

**Middle Rio Grande Endangered Species Act Collaborative Program
Species Water Management Standing Workgroup (SWM)**

03 November 2010 Meeting

10:00 AM to 12:00 PM @ BIA

Call In:

1-866-919-7806

Code 6152442

Actions

- Hilary Brinegar will incorporate discussed changes to the *Irrigated Farm Soil Moisture Monitoring* and *Use urban waste water outfall and rural irrigation delivery and tail waters for habitat restoration to expand habitat, favor native over exotic plants, and reduce fire potential* Future Activity Summaries and email to the SWM work group.
- Amy Louise will address the issue of untimely receipt of reports with Jericho Lewis for the *USGS Groundwater/Surface water Interaction* project.

Decisions

- The October 6, 2010 meeting minutes were approved with a minor correction.

Meeting Summary

Introductions & Announcements – Chris Banet brought the meeting to order and introductions were made around the table. Ed Kandl is the new Bureau of Reclamation (Reclamation) representative to the Species Water Management (SWM) work group. Chris Banet will not be attending the December 1, 2010 SWM meeting.

Agenda Approval – A discussion on the *Irrigated Farm Soil Moisture Monitoring* Future Activity Summary was added as item number 6 to the agenda. The draft Scope of Work (SOW) for *USGS Groundwater/Surface water Interaction* will be discussed under agenda item **SOW for FY11**. The agenda was approved with these changes.

Approval of the October 6th Meeting notes – The October 6th meeting minutes were approved with correction to page 2, bullet 3: “There was general consensus from the SWM work group...” will be changed to “There was general consensus from meeting attendees...” as not all SWM work group members were in attendance for that meeting.

October Action Item Review – October 6th action items were complete. Meeting attendees briefly discussed why *Investigate potential impacts of human population growth on water management* activity was not approved by the Coordination Committee (CC). From the May 26, 2010 CC meeting summary it was found that the CC thought that the project was not applicable to the Program. Meeting attendees expressed general agreement that looking at existing population growth data as it relates to land use would be appropriate and would like to elevate this concern to the CC, as the project summary as it currently stands may not clearly articulate those intentions.

Discuss revised *Use urban waste water outfall and rural irrigation delivery and tail waters for habitat restoration to expand habitat, favor native over exotic plants, and reduce fire potential* Future Activity Summary – The revised version of the Future Activity Summary uses the same language from the original but has been shortened. Meeting attendees discussed that there will be feasibility and implementation aspects to this project. It was felt that the summary should be

more specific about the feasibility portion looking into legal and practical issues associated with the project such as impacts and costs to humans and other species.

Discuss revised *Irrigated Farm Soil Moisture Monitoring Future Activity Summary* – The summary was revised to be a multi phase project. The first phase of the project would be determining the right number of sites for the soil moisture sensors. From a contracting standpoint the summary is difficult because it does not indicate the number of sensors that will be used and locations for their placement. About half of the Middle Rio Grande Conservancy District's (the District) weather stations have soil moisture sensors present. Previous work has also identified possible locations for placement. The summary should be further revised to indicate that the project will build off of any existing soil moisture work and will work with the District on utilizing existing infrastructure and sensor placement. The summary will also need a "benefit to species" statement. Hilary Brinegar will incorporate discussed changes and email to the SWM work group.

Discussion and prioritization of potential future activity summary *Lateral Delivery Requirement Analysis and spinoffs* – Meeting attendees discussed whether or not to pursue the *Lateral Delivery Requirement Analysis Future Activity* which would investigate if forbearance on a lateral would be an effective way of providing water to the Silvery Minnow or Flycatcher by establishing the amount of water that could be stored based on varying amounts of land being forborne. Meeting attendees discussed how it can't be dictated who leases, sells or forbears. If negative consequences come up due to this action, it will be addressed at the time. It was also discussed how the Strategic Water Plan is already in place to potentially provide water for the species. Some of the issues surrounding the project are costs for installing and maintaining piping to meet irrigator demand, loss of wildlife and ditch bank riparian from ditch drying, and the incapability to store water when in Article 7. After further discussion of the benefits and issues associated with the project, meeting attendees decided that this project is not feasible at this time.

SOW for FY11 – The draft SOW for *USGS Groundwater/Surface water Interaction* has been revised to include the requirement that data be supplied in a useable format, previously data did not include elevation information for wells and lacked consistency in universal naming for wells. Meeting attendees approved of the revised language used in the SOW for requiring data delivery. Dissatisfaction was voiced about untimely receipt of reports. Amy Louise will address the issue of untimely receipt of reports with Jericho Lewis for the project.

Program Coordination

- **LTP & AM Updates** – The LTP is still in draft format. There has been an Adaptive Management meeting; the contractors, ESSA, were in attendance.
- **PHVA/Hydrology & PVA Updates** – It was not known who will be attending Population Habitat Viability Assessment (PHVA) meetings for Reclamation. The Population Viability Analysis (PVA) work group will be meeting in December.
- **Joint Workgroup Activities (DBMS updates; MPT updates)** – Data is being collected and input to the database. The pilot database will become available in April 2011.
- **SWM Issues to be elevated** – Meeting attendees would like the CC to reevaluate the *Investigate potential impacts of human population growth on water management* project for approval.

Agency Updates – In the Bounds Domestic Well Statute case, the Court of Appeals reversed the District Court's decision that the statutes were unconstitutional. The AWRM decision upheld the lower court's ruling.

Next Meeting: December 1, 2010 from 10:00 am to 12 noon at BIA

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03 November 2010 Meeting
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**Call In:
1-866-919-7806
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Meeting Minutes

Introductions & Announcements

- Chris Banet brought the meeting to order and introductions were made around the table.
- Ed Kandl is the new Bureau of Reclamation (Reclamation) representative to the Species Water Management (SWM) work group.
- Chris Banet will not be attending the December 1, 2010 SWM meeting.

Agenda Approval

- The meeting agenda was approved with the following changes.
 - A discussion on the *Irrigated Farm Soil Moisture Monitoring Future Activity Summary* was added to the agenda.
 - The draft Scope of Work (SOW) for *USGS Groundwater/Surface water Interaction* will be discussed under agenda item **SOW for FY11**.

Approval of the October 6th Meeting notes

- The October 6th meeting minutes were approved with correction to page 2, bullet 3: “There was general consensus from the SWM work group...” will be changed to “There was general consensus from meeting attendees...” as not all SWM work group members were in attendance for that meeting.

Decision: The October 6, 2010 meeting minutes were approved with a minor correction.

October Action Item Review

- **Hilary Brinegar will contact Matt Martinez and Janet Jarratt about the *Irrigated Farm Soil Moisture Monitoring Future Activity Summary (This action item was carried over from September)*.**
 - Complete.
 - Hilary sent emails to Matt and Janet and both are present at today’s meeting.
- **Hilary Brinegar will revise the *Use urban waste water outfall and rural irrigation delivery and tail waters for habitat restoration to expand habitat, favor native over exotic plants, and reduce fire potential summary (This action item was carried over from September)*.**
 - Complete.
 - This Future Activity Summary will be discussed at today’s meeting.

- **Hilary Brinegar will look at CC meeting notes for specifics on why the *Investigate potential impacts of human population growth on water management activity* was not approved.**
 - Complete.
 - From the May 26, 2010 CC meeting summary it was found that the CC thought that the project was not applicable to the Program. The question was posed to meeting attendees if they would like to ask the CC to relook at the project.
 - It was suggested that maybe the current project name and description does not appropriately reflect the intentions of the project. The intent was to look at the implications of population growth on land use and not just straight population growth.
 -
 - Meeting attendees expressed general agreement that looking at existing population growth data as it relates to land use would be appropriate because the State Water Plan does not address this issue so SWM will elevate this concern to the CC, as the project summary as it currently stands may not clearly articulate those intentions.
 - Land use maps may no longer be relevant because developers are no longer developing the land due to the economy.
 - It would be beneficial to understand the link between land use and water. If the population changes then there will a change to water availability as a whole.
 - Meeting attendees expressed general agreement that looking at existing population growth data as it relates to land use would be appropriate and will elevate this concern to the CC.
- **Chris Banet will revise potential Future Activity Summary *Lateral Delivery Requirement Analysis* based on Valda's comments. He will discuss this potential activity with MRGCD and/or Janet Jarratt.**
 - Chris wanted to wait until today's discussion on *Lateral Delivery Requirement Analysis* before making any revision to the Future Activity summary.
- **Valda Terauds will put together a list of issues framing a potential look at practical forbearance at the lateral scale.**
 - Complete.
- **Amy Louise will look for the 2005 King and Oad Forbearance Study to distribute to the SWM work group. Valda Terauds will look for an electronic copy of the comments made to the report to be distributed as well.**
 - Complete.

Discuss revised *Use urban waste water outfall and rural irrigation delivery and tail waters for habitat restoration to expand habitat, favor native over exotic plants, and reduce fire potential* Future Activity Summary

- The revised version of the Future Activity Summary uses the same language from the original but has been shortened.

- Meeting attendees discussed that there will be feasibility and implementation aspects to this project.
 - The implementation aspect of the project would use the results that came out of the feasibility study and would be a joint project with the Habitat Restoration Workgroup (HRW).
 - Is the project involved irrigating the Bosque?
 - Irrigating the Bosque is the concept of the project; pieces of the project description were summarized from the Southwestern Willow Flycatcher (the Flycatcher) Recovery Plan.
 - The feasibility part of the project would look at the legal and practical issues associated with this.
 - It was pointed out that the water from the irrigation wasteways supplements water for the Rio Grande Silvery Minnow (the Silvery Minnow) and diverting water from irrigation wasteways would take water for the Silvery Minnow and use it for the Flycatcher.
 - The feasibility component will look at the overall impacts and costs to humans and other species.
 - The project description should be more specific in order to pin point the exchange of water being used for the Flycatcher instead of the Silvery Minnow.
- This project is a Priority 2 in the Long Term Plan (LTP).
- The project will be presented to the CC again once it has been completed.
- Work groups can continue to revise Future Activity Summaries since the LTP text itself is still in draft form. The Future Activity Summaries should be as complete as possible so that they are ready to use when its time for the Scopes of Work (SOW) to be written.

Action: Hilary Brinegar will incorporate discussed changes to the Activity Summary.

Discuss revised *Irrigated Farm Soil Moisture Monitoring Future Activity Summary*

- The summary was revised to show the project as multi phased and to try to address some of the initial concerns with contracting the project. The Decision Support System (DSS) has been removed from the summary.
 - It still remains to be known what crops are grown at the sensor locations, what the soil types are, and the number of willing parties to have sensors located on their land.
 - The summary still needs a strong “benefit to species” statement.
- Any particular location can have many different types of soils. The soil maps that are available are from the early 1970s and are not on a very refined scale.
- Outcomes from the study should be informative to the farmer about how fields can be managed and what can be done for remediation.
- The Middle Rio Grande Conservancy District (District) has given hand held soil moisture meters to their staff in the past. The meters tended to be problematic because they can give different readings if they are too close to plant roots. There are also complications

- on what soil moisture means and how that can be translated into water gain for the Silvery Minnow.
- A proposed use for information gained from this study is to know what the field conditions are for specific areas; if the soils are known to dry out quickly then it will be known that extra releases will be needed to supplement.
 - This project has been put before the CC and the Executive Committee (EC) and has previously gained approval. It is difficult from a contracting standpoint however because of the lack of information on sensor location and the number of sensors needed. Meeting attendees discussed locations for sensor placement.
 - The first phase of the project would be determining the right number of sites for the soil moisture sensors. Implementing the project District wide would be difficult, it was suggested that divisions be focused on.
 - About half of the District's weather stations have soil moisture sensors already. There could be potential issues with landowner willingness even if weather stations are already present. The District will be doing an overhaul on all of its weather stations this winter.
 - The soil types and textures are generally identified in the areas where soil moisture sensors are present at District weather stations. The soil moisture sensors that are currently being used need soil specific calibrations; soil calibrations are especially important for clay. Currently the soil moisture sensors at District weather stations don't take soil types into account.
 - Previous work has also identified possible locations for placement.
 - For previous studies landowners have volunteered to have cisterns placed on their land. These volunteers could be a starting point for finding locations for sensor placement.
 - The summary should be further revised to indicate that the project will build off of any existing soil moisture work and will work with the District on utilizing existing infrastructure and sensor placement. The summary will also need a "benefit to species" statement. Hilary Brinegar will incorporate discussed changes and email to the SWM work group.

Action: Hilary Brinegar will incorporate discussed changes to the *Irrigated Farm Soil Moisture Monitoring* Future Activity Summary and email to the SWM work group.

Discussion and prioritization of potential future activity summary *Lateral Delivery Requirement Analysis* and spinoffs

- Meeting attendees discussed whether or not to pursue the *Lateral Delivery Requirement Analysis* Future Activity which would investigate if forbearance on a lateral would be an effective way of providing water for the Silvery Minnow or Flycatcher by establishing the amount of water that could be stored based on varying amounts of land being forborne.
 - It was recapped that at the October SWM meeting, attendees generally agreed that forbearance in a checkerboard pattern would not provide enough water for storage and the project should look at forbearance on a lateral scale.

- The 2005 King and Oad Forbearance Study recognizes that there are savings associated with a checkerboard pattern of forbearance just not as much as forbearance on a lateral scale.
- Even if 90% of the irrigators on a lateral are willing to forbear water still needs to be provided to those who are still irrigating.
- An issue with the project is that forbearance on a lateral scale is not likely as the laterals are very long. Also when there is forbearance it is rare for there to be any specific acreage that is forborne for an entire year as fields are not generally fallowed for a year at a time.
 - Other issues with forbearance are the investments and chemical applications associated with fallowed land.
- It was expressed by attendees that considering the difficulties in getting forbearance on an entire lateral it would be good to see exactly how much water could be stored in checkerboard forbearance. It could then be investigated if there are engineering solutions that could keep water going to remaining irrigators and also make checkerboard forbearance useful in water storage.
- Meeting attendees discussed issues and concerns associated with piping, which would be one method of getting water to remaining irrigators while still preventing water loss through seepage.
 - Concern was expressed about the costs associated with installing and maintaining piping.
 - Another concern was ditch drying associated with transporting the water via piping. Ditch drying would result in the loss of wildlife and riparian habitat in and along the ditch banks.
- Another issue with the study is finding ways to utilize forborne water when in Article 7 and water cannot be stored. Meeting attendees discussed calculating flows out of El Vado and how flows could be used to determine ways to best utilize the water when in Article 7. After discussing the options it was thought that using information from the King and Oad report to do model runs in URGWOM might be a more appropriate direction to take the study.
 - It was pointed out that assumptions would still need to be made about the amount of water that would be available from forbearance.
 - There were several comments that were made in response to the Oad and King report that relate to the storage issue, one of which is the possibility of storing at a conservation pool in Abiquiu Reservoir.
 - Another discussed solution was to not store the water but let the water remain in the system to go to the river. An issue with this solution is that the water will then be delivered in the spring flush and the water is more useful for the Silvery Minnow if it is stored to be put where it is needed.
- There was discussion on the Strategic Water Plan already being in place to potentially provide water for the species.
- Meeting attendees discussed how it can't be dictated who leases, sells or forbears water. It could be inefficient or detrimental to lease water rights in a particular area.

- Given the issues and concerns associated with the project meeting attendees agreed that this project is not feasible at this time.

SOW for FY11

- Meeting attendees discussed the revised draft SOW for *USGS Groundwater/Surface water Interaction*.
 - The SOW was revised to include the requirement that data be supplied in a useable format; previously data did not include elevation information for wells and lacked consistency in universal naming for wells.
 - Meeting attendees approved of the revised language used in the SOW for requiring data delivery.
- Dissatisfaction was voiced about untimely receipt of reports.
 - Amy Louise will address the issue of untimely receipt of reports with Jericho Lewis for the project.

Action: Amy Louise will address the issue of untimely receipt of reports with Jericho Lewis for the *USGS Groundwater/Surface water Interaction* project.

Program Coordination

- **LTP & AM Updates** – The LTP is still in draft format. There has been an Adaptive Management meeting; the contractors, ESSA, were in attendance.
- **PHVA/Hydrology & PVA Updates** – It was not known who will be attending Population Habitat Viability Assessment (PHVA) meetings for Reclamation. The Population Viability Analysis (PVA) work group will be meeting in December.
- **Joint Workgroup Activities (DBMS updates; MPT updates)** – Data is being collected and input to the database. It's believed that the pilot database will become available in April 2011.
- **SWM Issues to be elevated** – Meeting attendees would like the CC to reevaluate the *Investigate potential impacts of human population growth on water management* project for approval.

Agency Updates

- In the Bound Domestic Well Statue case, the Court of Appeals reversed the District Court's decision that the statutes were unconstitutional.
- The AWRM decision upheld the lower court's ruling. More information is available on Janet Jarrett's personal website (www.jjwater.info).

Next Meeting: December 1, 2010 from 10:00 am to 12 noon at BIA

Species Water Management Work Group 03 November 2010 Meeting Attendees					
Name	POSITION	AFFILIATION	PHONE NUMBER	EMAIL ADDRESS	PRIMARY, ALTERNATE, OTHER
Chris Banet	SWM Member Co-Chair	BIA	563-3403	chris.banet@bia.gov	P
Page Pegram	SWM Member	ISC	383-4041	page.peggram@state.nm.us	P
Hilary Brinegar via phone	SWM Member	NMDA	(575) 646-2642	hbrinegar@nmda.nmsu.edu	P
Curtis McFadden	SWM Member	USACE	342-3351	Curtis.M.Mcfadden@usace.army.mil	P
Matt Martinez	SWM Member	MRGCD	247-0234	mmartinez@mrgcd.us	P
Amy Louise	SWM Member Co-Chair/PMT	ISC	383-4057	Amy.louise@state.nm.us	P
Janet Jarratt via phone		Assessment Payers of the MRGCD	865-1430	jj@jjwater.info	
Ed Kandl	SWM Member	Reclamation	462-3586	ekandl@usbr.gov	P
Christine Sanchez	Admin Support	Tetra Tech	881-3188	christine.sanchez@tetrattech.com	O