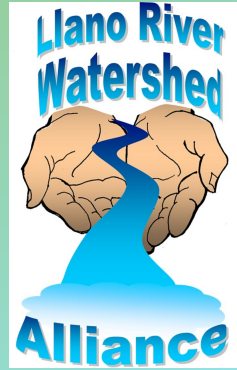


WATERSHED WEEK IN REVIEW



Please Join Us

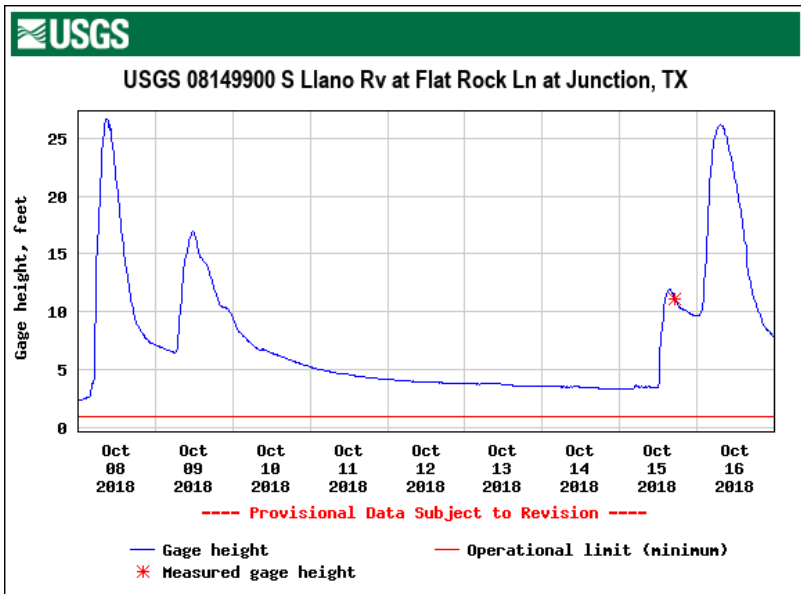
If you find this newsletter and [Facebook Page](#) helpful and support the efforts of the Llano River Watershed Alliance, please consider becoming a member.

Individual Membership is \$20/year.

Business Sponsorship is \$100/year.

Click on the Donate Button on our [website](#) or [Download a Membership Application](#)

We greatly appreciate your support.

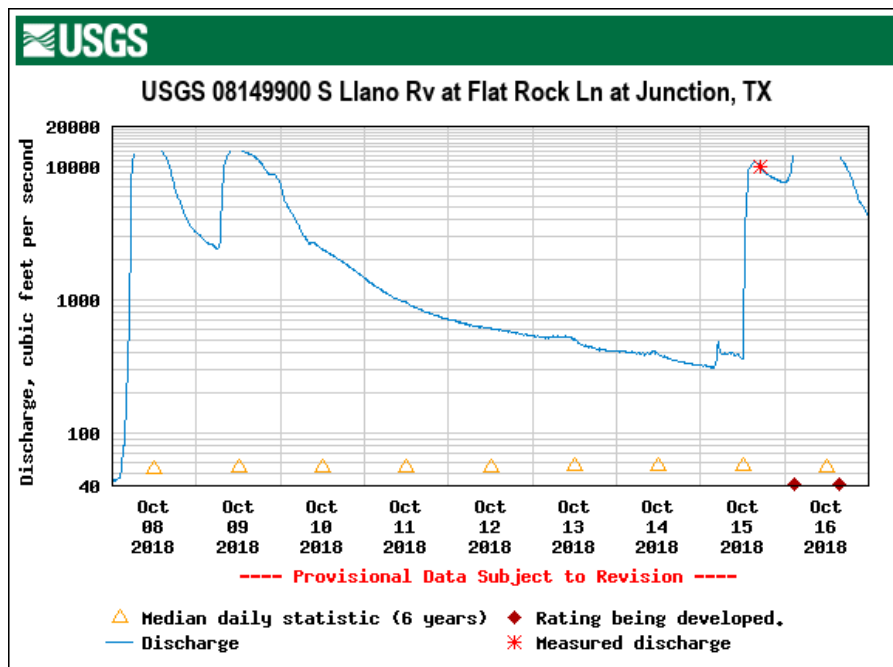


How Big was the Flood on the South Llano?

The South Llano River last month had two flood waves that, according to the six-year old gage at Flat Rock, topped 26 feet. Stream gages only record the height (or stage) of the water; river discharge is determined by pairing field measurements with recorded stage data from gages using a 'rating curve'.

Because this is a fairly new gage, the U.S. Geological Survey does not have enough measurements to accurately make an estimate of the discharge from the two October floods. This is why the discharge graphs are incomplete for the Flat Rock gage (see graphic next page). This will change as USGS collects additional measurements.

How Big was the Flood ...continued



In the meantime, one method for estimating the magnitude of the South Llano River October floods is to subtract flow at the North Llano River gage above Junction from the Llano River gage just downstream of Junction. Both gages were installed in 1915 and have an extensive historical

record, with some exceptions.

On October 8, peak streamflow measured at the Llano River gage below Junction was 121,000 cubic feet per second (cfs). The North Llano gage on that day measured a peak streamflow of only 2,190 cfs. Consequently, it can be assumed that the South Llano flow on that day was about 118,000 cfs, the third highest flow calculated for the South Llano using this method. Using this same methodology, it is estimated that the South Llano River in 1935 was at 238,000 cfs and 158,000 cfs in 2001. The October 2018 flood was also the first rise on the South Llano River since 2004, when flows reached an estimated 58,000 cfs. Flood flows for the October 16th flood on the South Llano using this methodology provide an estimated flow of 86,000 cfs.

It should be noted that this methodology can not provide a complete picture of historic floods on the South Llano as the North Llano gage was inactive between 1979 and 1999. Therefore, it is not possible to estimate the South Llano's contribution to the floods of 1980 (139,000 cfs) and 1984 (129,000 cfs). The contribution to these floods from the South Llano could have been greater than the October 2018 flood, making it the fifth highest flood.

Llano River is a Stop on VIP Bus Tour



Members of the Colorado River VIP Bus Tour had an opportunity to learn about the Llano this past Thursday as they passed through Junction on their way from Austin to San Angelo. Tyson Broad, with the Llano River Watershed Alliance, talked about the issues related to the Llano as the group traveled to Junction. Following lunch at the Llano River Field Station, the group stopped at Native American Seed, where Bill Neiman (left) explained the irrigation practices and riparian restoration efforts at the Farm.

Texas Rivers and the Llano lose a Good Friend

Folks in the Texas river community are saddened by the loss of Ed Lowe, Dallas restaurateur and founder of Friends of the Brazos River. Ed was killed in a fall in Boquillas Canyon while guiding a canoe trip in Big Bend. Ed was also a good friend of the Llano River, where he annually brought three generations of his family down the river. [Read more about Ed's extraordinary efforts...](#)



Left: Ed Lowe with John Graves on the Pecos River

Right: Ed Lowe with his grandson last March on the Llano

Get Rid of Some Turkey!

1st annual

South Llano River Turkey Trot

Saturday, November 24th

10:30 am



What: 5k Family Fun Run/Walk

Where: South Llano River State Park

Fun for the whole family!

All Proceeds benefit the Friends of South Llano River State Park

\$15/per person

We felt that it was fitting to have a Turkey Trot at the home of one of the largest Rio Grande Turkey Roosts in the state of Texas.

Join us, Saturday November 24th for a quick “trot” around the park and burn off some of those Thanksgiving calories.

Next Week's Newsletter

There will be no newsletter next week so that writers and readers may enjoy a restful Thanksgiving holiday.

Thank you for your support.

