

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

13 October 2011 Meeting – 9:00 AM-11:30 AM

Los Lunas Silvery Minnow Refugium (Los Lunas)

**Actions**

- Anyone interested or available to volunteer/assist in the mesohabitat mapping project work should contact Mickey Porter (COE).
- Alison Hutson will forward the USGS mesohabitat mapping schedule email to Tetra Tech to distribute to ScW members.
- Tetra Tech will forward Kathy Verhage's contact information to Ali Saenz to be added to the ScW mailing list as alternate.
- Yvette Paroz will ask Vicky (Reclamation) to provide an update on the TX/NM/Mex Salt Cedar Bio-Control Consortium (Alpine) meeting; if appropriate, the update will be provided in 1-page document that can be distributed via email.
- Yvette Paroz will discuss contractor interactions with the work group with Jericho Lewis – to determine how to incorporate several presentations and updates to the work group as contractual requirements.
- Jen Bachus volunteered to use the CC notes to create a bulleted list of recommended sections that will be included in each synthesis category statement of work and will distribute the list to work group members for feedback/comment as part of the Data Synthesis Plan.
- Stacey Kopitsch, Jen Bachus, Kathy Verhage, Dana Price, Alison Hutson, and Rebecca Houtman will work on the Water Quality scope.
- Yvette Paroz will check to see if Lori from Reclamation can participate in the Water Quality scope.
- Jen Bachus will link the threats table to the synthesis category that addresses it.
- Jen Bachus will send out an email to ScW members requesting volunteers to work on the Spawning Monitoring scope of work; current volunteers included Rebecca Houtman and Alison Hutson.
- Yvette Paroz will send out the previous Spawning Monitoring scope of work and all the comments received on the report to the volunteers who will be working on the new Spawning Monitoring scope.
- Comments on the Gear Evaluation report are due by November 1<sup>st</sup>, 2011.
- ScW members should email any specific topic/agenda requests for the November 15<sup>th</sup> joint work group session to Stacey Kopitsch.
- Stacey Koptisch will forward the ScW request to have (1) an annual research symposium (or annual state of the science review) and (2) process/procedures to facilitate work group interactions/communications be discussed at the November 15<sup>th</sup> joint work group session.

**Decisions**

- The September 20<sup>th</sup>, 2011 ScW meeting minutes were approved with no changes.
- With no objection, attendees elected Alison Hutson to continue as ScW non-federal co-chair for the next year.

**Meeting Summary**

- Jen Bachus brought the meeting to order and introductions were made.
- The September 20<sup>th</sup>, 2011 ScW meeting minutes were approved with no changes.
- Attendees performed an action item review. All action items were completed with the exception of the single ongoing action regarding communication with the Population Viability Analysis (PVA) work group. It was agreed that this ongoing action should be deleted at this time.
- Attendees were briefed on the Coordination Committee (CC) discussion regarding the disconnect between project Contracting Officer Technical Representatives (COTRs) and work groups.

Reclamation is pursuing options to have COTRs attend work group meetings. In anticipation of having to address this request with management, it was suggested that the work groups could provide a letter of support encouraging regular COTR interaction with the work group. Yvette Paroz shared her intent to utilize spreadsheets to track important project dates. Attendees discussed the myriad of options that would allow a contractor to participate in work group meetings at minimal cost – e.g., without having to travel (telephone conferencing, Skype, webinars, etc.). Work group members requested regular updates in the actual award process. After discussion, members decided that a letter of support was not needed for the ScW at this time since Yvette Paroz has been very involved and responsive and is the COTR for ScW projects.

- The work group then discussed the Data Synthesis Task from the CC. The background of the task was briefly explained. The San Acacia Diversion Dam (SADD) Fish Passage peer review panel had made a recommendation that all minnow data and information be synthesized as it was very difficult to understand the current state of knowledge and what has been learned over the last 10 years of research/work. The CC delegated this task to ScW. The CC would like ScW to develop and propose a plan that includes recommendations on synthesis objectives, synthesis outcomes, what kind of questions to ask, and details on the format for the deliverables. At a previous meeting, ScW had agreed that this task was too large for any particular work group or work group member to undertake and the effort would need to be contracted out. At the last CC meeting, the CC was informed of this recommendation and they provided additional guidance on how ScW should proceed. Attendees at ScW agreed that determining the recommended categories, including grouping, and ranking/prioritization could be accomplished in today’s meeting.
  - It was agreed that the categories should “match” with the LTP categories but that each category could be linked to the threats table.
  - After discussing the original recommended categories list, attendees arrived at the following ranked categories:
    - Priority 1: Water Quality
      - This project is in process.
      - Fish Kill/Catastrophic events will be a sub-objective.
    - Priority 2a: Minnow Life History/Biology
      - Age & Growth
      - Survival
      - Movement
      - Foraging and Food
      - Reproduction
    - Priority 2b: Management
      - Habitat
      - Water
      - Population

As the “Management” category is so large, this effort has been given a priority “2b” so that it can begin concurrently with the “Minnow Life History/Biology” category (priority “2a”)
    - Priority 3: Predator/Non-native control
    - Priority 4: Disease
- Attendees then discussed possible activities or projects (to include in the Long-term Plan [LTP]) related to salt cedar beetle presence in the Middle Rio Grande (MRG). Suggested activities included:
  - Proactive Planning and Restoration work:
    - (1) remove “blocks” of salt cedar and in their place, plant blocks of native vegetation as preemptive seeders;
    - (2) map flycatcher habitat to determine areas of flycatcher presence in 100% salt cedar and then consider some renovation of native vegetation now so that by the time

- the salt cedar is defoliated the natives have had a chance to establish and provide habitat;
- (3) consider habitat restoration in adjacent areas to provide habitat that flycatcher can “move” into;
- Feasible Protection for Existing Sites:
  - (4) in critical spots (ex. flycatcher nesting stands) investigate the feasibility of spraying a deterrent to the beetle (pheromone) on salt cedar to protect (delay) from beetle invasion (to prevent the sudden loss of habitat) until alternate habitat restoration work has been done.
- Restoration After Defoliation:
  - (5) priority for restoration projects that plant natives after the salt cedar has been defoliated;
  - (6) look into mycorrhizal inoculents
- Monitoring Requirements:
  - (7) add beetle protocols to the current monitoring work (such as report, sighting, documenting, collecting voucher specimen requirements).
- Other Species Work:
  - (8) study, research the effects on the yellow-billed cuckoo which utilizes the same habitat.
  - (9) consider secondary invaders
- **Recommendation:** ScW participants recommended the Program convene flycatcher biologists to discuss priority areas to target restoration work in response to the presence of the beetle.
- In a Program Update, it was shared that the Executive Committee (EC) will be meeting November 3 (full day) and November 4<sup>th</sup> (half day) at the Corps. This is an open meeting. The CC has an all-day working meeting on October 26<sup>th</sup> from 10:00am to 4:00pm to focus on the LTP and FY12 funding spreadsheet. Agency comments on the Draft LTP are due tomorrow (October 14<sup>th</sup>). The 2003 Biological Opinion (BO) requirements for spawning monitoring are very nonspecific. The Spawning Monitoring in the river contract was issued for 2 years so there is nothing in place for this coming year. ScW members will need to consider what tasks should be continued (most members were in agreement that none of the tasks needed to be continued) and determine the specifics to include in a scope of work.

**Next Meeting: December 6<sup>th</sup>, 2011 from 9:00 AM to 11:30 AM at the ISC Offices**

- Tentative agenda items include: (1) scopes of works review/finalization – (a) Water Quality scope revised to fit in the synthesis task; (b) Spawning Monitoring; (2) update on TX/NM/MEX Salt Cedar Bio-Control Consortium in Alpine; (3) PVA update; (4) Discuss how to use the Water Quality scope style/format to address the other synthesis categories

**Middle Rio Grande Endangered Species Act Collaborative Program**  
**Science Work Group Meeting**  
13 October 2011 Meeting – 9:00 AM-11:30 AM  
**Los Lunas Silvery Minnow Refugium (Los Lunas)**

**Draft Notes**

**Introductions and Agenda Approval**

- Jen Bachus brought the meeting to order and introductions were made.
- The agenda was approved with no changes.
  - Attendees briefly discussed the PVA recommended project to study over-winter habitat. It is assumed this activity could be included under the existing life history activity summary. It is a ScW Priority 2 for funding.

**Announcements**

- Mickey Porter sent out the schedule for the USGS mesohabitat mapping in the Middle Rio Grande (MRG). Dates have been set in late November and early December to map and collect fish assemblage data for the low flow.
  - Some concern about the permitting for the seining was expressed. However, if volunteers are under the direction of a Service representative (NMFWCO) then it is assumed they would be covered.

**Action:** Anyone interested or available to volunteer/assist in the mesohabitat mapping project work should contact Mickey Porter (COE).

**Action:** Alison Hutson will forward the USGS mesohabitat mapping schedule email to Tetra Tech to distribute to ScW members.

**Action:** Tetra Tech will forward Kathy Verhage's contact information to Ali Saenz to be added to the ScW mailing list as alternate.

- FY12 Scopes of Work (SOW) are due no later than December 16<sup>th</sup>. The Water Quality scope will have to be revised to fit under the synthesis task. The Spawning Monitoring contract is expired and to continue this upcoming year the work group will need to prepare an updated/revised scope.
- The briefing on the TX/NM/MEX Salt Cedar Bio-Control Consortium was postponed until the next meeting or until an update could be sent out via email.

**Approve September 20<sup>th</sup>, 2011 ScW Meeting Minutes**

- The September 20<sup>th</sup>, 2011 ScW meeting minutes were approved with no changes.

**September Action Item Review**

- ✓ Stacey Kopitsch will email the document of potential categories for data synthesis, and the current Water Quality SOW to the ScW to review for the October ScW meeting. – *completed*;
- ✓ Non-federal ScW members interested in serving a term as co-chair can email Stacey Kopitsch (PMT Liaison). – *completed*;
  - No responses or volunteers were submitted.
- ✓ Alison Hutson will email directions to the ISC Refugium to the ScW. – *completed*;
- ✓ 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. (*continued from July 19<sup>th</sup>*) – *completed*; to be discussed today;

**Action:** Yvette Paroz will ask Vicky (Reclamation) to provide an update on the TX/NM/Mex Salt Cedar Bio-Control Consortium (Alpine) meeting; if appropriate, the update will be provided in 1-page document that can be distributed via email.

- ~~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 21<sup>st</sup> meeting*) – *deleted*;~~
  - This topic was put on the September PVA agenda; however, it was not discussed. With the current emphasis on the synthesis task, participants recommended this action be deleted. Determining major controlling constraints should be a natural outcome of the PVA modeling process.

### ScW Non-Federal Co-chair nominations/election

- With no other volunteers, Alison Hutson was agreeable to continue as the non-federal chair for the next year. ScW members agreed her term could be shorter if someone else was willing and volunteered to fill the position.

**Decision:** With no objections, attendees elected Alison Hutson to continue as ScW non-federal co-chair for the next year.

### Discussion of COTR Updates to ScW

- At their last meeting, the CC briefly discussed the disconnect between Reclamation Contracting Officer Technical Representatives (COTRs) who manage/oversee project contracts and the Collaborative Program's work groups. Some of the concerns include the lack of regular contractual updates and timing issues with deliverable review periods. In that CC meeting, Jim Wilber committed to pursuing the options to have COTRs attend work group meetings regularly. In anticipation of having to address this request with management and maybe individual supervisors, it was requested the work groups could provide a letter of support.
  - COTRs are selected at the time of the Technical Proposal Evaluation Committee (TPEC). Sometimes the COTR is involved with a project from the very beginning in the scope development process.
    - ScW members expressed concern that there are communication issues from the time the RFP is issued to the award process. The work group would like to be informed during each step of the award process. This helps the work group know what changes might have been made to a scope or if a project was not actually awarded and what the reasons might be.
  - Yvette Paroz explained her intentions to utilize spreadsheets to track important project dates (award dates, expiration dates, deliverable and review deadlines, etc.). It might be beneficial to have the important dates/information on all Program projects (not just ScW) tracked in a similar fashion. Yvette also mentioned working with Jericho Lewis (Contracting Officer) to increase the interaction of contractors with the work group. It may be possible to include a few days within the contract for presentations and work group updates. Members were reminded that anytime a contractor attends a meeting, discussions need to be monitored to prevent any conflict of interest situations (ex. discussing contracting issues or details of future work). Attendees discussed the myriad of options that would allow a contractor to participate in work group meetings at minimal cost – e.g., without having to travel (telephone conferencing, Skype, webinars, etc.).
- After discussion, members decided that a letter of support was not needed for the ScW at this time since Yvette Paroz has been very involved and responsive and is the COTR for ScW projects.

**Action:** Yvette Paroz will discuss contractor interactions with the work group with Jericho Lewis – to determine how to incorporate several presentations and updates to the work group as contractual requirements.

### Discussion on Data Synthesis Task

- *Background:* The San Acacia Diversion Dam (SADD) Fish Passage peer review panel had made a recommendation that all minnow data and information be synthesized as it was very difficult to understand the current state of knowledge and what has been learned over the last 10 years of research/work. The CC delegated this task to ScW to determine how this can be accomplished.
- *CC direction/guidance:* The CC would like ScW to develop and propose a plan that includes recommendations on synthesis objectives, synthesis outcomes, what kind of questions to ask, and details on the format for the deliverables. At a previous meeting, ScW had agreed that this task was too large for any particular work group to undertake and the effort would need to be contracted out. At the last CC meeting, the CC was informed of this recommendation and they provided additional guidance on how ScW should proceed.
  - The CC requested that ScW:
    - Recommend a draft final list of categories (as developed from the LTP, recovery plans, and ISC's 5-year review submittal);
    - Rank/prioritize the list of categories, keeping in mind those that might inform the consultation and organize the categories into groups that could potentially be handled by the same contractor;
    - The product should be formatted in such a way as to be easily transitioned into a scope of work;
    - The synthesis should include the information on project accomplishments - such as did that study move us further in understanding the threats-based criteria or did the study answer any of the identified threats in the RGSM recovery plan?
    - The following should be considered/addressed as outcomes in the synthesis:
      - (1) summary of project information on what was done, when, what was learned, how the results informed the next step;
      - (2) what is known from the compilation of all the data (ex. what has been learned over the last 10 years);
      - (3) areas of agreement and areas where there is lack of consensus; and
      - (4) identify the data gaps/missing information
      - The CC also suggested the synthesis follow the Water Quality Synthesis format.
  - As previously agreed, ScW members reiterated that the initial synthesis is a huge task that needs to be contracted out. There will be a need for annual updates - which could be done in house.
  - In a brief update on the Program's Database Management System (DBMS) project, it was shared that the database is not close to being fully populated at this time. The Corps is pursuing a task order under the existing ID/IQ contract for a database administrator position. This position would be responsible for maintaining and updating the database with annual (and recent) information.
    - Attendees discussed the need for regular science updates, such as a yearly meeting to help track the year's progress and review any new information. For example, every February, the San Juan Program hosts a 2-day symposium in which all the researchers come to the Biology Committee and present updates on projects and research. The Program doesn't currently have an annual process – there is no effective venue to

share yearly information. Having a regular, annual process would also help increase the direct communication between all levels of the Program.

- ScW members discussed how committing to a yearly symposium could even help address the ongoing synthesis updates and could ease the disconnect between the work groups (i.e., ScW doesn't know about HR projects and the possible impacts to the fish).
- It was suggested that ScW members identify all the content (in Data Synthesis Plan section) that will need to be consistent between all the categories (ex. having results of synthesis include DBMS interaction).

**Action:** Jen Bachus volunteered to use the CC notes to create a bulleted list of recommended content that will be included in each synthesis category statement of work (ex. DBMS compatible format) and will distribute the list to work group members for feedback/comment as part of the revised Data Synthesis Plan.

**Action:** Stacey Kopitsch, Jen Bachus, Kathy Verhage, Dana Price, Alison Hutson, and Rebecca Houtman will work on the Water Quality scope.

- **Question:** With the CC recommendation to link to the threats, should the categories be general (like they are now), or should they be revised to be more threats-based?
  - **Response:** The categories should still be easily linked to the Long-term Plan (LTP). However, maybe we could create a table that links the categories (as based on the LTP) with the threats that are addressed by each.
- **Potential Categories:** Attendees then reviewed and discussed the draft categories that were developed from the LTP, Recovery Plans, and ISC's 5-yr review submission.
  - Attendees were asked to keep in mind any categories that are related or pull from the same information sources could be grouped to facilitate a single contractor addressing several.
  - 7.1 Physical Habitat Restoration & Management;
  - 7.2 Water Management;
  - 7.3 Predator/Non-Native Control;
  - 7.4 Population Management;
  - 7.5 Water Quality Management/Water Quality Issues;
  - 7.6 Research, Monitoring, and Adaptive Management.
    - Regarding 7.1 (physical habitat restoration), the Monitoring Plan Team (MPT) is currently overseeing monitoring activities on habitat restoration projects; and ISC is attempting to gather all their data into one report.
    - Regarding 7.2 (water management) and 7.4 (population management), the Population Viability Analysis (PVA) work group is trying to identify and use all the available data. This might make these categories a smaller effort since the information should already be provided by the work group. ScW should make sure to provide direction in the synthesis SOW to use the work already underway.
    - Regarding 7.3 (predator/non-native control), attendees discussed keeping this category separate in order to determine a state of information.
    - Regarding 7.4 (population management), it was suggested that the first bullet be monitoring and the "distribution in the MRG" be deleted as it is a duplication of "distribution and abundance."
    - Regarding 7.5 (water quality), a water quality p?
    - Regarding 7.6 (research, monitoring, and adaptive management), attendees discussed how each of these ties into habitat and species management. It was thus suggested that 7.6 be prioritized last since most of it might be addressed in part in other categories.

- Concern was expressed that 7.6 is a huge category but many of the sub-objectives are closely tied to the population and biology.
    - Some of these categories don't have a lot of information, only a few studies are available. It might be beneficial to identify which ones could be future projects in the LTP.
  - Participants discussed combining 7.1 (physical habitat restoration), 7.2 (water management), and 7.4 (population management) since they are intimately related and all are tied to management involvement.
    - The habitat restoration is linked to the water management since the restoration work has to be created for the water available. (Example question to ask: does what the water management is doing correspond to what the habitat restoration work is doing?)
    - The population distribution and abundance is another subcategory that is tied to all the other categories. It was suggested that the distribution and abundance subcategory be moved under the habitat restoration management category.
    - The synthesis needs to do more than just summarize reports – it will be really important to look at the relationships between the datasets (ex. egg drift and minnow population in October).
    - Attendees agreed to combine 7.1, 7.2, and 7.4 into a single category titled “Management” and keep the respective subcategories under this new major category.
      - It was suggested that genetics be included under the management (species management) as it ties to captive propagation.
  - There are certain aspects that are impacted by management and should be under the new “management” category and then there are aspects that are innate to the species that should be kept separate.
    - Participants discussed keeping 7.3 (predator/non-native) and 7.5 (water quality) as separate categories.
  - Attendees discussed the need to have criteria in place to guide when data can be accepted as “good” or “reliable.” This process needs to be established in order to avoid the possible situation where a study might be contradictory with others. If statistically sound, all studies need to be accepted as “real.” An annual state of the science workshop, once a year, would help minimize the controversial situations since the recent science and newest information could be shared and reviewed instead of just doing individual report reviews. There is a significant need for a holistic, integrated “big picture” of the research and river system.
- *Final Categories and Prioritization:*
    - Attendees discussed options to prioritize the recommended synthesis categories – prioritize following the LTP? By ease of completion? By which ones inform the consultation?
    - Attendees agreed that several of the categories were large enough that the subcategories could be issued as individual “tasks.” In other words, the big categories could be addressed in “chunks.”
    - - Priority 1: Water Quality
        - This project is in process.
        - Fish Kill/Catastrophic events will be a sub-objective.
          - Potential synthesis objectives/questions could include: (1) tracking fish kills (ex. what fish kills have happened); (2) discuss the relationship of fish kills and the lack of minnow (ex. no evidence of



minnow in the kills due to minnow size, they don't float, etc.); (3) what are the risks?; (4) how often do kills of certain sizes happen (recent and historic); (5) what is the extent of kills (recent and historic); and (6) what are current methods/techniques used in monitoring, preventing, etc. and how could those be modified to determine the affect on minnow and if minnow were indeed killed.

- Priority 2a: Minnow Life History/Biology
    - Age & Growth
    - Survival
    - Movement
    - Foraging and Food
    - Reproduction
  - Priority 2b: Management – the habitat, water, and minnow population are all intimately related (ex. genetics and reproductive biology, responding to flows, etc. all interact); this category ties into the PVA - the PVA analysis might help to inform use;
    - Habitat
    - Water
    - Population
  - As the “Management” category is so large, this effort has been given a priority “2b” so that it can begin concurrently with the “Minnow Life History/Biology” category (priority “2a”)Priority 3: Predator/Non-native control - not a lot is known about this topic; there are a lot of data gaps; a contractor may have to pull from other areas before it can be suggested what might be going on;
  - Priority 4: Disease – Joel Lusk’s fish health study is expected to be available soon; it might inform fish kills too; this includes chronic and acute.
- *Plan for Data Synthesis:* Stacey Kopitsch tracked changes to the draft synthesis document during the meeting. The document will also be updated with additional changes and recommendations as suggested during the meeting. Jen Bachus volunteered to use the CC notes to identify common content that each synthesis category scope of work will have. Once the draft document has been revised, it will be sent out to ScW for review, and then used to update the CC on status of the data synthesis task.

**Action:** Stacey Kopitsch, Jen Bachus, Kathy Verhage, Dana Price, Alison Hutson, and Rebecca Houtman will work on the Water Quality scope.

**Action:** Yvette Paroz will check to see if Lori from Reclamation can participate in the Water Quality scope.

**Action:** Jen Bachus will link the threats table to the synthesis category that addresses it.

### Projects to Address Salt Cedar Beetle (LTP Activity Development)

- The salt cedar beetle is now in the MRG – it was found in the Tramway area about 1 month ago and it is spreading fast. ScW and HRW were asked to brainstorm possible projects for inclusion into the LTP in anticipation of the beetle.
  - ScW previously discussed adding beetle components to the current monitoring process (report, sighting, documenting, collecting voucher specimens, etc.).
  - Another suggestion was to prioritize restoration projects that plant natives after the salt cedar has been defoliated.
    - In response to a question on salinity issues, it was shared that the Arkansas watershed invasive plant partnership (or ARKWIPP) has discussed using microbial inoculants to deal with the salt in the soil and help with the natural

recruitment of willows and cottonwoods. It is not known if the beetles “shed” excess salt that might accumulate from their diet. Anecdotally, Russian Olive takes over the areas where the beetles have defoliated the tamarisk. The Program needs to be prepared to deal with secondary invasives as the understory becomes more open.

- Salinity is important to understand since many species, especially the natives, are salinity sensitive and there is a threshold point where they won’t grow.
- Another potential project could be to remove salt cedar and plant blocks of native species as preemptive seeders.
- With the monotypic issue, it might be beneficial to be willing to sacrifice patches here and there in order to make sure there is habitat still available. This could include mapping areas to determine flycatcher use and stand information. For any “hot spot” that is 100% salt cedar, it may be worthwhile to consider some renovation (planting of natives) now so that by the time the salt cedar is defoliated, the natives have had a chance to establish and provide habitat. The concern is that once the beetle is in an area, it is too late. It is better to be proactive instead of having to be reactive.
- There have been suggestions of spraying a deterrent to the beetle (pheromone) on the salt cedar to protect it from the beetle in critical spots; this could help to prevent the sudden loss of habitat until alternate habitat restoration has been done.
- It was also recommended that the Program convene the flycatcher experts to continue the discussion and incorporate details of prioritizing areas for restoration given the beetle’s presence.
- It was suggested that the Program consider the beetle’s affect on other species as well – for example, the yellow-billed cuckoo which utilizes the same habitat.

### Program Update

- *Executive Committee:* The EC will be meeting November 3 (full day) and November 4<sup>th</sup> (half day) at the Corps. This is an open meeting. The agenda has not been distributed yet.
- *Coordination Committee:* The CC has an all-day working meeting on October 26<sup>th</sup> from 10:00am to 4:00pm to focus on the LTP and FY12 funding spreadsheet. Agency comments on the Draft LTP are due tomorrow (October 14<sup>th</sup>).
- *Spawning Monitoring:* The 2003 Biological Opinion (BO) requirements for spawning monitoring are very nonspecific. The Spawning Monitoring in the river contract was issued for 2 years so there is nothing in place for this coming year. The big question that the work group may have to examine is what should be conducted with this work and how is the information used?
  - Attendees shared that: (1) the BO requires spawning monitoring in canals and other places; (2) it informs when and where spawning is occurring which informs the collection effort as well as response to flows; and (3) it is used to inform and reduce take of eggs.
  - The last time this contract was evaluated, the City of Albuquerque requested extra spawning monitoring help to inform its collection efforts and determine the best time to collect eggs. The spawning monitoring contract was whittled down to focus on just that. The work group was encouraged to think about what aspects of the contract should continue and what should be expanded, if anything.
  - Participants discussed the importance of understanding the relationships of the flows to the spawning. There are different responses upstream versus downstream.

**Action:** Jen Bachus will send out an email to ScW members requesting volunteers to work on the Spawning Monitoring scope of work; current volunteers included Rebecca Houtman and Alison Hutson.

**Action:** Yvette Paroz will send out the previous Spawning Monitoring scope of work and all the comments received on the report to the volunteers who will be working on the new Spawning Monitoring scope.

- *Other:*
  - The Program's 10<sup>th</sup> Anniversary and Open House is on Friday, October 21<sup>st</sup> (technical sessions) and Saturday, October 22<sup>nd</sup> (outreach & public activities). The morning of the technical sessions is science focused. Please be aware that there is a \$3 parking fee (except for government vehicles which park for free).
  - The PMT is hosting a joint work group appreciation brunch on November 15<sup>th</sup>, tentatively at Reclamation. More details to follow. The draft agenda is still under development but should be available soon. It is assumed that most of the agenda topics will be the "Parking Lot Issues" identified at the Adaptive Management Planning meeting.
- Comments on the Gear Evaluation report are due by November 1<sup>st</sup>, 2011.
- ScW members should email any specific topic/agenda requests for the November 15<sup>th</sup> joint work group session to Stacey Kopitsch.
- Stacey Koptisch will forward the ScW request to have (1) an annual research symposium (or annual state of the science review) and (2) process/procedures to facilitate work group interactions/communications be discussed at the November 15<sup>th</sup> joint work group session.

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- Tentative agenda items include: (1) scopes of works review/finalization – (a) Water Quality scope revised to fit in the synthesis task; (b) Spawning Monitoring; (2) update on TX/NM/MEX Salt Cedar Bio-Control Consortium in Alpine; (3) PVA update; (4) Discuss how to use the Water Quality scope style/format to address the other synthesis categories

**Science Work Group  
October 13<sup>th</sup>, 2011 Meeting Attendees**

	NAME	AFFILIATION	PHONE NUMBER	EMAIL ADDRESS	Primary, Alternate, Other
1	Stacey Kopitsch	FWS	761-4737	stacey_kopitsch@FWS.gov	O - PMT
2	Alison Hutson	ISC	841-5201	alison.hutson@state.nm.us	P – Co-chair
3	Dana Price	USACE	342-3378	dana.m.price@usace.army.mil	A
4	Mark Brennan	FWS	761-4756	mark_brennan@fws.gov	O
5	Jen Bachus	FWS	761-4714	jennifer_bachus@fws.gov	P – Co-chair
6	Kathy Verhage (rolland pentile)	City of Albuquerque (Storm Drainage)	768-3654	kverhage@cabq.gov	A
7	Rebecca Houtman	COA	248-8514	rhoutman@cabq.gov	P
8	Yvette Paroz	Reclamation	462-3581	yparoz@usbr.gov	P
9	Marta Wood	Tetra Tech	259-6098	marta.wood@tetratech.com	O – note taker