

Bitter Lake News

Winter 2022

When It Rains, It Pours! August Flood at the Refuge

This past summer, New Mexico experienced drought conditions which impacted many of the reservoirs and rivers, including the Pecos River, which runs through Bitter Lake NWR. U.S. Army Corps of Engineers had coordinated for a second block release in the summer to release water from Sumner Lake to Brantley Lake to Texas and so forth in response to help send more water south. Nearing the end of that timeframe of the release, the combination of a stalled cold front and tropical moisture from both the Pacific Ocean and a remnant tropical system from the Gulf of Mexico supported heavy rainfall over southern New Mexico from August 19 to August 21, 2022.

As a result, the amount of heavy rainfall in northern Chaves County flowed into the Pecos River basin. U.S. Geological Survey (USGS) reported 17.36 feet on the Pecos River gauge near Acme by US 70. Flood stage at the Acme gauge is 13.0 feet. The 17.36 foot flood event on August 21, 2022 beat the previous flood crest of 13.7 feet on August 23, 1941! The flood was well spread out on the Bitter Lake NWR area and Bottomless Lake State Park/BLM Overflow Wetlands area. Spatial analysis provided by National Weather Service measured that the Pecos River spread as wide as 1.74 miles from the flood! As quickly as the flood came, it quickly left as the water receded but brought damages.



Extent of flooding on the Oxbow Trail in the Hunter Marsh parking lot.

What did this mean for the refuge? As a result of the widespread flooding, the water overtopped the refuge exterior levees on the Middle and South Tracts and went over the riverbank on the North Tract where the Salt Creek Wilderness Area is located. The exterior levees on the Middle Tract protect the interior wetland units. These levees were put into place by the Civilian Conservation Corps (CCC) in the 1930's and 1940's. The levees slowed down the water to prevent further damage to the interior levees that separate the wetland units. As a result, the interior wetland units did not suffer severe damage to those levees, thankfully. The water flowed over the east side, north, and south sides of the refuge, filling wetland units, and a small part of the auto tour route near the Pajaro bird blind. The flood also deposited large amounts of sand out of the banks adjacent to the Pecos River on the east end of the Hunter Marsh Oxbow Trail. There is approximately 17 miles of levees and service roads or fencing on all three tracts that will need repair from the extensive damage. Dirt, riprap, road rock and some fencing will need to be replaced. The flood did not reach the sinkholes on the west side of the refuge.

Refuge staff worked to map and record the flood damages and is working with the regional office on a plan for repair, which will take time and funds. Cost estimates of flood damage to all three tracts is well over \$5 million. In the short term, refuge maintenance staff worked to repair sections of the auto tour route to re-open back to traffic and the service road leading to the east side of the Hunter Marsh Oxbow Trail. The Oxbow Trail will need repair but is still open for hiking at your own risk.

Despite the flood damages, the water was a welcome change to the wetland units which were suffering from severe drought as the ground was cracking and plants were desiccated and biding their time before the next desert rains. The wetland units were rejuvenated, which came in time before the Dragonfly Festival in September and many different species of dragonflies and damselflies were seen flitting about, dipping their eggs in the water and shorebirds and wading birds were scuttling about. There would not be a Dragonfly Festival without dragonflies! An explosion of color erupted across the desert with the bloom of colorful wildflowers and green plants and shrubs. The flood was a 100-year historical event as the power of water worked to reclaim the Pecos River for a brief time as it once flowed in the past, meandering through the disconnected oxbows, connecting them briefly, and reflooding historical wetlands in the low depressions along the Pecos River basin. We are still unsure if new channels have been created or shifted and left behind new scars, but it was neat to stop and think about what the Pecos River had once looked like in the past.

New Record Crane Count!

Every fall, migration is in full swing through Bitter Lake NWR. Of particular interest are the sandhill cranes that routinely stop and roost at the refuge every fall through winter. It is quite the spectacle, watching and hearing the familiar warbles of the cranes flooding the sky as they leave the roost at dawn, or return to the refuge at dusk. Refuge staff and volunteers count the sandhill cranes on a weekly basis from the end of September to their departure north in March.

On October 20, 2022, staff and volunteers counted a new record of 34,018 sandhill cranes! The previous record since long-time volunteer Jim Montgomery started recording data in 1989 was 32,005 on October 24, 2012! In comparison, the peak in 2021 was 18,000. The long-term trend does show the typical peak to be around October 20th and then the numbers start to decline as the sandhill cranes move on their southern journey. At the end of January, there is a slight uptick as some of the cranes start migrating back north to their breeding grounds in Alaska, Canada, and Siberia.



Dragonfly Festival 2022

Steve Alvarez

Finally, after two years of mandatory closures due to the Covid pandemic, the green light was given to the refuge to proceed with the 2022 Dragonfly Festival. As planning took place and volunteers were contacted, the staff was unsure of this year's attendance and community participation. While planning the event, exhibitors, volunteers, and tour guides seemed apprehensive and non-committal about partaking in the event. Still nervous about large gatherings, people were cautious and concerned. Eventually as the Dragonfly Festival date drew nearer, more and more people began calling the refuge to help or just sign up for a guided tour.

On the day of the event things started off a little slow and unexciting. As the day progressed the crowds began to appear. To my pleasant surprise the community began to show up in large numbers. In fact I had never seen so many cars parked along the wildlife drive. People were everywhere smiling, laughing, and enjoying their refuge!



The festive day included dragonfly tours led by expert guides, nature exhibits, live fishing pool, ATV simulator, pellet gun guest speakers about bats and raptors, arts and craft vendors, face painting, kids' crafts, and a special Monarch butterfly release event.



These fun things would not be possible without the involvement of our partners like the New Mexico Department of Game and Fish, New Mexico State Parks, other New Mexico refuges like San Andres, Sevilleta, Bosque del Apache, Las Vegas, Maxwell, and Rio Mora, Carlsbad National Park and Guadalupe National Park, Roswell Astronomy Club, Boy Scouts, and Eastern New Mexico University Wildlife Society. We especially would like to thank our community contributors for the festival: Smith Foundation, Roswell Seed, Leprino Foods, Keys Drilling and Pump Services, Roswell Toyota, Central Valley Electric, Roswell Rotary Club, and Rustic Essentials.

Mark your calendars to attend next year's Dragonfly Festival on Saturday, September 9, 2023!



The fishing pool at Dragonfly Festival was a fun activity for all!

Managed Deer Hunts Bring Youth to the Refuge

For the third year in a row, Bitter Lake NWR hosted or will host 4 managed deer hunts for youth on the South Tract, near US 380 this season. This opportunity provides youth hunters and their mentors an additional 1,100 acres to pursue deer, as part of Game Management Unit (GMU) 32. The South Tract is otherwise closed to the public. The first two hunts are for antlered deer and the last two hunts are for antlerless deer for the 2022/2023 season. The youth hunters were successfully drawn through the New Mexico Game and Fish lottery and then a free refuge application with the opportunity to hunt the South Tract was sent to all the successful youth hunters. Three hunters were randomly drawn for each of the four hunts. An adult mentor accompanies the youth hunter. Refuge staff provides a pre-hunt orientation to cover the rules and allow the hunters and mentors to scout. The opportunities are provided during the state-approved periods for those hunts, but the hunters are also free to go elsewhere on GMU 32 if they choose to. It has been a successful program and the effort helps keep the deer at a healthy and sustainable population. We look forward to working with the New Mexico Game and Fish to continue providing this opportunity for the youth hunters.

PRESIDENT'S CORNER

Merideth Hildreth

As 2022 comes to a close and we look forward to a bright new 2023, I'm thankful for the conservation efforts of the U.S. Fish and Wildlife Service, especially two FWS facilities in Chaves County, New Mexico. According to the website <https://www.fws.gov/> Bitter Lake NWR (just outside Roswell) is one of 590 National Wildlife Refuges in the U.S., and one of 9 in New Mexico. Bitter Lake's staff continue to restore wildlife habitat, maintain the wetland's hydrology system, manage water and provide loafing and feeding areas that Lesser Sandhill Cranes and other waterfowl depend upon during annual migrations. The FWS's National Fish Hatchery System is celebrating 150 years and includes the Southwestern Native Aquatic Resources and Recovery Center located in Dexter <https://www.fws.gov/program/national-fish-hatchery-system>.

Approximately 200 Friends Groups support the education and conservation missions of the Service's refuges and fish hatcheries. I'm grateful to all our volunteers who dedicate their time and talents to the Friends of Bitter Lake NWR. Several unsung heroes spend hours each week and month behind the scenes conducting bird counts, running the Nature Store, maintaining the Butterfly Trail, and taking care of administrative duties in order to raise and allocate money for educational, outreach, and conservation efforts. We so appreciate the community's involvement in making the 2022 Dragonfly Festival one of the best ever. The Committee did a fantastic job organizing the event! I want to thank the Festival's sponsors, volunteers, Refuge Staff, artists, and state and federal agencies, who participated in the Festival!!! Cranes and Cocoa was a beautiful event with approximately 50 people in attendance and way more cranes – thanks to Jim Montgomery for your expert talk!



Our success with the Friends of Bitter Lake would not be possible without our volunteers!

We'll kick-off 2023 with more fun at the Friends Annual Winter Membership Meeting and potluck at **NOON on Saturday, January 28** featuring the Refuge's new Wildlife Biologist Carl Jacobsen. The Friends will provide the main course (chicken). Please bring your favorite dish, your membership dues (so you can vote), a couple of friends who want to be members (WE NEED MORE MEMBERS & MORE VOLUNTEERS), and dollars to spend in the really awesome Nature Store!

Friends of Bitter Lake National Wildlife Refuge



Membership Form

- Individual Family
 Student Business

Date: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Cell Phone: _____

Mail to:
 Friends of Bitter Lake NWR
 4200 E. Pine Lodge Rd.
 Roswell, NM 88201

Friends of Bitter Lake National Wildlife Refuge
 Membership Form Instructions



Just two easy steps to join:

1. Complete the form on the left side of the sheet and mail it with your dues to the Refuge.
2. Complete the Membership Card below and keep it for your records.

*Membership includes 10% discount at
 Nature Store

(Fold Here)



Friends of Bitter Lake
 Membership Card

www.friendsofbitterlake.org
 (575) 244-6256

Name: _____

Date: _____

*Membership expires 1 year from above date.

Friends of Bitter Lake NWR
4200 East Pine Lodge Road
Roswell, NM 88201