

RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 2/19/2014
National Weather Service Forecast Office, Pittsburgh PA
For the latest river and weather forecasts--<http://www.weather.gov/pittsburgh>

WEATHER RECAP

January 2014 temperatures were well below normal with the liquid equivalent precipitation below normal, but snowfall was **150% above normal**. So far in February we are **200%** of the normal snowfall. So far this season we have had 55 inches of snow. Normal Yearly snowfall is 41.9.

RIVER ICE

During January 2014 several record breaking arctic air outbreaks caused rapid formation of ice on area rivers. There was a warm-up Jan 10-13 that caused ice movements/jams. During the second half of January and into the first 2 weeks in February ice continued to thicken and hampered navigation.

Looking back over the last 40 years and comparing the 2014 River Ice season's duration, thickness and extent, this year season likely ranks worst since the 1977 season. River ice formation has a strong correlation of ice formation on the Great Lakes. This year Lake Erie is nearly 100 percent ice covered and this allows polar air to come into our region unmodified. Other notable years for river ice were 1996, 1994, 2004, 2010. In 1996, the season did not last all that long as heavy rainfall brought significant flooding and moved the ice out in January. Ice is very unpredictable and uncertainty remains high on how this year's ice season will end. After a brief warm-up around Feb 20-21 it looks like the remainder of the month of February will return to wintery conditions with below normal temperatures

Ideal conditions for ice breakup would be temperatures above freezing during the day and below freezing at night with minimal rain amounts. This rots away ice in an orderly fashion.

We were fortunate that 2 times in January we had a nearly complete melt down of our snow pack. But since then our snow water equivalent values are climbing especially in the headwaters of the Cheat and Yough. There is upwards of almost 5 inches of liquid in the snow pack in the highest elevations. The main concern along the Mon is rapid snow melt. Along the Allegheny, rainfall and ice jam flooding are the biggest concerns.

<i>Location</i>	<i>Jan 2014 Precipitation</i>	<i>Departure (Inches)</i>	<i>Jan Snowfall</i>	<i>Seasonal Snowfall</i>
Pittsburgh	2.18	-0.52	17.9 (+6.4)	57.5(+29.0)

<i>Location</i>	<i>Jan Average Temperature</i>	<i>Departure degrees</i>	<i>Extreme High</i>	<i>Extreme Low</i>
Pittsburgh	22.1	-6.3	55(Jan 13)	-9(Jan 7)

HIGH WATER POTENTIAL

Flows on the Allegheny are 40% of normal, the Monongahela 70%, and the Ohio 50% of normal. A minimum of only 1.25-1.50 inches basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. High water potential is above normal over the next 30 days because of the river ice and building snow pack. Near normal precipitation and below normal temperatures are expected into early March.

WEATHER FORECAST

WEDNESDAY	WEDNESDAY NIGHT	THURSDAY	THURSDAY NIGHT	FRIDAY	FRIDAY NIGHT	SATURDAY
						
50%		40%	80%	60%		
Chance Rain/Snow High: 43 °F	Partly Cloudy Low: 28 °F	Chance Rain High: 52 °F	Rain Low: 34 °F	Rain/Snow Likely High: 45 °F	Partly Cloudy Low: 30 °F	Mostly Sunny High: 42 °F

8-14 Day Outlook... Below normal temperatures and near normal precipitation.

30 Day Outlook... Below normal temperatures and above normal precipitation.

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

Apr-May-Jun Outlook... Above normal temperatures and normal precipitation

Jun-Jul-Aug Outlook... Above normal temperatures and normal precipitation

Average Yearly rainfall Pittsburgh: 38.19 inches **So far in 2014:**3.98 (-.25)

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:** 57.5 inches

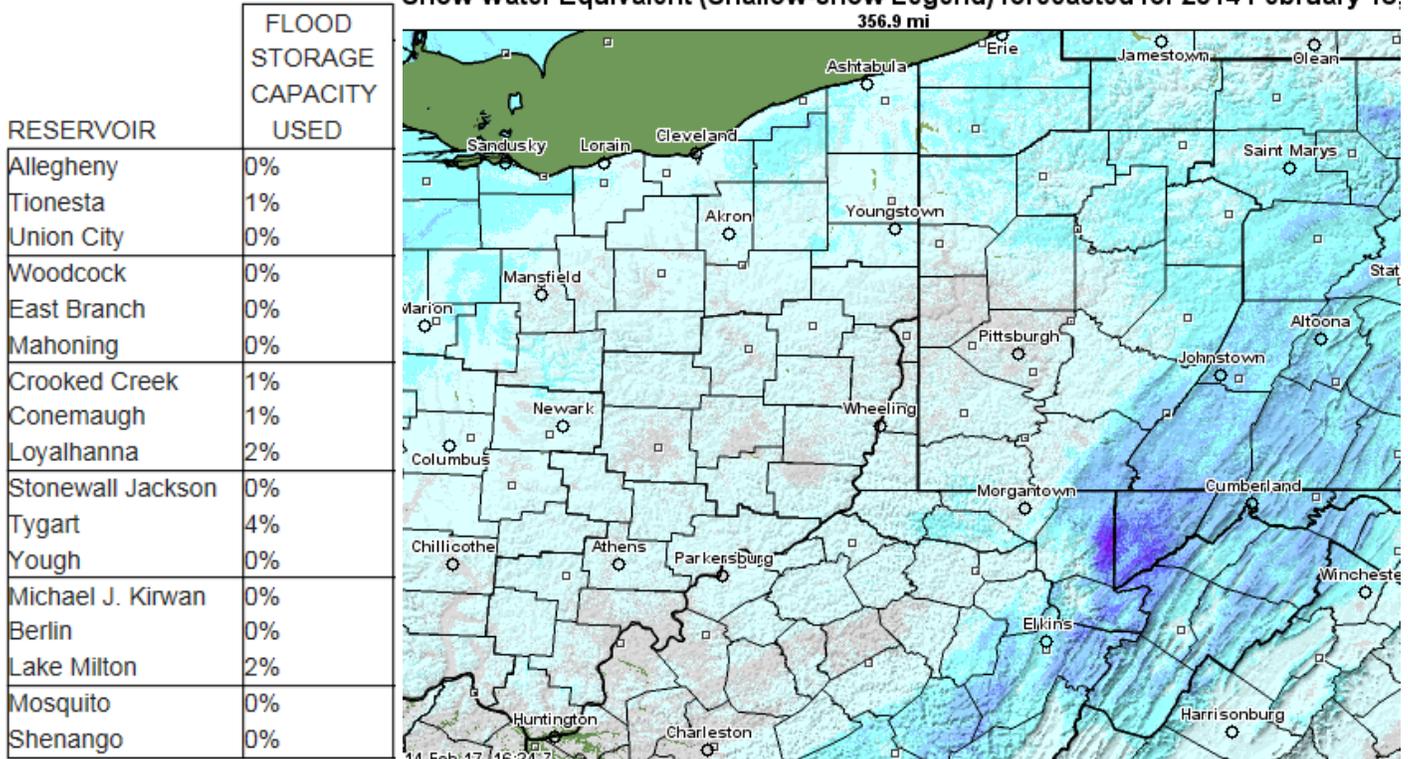
2012-13: 57 inches

2011-12: 37 inches

2010-11: 57 inches

2009-10: 77 inches

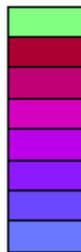
Snow Water Equivalent (Shallow-snow Legend) forecasted for 2014 February 18,



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

SNOW ON THE GROUND

BASIN	SNOW DEPTH	WATER CONTENT
Upper Allegheny River	11.2	1.8
Lower Allegheny River	11.4	1.7
Upper Mon. River	13.8	2.2
Lower Mon. River	16.8	2.8
Beaver River	8.4	1.3
Ohio River	6.5	0.9



Inches of water equivalent

