in an effort to assist in project follow-up.
  - In order to clarify that successful communication will include the COTR(s) coordinating with the ScW as well, it was suggested that that Task title be changed to: “*Coordination by appropriate COTR with ScW*”; the Due Date will be changed to “*Ongoing – Quarterly*”
- **2013 Task: Review Genetics Peer Review report:** The work group discussed that this project is currently “on hold” so the task will be dependent on the reactivation schedule.
  - It was suggested that the following clarification will be added to the Task: “*Project on hold with no current funding and no new status or information is known at this time*”; the Due Date will be revised as “*TBD - pending update from Reclamation*”

- *2013 Task: Attend Annual Workshop:* There is no current information on when the next work shop will be scheduled. It was suggested that the Due Date be changed to “TBD - pending scheduling for 2013”

**Action:** Comments and edits on the ScW 2012 Accomplishments and 2013 Work Plan are due to Stacey Kopitsch (copied to Yvette McKenna and Ali Saenz) via email by November 30<sup>th</sup>.

**Action:** ScW members were asked to specifically review/correct/edit their agency primary and alternate ScW assignments.

**Action:** Stacey Kopitsch (or Yvette McKenna or Ali Saenz) will revise the ScW 2012 Accomplishments and 2013 Work Plan and redistribute to ScW members as read aheads for the December 11<sup>th</sup> ScW meeting.

### **Spawning monitoring SOW development**

- Attendees agreed that more information/direction was needed from Reclamation before there could be any serious discussions on the Spawning monitoring SOW development.
  - ScW will request that a knowledgeable contracting person attend the December meeting to discuss: (a) why a grant was chosen instead of a contract for the genetics monitoring; (b) provide updates and status on the genetics peer review; and (c) inform the Spawning Monitoring SOW development and any other SOWs that might be coming to ScW before the mid-December deadline.

### **Continued discussion of draft RIP documents**

- Discussion on the recent versions of the draft RIP documents was postponed until the December meeting.

### **Program Update**

- *EC update:* The EC is scheduled to meet on November 29<sup>th</sup> from 9:00am to 4:00pm at Reclamation. The agenda includes a “high-level” Question and Answer session on the Revised Draft RIP documents. At their last meeting, the EC provided the instruction that work groups should stay on current missions during transition process.
- *CC update:* The CC met on November 7<sup>th</sup> and continued budget discussions. Reclamation has opened 2 modeling sessions to any interested Program participants. These trainings were close to full but may still have 1 or 2 slots available

### **Adaptive Management Recruitment Analysis Update Presentation – M. Porter**

- Mick Porter then presented his Cochiti Deviation Analysis, which was given at the last EC meeting and is now renamed his Adaptive Management Recruitment Analysis work.
  - The purpose of this analysis is no longer focused on Cochiti and the Deviation, but rather to evaluate the spring runoff flows for minnow recruitment (reproduction) in the Middle Rio Grande (MRG) valley. The analysis is focused on recruitment trends of the young fish sampled in May, June, and July.
    - The shift from Cochiti was done to focus on a broader analysis - the data set goes back farther than the last 2 deviations and the deviation years are included. This uses a Passive / Active Adaptive Management framework. The analysis is focused on recruitment trends of the young fish sampled in May, June, and July.
  - This analysis could be very informative to the Water Action and Minnow Action teams – especially as it addresses the question “how is recruitment determined by (a) spring volume?, (b) spring hydrograph?, and (c) inundation area?”

- The analysis includes a strategic look at how the minnow responds to any number of hydrologic variables to determine any correlations of the biology to the hydrology.
  - Factors being considered include: peak flow, April-June volume, May-July volume, inundated area, mean or minimum flow over a specific time period, magnitude of flow, etc.
  - If we can identify what is driving the recruitment, then we can focus on optimizing those things that provide the greatest impact.
- For the purposes of this analysis, “recruitment” is defined as the occurrence of young-minnows in the May through July monitoring data.
- Using monitoring datasets from 2002 to 2011(except 2009) from ASIR and the Service, the spring flows were compared to the production of young minnows. *It was noted that it wasn't until 2002 that ASIR began the monthly sampling which is critical for the recruitment analysis. This is why no earlier data has been included. There is a gap in the monitoring for spring 2009.*
  - Starting with the automation of R script software, the basic parameters (peak flow, inundation area, mean volumes, etc.) were run with as many determinations and “tweaks” as possible to see how the values might change. This was basically an “industrial strength” data crunching stage.
  - Other parameters considered in the analysis include: seasonal volume, magnitude changes in spring flows, and the difference between mean and minimum flow.
  - Interestingly, there is a stronger correlation with flow days *after* the peak (compared to symmetry around the peak) and with the *minimum* flow (compared to the average flow). The increases in correlations are not necessarily huge, but the  $r^2$  values are slightly better.
- In an example, the log transform of the 2005 CPUE data was plotted against the May-July (3 month) time period. Remember there can be no 0s in log transform so a 1 is added. Day 0 is May 1 – this was selected as the day closest to the “typical” beginning of the spawn. The colored lines are the slope of the recruitment seen over the 3 months.
  - Remember that 2005 was a high flow year with flood control operations implemented and resulting in a long duration. There was a lot of water in the system and a lot of offspring were produced.
  - This log transform of the annual CPUE data was used to compute the slope of recruitment for other years.
    - In response to a question on the duration out to 600 days, it was shared that the cohort is being followed out (survivorship) to Age 1, Age 2, etc. This is based on the PVA consensus data set where Age 0, Age 1, and Age 2 fish are identified by size and classified in each collection. There may be some issues with the classification of the Age 1 and Age 2 fish, but the designations are completed following the accepted age/length guides.
  - In a comparison graph of 2003, 2004, and 2005 recruitment it can be seen that 2004 was more “average” or “moderate” compared to the boom of 2005. In comparison, 2003 was very dry with a low peak, short duration and low numbers of offspring produced.
    - Based on the 2004 “slope”, there was still some improvement in the October index although it was not as good compared to 2005. We see a declining trend from 2002 to 2003 even though there was a “positive” slope of recruitment. Interestingly, this seems to be indicating that there is usually still some recruitment, even in really bad years.

- 2010 and 2011 have a very similar pattern to 2004 and 2003, respectively. 2012 data is not available yet.
    - It was pointed out that there was a manufactured spike (albeit a narrow one) in 2003 and the trends still went down even though there was some recruitment. 2004 is the year the deviation model is based on.
    - In a point of clarification, it was shared that for purposes of this analysis “recruitment” is defined as number of young of year produced in the first 90 to 100 days – or the number of fish produced by the reproduction and entering the population within the first 90 days and starting on May 1.
      - This is consistent with the hatchling detection cited in marine literature. Young of year are “young” through December 31<sup>st</sup>. This analysis looks at just the first 90 days.
      - Through trial and error, it has been found that the first 90 days generally show an increase in numbers. Starting around July/August the mortality begins exceed reproduction and to affect the statistical analysis.
      - In dry years, conditions/situations within the first 3 months can affect survival past the initial 90 days. For example, a better hydrograph produces a better food supply.
    - In response to a question whether a curvilinear would provide a better fit to the data, it was shared that with the log-transformed data in this analysis, the straight line in the graphs is a better fit than in data plotted on a normal y axis.
      - If the data is plotted on a regular axis (not a log axis) then it is even more highly curvilinear.
      - Other statistical techniques to analyze curvilinear data distributions may reduce variance and improve the analysis.
  - The 5 to 10 CPUE interval seems to be important for understanding recruitment in terms of the population trends.
    - Attendees briefly discussed that there could be reach-specific differences. For example, there are delays in water delivery downstream and thus delayed spawning due to the peak translation. Also, the changes in Isleta and San Acacia are not as pronounced since they start with lower flows. The normal withdrawals for irrigation have a more pronounced effect on flow downstream.
      - It was acknowledged that reach differences exist, there is not enough data on a year-to-year basis for each reach to do this analysis separately – the years have to be lumped together.
    - Comparison of these trends can tell us about minnow reproduction, how flow creates habitat for reproduction, how minnow use the habitat, etc.
  - In summary, it was shared that the current focus is on the recruitment trends in response to the spring hydrograph. It is recommended that the fish data be transferred into the Database Management System (DBMS) monthly (*update: this data request was included in the scope of work*). The Corps will use the detailed analysis to evaluate potential adjustments to the Water Operations.
  - One of the next steps is to develop annual population trajectories for analysis.
- **Questions:**
  - **Comment:** Based on recent (within the last year) statistical training, there could be an argument for transform data being out of date and the newest ideas are to use mixed models to encompass things without losing information to transformations. This is

especially recommended for consideration with larger, more complicated data sets. Several materials were provided as part of the training.

**Action:** Alison Hutson and Mick Porter will work together to explore the use of mixed model tools on the CPUE datasets for the Adaptive Management Recruitment Analysis work.

- **Question:** How are the lines and loops and end points related to the actual hydrograph?
  - **Response:** The approach for this analysis is that the hydrograph was described in at least 30 different ways: total volume over the season, inundation as a function of peak or other measure of spring pulse, peak versus 5 day mean, 10 day mean, etc. Then the top from each category was examined to see if it made biological sense. For example, taking the response 5 days, 7 days, 9 days, 11 days, etc. out from the peak, it turns out that 11 days had the strongest correlation. This indicates that 11 days is close to the target duration needed for the best population response. Thus, whenever we do a managed hydrograph the analysis indicates that the target should be held “steady” for 11 days but that there would be no added benefit to continuing for 15 days. And there would be no added benefit for increasing the flow during that period either.
    - The reason for the selection of “odd” days is simply that it is easiest to go 1, 2, 3 days out from the peak which translates into the odd numbers. There are higher correlations out from peak compared to a symmetrical comparison. For example, 11 symmetrical around the peak is not as beneficial as 11 days out from the peak.
- **Question:** Are there any indications about how to go back to more natural flows? The spring flows come on so sudden and strong.
  - **Response:** The analysis does include the attempt to dissect out the minimum flow duration and volumes need for a “decent” recruitment. But it is important to acknowledge that any hydrograph that exceeds the “minimum” will always be better. Determining the “doable optimum” is important in light of the declining available water and budgets. And remember, there will always be constraints due to flood operations.
- **Comment:** There could also be important indications when separated out reach-by-reach.
  - **Response:** It is acknowledged that reaches are different and a reach-by-reach analysis will be important. But better tools are needed to be able to do that well.

#### Research Symposium 1-page document review

- The Research Symposium 1-page document review will be conducted via email. Mick Porter will send the draft out to ScW via email. The document will be up for approval at the December ScW meeting.

#### Science Team organization Plan

- The Science Team Organization Plan will be reviewed via email as well. The document will be up for discussion at the December ScW meeting.

#### Next Meeting: **December 11<sup>th</sup>, 2012 from 9:00am to 11:30am at ISC**

- Tentative agenda items include: (1) Revised 2013 Work Plan - approval; (2) 2012 Accomplishments – approval; (3) Science Team Organization Plan – discussion; (4) Research Symposium 1-page document – approval; (5) Captive Propagation Update – final numbers, info on releases, etc.; (6) Contracting Discussions with COTR or contracting specialist – (a) why a grant for genetics?, (b)



updates on the genetics peer review; (c) spawning monitoring SOW and any other states of work?; (7) revisit/review the ScW project priorities - ??; (8) election of ScW co-chair (ongoing item until filled); (9) tentative field trip ideas and dates (ongoing item); (10) continued discussion of draft RIP documents – if necessary/appropriate; (11) Happy Birthday to Alison

- Agenda items for consideration: (1) the work group consider developing and instituting a process where by one of the Program staff has copies of everything so that it can be imported to the database (for draft and old SOWs).

#### Important Dates/Events:

- ~~November 16<sup>th</sup>—Service intends to issue a partial draft BO to action agencies; update – this will most likely not occur by November 16<sup>th</sup> as the Service has not yet initiated formal consultation and therefore cannot issue a draft BO at this time;~~
- November 19<sup>th</sup> – Habitat Restoration Rapid Assessment Tool/Assessment Metrics for SWFL and RGSM joint work group presentation, 1:30-3:00 pm at the Corps;
- November 28 – Sediment Modeling in Streams with SRH-1D at Reclamation; *this is a modeling training class that is being opened to Program members;*
- November 29<sup>th</sup> – EC meeting, 9:00am to 4:00pm at Reclamation
- December 4 – Hydraulic Flow Modeling in Streams with SRH-2D @ Reclamation; *this is a modeling training class that is being opened to Program members;*
- December TBD – EC meeting, tentatively scheduled for **December 20<sup>th</sup>**; agenda to include endorsement of the RIP Final Draft documents
- April or May 2013 – new estimated time frame for the CPUE workshop due to contracting issues

#### Science Work Group November 13<sup>th</sup>, 2012 Meeting Attendees

	NAME	AFFILIATION	PHONE NUMBER	EMAIL ADDRESS	Primary, Alternate, Other
1	Stacey Kopitsch	USFWS	761-4737	stacey_kopitsch@FWS.gov	A - PMT
2	Mick Porter	USACE	342-3264	michael.d.porter@usace.army.mil	A
3	Dana Price	USACE	342-3378	dana.m.price@usace.army.mil	P
4	Alison Hutson	ISC	841-5201	alison.hutson@usace.army.mil	P
5	Jen Bachus	FWS	761-4714	jennifer_bachus@fws.gov	P
6	Grace Haggerty	ISC	383-4042	grace.haggerty@state.nm.us	O
7	Marta Wood	Tetra Tech	259-6098	marta.wood@tetratech.com	O – note taker