

Middle Rio Grande Endangered Species Act Collaborative Program
Science Work Group Meeting
19 July 2011 Meeting – 9:00 AM-11:30 AM
ISC

July 2011 Actions

- Additional site recommendations or feedback on the mesohabitat mapping project should be emailed to Mick Porter no later than Friday, July 22nd.
- Stacey Kopitsch will electronically distribute the list of upcoming and future ScW due dates to all ScW members. **completed**
- Stacey Kopitsch will resend the Database Management System (DBMS) pilot training email to ScW members. **completed**
- Yvette Paroz will determine when the last extension on the existing genetic grant will absolutely expire and if it is possible to extend the project another year in order for the genetic peer review to be completed and inform the new contract/grant.
- Stacey Kopitsch will combine the last questions on the genetics program peer review list and will incorporate all recommended changes; she will distribute the revised questions to ScW members for additional comment/feedback. **completed**
- Additional comments/feedback on the genetics program peer review questions are due to Stacey Kopitsch by 9:00am on Friday, July 22nd. **completed**
- ScW members will discuss the work group's recommendation to *not* include the effects of augmentation on RGSM genetics questions in the genetics program peer review with their CC representatives. Justifications include: (1) they are not appropriate with the program-level peer review; (2) members believe that many of those questions have already been answered; (3) those questions could be informed, in some manner, through the questions that ScW members developed without the review panel being “steered” or “distracted.”
- ScW members will research (1) what is being done at their agencies to address the effects of the salt cedar leaf beetle; and (2) what possible projects could be implemented by the Program to address the effects.
- Yvette Paroz will coordinate with Stacey Kopitsch and will determine status/updates on the recent reports; she will report back at the August meeting.
- Volunteers are requested to draft a SOW for the Sexing of Age/Growth Specimens project, which is needed by the Contracting Officer by COB this Friday, July 22nd. **completed**
- Mickey Porter will draft language on the techniques to be used for this project and email to Rick Billings and Stacey Kopitsch. **completed**
- Rick Billings and Stacey Kopitsch will fill in the standard SOW language and submit to the ScW and Contracting Officer by COB Friday, July 22nd. **completed**

Outstanding and Continued Actions

- 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). (*continued from June 21st meeting*)
- 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*)

Decisions

- The May 17th and June 21st, 2011 ScW meeting notes were approved for finalization with no additional changes.

Recommendations

- It was recommended that the Corps representatives follow up with Jason Remshardt on the recommendation to use the Service's 2003 survey sites for the mesohabitat mapping project sites.
- Work group members would like to have a "list" of due dates generated at the beginning of the next fiscal year (to help the work group facilitate timely completion).
- ScW members recommend that the augmentation genetics questions recommended by the SADD fish passage peer review panel *not* be included in the genetics program peer review questions.

Requests

- ScW members would like to request an official notification of Reclamation's new primary and alternate representatives for the Science work group.

Meeting Summary

- Jen Bachus brought the meeting to order and introductions were made. The agenda was approved with no changes. It was announced that Jeanne Dye has moved to London; Reclamation's representatives on ScW have not been announced yet.
- Both the May 17th and June 21st ScW meeting notes were approved for finalization with no changes.
- Attendees then reviewed the June and other outstanding action items. All but one of the June actions were completed as assigned. Only 2 outstanding actions items remain.
- Members continued discussion on the request for site recommendations for the mesohabitat project (lead by the Corps). The purpose of the project is to replicate the mapping work that the USGS has been doing at Big Bend. This could allow for comparative studies of minnow habitat at varying flow to inform habitat restoration, management, indicate potential areas for reintroduction, etc. Mesohabitat will most likely be mapped in the fall to establish baseline and then again during the spring runoff. Last month, ScW members suggested using the 2003 Fish and Wildlife Service (Service) survey sites. Other suggestions included: (1) the URGWOM/URGWOPS 2000 modeling sites including Pena Blanca (in the Cochiti Reach) and the 2 other sites further downstream; (2) 2007 USGS instream flow study sites (between the Rio Puerco and San Acacia Dam); and (3) River Mile (RM) 183 in order to include a site that incorporates both historic mesohabitat as well as recent restoration work. There are still 4 or 5 sites that need to be identified. There would be at least one site in each of the four reaches. ScW members were also asked to provide input on how to coordinate the mesohabitat mapping effort with ongoing fish sampling efforts.
- An update on the Program's SOW process was shared. The CC is continuing to discuss this topic and clarity will be provided to the work groups on how the scope process works, deadlines, expectations, etc. Current priorities for ScW from the CC are (1) genetics program peer review questions, (2) SOW for the fish sexing of Age and Growth specimens, and (3) SOW for the water quality study.
- The work group then discussed the genetics program peer review. Using the list of "general" questions developed last winter attendees revised and updated questions for the peer review panel to address. Attendees spent some time discussing peer review of the genetics *program* versus focusing on specific grant work. Discussions also included the statistical power of data and garnering recommendations from the peer review on future direction of the genetics program. After discussion, members agreed that the effects of augmentation on RGSM genetics questions,

which were based on one of the recommendations from the San Acacia Diversion Dam (SADD) Fish Passage peer review panel, were not appropriate to include in this peer review - many of those questions have already been answered and could be informed in some manner through the questions that ScW members developed.

- In an update on the salt cedar leaf beetle, it was shared that the beetle has been found on Santa Ana Pueblo's property (on the Jemez, 3 miles from the Rio Grande). This is an unexpected occurrence as the closest prior location was in Cuba and the beetle was expected to come through the Rio Puerco. The beetle will most likely be in the Middle Rio Grande much sooner than originally expected. ScW discussed some ideas for how the presence of the beetle can be addressed in the MRG.

Next ScW Meeting: August 16th, 2011 from 9:00 am to 11:30 am at Interstate Stream Commission

- Tentative Agenda Items include: (1) ISC Spawning Study presentation - Alison Hutson; (2) USGS Habitat Mapping presentation in joint session with MPT and HR (11:30 to 12:30); (3) Updates on Sexing of Age/Growth Specimen SOW; (4) Follow-up on Salt Cedar Leaf Beetle issue and SWFL
- Tentative September agenda items: (1) SWCA presentation on Gear Evaluation study

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

19 July 2011 Meeting – 9:00 AM-11:30 AM
ISC

Meeting Minutes

Introductions and Agenda Approval

- Jen Bachus brought the meeting to order and introductions were made. The agenda was approved with no changes.
- It was announced that Jeanne Dye has moved to London; she was Reclamation's primary representative with ScW. Attendees acknowledged her contributions to the Program and specifically the science work group. ScW members would like to request an official notification of Reclamation's new primary and alternate representatives for ScW.

Approve May 17th and June 21st Meeting Minutes

- Both sets of revised meeting notes were distributed in advance of today's meeting. Both the May 17th and June 21st ScW meeting notes were approved for finalization with no additional changes.

Decision: The May 17th and June 21st, 2011 ScW meeting notes were approved for finalization with no additional changes.

Action Item Review

- ✓ 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. – *complete*;
- ✓ 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. – *complete*;
 - Genetics will be discussed at today's meeting.
- ✓ 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. *complete*;
 - The current status will be discussed during today's meeting.
- ✓ 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). – *complete*;
 - This will be discussed during today's meeting.
- ✓ 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). – *complete*;
 - The Coordination Committee (CC) discussed this at their meeting last week. It is possible to include such tasks into the peer review projects as appropriate. The peer review process will be discussed further during agenda Item #7. The questions for the genetics program peer review could be revised to include a literature review should the work group recommend that task.
 - 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). – *ongoing*;

- The Population Viability Analysis (PVA) work group has not met recently.
- ✓ Stacey Kopitsch will add Genetics to the list of potential topics for the October technical workshop. – *complete*;
 - Genetics has been added to the list of possible topics for the technical workshop (Friday, October 21st, 2011). Due to time constraints, there can only be 6 or 7 topics covered – this means that some suggested topics will not be included. It might be feasible to have a working lunch time slot that could be used to cover the genetics topic.
 - ScW topics included: (1) Age & Growth; (2) fish health; (3) SWFL/salt cedar beetle update; and (4) genetics. The topics have not been finalized yet, but the work groups will be notified when final topics have been confirmed.

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*) – *complete*;
- Peter Wilkinson will ask NMED's new Water Quality Bureau Chief to provide a fish biologist. (*continued from May 2011*) – *unknown status; ongoing*;
- Peter Wilkinson will send augmentation articles from the west coast to all members. Article on salmon related to genetics work. (*continued from May 2011*) – *unknown status; on going*;
- ✓ 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*) – *complete*;
 - The SOW will be discussed at today's meeting.

Continued Discussion on Mesohabitat Mapping

- ScW members began discussing possible site selections for the mesohabitat mapping project at last month's meeting. The intent of the project is to replicate the work that the USGS has been doing at Big Bend - mapping of minnow mesohabitat at various flow levels. A similar project in the Middle Rio Grande (MRG) would be a comparative study that could be used to inform habitat management, restoration work, indicate potential areas for minnow population reintroduction, etc. Mesohabitat will most likely be mapped in the fall to establish conditions during base flows and then again during the spring runoff. This approach is the easiest way to try to bracket available habitat throughout most of the year. The Army Corps of Engineers (Corps) is seeking site recommendations from ScW and HR. ScW members are also encouraged to provide input on how to coordinate the mesohabitat mapping effort with other ongoing fish sampling efforts in order to incorporate the fish data.
 - At the June ScW meeting, it was suggested that the Corps use the 10 sites from the 2003 Fish and Wildlife Service (Service) survey sites. The Corps' representatives were encouraged to follow up with Jason Remshardt on those sites.
 - For the remaining sites, some members suggested using the group of sites that were visited during the URGWOM/URGWOPS 2000 modeling including Pena Blanca (in the Cochiti Reach) and the 2 other sites further downstream.
 - With the Pena Blanca site included, there would be at least 1 site in all 4 reaches.
 - Some members made the suggestion that this project could be used as a tool to assist in outreach/coordination with the Pueblos. Mickey Porter offered to make himself available to talk with Pueblo representatives should they be interested.
 - The 2007 USGS Instream Flow Study included sites between the Rio Puerco and San Acacia Dam that could also be mapped. The La Joya/Sevillaleta site overlaps with the

2003 Service Survey.

- It was shared that the Corps is open to any recommended sites including those that have had restoration work. There are “pros and cons” to either approach. One specific site, at River Mile 183, is adjacent to recent restoration work done in the Route 66 project. This site would encompass historic mesohabitat as well as restored habitat.
- There are still 4 or 5 sites that need to be identified in order to reach a total of ~20.
- The deadline for final site selection is September or October 2011. However, the initial feedback with specific site recommendations is requested by July 22nd.
- Arrangements are being made to have the USGS present to ScW or a joint ScW/HRW meeting as early as August.

Action: Additional site recommendations or feedback on the mesohabitat mapping project should be emailed to Mick Porter no later than Friday, July 22nd.

SOW Process Discussion and Remaining FY11 Projects

- The Coordination Committee (CC) has had an ongoing agenda item to discuss the Scope of Work (SOW) process and provide clarity to the work groups on how the scope process works, deadlines, expectations, etc. The CC is scheduled to meet in August 3rd and hopefully guidance will be available following that meeting. Work group members have shared concerns that there are a lot of potential projects and while it is known that not all can be funded, members want to be able to use their time efficiently.
- The CC has assigned ScW the following priorities for the remainder of FY11: 1) genetic peer review – the work group is needed to develop a list of questions for the review panel; 2) write the SOW for the sexing study of age/growth specimens; and 3) the SOW for water quality. The CC approved the sexing study for funding and the water quality project could potentially be funded next fiscal year but they wanted to see the SOW completed this year.
- Stacey Kopitsch compiled a list of upcoming and future due dates for ScW, which was shared at the meeting and will be distributed to members electronically. Attendees briefly reviewed the upcoming tasks and deadlines:
 - Genetics Peer Review Questions – these will be generated by the work group during today’s discussions;
 - Water Quality SOW Comments – are due by this Friday, July 22nd;
 - Draft Sexing Study on Age/Growth Specimens – due to Jericho Lewis (Reclamation’s contracting officer) by this Friday, July 22nd.
 - Recommendations on mesohabitat sites and input on how to coordinate with the fish sampling events – due to Mickey Porter by this Friday, July 22nd;
 - Comments on the Draft Adaptive Management (AM) Plan - due to Yvette McKenna (Program Manager) by August 10;
 - Database Management Systems (DBMS) Pilot Training sessions are scheduled for either the afternoon of September 21st or the morning of September 27th – confirmation of attendance (RSVP) is requested by August 22nd;
 - Program Technical Workshop and Open House is scheduled for October 21st and 22nd, respectively;
 - Attendees expressed interest in having an updated list of due dates generated at the beginning of the next fiscal year to help the work group facilitate timely completion of tasks.

Action: Stacey Kopitsch will electronically distribute the list of upcoming and future ScW due dates to all ScW members.

Action: Stacey Kopitsch will resend the Database Management System (DBMS) pilot training email to ScW members.

Genetics Peer Review

- *Background*

- The CC has assigned the genetics peer review as ScW's first priority – the work group needs to generate a list of questions for the peer review panel to address during their review. Last winter, the work group developed a preliminary list of generic questions. As a starting point, those questions need to be updated and tailored to the genetics program.
- Determining the effects of augmentation on minnow genetics was a recommendation from the San Acacia Diversion Dam (SADD) Fish Passage peer review panel. A small subgroup of ScW members attempted to write that SOW but determined they could not proceed without further information. It is not appropriate for the work group to contact the genetics contractors directly. The CC then directed that those questions be incorporated into the genetics peer review in order to get at answers through this process.
- Some members then asked for clarification on whether the genetics peer review was aimed at examining the documents that have come out of Tom Turner's lab (published papers and reports) to assess what has been done and what the results are or will the review panel be asked to analyze raw data to reach conclusions?
 - In response, it was shared that the review is for the program-level instead of individual papers.
 - Some ScW members expressed the opinion that almost all those questions have been answered in Tom Turner's work and that he had already done a pre- and post-augmentation comparison. There is the possibility of reexamining what has been done to determine if there is anything "new" that can be derived.
 - Not only is it assumed that most of the answers can be found in Tom's work, but all of his reports include some batch comparisons. He pointed out that the genetic diversity has gone up as result of augmentation due to how wild stock is collected (eggs rather than adults).
 - The SADD panel did include a geneticist and they had access to the genetics information – but they felt these specific questions hadn't been answered. Attendees discussed that maybe the information could be found in the tables and was not necessarily called out explicitly. There is value in asking the genetic peer review panel to review the overall "larger" program for confidences instead of specific, individual reports. There are a lot of non-geneticists in the Collaborative Program and it might be beneficial to have clearly stated answers.
 - We have complete genetics data although there are still some complications being resolved; everything will be available to the reviewers.

- *Existing and Future Genetics Contract Discussion*

- Attendees then discussed the existing genetics contract which is believed to be in the last option year. Since the specific genetics study SOW will not happen, those questions need to be incorporated into this peer review. The results of the peer review could then inform future genetics work and projects.
 - Concern was expressed that the peer review results won't be available before the new genetics contract has to be in place. Suggestions to address this timing issue included: (1) determine if the existing contract could be extended for an additional year or (2) have a single-year genetics contract awarded as a temporary "fill gap."
 - Some members cautioned that the only thing that could make difference would be to come up with some kind of unique markers - but we can't since the brood stock is from the same population. Other (similar) studies have a unique allele or other marker to trace what it does. Our situation is different because we haven't had an isolated facility population for years. Also, the way the augmentation

program builds (always stocked with wild fish) means it is always very integrated.

Action: Yvette Paroz will determine when the last extension on the existing genetic grant will absolutely expire and if it is possible to extend the project another year in order for the genetic peer review to be completed and inform the new contract/grant.

- *Clarification of Objectives and Desired Outcomes*
 - It was suggested that before members can begin to develop appropriate questions, there needs to be clarification on the ScW objectives and determination of what the Program wants from the genetics program. There needs to be an understanding of the “big picture” objectives and whether or not those are being met.
 - While attempting to write the SOW to address the SADD panel recommendations, one topic came to the forefront - is the statistical power sufficient to indicate that the data is sufficient to make distinctions between wild and hatchery populations?
 - However, a question was also raised of whether or not the existing monitoring program is sufficient/appropriate to maintain the genetic diversity.
 - The peer review is needed for the genetics work at the program-level so the questions should be appropriate to that level. The intent is to have the peer review provide the feedback on the existing program in order to learn how or what needs to be modified or added, if anything.
 - Several members suggested including questions about the statistical power in the data and if the genetic results indicated something about the methodology. However, it was cautioned that asking the peer review panel to analyze raw data is not in fact a peer review but an additional contract for work.
 - Future contracts/grants can be written to include a statistical power component.
 - It was reported that Jericho Lewis indicated that the review panel would be able to discuss questions with Tom Turner and Megan Osborne.
 - It was commented that the effective breeding numbers that have been calculated have stayed small, even when there have been increased on orders of magnitude, and that the values do not make sense. It was responded that genetic effective population size is being confused with actual numbers - the fish are still related even if there is a bunch of them. A rejoinder explained that if effective breeding numbers were inbreeding effective numbers, the chronically low effective numbers would make sense; however, the effective breeding numbers were variance effective numbers, so previous effective numbers and the effect on inbreeding etc. do not impact the variance numbers—they are generational snapshots and can go up. The variance effect would go up versus the breeding which would not go up. The error bars on those effective numbers are incredible. One problem that would be nice to address is to know how many fish are needed across a fish ladder in order to make a difference genetically. We need to get better estimations of what those numbers are.
 - It was suggested that 2 sets of questions were actually needed: (1) 1 set for the genetics peer review panel; and (2) a second set aimed at revisiting the objectives (ex. these are our objectives - are they appropriate given what is known about the fish? Are they appropriate to inform management?)
- *Questions for Genetics Peer Review Panel*
 - Attendees reviewed the draft general questions developed last winter.
 - *Q.1: Is the scientific material referenced in the document preparation comprehensive? Are there other relevant studies or data sets that are readily available and are not*

referred to? If there is additional relevant information, how would it change the conclusions of the scientific analysis in this report?

- Are there components for the genetics program that we are not aware of that could change what we need to be doing?
 - Some attendees questioned whether the spawning aspect would be included in this review. It was responded that yes, it will be included. The review is for the genetics work which will involve the captive propagation portions of the genetics work but not the propagation program itself.
 - Concern was expressed that all aspects would have to be included in order to really get sufficient answers – including the captive propagation plan, all the monitoring, effects of stocking, etc.
 - The genetics of reintroduced fish is part of the genetics program – that information is obtained but the oversight is handled outside of the Collaborative Program. The Program doesn't decide the content of that plan. They can consider the information in the plan, but the reviewers cannot be asked to review the plan itself.
 - Following this discussion, attendees accepted Q.1.
- *Q.2: Are the descriptions of species life history and genetics representative of current scientific papers and knowledge?*
- It was recommended that genetics and life history be separated by omitting “life history” from this question. It was then cautioned that we still want to make sure that the life history information is being used.
 - This question might be answered in the population estimation review.
 - Question 2 will be rephrased to: “Are the descriptions of *the* species genetics, or *relevant life history information*, representative of current specific papers and knowledge.
 - With the above changes, the work group approved Q.2.
- *Q.3: Was the experimental design appropriate to achieve the desired goals and objectives of the study? Is the monitoring that was requested appropriate and are the methods being used appropriate to answer the questions we have asked? Are we obtaining the information that was requested?*
- The review panel will receive a copy of the objectives and grant agreement.
 - It was suggested that “study” be changed to “monitoring program.”
 - It was also suggested that this question be divided into 2 separate questions, one to address the design and the other to address the monitoring.
 - It was suggested that the tone of these questions be changed to program improvement; for example, “what are the suggestions to make the program better?” Or “are there other study designs or approaches that would provide better relative analysis for monitoring wild population genetics?”
 - Attendees were reminded that questions need to be phrased in such a way as to avoid value judgments and to avoid steering the panel in any particular direction.
 - How does this genetic monitoring program compare to other fish species monitoring programs and are there ways to improve it?
 - Given what we know so far, is the focus still effective and what are alternatives that we should considering incorporating into the monitoring program?
 - Did the contactor/grantee use the best methods to answer their questions in their grant agreement?

- Are there other experimental designs or technologies that could be used to better answer the listed questions?
 - Attendees discussed that even though Tom's grant agreement is the existing document that specifies the program's funded work, this review is on the genetics program, and not a specific grant or contract. It was suggested that a reference document be provided with the specific list of questions that the genetics program is current tasked to answer and the Program's objectives for the genetic monitoring. The peer review is on what the Collaborative Program has funded in terms of projects (including Tom's grant).
- *New Q.4: Are the methods being used effective to detect genetic differences in the population?*
 - Is the Collaborative Program asking the appropriate genetic questions? Is the focus of the genetics program still appropriate and are there other approaches that could be included that would better inform management?
 - The Collaborative Program is moving toward adaptive management (AM) as the driving mechanism. It was suggested that the questions be related back to AM in order to be valid. What can we do with the genetics work done so far and what does the genetics program need to look like going forward?
 - Concerns were raised that there seems to be questions specific to the grant and then questions related to the overall program.
 - Tom's grant is the "beef" of the genetics program but is it fair to ask question on if this has or hasn't been addressed since that would target his project? Phrasing such as "is the information answered and if not, how can the genetic program be adjusted to achieve those answers?" would still get to the point but not specifically question Tom's work.
 - Members agree to focus questions specifically on both what has been done and then forward looking questions.
 - In Q.1, it was suggested that "the" be stricken from "...in the document preparation..."
 - In Q.3, specific to the monitoring program, there needs to be some follow up about the genetics program in general. For example, "are we doing the appropriate studies to inform the recovery of the species and improve management decisions?"
 - It was agreed that the New Q.4 would be: "is current funded genetics work sufficient to inform management decisions related to recovery of the silvery minnow? Are there other studies the Program should include in future work?"
- *Original Q.4 (now Q.5): Were the appropriate statistical analyses, models and other techniques utilized? Were the data analyzed appropriately and well-based in quantitative and experimental approaches?*
 - Since power analyses were not included [in the grant], the question should be "what is the statistical power of the data collected?"
 - Power analyses need to be specifically included in future projects and studies. But it might not be appropriate to have the review panel do the actual power analysis.
 - What additional methods could provide a more robust analysis?
 - It was suggested that Original Q.4 be moved to the bottom of the question list in order to organize the program review questions (the conditions and status of the

program) and then conclude with the future-looking questions at the end.

- It was suggested to add “were the appropriate statistical analysis, power analysis, models and other techniques utilized” and to strike “were the data analyzed appropriately and well based in quantitative and experimental approaches.

Action: Stacey Kopitsch will combine the last questions on the genetics program peer review list and will incorporate all recommended changes; she will distribute the revised questions to ScW members for additional comment/feedback.

Action: Additional comments/feedback on the genetics program peer review questions are due to Stacey Kopitsch by 9:00am on Friday, July 22nd.

- *Original Q.5 (new Q.6): Are the conclusions made by the scientists supported by the results presented? Is the interpretation based on a sound reading of the science? Are there alternative explanations supported by the results from monitoring?*
 - No changes were recommended to this question. Attendees approved this question as is.
- *Original Q.6 (new Q.7): When there are gaps in the information or data, are such gaps identified clearly? Are there unidentified data gaps that (if addressed) might improve future analysis and decision-making to direct future research in this field? Based on the data we have, how much monitoring would be appropriate (frequency and effort)?*
 - Suggested changes included: “When there are gaps or uncertainties in the information or data, are these identified clearly? Are the remedies to address the gaps or uncertainties suggested?”
- *Effects of Augmentation on RGSM Genetics Questions (from the SADD review panel)*
 - Attendees then reviewed the effects of augmentation questions (as recommended from the SADD fish passage review panel) that the CC requested be added to the genetics peer review.
 - *Q1: using existing data, compare genetics of wild RGSM (pre-augmentation) to genetics of RGSM (post-augmentation).*
 - Some members shared that they believe this question has already been answered in Tom’s work/reports.
 - It was suggested that a discussion of the results is needed; and possibly a briefing paper is needed to clearly share the results.
 - *Q2: Using exiting data, compare RGSM genetics from the Angostura Reach during years with augmentation (2002-2008) to RGSM genetics from the Angostura Reach without augmentation (2009-2011).*
 - *Q3: Using existing data, compare RGSM genetics from the Angostura Reach during years without augmentation (2009-2011) to RGSM genetics from the Isleta and San Acacia Reaches augmented those same years.*
 - Some members shared the opinion that this work has been done.
 - It was suggested that the genetics peer review panel could be provided the SADD fish passage peer review report and any questions could be grouped with the future questions.
 - There is concern that these have been answered; if more discussion is needed, it is not appropriate for this peer review.
 - There may also be a proprietary issue with some of the historic data that was not funded by the Program. However, future within reach and reach-to-reach comparisons can be written into

future genetics contracts – including hind-site questions with historic data.

- Attendees agreed that this list of questions can be taken care of in the new genetic programs agreement or grants and is not appropriate to be included within the genetic program peer review. Since the CC directed these questions be included, members agreed that there needs to be solid justification for the exclusion.
 - To address this, ScW members were strongly encouraged to discuss the justifications with their CC members.
- The effect of genetic variability is already specified within the existing genetic program and projects (see the box on page 9 of Turner’s report, questions 2 and 4). If there are issues or concerns with the current grant (i.e., things not being addressed then the work group can request Reclamation’s COTR follow up with the contractor for compliance.
- *Peer Review Process and Literature Synthesis*
 - It is important that the genetics peer review be complete completed timely in order to inform and improve the products for the new SOW.
 - The peer review goes out under an existing ID/IQ so the turn around should be relatively quick.
 - Last month, attendees discussed adding a literature synthesis task to future peer reviews. Members were asked if they want to do so for the genetics peer review.
 - Attendees thought that a literature synthesis task would be overwhelming for this specific peer review. A genetics literature synthesis would exceed the purpose and budget and time for this peer review.
 - Instead, the review panel could be asked to identify ways to improve the genetics program and they can reference/provide the relevant literature.
 - In an attempt to respond to the data synthesis task, the review panel could be asked to identify relevant studies with new techniques and methods (which is better than just a synthesis).

Action: ScW members will discuss the work group’s recommendation to *not* include the effects of augmentation on RGSM genetics questions in the genetics program peer review with their CC representatives. Justifications include: (1) they are not appropriate with the program-level peer review; (2) members believe that many of those questions have already been answered; (3) those questions could be informed, in some manner, through the questions that ScW members developed without the review panel being “steered” or “distracted.”

Salt Cedar Leaf Beetle Update

- It was shared from the last CC meeting that the Pueblo of Santa Ana announced that the beetle has been found on their property (on the Jemez, 3 miles from the Rio Grande). This is an unexpected occurrence as the closest prior location was near Cuba and the beetle was expected to come through the Rio Puerco. The beetle will most likely be in the Middle Rio Grande much sooner than originally expected.
- The work groups have been asked to brainstorm projects to address this issue for the next fiscal year.
 - Attendees discussed that this is probably more of a HRW or monitoring (MPT) issue. Members did contribute the following possibilities:
 - The SWFL surveys could be updated to include recording of beetle occurrence.
 - Monitoring efforts should be easy with the use of traps.
 - Other monitoring and field efforts could be asked to observe, document, and report beetle sightings and activity – although a centralized place to report would

- need to be established.
- If the beetle affected agricultural crops indirectly, then the NM Department of Agriculture could be utilized to monitor and report.
- It was suggested that the vegetation mapping which shows the known extensive salt cedar stands could be compared with SWFL data to determine where the overlap exists. SWFL experts could then identify the key areas to target with habitat restoration for the biggest impact and where efforts should be focused. This is a joint effort with HRW.
- ScW members requested that a presentation on the beetle and SWFL be provided to a joint meeting of HRW/ScW. It was shared that this presentation was recently given at an HRW meeting.
- The actual design of projects to do follow up restoration in areas hit by the beetle is more for HRW. The salt cedar doesn't die immediately so this is not a permanent removal, but a defoliation that affects nesting areas for the SWFL.

Action: ScW members will research (1) what is being done at their agencies to address the effects of the salt cedar leaf beetle; and (2) what possible projects could be implemented by the Program to address the effects. ScW will discuss this item again at the August meeting.

Program update

- *EC update*
 - The next EC meeting is scheduled for this Thursday (July 21st). The agenda contains usual EC business and a presentation on a path forward to recovery.
- *CC update*
 - The next CC meeting is scheduled for August 3rd.
- *Adaptive Management Update*
 - Draft Version 1 of the AM Plan was distributed Program wide. Consolidated agency comments are due to Yvette McKenna by August 10th.

Miscellaneous

- ScW members asked for a status update on reports that ScW has provided comments on. It is currently unknown when those reports will be finalized.

Action: Yvette Paroz will coordinate with Stacey Kopitsch and will determine status/updates on the recent reports; she will report back at the August meeting.

Sexing of Age/Growth Specimens SOW

- In a closed session, ScW members discussed the Sexing of Age/Growth Specimens SOW. Please contact attendees for any additional information.
- Following peer review of the genetics program, the CC has identified sexing of the Age & Growth Study specimens as the Science work group's next priority project to be funded this fiscal year. The current budget summary for this project does not have enough detail to submit as a Scope of Work, therefore volunteers are requested to draft a SOW for this project, which is needed by the Contracting Officer by COB this Friday, July 22nd.

Action: Mickey Porter will draft language on the techniques to be used for this project and email to Rick Billings and Stacey Kopitsch.

Action: Rick Billings and Stacey Kopitsch will fill in the standard SOW language and submit to the ScW and Contracting Officer by COB Friday, July 22nd.

Next ScW Meeting: August 16th, 2011 from 9:00 am to 11:30 am at Interstate Stream Commission

- Tentative Agenda Items include: (1) ISC Spawning Study presentation - Alison Hutson; (2) USGS Habitat Mapping presentation in joint session with MPT (11:30 to 12:30); (3) Updates on Sexing of Age/Growth Specimen SOW; (4) Follow-up on Salt Cedar Leaf Beetle issue and

SWFL

- September agenda items: (1) SWCA presentation on Gear Evaluation study

**Science Work Group
19 July 2011 Meeting Attendees**

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