



MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM

Newsletter— September 2019

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SAVE THE DATE

2019 MRGESCP SCIENCE SYMPOSIUM

December 3-4, 2019

USGS New Mexico Water Science Center

Abstract submissions are open!

For more information and to register, please visit
<https://mrgescpsciencesymposium.wordpress.com/>

Registration is FREE but space is limited.
Register early to reserve your spot!



MRGESCP participants on a tour of Seville National Wildlife Refuge and La Joya Wildlife Management Area with Cathy Granillo, Refuge Manager. See the Field Trips write-up on pages 8-9 for more information. (Photo credit: WEST Staff)

PROJECT UPDATES

Implementation of the Final Biological and Conference Opinion of Bureau of Reclamation, Bureau of Indian Affairs, and Non-Federal Water Management and Maintenance Activities of the Middle Rio Grande, New Mexico (2016 BO)

Update provided by Brian Hobbs, U.S. Bureau of Reclamation

The U.S. Bureau of Reclamation (Reclamation), the U.S. Bureau of Indian Affairs, the Middle Rio Grande Conservancy District (MRGCD), and the New Mexico Interstate Stream Commission (NMISC) are continuing to implement requirements under the 2016 BO. Following is an update on the status of some ongoing and completed projects:

Progress toward fish passage at the San Acacia Diversion Dam (SADD) and the Isleta Diversion Dam continues. NMISC and Reclamation are carrying out fish movement studies using PIT tagged Rio Grande silvery minnow (RGSM). Reclamation plans to PIT tag 10,000 more RGSM this October for release above and below SADD. Antennas will be placed above SADD and Utah State University researchers will be floating the river to get tag returns. Initial tag returns for both projects have been encouraging. For the long-term fish passage project at SADD, alternatives are being evaluated.

In spring 2019, Reclamation and NMISC began using a standardized monitoring protocol at eight habitat restoration (HR) sites below SADD. The two agencies will work towards using and refining this protocol so that comparisons can be made between HR sites throughout the Middle Rio Grande (MRG).

A sediment plug formed in the river on Bosque del Apache National Wildlife Refuge (NWR) at the same location as in 2008 and 2017. Reclamation received the 404 permit for the pilot realignment project and is mobilizing to open the inlet and outlet of the realignment so that MRGCD and NMISC will be able to get water around the plug rather than excavating a pilot channel through the plug. A plug has also formed in the Delta Channel of Elephant Butte Reservoir. NMISC is expected to begin work on this plug in September.

Reclamation, in partnership with NMISC and MRGCD, is initiating a planning effort to allow for efficient implementation of projects and actions within the San Acacia Reach. The objective of the effort is to understand the potential impacts of foreseeable facility operation and maintenance actions, river maintenance projects, and habitat management efforts in the San Acacia Reach on water delivery to Elephant Butte Reservoir. There are seven planned phases and the effort is currently in Phase 1: Formulation of the Planning Process.

LISTED SPECIES UPDATES

Rio Grande Silvery Minnow

Update provided by Eric Gonzales, U.S. Bureau of Reclamation

The RGSM Population Monitoring Program uses standardized seining techniques to catch RGSM along the MRG during seven months per year (Dudley et al. 2019). July sampling was conducted at the 20 standard monitoring sites. Five sites were located in the Angostura Reach, six sites were located in the Isleta

Reach, and nine sites were located in the San Acacia Reach. Preliminary data from the Population Monitoring Program during July 2019 monitoring reported detections of Age - 0, Age-1, and Age-2+ fish, with an overall density of 10.48 RGSM per 100m² for the 20 standard sites. RGSM were present at 18 of the 20 standard sites. The prior density in June 2019 was 4.31 RGSM per 100m².



Yellow-billed Cuckoo & Southwestern Willow Flycatcher

Update provided by Vicky Ryan, U.S. Fish and Wildlife Service

(There is currently no update at this time. The following is from the June issue of the EC newsletter)

The survey season started on May 15 for the Southwestern willow flycatcher (SWFL) and June 15 for the yellow-billed cuckoo (YBCU). As such, there are no updated population numbers yet available. The area from Isleta to SADD, which has been historically surveyed,



SWFL; Photo credit: NPS

will not be included in the survey area of any agency in 2019. This will delay projects in that area until fall 2019. Completing survey efforts on time is crucial, as one year must pass from the survey date prior to any kind of action that may impact the species and/or the habitat occupied by the species.

(Listed Species Updates continued on page 4)

LISTED SPECIES UPDATE

(Listed Species Updates continued from page 3)

New Mexico Meadow Jumping Mouse

Update provided by Jeff Sanchez, U.S. Fish & Wildlife Service



NMMJM (Photo credit: Jennifer Frey)

Bosque del Apache NWR has experienced above normal water within the Riverside Canal during 2019. These water levels in the Canal were due to above normal water availability occurring throughout the MRG Valley, which was a result of above normal available snow pack in the northern mountains. These elevated water levels have allowed Bosque del Apache NWR to support quality New Mexico Meadow Jumping Mouse (NMMJM) feeding and day nesting habitat during 2019. The refuge was able to both maintain and expand suitable habitat for the NMMJM this

year. Bosque del Apache NWR is home to the last known remaining MRG population.

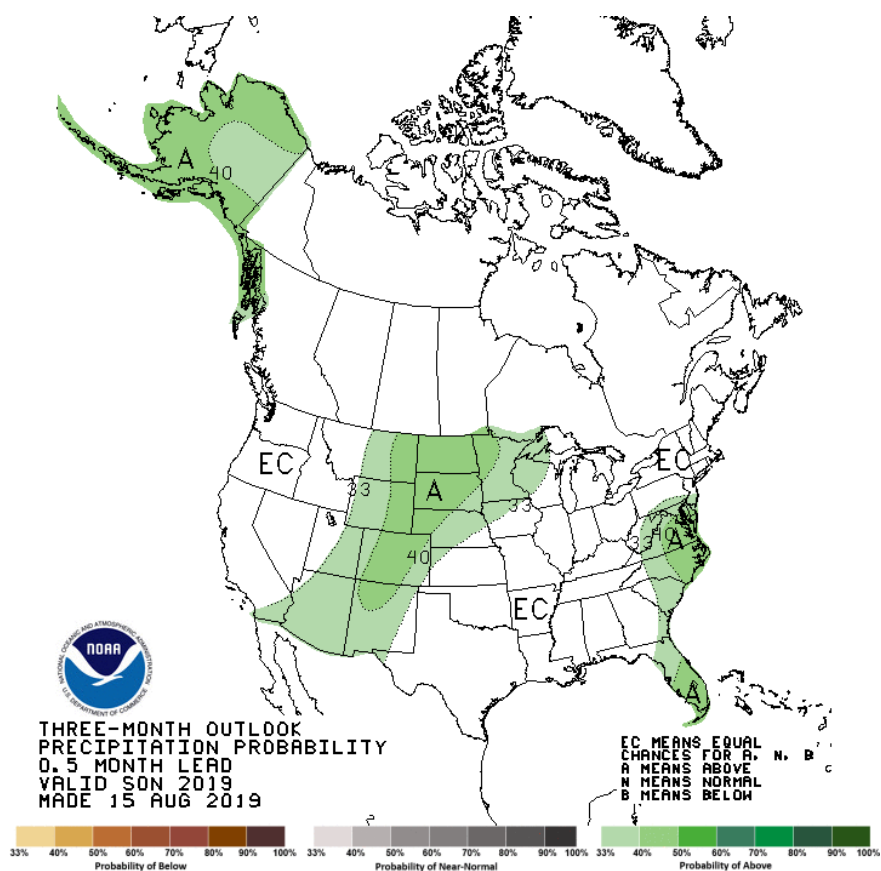
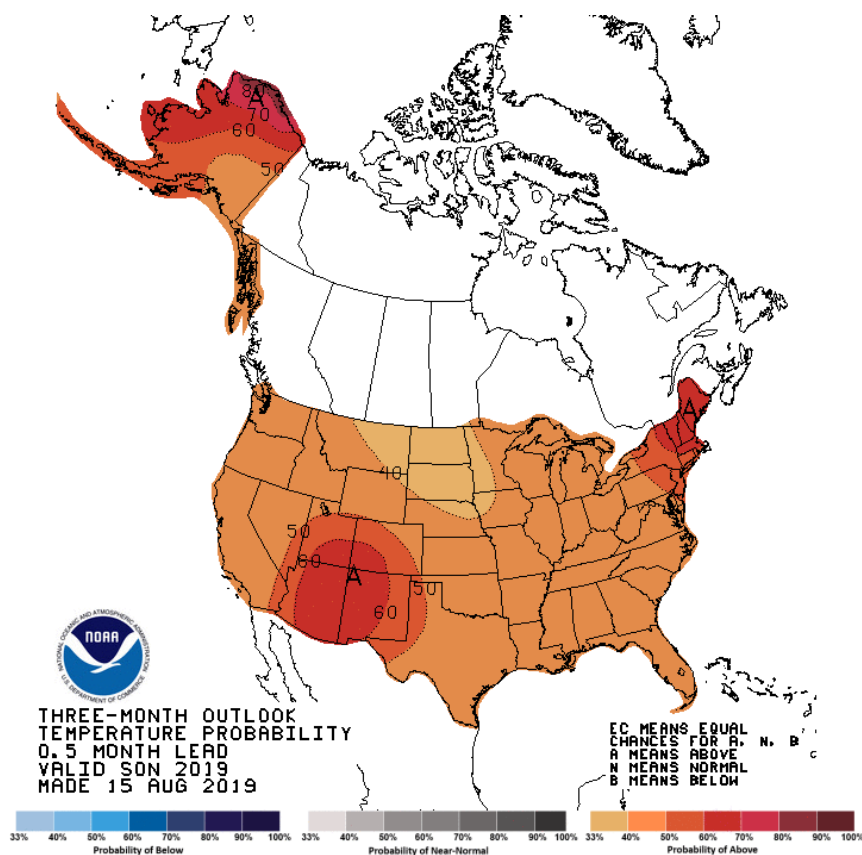
Camera trapping efforts within the known NMMJM localities and areas where they have historically occurred will continue until mid-October. So far, during this year's NMMJM active period, six observations have been confirmed using this method. Additional photos still need to be checked for NMMJM observations. Due to increased NMMJM habitat this year, it is assumed that the mouse may be more difficult to detect as the remaining animals are spread across a larger area. Most observations this year occurred in close proximity to NMMJM locations documented since 2016. One observation occurred adjacent to a newly-created NMMJM habitat, in an area where this species had not been detected in years past. This location was approximately 0.3 miles south from habitat known to be occupied by NMMJM.

The refuge is finalizing the NMMJM 5 year plan and is conducting habitat creation and habitat restoration efforts focused specifically on the mouse.

2019 LATE SUMMER HYDROLOGY UPDATE

The 3-month temperature and precipitation outlooks are available at <https://www.cpc.ncep.noaa.gov/>.

Other time intervals are available as well, including weekly and monthly.

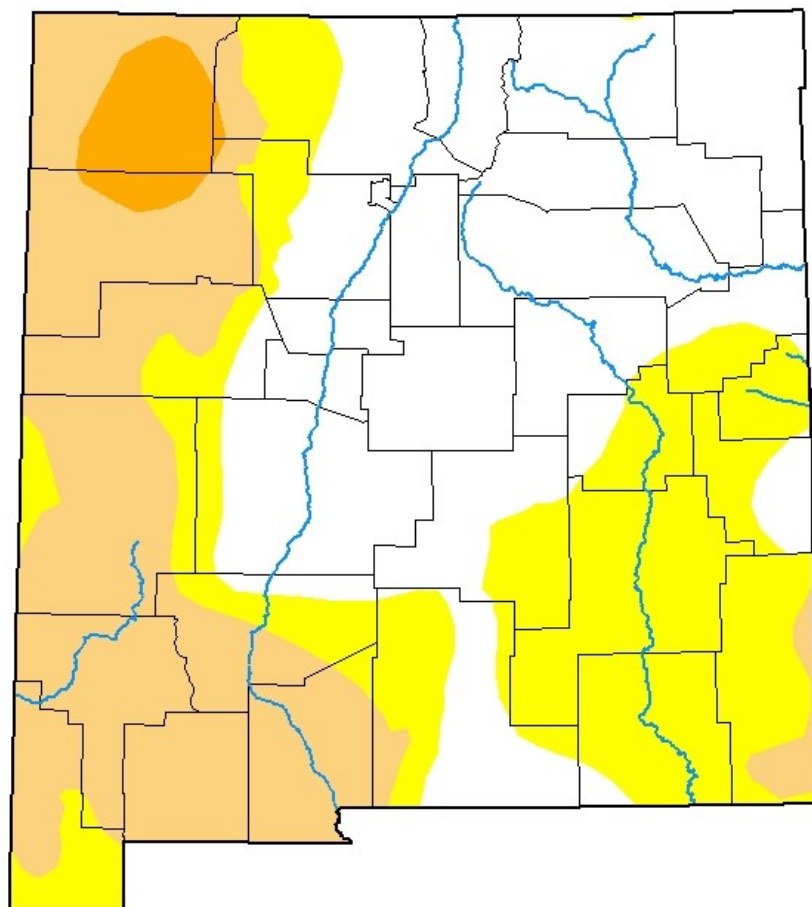


(Hydrology Update continued on page 6)

HYDROLOGY UPDATE (CONTINUED)

(Hydrology Update continued from page 5)

U.S. Drought Monitor New Mexico



September 3, 2019

(Released Thursday, Sep. 5, 2019)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	42.78	57.22	29.82	2.90	0.00	0.00
Last Week 08-27-2019	40.09	59.91	28.49	2.90	0.00	0.00
3 Months Ago 06-04-2019	65.20	34.80	18.85	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	37.99	62.01	44.71	35.03	19.67	14.17
Start of Water Year 09-25-2018	0.40	99.60	93.27	59.56	31.84	15.53
One Year Ago 09-04-2018	0.81	99.19	93.96	60.10	34.07	14.54

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

David Miskus
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

U.S. Drought Monitor information is available at: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM>

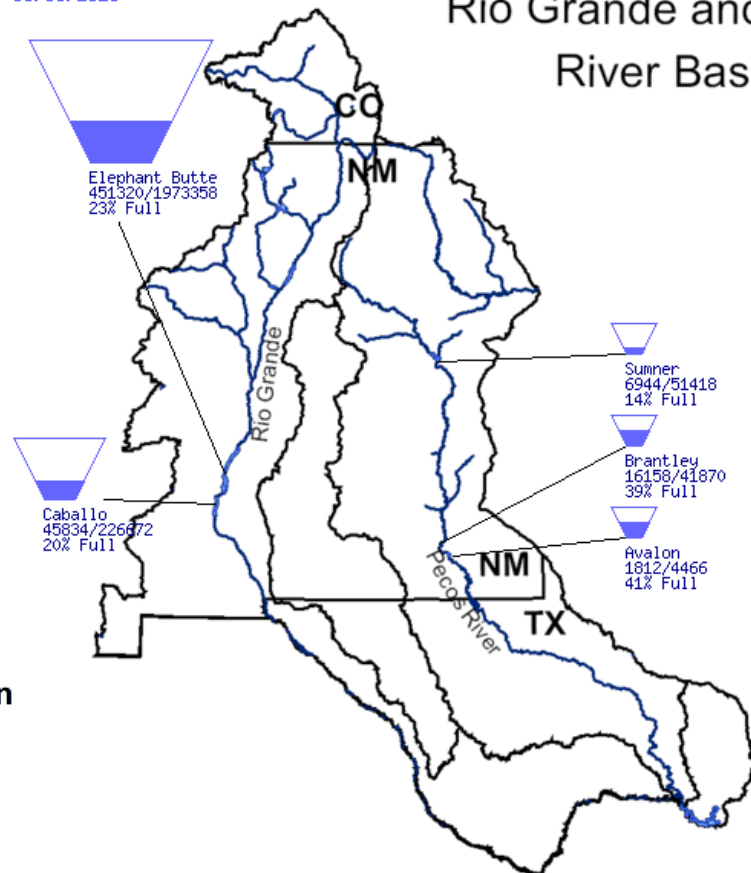
(Hydrology Update continued on page 7)

HYDROLOGY UPDATE (CONTINUED)

(Hydrology Update continued from page 6)

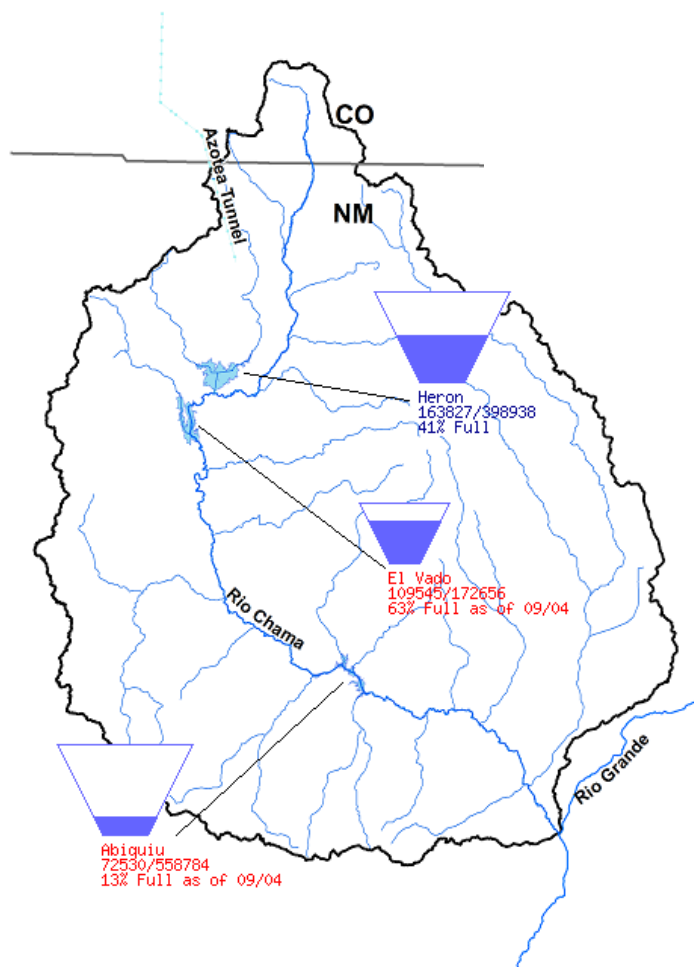
Data Current as of:
09/05/2019

Rio Grande and Pecos River Basins



Data Current as of:
09/05/2019

Rio Chama Basin



Basin "Bucket" diagrams are available at:
<https://www.usbr.gov/uc/water/basin/>

Middle Rio Grande Habitat Restoration Field Trips

Update provide by Grace Haggerty, New Mexico Interstate Stream Commission

The NMISC led several field trips during the high spring runoff in 2019. These field visits were intended to familiarize Collaborative Program participants with recent restoration projects and new research on RGSM and floodplain habitats. The NMISC's contractors Geosystems Analysis Inc. (GSA) and SWCA Environmental Inc. (SWCA) assisted with organization and presentations.

On May 29th, participants floated the Rio Grande from the Bernalillo 550 Bridge to the Alameda Bridge, with flows hovering around 3,500 cubic feet per second (Figure 1). A collection of rafts and inflatable kayaks navigated this 'wild and scenic' (note: not yet designated!) section of the Rio Grande with stops along the way to observe habitat restoration projects in Bernalillo, Rio Rancho, Corrales, and Albuquerque. Since 2006, over 500 acres have been mechanically reconfigured along the margins of the river between Angostura and Isleta diversion dams to create backwaters, high flow channels, embayments, and benches that provide off-channel habitat during spring runoff.

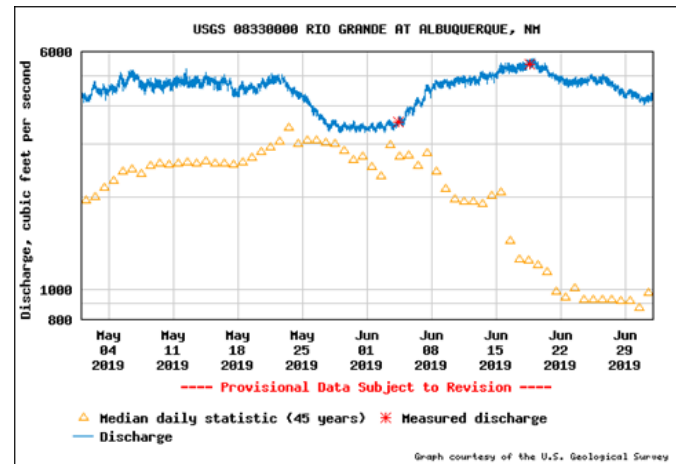


Figure 1. May 28th field trip occurred during a dip in spring runoff. Peak flow occurred in mid-June.

Stephen Zipper, SWCA, described the results of SWCA's research investigating spawning and larval habitat use at the habitat restoration projects. Steve is removing tiny otoliths (earbones) from larval RGSM and counting their daily rings to determine when the fish hatched. Larval fish were collected at project sites in 2016, 2017 and 2019 and then later identified in the laboratory.

Chad McKenna, GSA, discussed both challenges and successes of vegetation efforts at restoration projects. While coyote willow plantings and natural recruitment both appear to be quite successful, the greatest challenge and concern identified by Chad is the rapid establishment of non-native plants, especially the fairly recent introduction of ravenna grass. This grass has now spread

(Continued on page 9)

FIELD TRIPS (CONTINUED)

(Field Trips Continued from page 7)



Stephen Zipper (biologist, SWCA) describes floodplain and RGSM studies in the MRG.

into the San Acacia reach and forms dense clumps that anchor sediment in place and crowds out native plants, like coyote willow. More studies are being conducted to understand the physical drivers that affect willow growth attributes. It was interesting and disturbing to note that a number of ornamental tree species are becoming established on channel margins just downstream of the North Diversion Channel.

On June 11, the NMISC and GSA led a field trip to five recently completed habitat restoration projects in the Isleta and San Acacia reaches, including at the USFWS Sevilleta NWR. Cathy Granillo, Refuge Manager, described work accomplished via collaboration between the Refuge, NMISC,

and Reclamation over the past several years. Gina Dello Russo and other Save our Bosque Task Force staff and volunteers met up with the field trip and discussed that organization's involvement with restoration efforts in the Socorro area. For the San Acacia projects, a difficult challenge is creating SWFL and YBCU habitat in areas where there is open grazing by livestock. Also, the Isleta and San Acacia reaches have a much more active sediment load during high flows and therefore, significant sand deposition can occur within the restoration projects.

Thanks to the Collaborative Program signatories and WEST staff for their help and engagement!



Final stop: The US Army Corps of Engineer's boat ramp at the Alameda Bridge

PROGRAM PARTICIPANT SPOTLIGHT



Paul Tashijan

Audubon New Mexico

I join the Collaborative Program with a passion for the conservation of the MRG and an enthusiasm for finding common ground. I have worked within the MRG as a hydrologist for almost 3 decades on projects that have ranged from the coordination of the Bosque Hydrology Group, investigation of RGSM habitat and the quantification of Bosque del Apache NWR water use. Formerly with the U.S. Fish and Wildlife Service, I am now with Audubon New Mexico as Director of Audubon New Mexico's Freshwater Conservation

Program where our focus is on habitat restoration, environmental water leasing, outreach and education. Other Audubon staff working within the MRG include Amy Erickson, Jonathan Hayes, Katie Weeks and Desiree Loggins.

I am an avid canoer, fly fisherman, and photographer. I spent most weekends this spring and summer canoeing the MRG and it was wonderful to see this kind of water. I am the father of two teenagers, a high school junior and a college freshman, and husband to a gal named Sue. Our north valley home near the Nature Center also includes 2 dogs, 2 cats, an Arizona King snake named Sammy, numerous fish and a backyard that is frequented by all the great birds from Bullock's Orioles to Sandhill Cranes. We bought a zoo.

The MRG means many things to me. At once a place of beautiful multi-structured cottonwood forests and active floodplains as well as a place of jetty jacks lines and Russian Olive river banks; a place where unlikely partnerships between farmers and conservationists occurs; and a place where devoted agency staff work behind the scenes to ensure that the river flows. The MRG also

(Program Participant Spotlight continued on page 11)

PROGRAM PARTICIPANT SPOTLIGHT

(Program Participant Spotlight continued from page 10)

has a rich history of folks who have given their careers to pragmatic problem solving. Many of us old timers recall Cliff Crawford and the Bosque Initiative. Cliff brought inspiration and respect to our meetings and one was always more willing to take off the bowling shirt in his presence. It's in this spirit that Audubon engages in the Program.



PROJECT UPDATE

2019 Middle Rio Grande Aerial Surveys

Update provided by John Peterson, Geospatial Unit Leader, U.S. Army Corps of Engineers Albuquerque District

Like many areas in the arid southwest, the MRG Valley, from Cochiti Lake through Albuquerque, downstream to Elephant Butte Lake, has seen drought for approximately a decade. This has impacted environmentally sensitive species, agriculture, and water delivery to compact partners downstream. Fortunately the winter of 2018-2019 saw above average snow packs in the upper Rio Grande watershed resulting in higher than average runoff levels through this reach. This year's forecasted high runoff has provided an

opportunity, led by the U.S. Army Corps of Engineers, to enlist multi-agency participation toward the objective of monitoring and documenting the effects of high flow runoff on levee integrity, inundation and overbanking extents, and fish spawning, habitat. This data has the potential to be used by the Program's partners and stakeholders for a myriad of follow up studies and analyses. Some proposed projects include:

- RGSM spawning and rearing habitat in different reaches
- Validating hydraulic models

(Project Update Continued on page 12)

PROJECT UPDATE

(Project Update Continued from page 11)

- Identifying sites with favorable flooding/soil moisture conditions for the SWFL and YBCU
- Acreage of inundated habitat contributed by previously constructed habitat restoration projects
- Supporting future HR project site selection and design
- Assessing levee integrity and identifying sites for future levee improvement due to prolonged ponding, and extensive regional floodplain inundation

Bosque Farms Spoil Bank
Levees at Low Flow



2019 Bosque Farms
Levees at High Flow; Natural Color



2019 Bosque Farms
Levees at High Flow; Color Infrared
Highlights Inundation Against Levees



Bosque Farms Spoil Bank
Levees at Low Flow



2019 Bosque Farms
Levees at High Flow; Natural Color



2019 Bosque Farms
Levees at High Flow; Color Infrared
(Highlights Inundation Against Spoil Bank Levees)



Images provided by: U.S. Army Corps of Engineers Albuquerque District

UPCOMING DATES

PROGRAM MEETINGS:

Executive Committee

September 16, 2019

Adaptive Management Work Group

September 26, 2019

Population Monitoring Work Group

November 6, 2019

2019 Science Symposium

December 3-4, 2019

PROGRAM DEADLINES:

Non-Federal Cost-Share Reporting Due

October 22, 2019

SIGNATORY-SPONSORED EVENTS:

City of Albuquerque Open Space 35th Anniversary Celebration

November 2, 2019 12:00 PM - 4:00 PM
Open Space Visitor Center

PROGRAM UPDATE

Administrative Updates

Update provide by Julie Dickey, Program Support Team

MRGESCP FY19 Non-Federal Cost Share Reporting

A Fiscal Year 2019 (FY19) Cost Share template will be emailed out on Tuesday, October 1st. **FY19 cost share reporting is due by Tuesday, October 22, 2019.**

MRGESCP FY19 Annual Report

Let's get a jump start on the FY19 Annual Report! Please begin sending your FY19 annual report write-ups to the Program Support Team at jdickey@west-inc.com.

THE INFORMATION IN THIS NEWSLETTER
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BUT TO THE ORGANIZATION FROM WHICH
IT WAS SUBMITTED

FOR COMMENTS AND INQUIRIES CONTACT:
Program Support Team | (505) 362-1251 | jdickey@west-inc.com



Photo: Scenic view of the Middle Rio Grande; Photo credit: U.S. Bureau of Reclamation