

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

21 June 2011 Meeting – 9:00 AM-11:30 AM

FWS - Osuna

June 2011 Actions

- Stacey Kopitsch will confirm whether or not discussion of the addition of sexing information to the Age & Growth study is on the June 29th CC agenda; if not, she will try to determine when the topic might be addressed.
- Terina Perez will forward the request to Jericho Lewis that since ScW members cannot communicate with the genetics contractors, then the appropriate Reclamation COTR should discuss this potential project with the contractors to determine (a) if the project is even worthwhile in their expert opinion and (b) if they could easily answer the questions with a contract modification.
- Terina Perez will also inform Jericho Lewis that if the Effects of Augmentation on Genetics SOO goes out for input, ScW wants to be involved - allowed to review and incorporate any feedback as well as have input on any task order development.
- Terina Perez will clarify with Jericho Lewis how to proceed with a presentation on the Augmentation and Genetics from Tom, if he is agreeable (willing to volunteer).
- Stacey Kopitsch will check to see if it is possible to add a literature synthesis task into future peer review contracts (especially for the upcoming genetics program peer review).
- Alison Hutson will inform the PVA of the ScW recommendation that the PVA work group address the SADD Fish Passage peer review recommendation #2 (determine the factors that are imposing major controlling constraints).
- Stacey Kopitsch will add Genetics to the list of potential topics for the October technical workshop.

Outstanding and Continued Actions

- Rick will attend the CC meeting and will support the request [for the addition of sexing information to the Age & Growth study]. (*continued from May 2001*)
- Peter Wilkinson will ask NMED's new Water Quality Bureau Chief to provide a fish biologist. (*continued from May 2011*)
- Peter Wilkinson will send augmentation articles from the west coast to all members. Article on salmon related to genetics work. (*continued from May 2011*)
- Peter and Mickey volunteered to write the scope of work for adding sexing information to the Age and Growth study and get it on the June CC meeting agenda. (*continued from April 2011*)

Decisions

- The April 19th, 2011 ScW meeting notes were approved for finalization with no additional changes.

Recommendations

- ScW is recommending that the genetics program peer review be completed before the Program continues with the Effects of Augmentation on Genetics project. The outcomes of the genetic peer review might inform this project. It would still be valuable to have the Reclamation COTR get information from the genetics contractors, if possible. If the COTR can get some answers or specific information, ScW might at that point be able to continue pursuing this project.

- ScW has several existing future activity summaries that could easily address 4 of the 5 data/knowledge gap research topics identified by the SADD fish passage peer review panel. If needed or wanted by the CC, these summaries could be changed or modified slightly in order to better capture the peer review recommendation studies.

Requests

- ScW would like to request that Tom present his perspective on the genetics and augmentation (based on the information already collected); this could be done in a joint meeting with the Propagation & Genetics working group.
- ScW would like to request that the EC/CC provide more explicit direction and/or priorities in terms of the SADD Fish Passage peer review recommendations - which 1 or 2 of the 7 questions do the EC/CC want addressed now? Which 1 task should the work groups focus on over the next year? While the work group recognizes the value in each, ScW cautions that any one of the 7 recommendations will take a while and the tasks should not be split among the work groups because there is a joint component. Each SADD peer review recommendation is time intensive and agency staff and work groups volunteers already have their “plates full.”

Meeting Summary

- Jen Bachus brought the meeting to order and introductions were made. The agenda was reviewed and approved with the addition of a Big Bend Monitoring update.
- The April ScW meeting notes were approved for finalization with no additional changes. Finalization of the May ScW meeting notes was postponed until the July meeting to allow for the revised version to be distributed for any additional comment or edits.
- Attendees then reviewed the May and other outstanding action items.
- In response to a question regarding the pre- and post-augmentation genetic scope, the work group discussed the history of this project. The Coordination Committee (CC) directed ScW to write a scope of work for a project aimed at determining the effects of augmentation on genetics. In order to write an actual scope, more information is needed. However, there is a conflict of interest in approaching the genetics contractors for answers or more information. Due to the limited information, ScW wrote a statement of objectives (SOO).
 - Members briefly discussed contractual limitations and if the genetics contract was not written with the raw data as a deliverable, then the Program has no technical right to that information (without a contract modification). New contracts have a raw data clause incorporate to prevent this situation in the future.
 - Members discussed posting the SOO as is in order to garner feedback that could be used to improve it; however, the SOO is too general in its current state to be issued for bid.
- Jason Remshardt and Mark Brennan then provided a brief update on the Big Bend sampling/monitoring event that is currently under way to determine silvery minnow population status. The first of 4 groups finished this past week. Silvery minnow were collected at several locations within the 83 mile section downstream of the park (beginning 23 miles downstream of the lowest stocking site). Four of the sites (where minnow were found) were in the first 20 miles, but then 2 of the last 6 sites also had minnow present. This is a 47 mile extension of the range and the furthest downstream that minnow have been found. The remaining 3 groups will be in Big Bend this week.
- The work group briefly discussed the Corps’ mesohabitat mapping project. The purpose is to contract the USGS team working with the Service in Big Bend to complete a similar mesohabitat mapping project for the Middle Rio Grande (MRG). Since this project is strictly habitat related and does not include handling fish, there should not be a permitting issue. The Corps has requested help from HR and ScW to identify 15 to 20 sites to map.

- Some attendees recommended starting with the 10 sites (5 core and 5 supplemental) 2003 Service sites (as references in the spreadsheet). The remaining sites could be selected to “fill in the gaps” between these 10 sites.
- It was also suggested that this project were to be timed to when ASIR was sampling, then the information could be concurrent with fish data. This would take a strategic and carefully coordinated effort to avoid interfering with other work on the river and disturbing habitat during sampling/monitoring.
- The work group then reviewed the SADD Fish Passage peer review recommendations and discussed potential strategies to address.
 - For Recommendation #1 (synthesize literature), the work group recommends not addressing this issue until the Program’s database is available as a tool and starting point. Then ScW recommends a joint effort between ScW, HR, and PVA to organize the concepts for review and to establish “categories” that could be synthesized in 1-5 page documents. Attendees discussed that even with this “phased” approach each of the steps would be labor and time intensive. There is also a concern about finding volunteers willing to participate. For future contracts, some members suggested that a literature synopsis could be done by the peer review panelists at the time of their review.
 - For Recommendation #2 (determine what factors are imposing the major controlling constraints), ScW recommends the PVA work group as the most appropriate group to address this effort.
 - For Recommendation #3 (develop a conceptual model for recovery), the ScW perspective is that this is what the Program is doing through the Adaptive Management (AM) and Long-term Plan (LTP) processes. ScW believes that a conceptual model should be a product of the AM process.
 - For Recommendation #4 (data/knowledge gap research projects), ScW identified the following ScW Future Activities that address each or could be easily modified:
 - *An evaluation of the impact of non-native fishes on recovery of silvery minnow:* Priority 3 Activities – “Investigate effects of non-native competition and predation on RGSM” and “Determine the level and rate of hybridization between Rio Grande silvery minnow and plains minnow”
 - *An evaluation of the loss of silvery minnow into ditches and canals as water is diverted from the Rio Grande:* Priority 2 Activity – “Continue Evaluating Entrainment”
 - *An evaluation of the importance of larval drift to the mixing of silvery minnow populations and how important is this drift to total mortality acting on the species:* Priority 2 Activity – “Better understand fish movement (RGSM longitudinal movement)”
 - *An evaluation (preferably in the field) of the tendency of silvery minnow to move upstream:* Priority 1 Activity – “Continue Monitoring PIT Tagged RGSM” and Priority 2 Activity – “Better understand fish movement (RGSM longitudinal movement)”
 - *An evaluation of a field prototype fish passage inlet to determine its use by silvery minnow and other species:* in earlier versions of the LTP, there were some fish passage activities or sections into which this project could be incorporated. It is believed that the CC is the lead group for fish passage related projects.
 - Attendees agreed to not modify the Criteria assignments of the above LTP projects because (1) the LTP is still in process; (2) the peer review process is still

being developed (in terms of how to address peer review responses); and (3) because there are already about 20 current ScW Criteria 1 (this means that realistically not all of the Criteria 1 projects can be implemented in the first 3 to 5 years anyway).

- For Recommendation #5 (impact of augmentation on minnow genetics), this research topic is being addressed through the Statement of Objectives (SOO) provided to Reclamation.
- For Recommendation #6 (field-oriented studies to determine what external and internal factors drive minnow movement), ScW recommends the MPT work group as the most appropriate group to address this effort. The MPT also has an existing activity summary that could be used to address the issue: MPT Priority 1 Activity - Final Draft Scope of Work submitted for “Rio Grande Silvery Minnow Food Availability and Habitat Study Associated with Habitat Restoration Projects”
- For Recommendation #7 (habitat restoration plan), the Habitat Restoration (HR) work group is not only the most appropriate group, they have already begun exploring options for addressing this topic.
- Attendees reviewed the list of potential ScW items for the October technical workshop agenda. Some members requested that genetics be added as a fourth potential topic.
- In the Program Update, it was shared that the June EC meeting was cancelled. However, the July EC agenda is not available yet. The EC has directed the CC and PMT to start looking at options to restructure the Program to fit the formation of a new AM work group. The CC will be meeting on June 29th. They are still working on the peer review process document. The same Fish Health presentation that was given to ScW will be presented to the CC. The last AM workshop occurred on May 18th and 19th. There are no more workshops with the contractors. The first draft version is expected to be available on June 30th. The Program has until mid-August to provide comments. Then the final AM plan version is due on September 30th.

Next ScW Meeting July 19, 2011 from 9:00 am to 11:30 am at Interstate Stream Commission

- Tentative Agenda Items include: (1) Continued discussion on site recommendations for the Corps’ mesohabitat mapping project;

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

21 June 2011 Meeting – 9:00 AM-11:30 AM

FWS - Osuna

Meeting Minutes

Introductions and Agenda Approval

- Jen Bachus brought the meeting to order and introductions were made. The agenda was approved with the addition of a Big Bend Sampling Event update after the Action Item Review.

Approve April and May Meeting Minutes

- The April 19th ScW minutes were revised and redistributed. Attendees approved the April 19th meeting notes for finalization with no additional changes.
- Approval of the May 17th meeting minutes was postponed until the July ScW meeting in order to accommodate comments and edits. Members were encouraged to provide comments on the May notes as more correction and details are needed. Concern was expressed about the format of the last several months of meeting notes. The requested template had been provided. Attendees were assured that the June meeting minutes would be in the standard format.

Decision: The April 19th, 2011 ScW meeting notes were approved for finalization with no additional changes.

Action Item Review

- At a later ScW meeting, the workgroup will compare the peer review recommendations with the LTP to determine if those recommendations are incorporated in the LTP. This was discussed at the May 17, 2011 ScW meeting. – *on going; for discussion today;*
 - ScW agreed that the latest version of the LTP is needed from the CC before this action item can be completed. This request will be elevated back to the CC.
- Science is requesting CC to identify a process for incorporating peer review findings across all peer reviews done by the Collaborative Program, and to identify how the Science workgroup is involved – *completed;*
 - The request has been made and the CC is currently updating the peer review process. Once completed and available, ScW will be able to review and discuss the revised formalized peer review process. The CC is working to establish how independent peer reviews will be used/handled by the Program (i.e., how recommendations will be addressed).
- Peter Wilkinson will ask NMED's new Water Quality Bureau Chief to provide a fish biologist. – *on going;*
 - The purpose of this action was to determine if NMED would be able to provide a regular participant to the Program in an advisory capacity for Program-funded water quality projects (not for a specific particular project). Attendees could not remember if Peter mentioned a specific individual by name or not.
- Alison Hutson will check with Jeanne Dye to see if BOR has the genetics data needed for this study – *completed;*
 - The Scope of Work (SOW) has been forwarded to Reclamation's contracting office, and may move forward as a Statement of Objectives (SOO).

- Peter Wilkinson will send augmentation articles from the west coast to all members. Article on salmon related to genetics work – *on going*;
- ~~Comparison of fish passage peer review recommendations with LTP activities~~ – this action is to be deleted as it is a repeat of the first action item.
- ~~ScW is requesting from CC the latest version of the LTP to review. Without this, this action item cannot be completed.~~ This action is very similar to the first action item; this action is to be deleted.
- Once the LTP document is made available to ScW by the CC, ScW will then schedule a discussion meeting to determine if fish passage peer review recommended studies are included in the LTP and prepare recommendations to submit to CC for any items not yet included. – *on going; for discussion today*;

Other Action Items (outstanding action items)

- Alison Hutson will ask Jericho about adding fish sexing information to the Age and Growth study – *completed*;
 - Jericho Lewis instructed that a new contract would have to be bid and awarded for that information.
- Peter and Mickey volunteered to write the scope of work for adding sexing information to the Age and Growth study and get it on the June CC meeting agenda. – *on going*;
 - Due to delays related to needing to have a project summary prepared for the sexing component, this topic is not included on the June 29th CC agenda. The cost estimate is about \$50,000
 - There have been discussions about whether or not it would be worth having to fund this piece separately as a new project. It might be worth exploring if no additional data collection was needed.

Action: Stacey Kopitsch will confirm whether or not the addition of sexing information to the Age & Growth study is on the June 29th CC agenda; if not, she will try to determine when the topic might be addressed.

- Rick will attend the CC meeting to present the request [for the addition of sexing information to the Age & Growth study]. – *on going*;

Continuing Actions from February 2011 Science meeting:

- Stacey Kopitsch will ask Monika Mann (PMT Liaison to DBMS) if the DBMS can provide a list of references they have for water quality data. April 2011 update: This request has been made; waiting to receive this information. – *on going*;
 - Stacey is still waiting for a response as of the June 21st ScW meeting. The DBMS work group is aware of the request but they have not begun working on the task. It was suggested that maybe a smaller subgroup of ScW members could be convened to focus on water quality. Unfortunately, ScW cannot expect the information from the DBMS group any time soon; as a result, this action is to be deleted.

Clarification and Discussion on the Augmentation/Genetics SOW

- Some attendees requested additional information and clarification on the Augmentation Effects on

Genetics SOW. It was explained that this project is a direct task from the CC in response to the San Acacia Diversion Dam (SADD) Fish Passage Peer Review recommendations. The CC highlighted this recommendation as a potential project that could be accomplished this year and tasked ScW with writing the scope to address the potential impacts of augmentation on genetics using the pre-augmentation and post-augmentation data/information.

- A small group of ScW members attempted to put together a general SOW but there were many questions on what had already been done; whether or not ScW members could contact the genetic folks directly; etc. In order to be more specific in the scope, more information is needed.
- It is also unclear what exactly the CC wants. This is not exactly a “new” project but rather is looking at the same information (that the Program already has) to see if anything new could be gleaned out of that information.
 - Unfortunately, ScW members have been informed that they cannot speak to the genetics researchers directly regarding the potential for future work, and the project cannot be sole sourced through Reclamation. Instead, members created a draft, partial SOW that could move forward as a Statement of Objections (SOO), which has been provided to Reclamation. There has been no response or feedback yet.
 - It is likely that the detailed data (ex. dates, records of individual fish, etc.) were collected and exist, but since these were not called out as deliverables in the original contract, the contractor has no obligation to provide to the Program. These missing attributes mean it is possible that the data can’t be analyzed to the detail needed for this project.
 - Concern was expressed in issuing a SOW that is not specific enough – the risk is never getting to the desired outcome or answers. There needs to be a very specific question to address and currently there isn’t one. The draft SOO is very general.
 - The DBMS database will be available come September; members discussed waiting on pursuing the Augmentation Impact on Genetics project until the database can be used to help determine what has already been done. A comment was made that information is already available in the genetics reports.
 - Some of those project specifics could be addressed in the task orders when issued.
 - Issuing the project as a SOO would allow ScW to get feedback from potential bidders and that could be very helpful.
 - Members discussed informing the CC about the problems associated with this project specifically as well as the associated problems with responding to peer review recommendations without a formalized process
 - Members want to make sure that this project is addressed responsibly in order to avoid wasting money or having an unusable project deliverable.
 - One of the next peer reviews scheduled is for the genetics program. It would be logical to postpone the Augmentation Impact on Genetics project until the outcomes of the genetics peer review were available.
 - Attendees expressed interest in having Tom present the “big” points on augmentation and genetics based on the information already collected. It was cautioned that there could be some contractual issues regarding scheduling a presentation if he needs to be reimbursed for his time/effort. It would be good for the Genetics and Propagation group to be included for a joint presentation.

Recommendation: ScW is recommending that the genetics program peer review be completed before the

Program continues with the Effects of Augmentation on Genetics project. The outcomes of the genetic peer review might inform this project. It would still be valuable to have the Reclamation COTR get information from the genetics contractors, if possible. If the COTR can get some answers or specific information, ScW might at that point be able to continue pursuing this project.

Request: ScW would like to request that Tom present his perspective on the genetics and augmentation (based on the information already collected); this could be done in a joint meeting with the Propagation & Genetics working group.

Action: Terina Perez will follow up with Reclamation to determine status of the ScW's request for more information on the augmentation/genetics.

Action: Terina Perez will forward the request to Jericho Lewis that since ScW members cannot communicate with the genetics contractors about future work, then the appropriate Reclamation COTR should discuss this potential project with the contractors to determine (a) if the project is even worthwhile in their expert opinion and (b) if they could easily answer the questions with a contract modification.

Action: Terina Perez will also inform Jericho Lewis that if the Effects of Augmentation on Genetics SOO goes out for input, the ScW wants to be involved - allowed to review and incorporate any feedback as well as have input on any task order development.

Action: Terina Perez will clarify with Jericho Lewis how to proceed with a presentation on the Augmentation and Genetics from Tom, if he is agreeable (willing to volunteer).

Big Bend Sampling Event Update

- Mark Brennan and Jason Remshardt just returned from the first of 4 groups that will be sampling the Big Bend reach for minnow population status. The section they completed is downstream of the park – 83 miles beginning 23 miles below the downstream-most stocking site and extending nearly to Amistad Reservoir. The remaining 3 groups will be completing sampling this week.
 - Of the 31 sample sites over the 83 miles, minnow were collected in at least 6. Silvery minnow were found in 4 of the sites in the first couple of days (within the first 20 miles). Then silvery minnow were found again in 2 of the last 6 sites. This translates to a 47 mile extension of the range (from the stocking sites) and was the furthest downstream that minnow were found. There are many small, larval fish that still need to be identified.
 - The results have exceeded expectations – no one expected to find minnow that far downstream. This has caused some discussion about sampling even farther downstream to see how close to the Pecos the minnow might be.
 - The quarterly sampling at Big Bend will continue, but that is limited to the 4 stocking sites. There has been some discussion about trying to sample the full 280 miles on an annual basis.
- Once established as self-sustaining, the Big Bend silvery minnow population would be considered a separate population and would meet the 10j requirements and count toward recovery goals.

Discussion of Mesohabitat Mapping in the MRG (Corps)

- The Corps is proposing a mesohabitat mapping project in the MRG similar to what the USGS has done in Big Bend. This project would be strictly habitat related and would have no minnow collection (so there should be no permitting issues). Mick Porter is requesting input from ScW and HR to identify 15 to 20 potential sites to include in the mapping.
 - The project could help quantify the amount of change of habitat at different flow (knowledge of the amount of wetted habitat available) and could inform the spring releases. However, it was cautioned that cross sections change each season and they are never the same from spring to spring. It is just a picture or “snap shot” of what the river and associated habitat looked like at that instance on that day.
 - Some attendees recommended starting with the 10 sites (5 core and 5 supplemental) 2003

- Service sites (as referenced in the spreadsheet). The remaining sites could be selected to “fill in the gaps” between these 10 sites.
- It was also suggested that this project were to be timed to when ASIR was sampling, then the information could be concurrent with fish data. This would take a strategic and carefully coordinated effort to avoid interfering with other work on the river and disturbing habitat during sampling/monitoring.
 - A lot of this project is “hands off” components – with staff on land, using machines, etc. The assumed impact or interference would be very minimal.
 - Mick Porter has requested input before July 22nd so this topic could be continued at the July ScW meeting.

Discussion of the CC directive to compare the SADD fish passage peer review recommendations to the LTP

- Stacey Kopitsch made a first attempt to address the recommendations; her suggestions were emailed to ScW members in preparation for today’s discussion, along with some additional suggestions provided by Mick Porter.
- *Recommendation #1: Synthesize results from the considerable literature on silvery minnow to document what factors have major (detrimental) effects on the species.*
 - Attendees discussed the suggested approach to have ScW, PVA, and HR work groups to first organize the concepts for review. Then the literature review could be broken down into “categories” – ex. habitat, genetics, behavior, etc. Volunteers from the workgroups could then write 1-5 page synopses for each category. A synopses framework for structuring hypotheses would have to be developed. Joint work group discussions to review / revise synopses and rank major factors could then be scheduled.
 - One critical question remains: how does the Program identify factors (criteria) that have ‘Major Effects’ on the silvery minnow? What is the definition of “major effects?”
 - This gets into the realm of PVA and “major effects” probably can’t be determined just from a synopsis. The PVA might have to rank effects to determine “major.”
 - Attendees supported this approach as it provides a clear process for approaching the recommendation and provides for input from several work groups and offers representative agency participation. This is a huge task that has to be broken down into steps in order to even begin.
 - It would be very helpful to have a list of literature references and Program studies for each identified topic.
 - The DBMS would be a great tool for providing this information. This is another task that is recommended to be postponed until the database is available.
 - Concern was raised that this is a huge task and work group participants are already overwhelmed – it is highly unlikely that many people will volunteer. This task is so big and realistically, how much time are the active agencies willing to put toward this?
 - Some members suggested that the literature synthesis could be worked into the tasks of the peer review process from now on.
 - Discussing a potential timeframe for addressing Recommendation #1, it was explained that the pilot (version 1) of the DBMS will be available in September or October. The genetics peer review may happen soon. Assuming it takes a volunteer group a couple of months per category and there are at least 6 categories - then it would take over 1 year to address just the first peer review recommendation.
 - Attendees discussed the need to have more direction/clarification from the Executive Committee (EC) and CC on what they want done with the peer review

recommendations. Due to work group work load, the EC may need to prioritize what tasks are to be done first.

Request: ScW would like to request that the EC/CC provide more explicit direction and/or priorities in terms of the SADD Fish Passage peer review recommendations - which 1 or 2 of the 7 questions do the EC/CC want addressed now? Which 1 task should the work groups focus on over the next year? While the work group recognizes the value in each, ScW cautions that any one of the 7 recommendations will take a while and the tasks should not be split among the work groups because there is a joint component. Each SADD peer review recommendation is time intensive and agency staff and work groups volunteers already have their “plates full.”

Action: Stacey Kopitsch will check to see if it is possible to add a literature synthesis task into future peer review contracts (especially for the upcoming genetics program peer review).

- *Recommendation #2: Determine what factors are imposing the major controlling constraints on silvery minnow populations.*
 - This topic would be most appropriately addressed through the PVA. Members discussed requesting the PVA workgroup to provide a ranked list of factors affecting silvery minnow populations.

Action: Alison Hutson will inform the PVA workgroup of the ScW recommendation that the PVA workgroup address the SADD Fish Passage peer review recommendation #2 (determine the factors that are imposing major controlling constraints).

- *Recommendation #3: Using steps 1 and 2 develop a conceptual model (road map) for recovery using a clear, stepwise, adaptive management approach; with incremental steps and explicit feedback mechanisms by which management actions could be fine-tuned and success could be documented.*
 - Attendees discussed that the Program is currently in the process of doing just this through the Adaptive Management (AM) process, Long-term Plan (LTP) process, prioritizing by years, etc. AM would help to document successes and advise management. The conceptual model will hopefully be an outcome of AM.
 - The question is what part could be done by a contractor.
 - The PMT is in the process of exploring what a Program restructure (in order to accommodate a new AM work group) might look like.
 - Members agreed that a conceptual model should be a product of the AM process.
- *Recommendation #4: The panel articulated a number of data or knowledge gaps that were encountered during their review. They urged the consideration of these topics in the research program that develops from the foregoing list of recommendations...*
 - ScW believes that 4 of the recommended studies could be included or addressed in existing ScW Criteria 3 Future Activity Summaries. The remaining data gap (evaluation of field prototype fish passage) might be able to go under the LTP fish passage section (if it still exists, it was not clear without the latest version of the LTP).
 - Attendees agreed to not modify the Criteria assignments of the above LTP projects because (1) the LTP is still in process; (2) the peer review process is still being developed (in terms of how to address peer review responses); and (3) because there are already about 20 current ScW Criteria 1 (this means that realistically not all of the Criteria 1 projects can be implemented in the first 3 to 5 years anyway).
 - Mick Porter provided suggested edits in advance to 2 of the summaries, but attendees agreed to not review all the suggestions at this time.
 - The summaries could be changed or modified slightly in order to better capture the peer review recommendation studies. However, insufficient attendance (i.e.,

insufficient agency cross-representation) prevented the work group from updating any summaries or LTP criteria at this time.

Recommendation: ScW has several existing future activity summaries that could easily address 4 of the 5 data/knowledge gap research topics identified by the SADD fish passage peer review panel. If needed or wanted by the CC, these summaries could be changed or modified slightly in order to better capture the peer review recommendation studies.

- *Recommendation #5: Determine the impact that augmentation has had on silvery minnow genetic variability over time.*
 - This recommendation has been addressed through the SOO drafted and provided to Reclamation.
- *Recommendation #6: Conduct field-oriented studies to determine what external and internal factors (e.g. drying, food availability, predation, rheotropic response, temperature, turbidity, geomorphology, hydrology) cause silvery minnow to move among habitats in the river.*
 - Attendees discussed that the Monitoring Plan Team (MPT) is probably the most appropriate work group to address this recommendation and they already have a Priority 1 Future Activity Summary project.
- *Recommendation #7: As part of the MRGESCP adaptive management process, develop an integrated, strategic habitat restoration plan for one reach of the MRG to maximize connectivity within the reach and determine the influence of habitat restoration on movement, growth, survival and reproductive success of the silvery minnow within the reach as habitat restoration occurs.*
 - Attendees discussed that the HR work group is the most appropriate group to address this recommendation and they have already begun exploring options for addressing this topic.

Discussion of topics to include at an October technical workshop

- There are currently 3 potential ScW items on the technical workshop agenda for October:
 - 1. fish health study results
 - 2. flycatcher update and beetle updates
 - 3. age & growth
- In response to the question of adding any other topics, some members suggested that “genetics” be added.

Action: Stacey Kopitsch will add Genetics to the list of potential topics for the October technical workshop.

Program update

- *EC update*
 - The EC June meeting was cancelled. Their next meeting is scheduled for July 21st. The EC directed the CC and PMT to start looking at a Program restructure in order to accommodate a new AM work group.
- *CC update*
 - The next CC meeting is on June 29th. The CC is still working on the peer review process document. The same Fish Health Presentation that was given to ScW will also be presented to the CC.
- *Adaptive Management Update*
 - The last and final AM workshop was held on May 18th and 19th. The EC participated on the 19th. The first AM Plan Draft Version 1 is expected to be available June 30th. The Program then has until the middle of August to provide comments. The final draft AM Plan is due September 30th.

Next ScW Meeting July 19, 2011 from 9:00 am to 11:30 am at Interstate Stream Commission

- Tentative Agenda Items include: (1) Continued discussion on site recommendations for the Corps' mesohabitat mapping project;

**Science Work Group
21 June 2011 Meeting Attendees**

| NAME | AFFILIATION | PHONE NUMBER | EMAIL ADDRESS | Primary, Alternate, Other |
|-----------------|--------------------|---------------------|-----------------------------|--|
| Stacey Kopitsch | FWS | 761-4737 | stacey_kopitsch@FWS.gov | O |
| Jen Bachus | FWS | 761-4714 | jennifer_bachus@fws.gov | P |
| Alison Hutson | ISC | 841-5201 | alison.hutson@state.nm.us | P |
| Jason Remshardt | FWS | 342-9900 ext 104 | jason_remshardt@fws.gov | O |
| Terina Perez | Reclamation | 462-3614 | tlperez@usbr.gov | O |
| Dana Price | USACE | 342-3378 | dana.m.price@usace.army.mil | A |
| Rick Billings | ABCWUA | 796-2527 | rbillings@abcwua.org | P |
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