

*August 16, 2018*

**Documents:**

Meeting Agenda

Meeting Minutes

Read-Aheads and Presentations

*ScW/HR Draft Habitat Restoration Acreage*

*An Integrated Approach to Project Environmental Sustainability Under Future Climate*

*Variability: An Application to U.S. Rio Grande Basin [report not included]*



# Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

## Science/Habitat Restoration Workgroup (ScW/HR) Meeting Agenda

August 16, 2018 1:00 PM – 3:00 PM

Location: 8500 Menaul Blvd NE, Conference Room A-319

### Conference Call Information:

Phone: (712) 451-0011 Passcode: 141544

- |             |                                                                                                   |                      |
|-------------|---------------------------------------------------------------------------------------------------|----------------------|
| 1:00 – 1:05 | Welcome, Introductions and Agenda Review                                                          | <i>Ashley Tanner</i> |
|             | ➤ <b>Decision:</b> Approve meeting agenda                                                         |                      |
| 1:05 – 1:20 | Review of July 2018 ScW/HR meeting                                                                | <i>Ashley Tanner</i> |
|             | • Action items update                                                                             |                      |
|             | ➤ <b>Decision:</b> Approval of June meeting minutes                                               |                      |
| 1:20 – 1:45 | Habitat Restoration GIS Map                                                                       | <i>Ashley Tanner</i> |
|             | • Discuss shared files and address any issue with formatting                                      |                      |
|             | • Discuss how feedback will be delivered                                                          |                      |
|             | ➤ <b>Action Item:</b> Test GIS map functionality and provide comments to the appropriate group    |                      |
| 1:45 – 2:15 | SOW Discussion for EC Approval                                                                    | <i>Ashley Tanner</i> |
|             | ➤ <b>Decision:</b> Determine whether the following SOWs will be presented to the EC in September: |                      |
|             | • Habitat Restoration Project Compilation SOW                                                     |                      |
|             | • Hink and Ohmart Vegetation Mapping SOW                                                          |                      |
|             | • Temperature Degree Days, Photoperiod, and RGSM Spawning SOW                                     |                      |
|             | • Yellow Billed Cuckoo Genomics SOW ( <i>Vicky Ryan</i> )                                         |                      |
| 2:15 – 2:25 | Break                                                                                             |                      |
| 2:25 – 2:55 | Future SOWs                                                                                       | <i>Ashley Tanner</i> |
|             | • Discuss ideas for further SOWs (FY19 – FY21)                                                    |                      |
|             | ○ Management objectives                                                                           |                      |
|             | ○ Timelines                                                                                       |                      |
|             | ➤ <b>Action Item:</b> Review SOW ideas and send ranked list to WEST by August 24th                |                      |
| 2:55 – 3:45 | Additional items, follow-ups, and next meeting date                                               | <i>Ashley Tanner</i> |
|             | • Future brownbag ideas                                                                           |                      |
|             | ➤ <b>Decision:</b> Next ScW/HR meeting date                                                       |                      |
| 3:45        | Adjourn                                                                                           |                      |



# Middle Rio Grande Endangered Species Collaborative Program

*Est. 2000*

## Science/Habitat Restoration Workgroup (ScW/HR) Meeting Minutes

**August 16, 2018 1:00 PM – 3:00 PM**  
**Location: 8500 Menaul Blvd NE, Conference Room A-319**

### Decisions

- ✓ The ScW/HR meeting minutes for July 24, 2018 were approved with no comment and no objection.

### Action Items

WHO	NEW ACTION ITEMS	BY WHEN
Mo Hobbs	Provide a digital copy of summary statistics for GIS layer to distribute to group.	ASAP
Ashley Tanner	Put together a basic GIS map user manual.	ASAP
WEST	Put together the Temperature Degree Day SOW with changes recommended by the group and produce a one-pager for EC presentation.	8/31/18
WEST	Put together the Baselayers SOW with changes recommended by the group and produce a one-pager for EC presentation.	8/31/18
WEST, Vicky Ryan	Pull together a Yellow-billed cuckoo genomics/genetics SOW one-pager for EC approval.	8/31/18
ONGOING ACTION ITEMS		
All	Test GIS map functionality and provide comments to WEST	Ongoing
Lynette Giesen	Compile a list of SOWs from USACE for further development.	Ongoing
Michael Porter, Justin Reale, Joel Lusk, Alison Hutson, Wade Wilson, Eric Gonzales	Form a Genetics SOW small group on domestication.	Fall 2018
WEST	Develop SOW decision-making matrix (with help from Joel Lusk) for review by the group.	Fall 2018
All	Review 2017 literature compilation completed by WEST to brainstorm potential SOW ideas.	Ongoing
Debbie	Work with the By-laws Group to construct a strawman to illustrate the process by which the ScW/HR will advance SOWs to the EC	Ongoing

## Next Meetings

- A short Science/HR meeting September 20, 2018 from 12:30 to 2:30pm to discuss August 30, 2018 EC meeting. Location TBD.
- The regular Science/HR Workgroup (ScW/HR) meeting will be either October 23rd or 24th from 9am to 12pm. (Dependent on BEMP Fall Event.) Location is TBD.
  - A Brown Bag will follow at noon.

## Action Items Review

- Kate Mendoza and Mo Hobbs, both of Albuquerque Bernalillo County Water Utility Authority (ABCWUA), worked on the GIS layer to gather summary statistics. *Completed*
  - Mo will provide a digital copy to distribute to group
- The USGS has uploaded the HR GIS layer map to the Program DBMS website, which can be accessed without a password. *Completed*
- Nathan Schroeder (Pueblo of Santa Ana), Kate Mendoza and Mo Hobbs were added to the DBMS small group and a DBMS meeting took place August 9, 2018. *Completed*
- The full Science/HR Work Group (ScW/HR) was invited to the MRG HR Project Compilation SOW meeting which took place July 27, 2018. *Completed*
- The Temperature Degree Day SOW development meeting took place August 2, 2018. *Completed*
- Vicky Ryan, U.S. Fish & Wildlife Service (USFWS), was to develop a SOW strawman for a cuckoo genome study for the group to review. *Completed*
- Lynette Giesen, U.S. Army Corps of Engineers (USACE), is compiling a list of project ideas from USACE employees for further consideration and development. *Ongoing*
- Justin Reale (USACE) was to develop a SOW description on temperature/conditions effects on RGMS population crash after spawn. *Ongoing*
- WEST is developing a SOW decision-making matrix (with help from Joel, USFWS) for review by the group. *Ongoing*

## Habitat GIS Map

- The habitat restoration project GIS map has been uploaded to the Program's DBMS website, which is open to the public. The Science work group was encouraged to share the files outside the work group and solicit feedback. It was requested that feedback specify whether they are using the DBMS website or GIS files directly in order to give proper feedback to the DBMS website developers. Comments can be emailed to Ashley Tanner directly, who will collect them and provide that input to the developers at U.S. Geological Survey (USGS).
  - All found/provided habitat restoration (HR) projects are mapped within this rough draft of the map. There are two formats: a geodatabase compatible with ArcGIS, QGIS, or similar software, and .kml files which can be used in Google Earth (free). Anything with the title "Completed" represented projects that were completed. Anything with the title "Designed" represented projects for which designs were found, but there was no confirmation of that project being built. Anything titled "Unknown Status" was information found, but the status of the project was not verified.
  - Ashley T. walked the work group through the map on the DBMS website, but noted that as USGS makes changes, the map will as well. The work group was asked to think about the way they would want to interact with the map and provide that feedback to Ashley T. and the DBMS website developers.
    - Ashley will put together a basic map user manual.

## Scopes of Work (SOWs)

Three SOWs were provided as read-aheads for today's meeting, but four SOWs will potentially be submitted to the EC. Within the discussion of individual SOWs, a discussion on process took place.

- Currently, the work group gives an SOW description to the EC, who approves it for use as a placeholder. The goal is to get to where we bypass submitting a description that needs more development to the EC; but rather, have full SOWs that the EC can approve. Earlier this year, four SOWs were given to the EC from a longer list that this work group ranked. They were all approved and have morphed since. Only one of these scopes directly resembles what was originally presented to the EC (the HR compilation SOW). It was agreed that an explanation should be given that tells the storyline of how the scopes have changed over the course of the year.
  - Some questions arose. What happens if the group has spent a chunk of time on an SOW and the EC says no? Alternatively, a funding agency could pick up a SOW despite the EC not approving it. So eventually, do the SOWs go through the fiscal planning group and say whether it's fundable?
    - It was stated that the answer to all these questions has to be hashed out. As to spending time on an SOW and rejection by the EC, there has to be an upfront explanation of what the group will work on, present how it relates to the long-term plan, and how it assists the BOs. There should also be enough representation at the work group, and subsequent communication to EC reps, to avoid conflicts between agencies.
  - Does cost need to be communicated?
    - Funding agencies said it will be good to have. If we include a budget then we have to get more detailed. However, EC doesn't need it because EC doesn't have a budget. The takeaway: we don't need to consider cost estimates unless an agency requires it, then we need to be ready to answer the EC.
  - There are two needs: the first, to put together the one-pager for the EC, and second, the SOWs need to capture stop points and a statement of objectives. There may be additional comment, so the ScW/HR needs to have another meeting. This does not need to be a small group, as the group agrees WEST can make these changes as a first cut. Because the EC will likely ask what the SOW looks like, the tasks should be specified. This is a lot of information for a contractor to see; thus, at the point that EC approves the one pager, the public can't be allowed to see SOWs which stay within the Program. If a contractor decides to stay in the room then they are automatically disqualified from bidding.
- HR Project Compilation SOW. This will be the basis for the HR project database map. The contractor will essentially create a giant attribute table that will have all the points of interest so that users can more easily find wanted information. Users will be able to use the final product to find report(s) and data spatially and through the advanced search engine. The idea is to enable people to better access HR information that can be used to make management decisions.
  - The HR Compilation SOW was put into the U.S. Army Corps of Engineers (USACE) template format as an example of how the SOW will change during contracting. USACE noted two important, missing details: an objective and meetings and/or presentations to the Executive Committee.
  - By splitting out tasks a lot more, it would be clearer when stop points with the contractor for Program review would be. In the case of the HR Compilation SOW, the contractor will work with the Program the whole way on reviewing the database and layers.

- With respect to the process mentioned above, the Program would not want to duplicate work done by another contractor, agency, or organization.
- The SOW went from 6 pages to 35 pages to include a quality control (QC) program and other needed details. It's important to see what the contractor found and what they're missing and move forward from that. As noted by Program stakeholders in the past, the SOW changes in contracting. That's because contracting requires a lot more detail. Together, the work group agreed to a SOW process.
- Grace Haggerty, of New Mexico Interstate Stream Commission (NMISC), is working on a work order with a contractor (GSA) based on a SOW NMISC developed a year ago, which might be used to help this group's SOW and the Program. Rather than waiting for the establishment of the Program DBMS website, this previously developed SOW could be used to help get things moving on the HR Project Compilation effort, ensuring that it could be used for BO planning.
  - The concern from the group is that this action may preclude the contractor from working on this group's HR Project Compilation SOW.
  - The group agreed to a process: this group would develop SOW descriptions for EC and funding agencies to talk about what they think they can do, the EC would then approve the SOW description and that SOW would be further developed. The concern here is the group is working on developing a SOW for EC approval for work that may be already being done..
  - Some discussion took place in which Grace H. might compare the work order with the group's SOW to see if there is a duplication of effort, and to be sure they dovetail closely. Grace H. assured the group there's no conflict, but rather it was a timing issue more than anything else.
- The HR Project Compilation SOW is missing the following details to be presented to the EC: a clearer submittal schedule, objectives, and potentially listing the BO or peer review the SOW relates to, where applicable. It was suggested that objectives (with justifications) be given in bullet form. Management objective can be called out in a separate paragraph. It will be difficult to get the EC to read 35 pages. In the past, EC was given a full SOW and then presented a summary at the meeting.
- Ashley and Debbie will pull those details together and put in the form discussed.
- Temperature Degree Day SOW. The small group had asked for some additional modification, and so WEST is waiting for feedback on the modified SOW. A step to analyze existing data was added, so it will be important that conducting a study and analyses tasks be separated. It was remarked that based on conversations last year, a midpoint check-in, final presentation, and final draft need to be included in the SOW before it is finalized. Ashley gave a rundown on tasks to be completed in the pilot year and then in year two:
  - A participant noted it was important that tasks and deliverables are linked, particularly if they are described in two different sections. A table format could fix this.
  - When asked why this was to be a four-year study and not two, a member answered that a pilot year exists because of variability in temperature and other conditions, that a lot of experimenting has to happen in the first year, then a year for conducting the study, a year for analysis, and a last year option based on funding.
- WEST will put together the Temperature Degree Day SOW with changes recommended by the group and produce a one-pager for EC presentation.

- Baselayers (Hink and Ohmart) SOW. The Hink and Ohmart vegetation map would be extended to mapping areas not mapped or that were mapped at a different resolution. This effort would include updating the map for the Albuquerque reach.
  - Some concerns were voiced: Doing this to fill in maps and to get better resolution are two different things with different levels of effort. The “Albuquerque reach” needs to be defined, and language should be specific to state that mapping will be done on non-Pueblo land only.
  - To one participant, the introduction and background were not that clear about which maps it was referring and the objectives need justification. This group should detail this SOW more.
- West will put together the Baselayers SOW with changes recommended by the group and produce a one-pager for EC presentation.
- Yellow-Billed Cuckoo (YBCU) Genomics SOW. This is a new scope suggested by Vicky R. (USFWS). The purpose is to determine where the distinct boundary should be, or if there should be a boundary, between the western distinct population segment and eastern populations of YBCU. The western distinct population segment of YBCU is currently listed as threatened. Petition to delist the western distinct population segment of the yellow-billed cuckoo was filed in 2017. Ultimately, USFWS thinks it is a distinct population, but more work is needed to reduce uncertainties. The study data would be needed about two years from now. Genomics specialists have indicated that one could look at ~1000 loci.
  - The concern is having a SOW ready to present this to EC in September since this group hasn’t had a chance to look at it. Perhaps it could be presented to the EC for feedback as to if the Program has an interest.
  - There is some understanding of the actual population due to past and current surveys.
  - It will be difficult for USFWS to fund this study as projects that have already gone through consultation and are “shovel ready” are given priority.
- WEST can work with Vicky to produce a one-page SOW description for EC approval. If the EC approves it, then the ScW/HR can work on the larger SOW.

### **Future Work**

This year, there have been a number of conversations around peer review, SOW prioritization, and starting SOWs much earlier. The plan for the Fall of 2018 is to facilitate discussions on these subjects. All of these discussions will require meeting time and organization, so it was suggested that progress on these begin in October.

- Discussion should include a science plan and an EC process for SOWs. Specifically, what can be incorporated into the Science/HR work plan?
- Discussions should also describe an approval process that takes into account agency funding restrictions, and is nimble enough to propose a SOW if an agency has unexpected funding that can be used.

**Participants:**

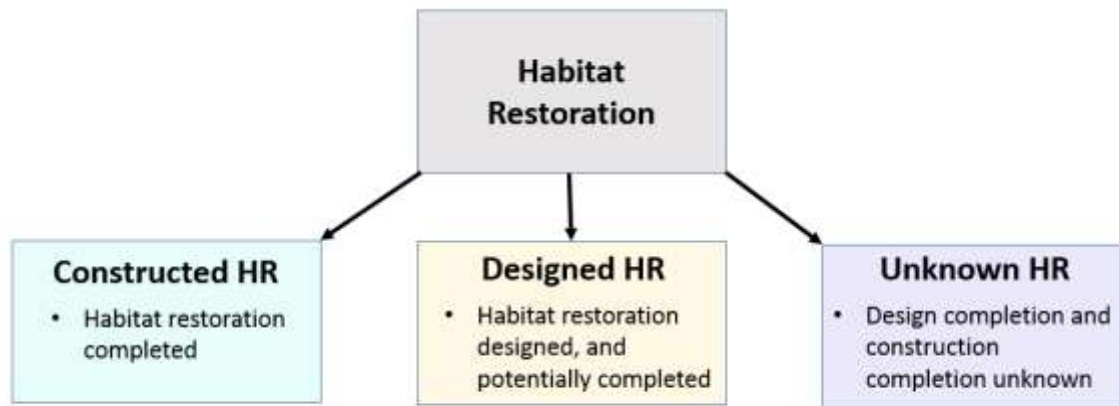
<b>Name</b>	<b>Organization</b>
Ann Demint	U.S. Bureau of Reclamation
Lynette Giesen	U.S. Army Corps of Engineers
Grace Haggerty	New Mexico Interstate Stream Commission
Mo Hobbs	Albuquerque Bernalillo County Water Utility Authority
Alison Hutson	New Mexico Interstate Stream Commission
Kathy Lang	City of Albuquerque BioPark
Debbie Lee	Western Ecosystems Technology, Inc.
Mike Marcus	Assessment Payers Association of the MRGCD
Lana Mitchell	Western Ecosystems Technology, Inc.
Yasmeen Najmi	Middle Rio Grande Conservancy District
Matthew Peterson	City of Albuquerque Open Space
Dana Price	U.S. Army Corps of Engineers
Vicky Ryan	U.S. Fish & Wildlife Service
Jeff Sanchez	U.S. Fish & Wildlife Service, Bosque del Apache National Wildlife Refuge
Nathan Schroeder	Pueblo of Santa Ana
Clinton Smith	U.S. Fish & Wildlife Service
Ashley Tanner	Western Ecosystems Technology, Inc.



DRAFT  
Science/HR Workgroup

**Task:** Utilize the preliminary MRG\_Habitat\_Restoration\_June2018.gbd. to determine habitat restoration acreage by the following attributes: Agency, Reach, and Year.

The Habitat Restoration Map layer is further divided out into three layers (Constructed, Designed and Unknown):



Because each sublayer includes various information on project design and completion status, it may be prudent to keep acreage summation separate among sublayers. In the following section, acreage is tallied by agency and reach. Habitat restoration area could not be accurately queried by year because many of the habitat restoration entries did not include year constructed, while others had assorted year spans (e.g. 1993-2010, 2003-2006, etc.).

## Results

### Constructed

*Acrees by Reach (Constructed):*

Reach	Acrees
Albuquerque	1,944.30
Isleta	266.69
San Acacia	7,003.18
<b>Total</b>	<b>9,214.17</b>

*Acres by Agency (Constructed):*

<b>Agency</b>	<b>Acres</b>
ABCWUA	14.43
CABQ	58.30
NM State Land Office	2.30
NMISC	271.82
NMISC/USBR	118.10
NMISC/USBR/USFWS	17.33
NMISC/USFWS	7.85
Pueblo of Sandia	54.88
Socorro SWCD	6,273.21
Unknown	7.19
USACE	1397.84
USACE/USBR	86.49
USBR	367.83
USFWS	321.34
Village of Corrales	215.26
<b>Total</b>	<b>9,214.17</b>

**Designed***Acres by Reach (Designed):*

<b>Reach</b>	<b>Acres</b>
Albuquerque	1,403.00
Escondida Subreach	167.13
Refuge Subreach	952.04
San Acacia to San Marcial	15,065.91
San Antonio Subreach	625.43
<b>Total</b>	<b>18,213.51</b>

*Acres by Agency (Designed):*

<b>Agency</b>	<b>Acres</b>
MRGESCP	2,180.63
Save Our Bosque Task Force	15,065.91
USACE	966.96
<b>Total</b>	<b>18,213.51</b>

## Unknown

*Acres by Reach (Unknown):*

<b>Reach</b>	<b>Acres</b>
Albuquerque	50.41
Belen	21.6
Feeder 3	18.72
LP2DR	19.76
San Acacia	61.46
Storey	16.88
<b>Total</b>	<b>188.83</b>

*Acres by Agency (Unknown):*

<b>Agency</b>	<b>Acres</b>
NMISC	127.37
Socorro SWCD	61.46
<b>Total</b>	<b>188.83</b>

## Discussion Points

- The map is currently in draft form, and results may vary as restoration areas are edited.
- The amount of acres in the Designed sublayer is double that of the Constructed sublayer, which displays the need to resolve completion status if possible.
- It is unclear if the projects designed by the MRGESCP in the Designed sublayer, are included as projects within the Constructed sublayer, and re-listed under the agency that completed the habitat restoration.
- Should value names within the Reach attribute be standardized (i.e. each subreach/location be within Albuquerque, Isleta or San Acacia)?
- Consistent with the Year attribute, input values for River\_Mile are not included for every site. Determining and assigning a river mile to each project allows the viewer to assess which river miles within a reach has received the most habitat restoration (see Figure 1).

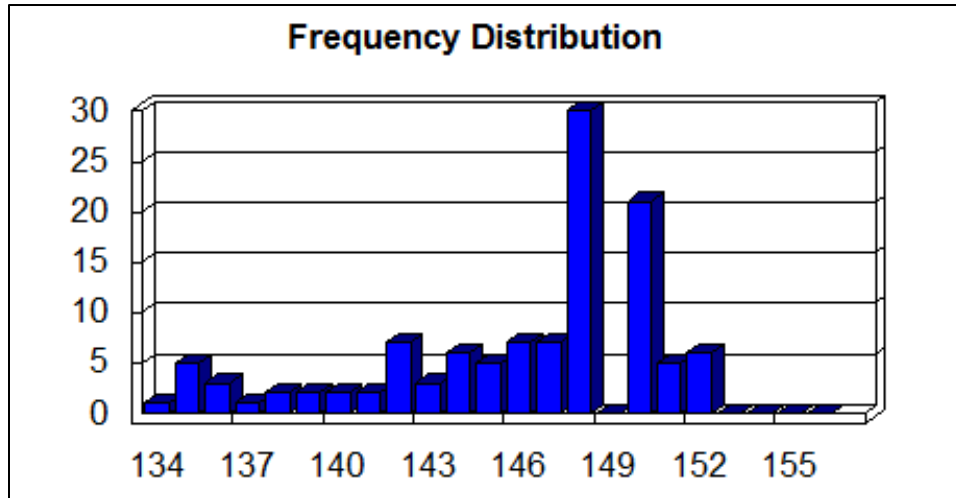


Figure 1. Frequency of **completed** habitat restoration (y-axis) for sequential river mile (x-axis) in the Isleta Reach. \*Note: this was the only reach in the Constructed sublayer that had a river mile associated with each habitat restoration entry.