

Basin Study All Partners Meeting

April 22, 2020 | 2 pm

Microsoft Teams Web Meeting

Participants by Sector

Federal

Reclamation

- Emma Kelly – Resource Management Coordinator, MC for this meeting
- Andrew Gelderloos – Hydrologist, Lead Modeler for this Basin Study
- Dagmar Llewellyn – Hydrologist / Civil Engineer, Basin Study Project Manager
- Lucas Barrett – Hydrologist / Civil Engineer, Modeler

USGS

- Shaleene Chavarria – Hydrologist, USGS NM Water Science Center, helping to develop projections
- Adrienne Wootten – Postdoctoral Research Associate, South Central Climate Adaptation Science Center at University of Oklahoma, Norman, will be providing climate projections for this study

USDA Southwest Climate Hub

- Emile Elias – Director of USDA SW Climate Hub

Irrigation

MRGCD (non-Federal co-lead)

- Anne Marken – MRGCD Project Manager, Basin Study Project Manager for MRGCD
- Mike Hamman – MRGCD Chief Engineer

Tribal

Sandia Pueblo

- Brooke Wyman – Water Resources Manager

Jemez Pueblo

- Paul Clark – Director of Natural Resources Department
- Clarise Magdalena – Program Manager in Natural Resources Department

Santo Domingo Pueblo

- Cynthia Naha – Natural Resources Department

Sandia Pueblo

- Jessica Tracy – Director of Environment Department

Santa Ana Pueblo

- Veronique Richardson – Special Counsel for Pueblo of Santa Ana

Local Gov'ts (Municipalities/Counties)

City of Santa Fe

- Greg Gates – Hazen Sawyer (consultant to city of Santa Fe)

Bernalillo County

- Savanna Martinez – Natural Resource Services

State Government

NM Interstate Stream Commission

- Chris Shaw – Legal Counsel for NMISC

Educational Institutions

Bosque Ecosystem Monitoring Program (BEMP)

- Kim Eichhorst – co director of BEMP (

Non-governmental organizations (NGOs)

Trout Unlimited

- Garrett Hanks – Northern NM Project Manager

Wild Earth Guardians

- Galen Hecht – Rio Grande Campaigner

Audubon NM (has signed MOA)

- Judy Calman – Policy Director
- Paul Tashjian – Director of Freshwater Conservation

The Nature Conservancy

- Susan Millsap – NM Director of Conservation

Rio Grande Restoration

- Steve Harris – Executive Director

Amigos Bravos

- Joe Zupan – Executive Director

Community organizations

Middle Rio Grande Water Advocates (has signed the MOA)

- Norm Gaume – President
- Elaine Hebbard – Member
- Bob Wessley (also representing the House Memorial 1 working group which is a spectator in this study) – Member

Soil and Water Conservation Districts

Coronado Soil and Water Conservation District

- Carolyn Kennedy – District Manager

Others

- Daniel Suazo
- Margaret Luciana – resident of city of Santa Fe; heard about the Basin Study at the Land and Water Summit; looking for way to participate

- Melanie Stansbury – water consultant and State representative
- Jesse

Project Management Discussion

Teams Platform

- Emma led group through TEAMS and showed her desktop
- Please accept invitation from TEAMS so we can all collaborate in this space
- We can chat, hosts webinars, share screens, organize our notes and reports and references, and co-edit documents
- Emma is happy to meet one-on-one with partners as needed to train them on this software

MOA Discussion

- 11 official signatories on the MOA so far. 3 of those are tribes (we should appreciate tribal support; first Basin study to have tribal participation from the beginning; we are thrilled to have them as partners). A number of other partners are expected to sign shortly.
- We have hit a slowdown with COVID 19 so are still awaiting a few signatures. When we hit a quorum, we can start project timeline. Cost shares can go back one years from that date. Project extends 3 years from that date.
- Dagmar reviewed history of Plan of Study development and four required elements of Basin Study

Governance Structure

- Emma reviewed draft governance structure (see ppt)
- Anne Marken (MRGCD) went over potential option for MRGCD to add other stakeholders as joint co-leads for the non-feds. Are asking those entities contribute \$50K annually -r \$150K over the three years. MRGCD is excited by this potential development to increase non-federal contributions and may add to federal funding
 - Organizations are invited to reach out to Anne if they are interested in being a joint co-lead
- Outlined expected sectors based on who has signed on so far.
 - Emma – tribes might want to participate in both tribal and irrigation sectors.
- Asked for volunteers to lead start-up of sectoral groups
 - Kim Eichhorst, BEMP – willing leading educational institution group.
 - Anne Marken, MRGCD – will take lead on irrigation committee
 - Paul Tashjian, Audubon Society – could lead NGO sectoral lead for Year 1
 - Jessica Tracy, Sandia Pueblo) – could lead tribal sector

Q&A:

- Q: Kim Eichhorst – do organizations have datasets that could help inform discussions?
A: Emma and Dagmar – yes, this would be great.
- Q: Steve Harris – can one participant participate in more than one sector?
A: Emma and Dagmar – yes, participants should participate where they think they can best contribute.

- Q: Paul Tashjian – silos can be blind spots – will there be cross-sectoral discussion?
A: Emma – yes, steering committee is cross sectoral. Dagmar - So are technical committees, which are based on selected adaptation and expertise of participants.

Presentation on Basin Study Storyline Development – Andrew Gelderloos, Reclamation

Status of Projections of Water Operations

Andrew led presentation on how the study will model the Rio Grande Basin from Lobatos to Elephant Butte

- Projections of Physical Processes -> Projections of Water Operations -> RGBS
- Physical Processes Projections are derived from Global Circulation Model (GCM) Simulations and Representative Concentration Pathways (RCPs)
 - Result: projections for temperature and precipitation which are then downscaled and bias corrected to better represent the South-Central US
 - 3 GCMs, 2 RCPs, and 3 downscaling/bias correction techniques used to give us a total of 18 projections
- These 18 projections are then run through the USGS's NM Water Science Center national Precipitation Runoff Modeling System (PRMS) to obtain natural streamflow projections
 - Natural streamflow projections are bias corrected by Reclamation and NM WSC – CURRENT STAGE
- These natural streamflow projections (along with precip, temp, potential ET projections) will then be put into the Upper Rio Grande Water Operations Model (URGWOM) to create projections of water operations to the year 2099

Storyline Development

Dagmar went over how we can create storylines from these different projection sets

- These storylines help us group different projection sets into a range of different futures
- Pecos River Basin Study Example
 - 3 Storylines:
 - High Monsoon/Low Snowpack
 - Moderate
 - Dry
 - These model projections give three different pictures of what could happen within the range of possible futures
 - Each of these storylines are equally likely
- The storylines for the RGBS will be shaped by the 3 GCMs and 2 RCPs selected for this study
- Using the 3 GCMs that have been bias corrected and downscaled for our region, Andrew developed some scatterplots to illustrate the relationships between annual and seasonal temperature and precipitation for 56 climate projections in the Basin Study area
 - One example is given in ppt, Andrew will post the rest in Teams

Action Items

1. **All:** finalize MOA signatures if needed, work in sectoral groups to start defining goals
2. **Emma:** follow up with Sectoral Committee temporary leads (some have been identified in this meeting, but others will be identified by internal Basin Study Team)
3. **Emma:** send out notes and PowerPoint (and post to Teams)
4. **Andrew:** post scatterplots to Teams

Next meetings will be at the sectoral committee level. More info from sectoral leads to follow.

Notes compiled by Emma Kelly and Dagmar Llewelyn (Reclamation).