RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 3/12/2014
National Weather Service Forecast Office, Pittsburgh PA
For the latest river and weather forecasts--http://www.weather.gov/pittsburgh

WEATHER RECAP

February 2014 was the 20th coldest February on record…and the 21st snowiest February on record.

Temperatures were well below normal with the liquid equivalent precipitation very close to normal, but snowfall was 170% above normal. So far this season we have had 61.4 inches of snow. Normal Yearly snowfall is 41.9.
This has been the 21st snowiest February on record. The snowiest February on record occurred in 2010...when 48.7 inches of snowfall occurred. The average temperature was 25.7 degrees which is 5.4 degrees below the normal average temperature of 31.1 degrees. The 25.7 degrees is the 20th coldest February on record. The coldest February on record occurred in 1979...which had an average temperature of 18.0 degrees.

RIVER ICE/ SNOWPACK

While just a month ago there were significant concerns about river ice, amazingly during February into early March there were 3 separate warm-up's that allowed the ice on all larger rivers except the middle and upper Allegheny River to break up and move out with only limited flooding.

Temperatures above freezing during the day and below freezing at night with minimal rain amounts allowed the worst ice season since 1977 to break apart and rot away in an orderly fashion. For the ice remaining on the Allegheny, ideal conditions are expected for the next 2 to 3 weeks that should allow the ice that remains on the Allegheny to continue to slowly rot and break up. The outlook calls for several warm ups mixed with colder periods with no significant rainstorms.

The snow water equivalent values are now below normal for the middle of March with only minimal coverage of snowpack.

Location	*Feb 2014 Precipitation*	*Departure (Inches)*	*Feb Snowfall*	*Seasonal Snowfall*
Pittsburgh	2.25	-0.14	16.1 (+5.9)	61.4(+25.7)

Location	*Feb Average Temperature*	*Departure degrees*	*Extreme High*	*Extreme Low*
Pittsburgh	25.7	-5.4	57(Feb 21)	1(Feb 17,28)

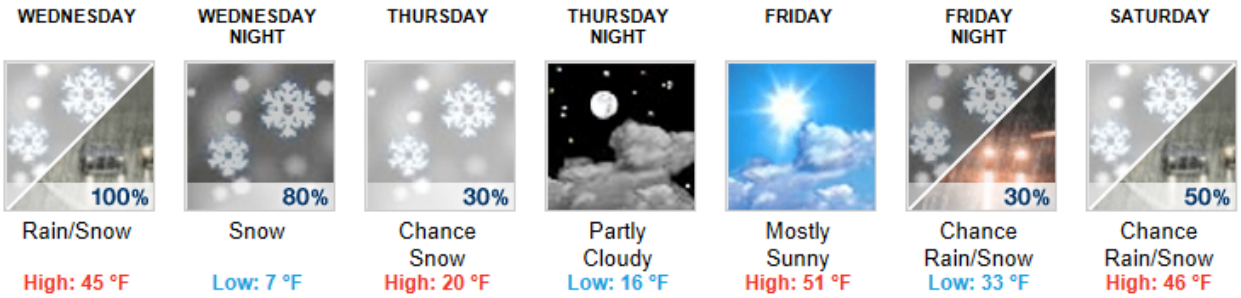
HIGH WATER POTENTIAL

Flows on the Allegheny are 40% of normal, the Monongahela 90%, and the Ohio 40% of normal. A minimum of about 1.50 inches basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. High water potential is near normal over the next 30. Below normal precipitation and below normal temperatures (interspersed with warm-ups) are expected into early April.

OUTLOOK

March 12-13 Rain to Snow; March 13-18 Cold; March 19-21 Warm-up; March 21-22 Rain to Snow; March 25-26 Rain to Snow

WEATHER FORECAST

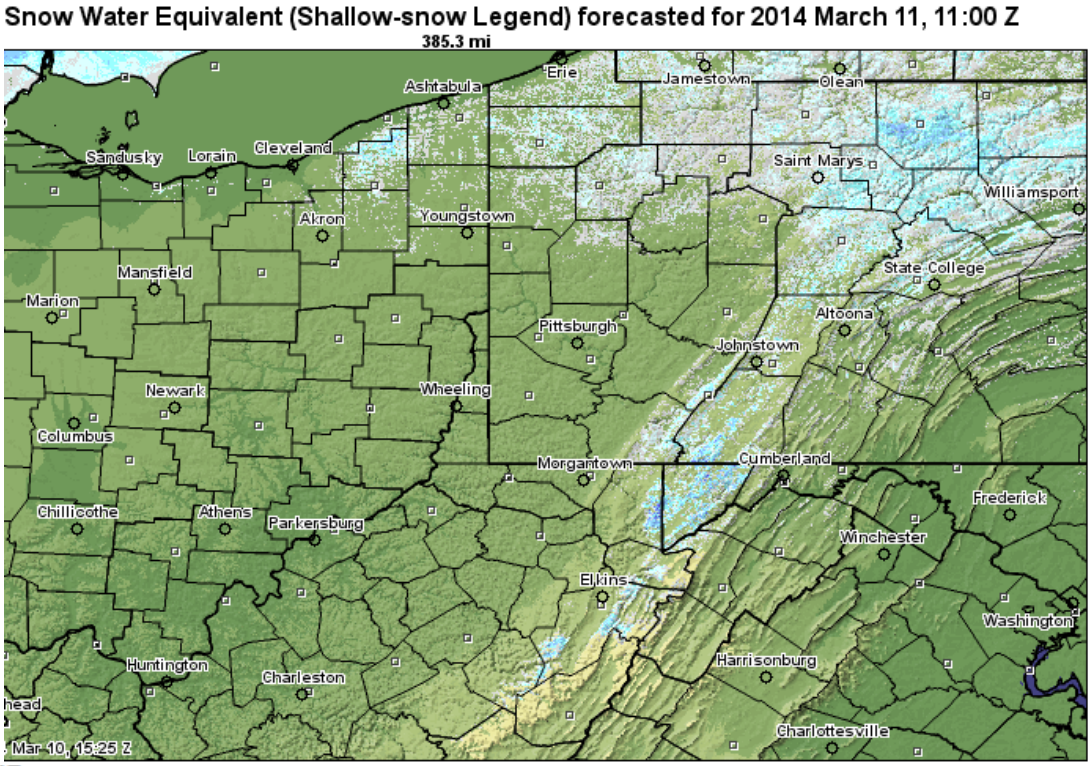


8-14 Day Outlook… Below normal temperatures and near normal precipitation.
30 Day Outlook... Below normal temperatures and normal precipitation.
Mar-Apr-May Outlook… Below normal temperatures and normal precipitation
May-Jun-Jul Outlook… Normal temperatures and normal precipitation
Jul-Aug-Sep Outlook… Normal temperatures and normal precipitation

Average Yearly rainfall Pittsburgh: 38.19 inches **So far in 2014:**4.65 (-1.32)
Totals for: 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 in 2013-2014:** 61.4 inches
2012-13: 57 inches
2011-12: 37 inches
2010-11: 57 inches
2009-10: 77 inches

RESERVOIR	FLOOD STORAGE CAPACITY USED
Allegheny	0%
Tionesta	1%
Union City	1%
Woodcock	4%
East Branch	0%
Mahoning	2%
Crooked Creek	2%
Conemaugh	4%
Loyalhanna	1%
Stonewall Jackson	13%
Tygart	9%
Yough	0%
Michael J. Kirwan	0%
Berlin	17%
Lake Milton	1%
Mosquito	0%
Shenango	1%



SNOW ON THE GROUND

BASIN	SNOW DEPTH	WATER CONTENT
Upper Allegheny River	2.6	0.8
Lower Allegheny River	0.4	0.1
Upper Mon. River	0.3	0.1
Lower Mon. River	2.0	0.6
Beaver River	0.3	0.1
Ohio River	0.0	0.0

El Niño Watch: Issued when conditions are favorable for the development of El Niño conditions within the next six months

- El Niño could also lead to fewer storms during the Atlantic hurricane season
- El Niños bring rains to California
- Strong El Niños tend to bring mild and wetter winters with little snowfall in the East.
- Weak to moderate El Niños tend to be more favorable for snow in the East.

.