

RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 4/13/2016
National Weather Service Forecast Office, Pittsburgh PA

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

WEATHER RECAP

March had some wild swings in temperatures and was a windy month. The temperatures were well above normal and precipitation near normal, but snowfall was below normal. The month had above normal temperatures and above normal precipitation.

OUTLOOK

Week of Apr 11: Seasonal and dry.

Outlook for week of Apr 18: Normal temperatures. Dry then chance of shower later in week. About 0.50 inch rain.

Outlook for week of Apr 25: Normal temperatures with a several day rainy period. About 1.00 inches rain.

Outlook May: Warmer than normal temperatures and near or below normal rainfall

Outlook June: Warmer than normal temperatures and below normal rainfall

Spring/Summer Outlook La Nina is forming. Expect a moderate La Nina by later this summer.

- A "Sudden Summer" with a rapid pattern shift to warm and dry conditions by May
- June/July/Aug hotter and drier than normal
- 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
 - Unfavorable eastern Atlantic pattern argues against mega this year, but 2017 and 2018 likely very active

HIGH WATER POTENTIAL








High water potential is below normal. The grass and ground cover is greening, and trees are budding and starting leaf out. A minimum of 1.75 inch basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. Total precipitation through the first week of May should average between 1.00 to 2.00 inches which is about below normal.

Location	Mar 2015 Precipitation	Departure (Inches)	Mar Snowfall	Seasonal Snowfall
Pittsburgh	2.83	-0.12	2.1 (-5.5)	26.5(-13.9)

Location	Mar Average Temperature	Departure Degrees	Extreme High	Extreme Low
Pittsburgh	48.0	+8.4	76 Mar 27	18 Mar 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

Wednesday	Wednesday Night	Thursday	Thursday Night	Friday	Friday Night	Saturday
						
Mostly Sunny	Partly Cloudy	Sunny	Mostly Clear	Sunny	Mostly Clear	Sunny
High: 55 °F	Low: 35 °F	High: 63 °F	Low: 40 °F	High: 64 °F	Low: 43 °F	High: 68 °F

8-14 Day Outlook... Normal temperatures and below normal precipitation.

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

Jun-Jul-Aug Outlook... Warmer and drier than normal.

Aug-Sep-Oct Outlook... Above normal temperatures and below normal precipitation

Oct-Nov-Dec Outlook... Above normal temperatures and normal precipitation

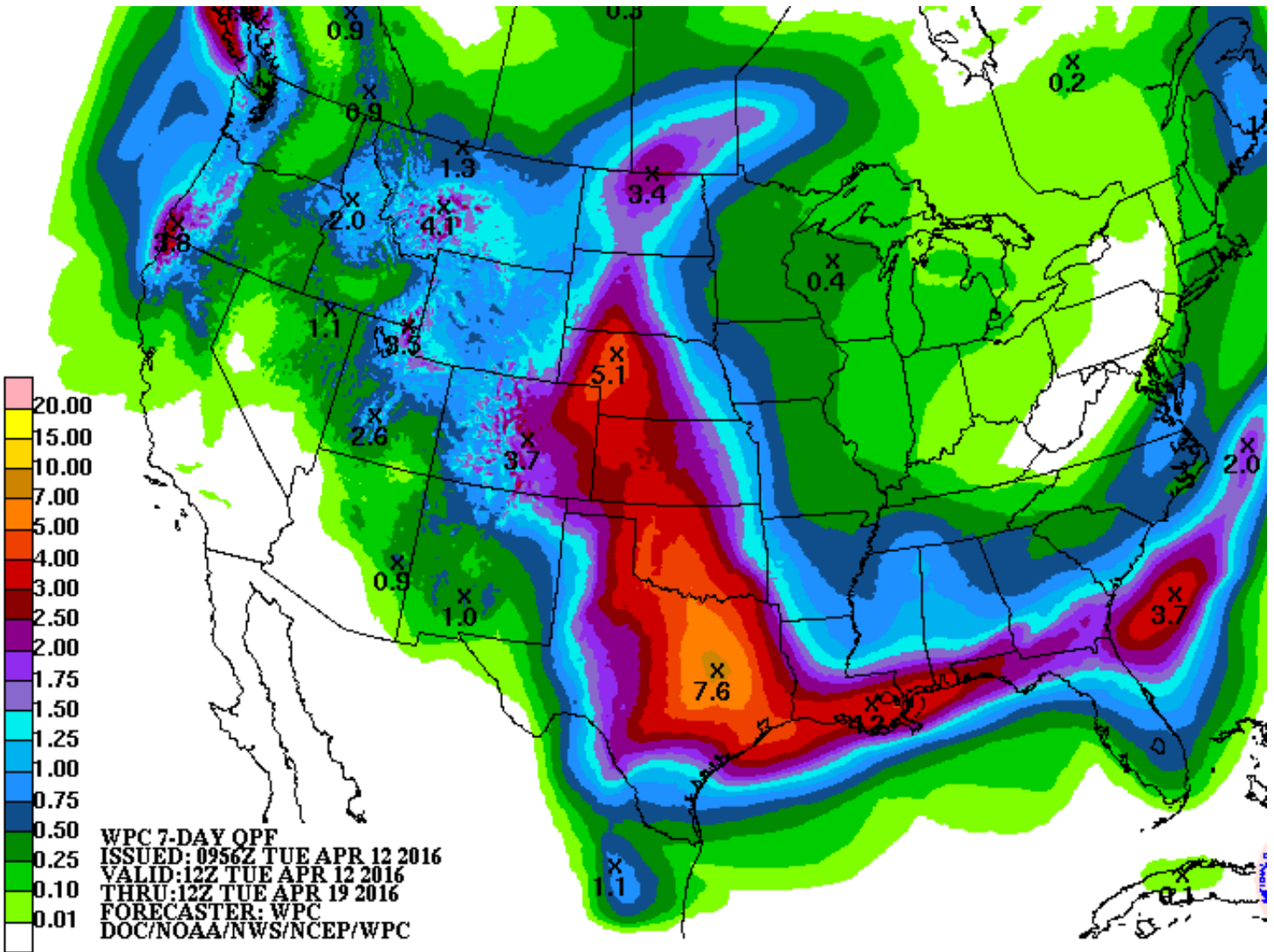
Average Yearly rainfall Pittsburgh: 38.19 inches **So far in 2016:** 9.35 (+0.07)

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 So far this 2015-16 season: 26.5 inches (-13.9)

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

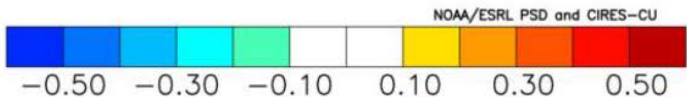
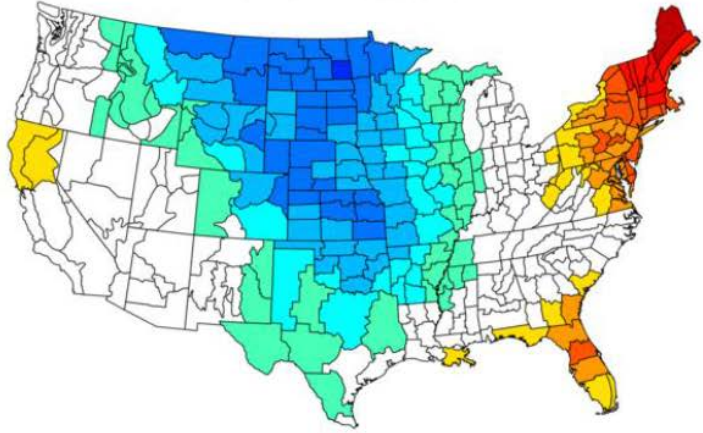
7 Day rain forecast



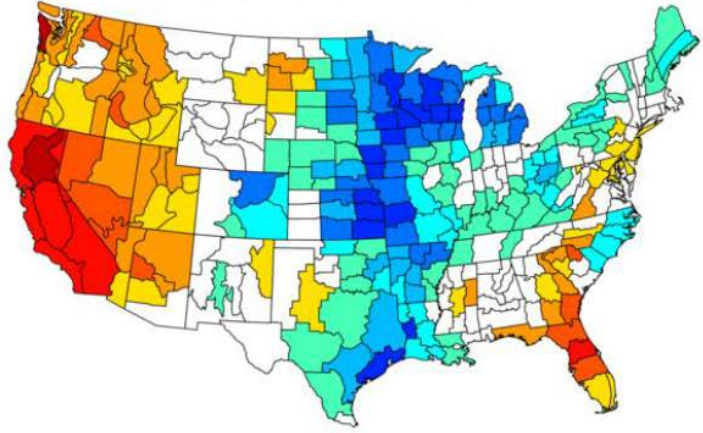
Looking back at years that were similar to this March that was dry in the Southeast, warmer in the Northern Plains, and wet in the Pacific Northwest, the resultant May Temperatures/ Precipitation look like this:

For our area expect a warm than normal May with near to below normal rainfall.

NOAA/NCDC Climate Division Composite Standardized Temperature Anomalies Versus 1895–2000 Longterm Average
 Apr to May 1904,1905,1907,1910,1911,1916,1918,1938,1945,1945
 1961,1968,1999,2004,2007,2012,2015



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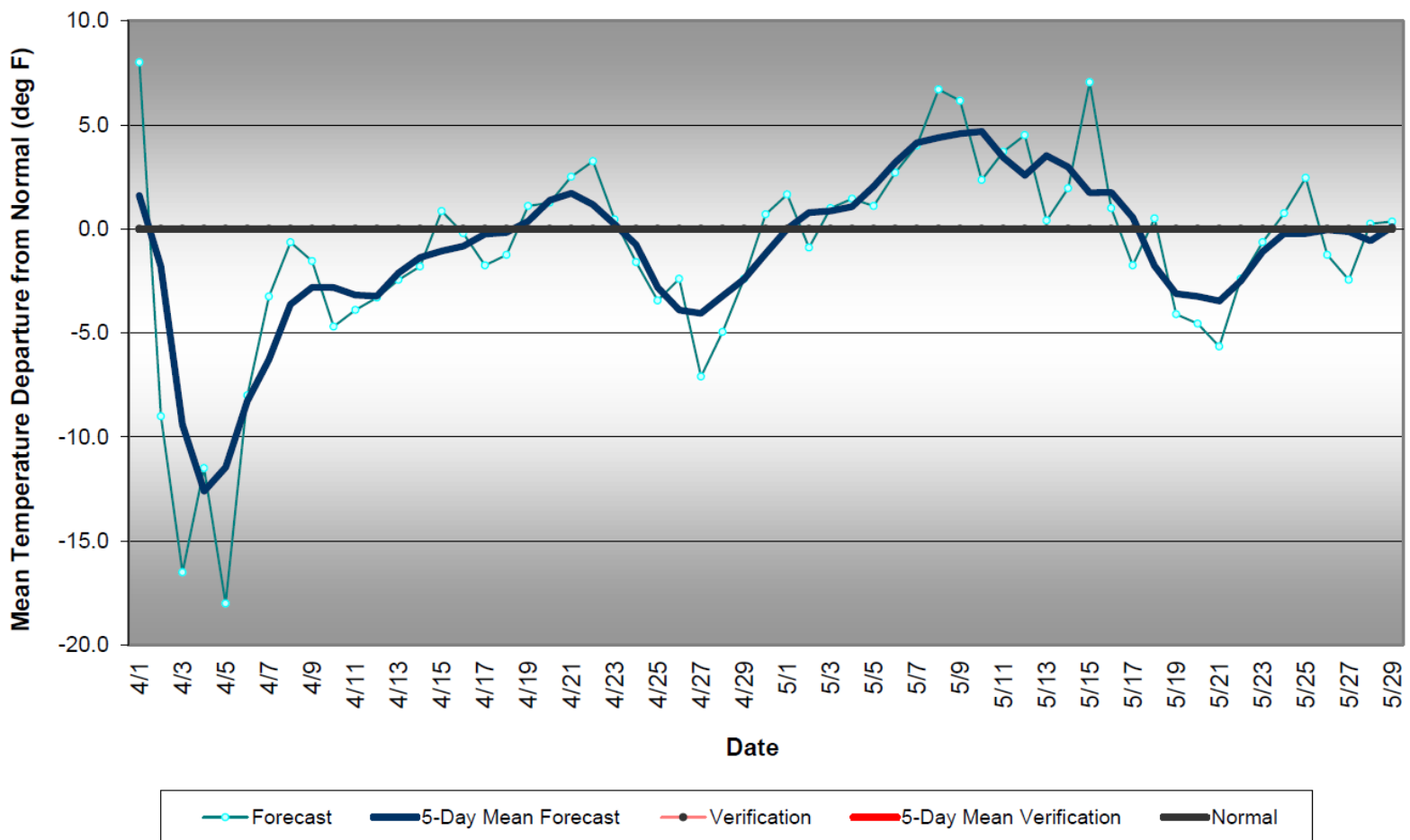


MAY TEMPERATURES IN PENNSYLVANIA

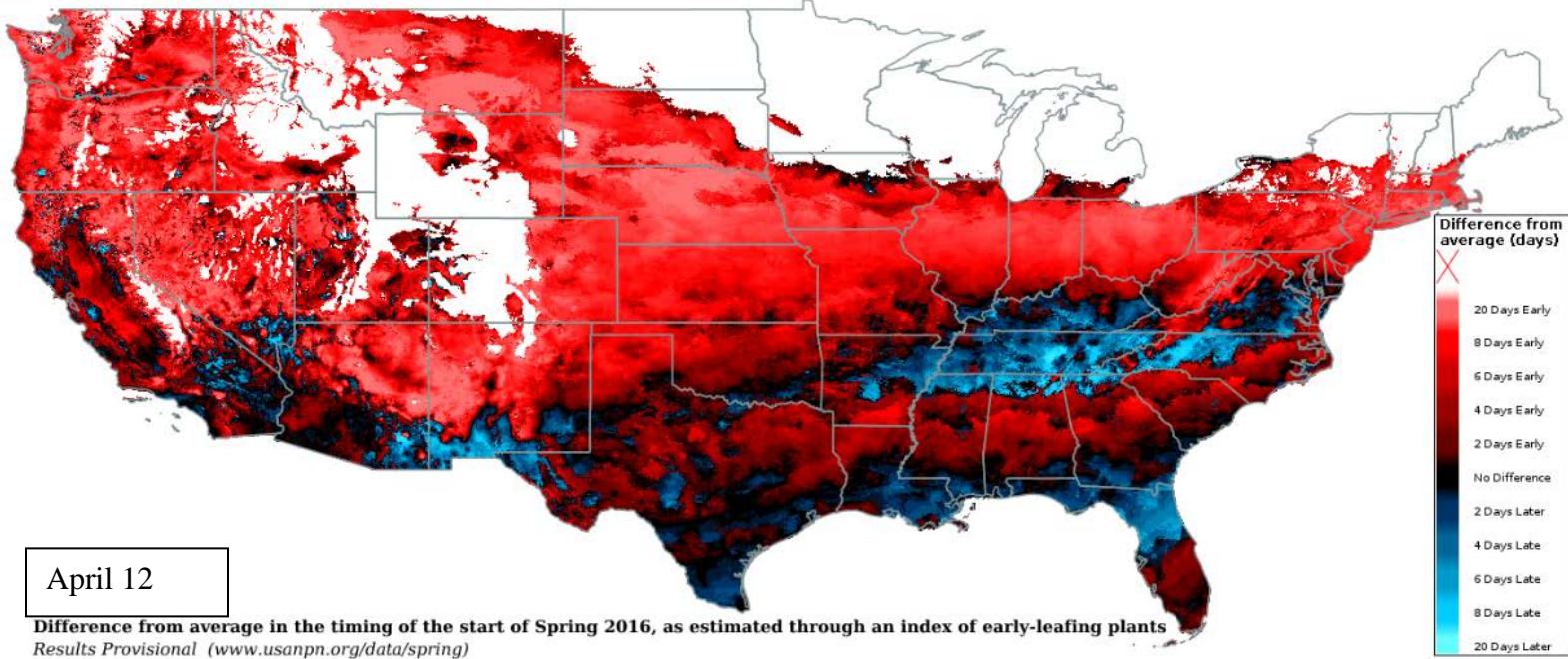
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Years	Departures	Rankings
1. 1897	-1.6°	35th Coolest
2. 1915	-3.1°	15th Coolest
3. 1942	+3.2°	16th Warmest
4. 1958	-2.0°	29th Coolest
5. 1966	-3.7°	10th Coolest
6. 1973	-3.5°	14th Coolest
7. 1983	-2.7°	21st Coolest
8. 1992	-1.8°	32nd Coolest
9. 1998	+4.8°	9th Warmest

Western Pennsylvania Temperature Forecast
April-May 2016



Recent Leaf formation vs normal



OHIO RIVER: Mean Monthly Flow Values

77 year average 1928-2004
 Mean Monthly Flow Plotted at Mid-Month
 Data courtesy US Army Corps of Engineers

