

RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 8/10/2016
National Weather Service Forecast Office, Pittsburgh PA

For the latest river and weather forecasts--<http://www.weather.gov/pittsburgh>

WEATHER RECAP

July was generally hot and dry. Overall, temperatures across the region were approximately 2-4 degrees F above normal, while precipitation was near normal in West Virginia, but as much as 75% below normal in Allegheny River basin.

OUTLOOK

Week of Aug 8: Hot and turning very humid. Mid and late week thunderstorms. Rain amounts about 1.00 inch but isolated 2.00 to 3.00 inches. Allegheny basin predicted to get more than Monongahela basin.

Outlook for week of Aug 15: Hot and humid. Summertime thunderstorms. Keep eye open for tropical storms. Rain amounts about than an 1.00 inch but isolated 2.00 to 3.00 inches.

Outlook for week of Aug 22: Hot and Humid. Summertime thunderstorms.

Outlook September: Continued summer weather with scattered thunderstorms. Keep eye open for tropical storms.

Outlook October: Summer lingers.

Summer Outlook Weak La Nina is ongoing.

- August continued hot summer weather with scattered thunderstorms. Warmer and drier to continue through autumn .
- Hurricane season more active season than last year
 - El Niño transitions to La Niña recent similar years 1988, 1995, 1998, 2007 & 2010
 - Gulf of Mexico and western Atlantic much warmer now than those years
 - Dust off of west coast of Africa has dissipated resulting in more favorable conditions for tropical systems to form.

Interesting Happenings: Earl formed but moved into Mexico. For now the Atlantic remains quiet but warm waters near the US coast are favorable for anything that develops.

HIGH WATER POTENTIAL

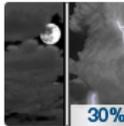
High water potential is about normal. A minimum of 2.00 inch basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. Total precipitation through the first week of September should average about 2 to 3 inches which is below normal.

<i>Location</i>	<i>Jul 2016 Precipitation</i>	<i>Departure (Inches)</i>
<i>Pittsburgh</i>	3.12	-0.71

<i>Location</i>	<i>Jul Average Temperature</i>	<i>Departure Degrees</i>	<i>Extreme High</i>	<i>Extreme Low</i>
<i>Pittsburgh</i>	75.5	+2.9	93 Jul 25	55 Jul 2 & 3

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average monthly precipitation	2.7	2.39	2.95	3.11	3.95	4.3	3.83	3.48	3.11	2.29	3.23	2.85	38.19
Average High Temperature	35.7	39.3	49.2	61.7	70.8	79.1	82.5	81.4	74.3	62.6	51.2	39.4	60.7
Average Low Temperature	21.1	23	30	40.2	49.3	58.4	62.8	61.5	54	42.9	34.7	25.3	42
Average monthly snowfall	11.8	10.3	7.6	1.5	0	0	0	0	0	0.4	2	8.3	41.9

WEATHER FORECAST

This Afternoon	Tonight	Tuesday	Tuesday Night	Wednesday	Wednesday Night	Thursday	Thursday Night	Friday
								
Mostly Sunny	Partly Cloudy	Mostly Sunny then Slight Chance T-storms	Chance T-storms	Chance T-storms	Chance T-storms	Chance T-storms	Mostly Cloudy then Chance T-storms	Chance T-storms
High: 85 °F	Low: 66 °F	High: 86 °F	Low: 71 °F	High: 88 °F	Low: 71 °F	High: 88 °F	Low: 73 °F	High: 88 °F

8-14 Day Outlook... Hazy Hot and Humid.

30 Day Outlook... Above normal temperatures and below normal precipitation.

Oct-Nov-Dec Outlook... Warmer and drier than normal.

Dec-Jan-Feb Outlook... Warmer than normal December then a pattern flip to colder in January February

Feb-Mar-Apr Outlook... Low Confidence...Normal temperatures and normal precipitation

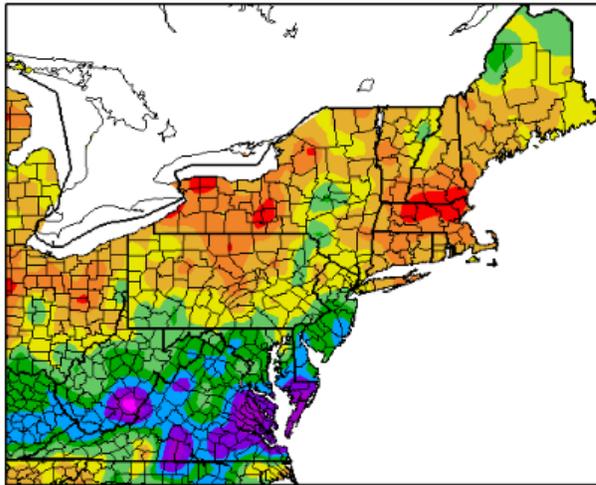
Average Yearly rainfall Pittsburgh: 38.19 inches So far in 2016: 20.06(-3.88)

Totals for: 2015:40.56 2014: 36.84 2013: 36.65 inches; 2012: 41.74 inches; 2011: 44.24 inches; 2010: 37.85 inches

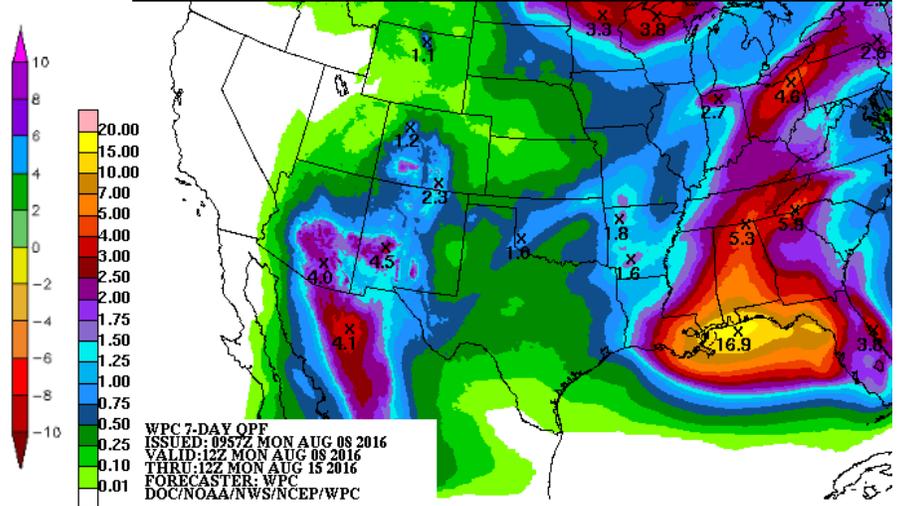
Average Yearly snowfall Pittsburgh: 41.9 inches 2015-16 season: 29.6 inches (-12.3)

2014-15: 47.2 in 2013-14: 63.4 in; 2012-13: 57 in; 2011-12: 37 in; 2010-11: 57 in; 2009-10: 77 in

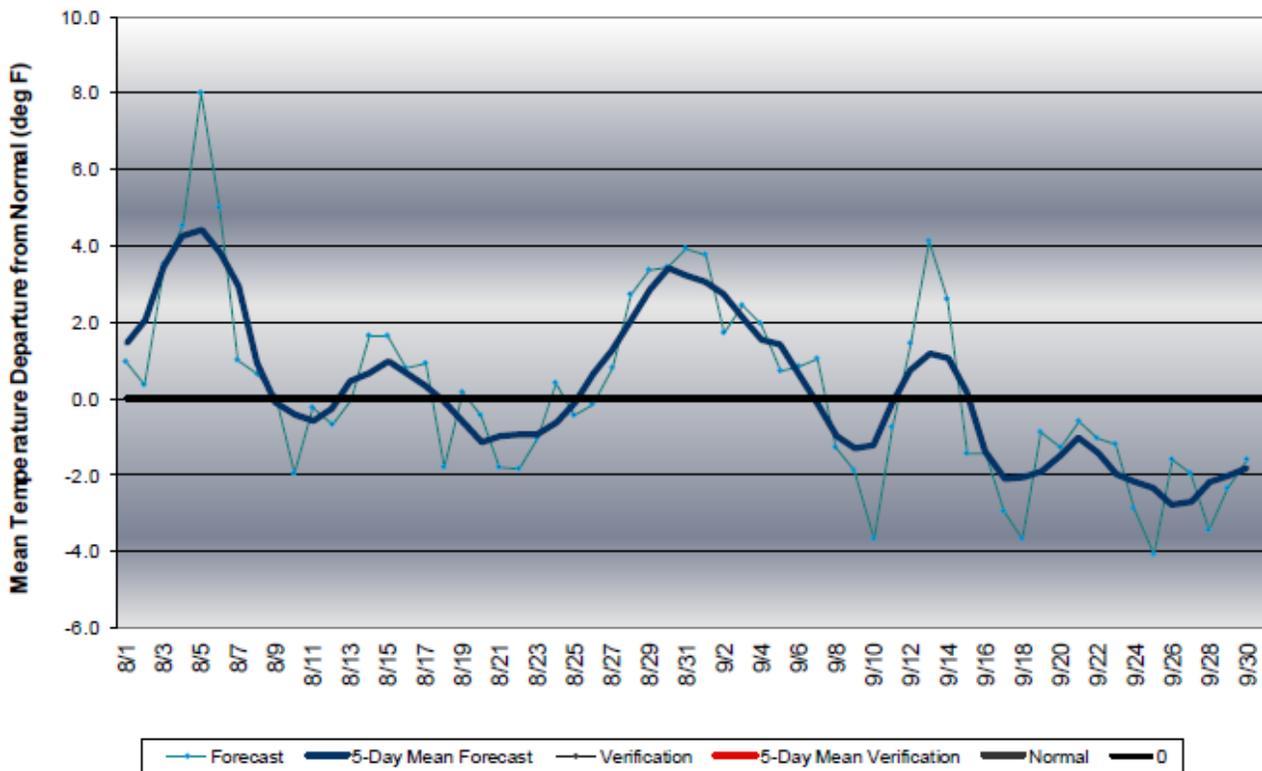
Departure from Normal Precipitation (in)
5/1/2016 - 7/31/2016



7 Day rain forecast



**Western Pennsylvania Temperature Forecast
August-September 2016**

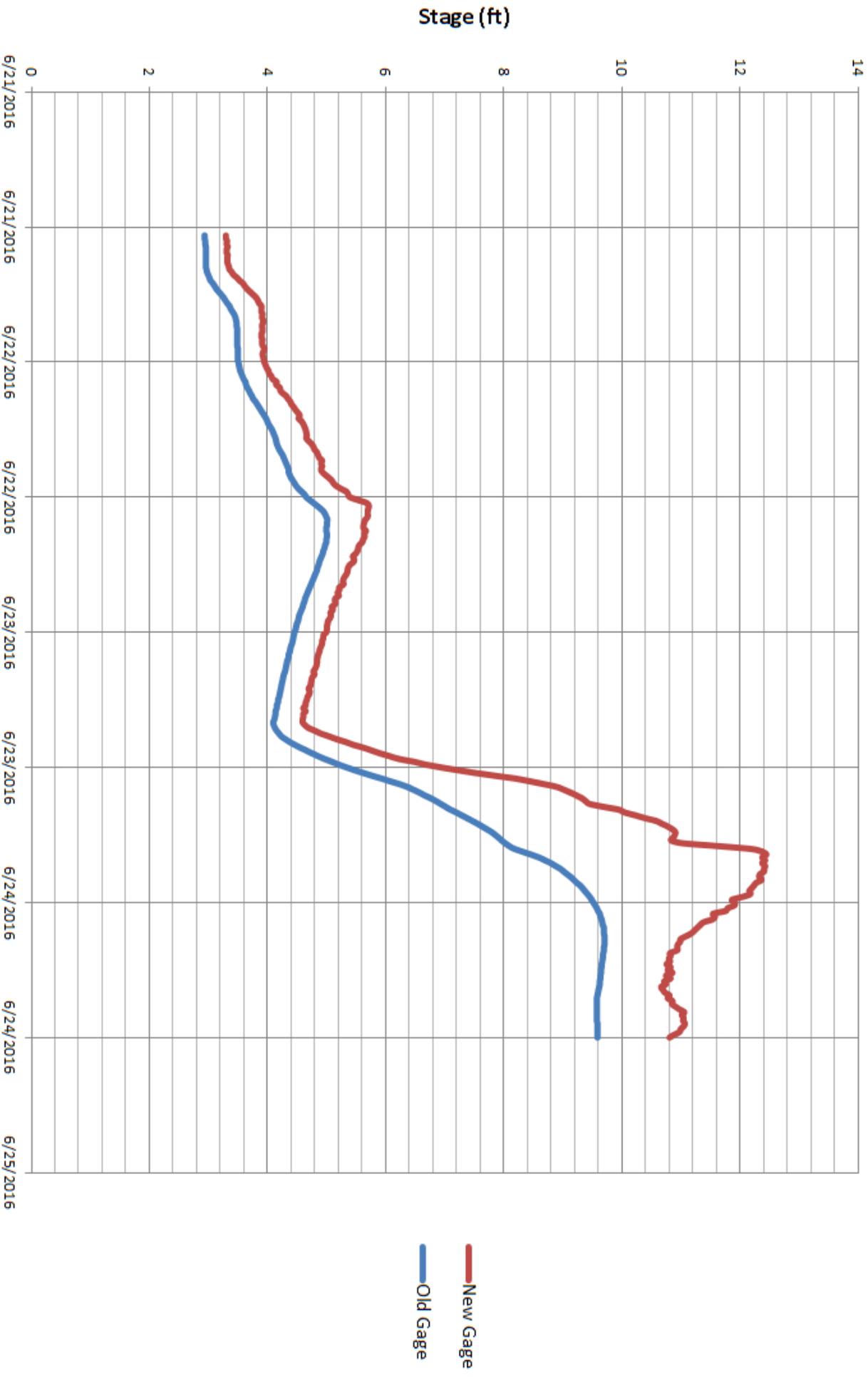


NOTICE:

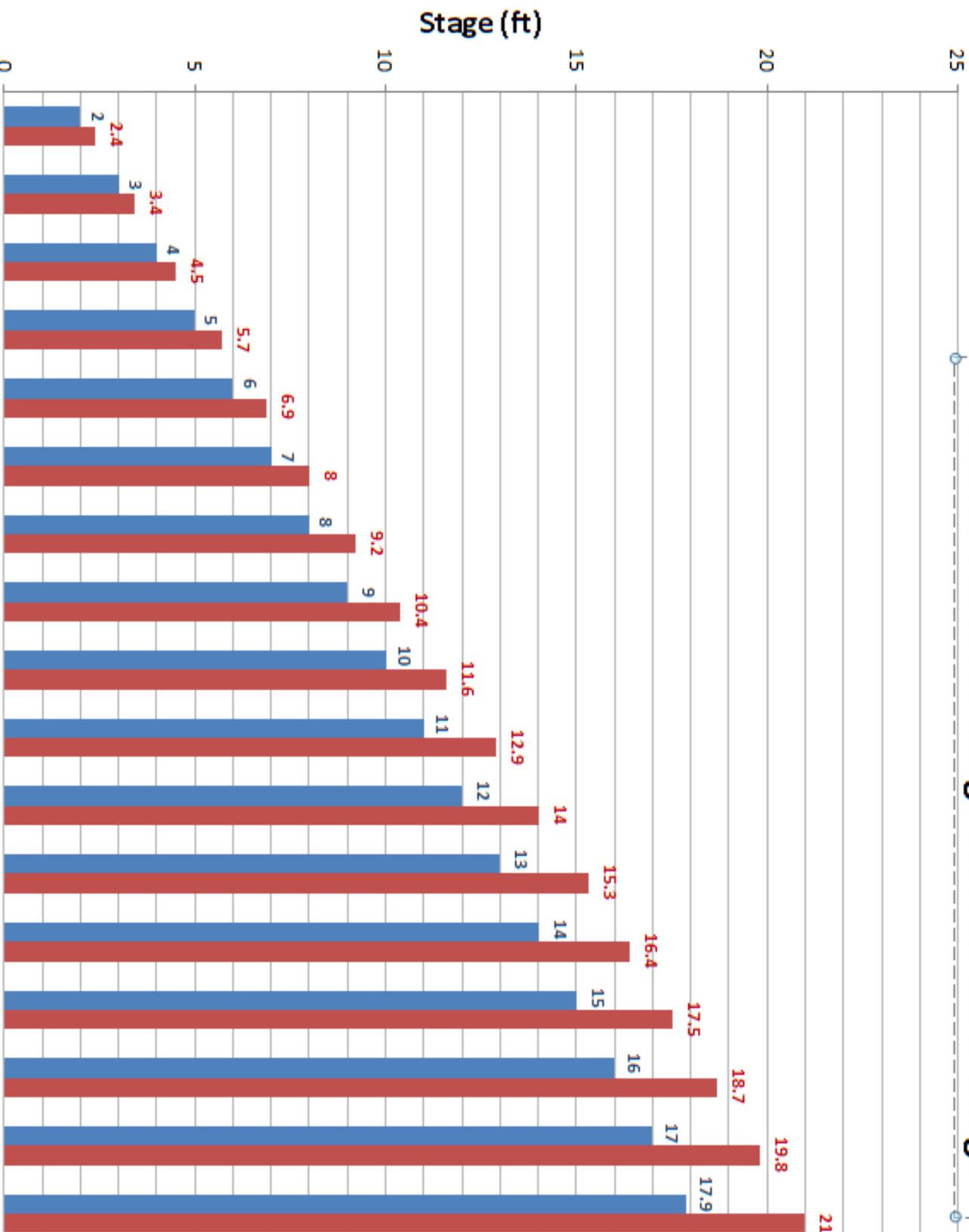
Due to extensive deterioration of the existing Parsons gage structure, a new gage shelter has been installed 1700 feet upstream of the current location on the Holly Meadows Bridge. Gage-height data are being collected concurrently at both locations, at the same datum, and a new stage-discharge rating is currently available for the new gaging location above. There is not a direct relationship to the stage at the old gage compared to this new gage. The flood stage at the Holly Meadows bridge will be different than the old Parsons gage. NOTE: Preliminary flood stage above is for informational purposes only and will be finalized this summer. Plans are to terminate data collection at the old location during the fall of 2016.

Preliminary/Estimated Gauge Height Relationship: Current Gauge vs New Gauge	
Current Parson River Gauge Stage (ft)	New Parsons River Gauge on Holly Meadows Bridge Equivalent Stage (ft)
2.0	2.4
3.0	3.4
4.0	4.5
5.0	5.7
6.0	6.9
7.0	8.0
8.0	9.2
9.0	10.4
10.0	11.6
11.0	12.9
12.0	14.0
13.0	15.3
14.0	16.4
15.0	17.5
16.0	18.7
17.0	19.8
17.9	21.0

Comparison of stage (ft) over a three day period of the old and new gauges at Parsons



Estimation of Stage Equivalency (ft) Relationship: Parsons' Old River Gauge vs. New River Gauge



■ Current Parson River Gauge

■ New Parsons River Gauge on Holly Meadows Bridge

This graph uses the rating curves of each gauge to represent the relationship between their stages.

**Rating Curves of Old and New Parsons Gauges:
Stage (ft) vs. Flow (cfs)**

