

RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 12/9/2015
National Weather Service Forecast Office, Pittsburgh PA

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

WEATHER RECAP

For the month of November 2015 the temperatures averaged well above normal, and finished as the 5th warmest November on record. It was also much drier than normal with only about 50% of normal precipitation. So far we are 8th warmest December. On track to be 4th warmest December and 2015 on track to be 4th warmest year.

OUTLOOK

Outlook for week of Dec 7: Mild and relatively dry.(less than 0.50 inch rain)

Outlook for week of Dec 14: Starting off rainy and mild, then turning colder with snow showers.(rain approx. 2.00 inch)

Outlook for week of Dec 21: Normal temperatures with some rain/snow. (rain approx. 1.00 inch)

January outlook: Bouts of cold with snow, interspersed with normal temperatures especially first half of month. Colder second half of month.

Winter Outlook: El Nino in the central Pacific, but cooler than normal temperatures in the eastern Pacific with warm water along west coast of US and Canada.

Very similar pattern to 2009-10 & 1963-64 and 1957-58. Each had similar El Ninos and had very warm Novembers.

Winter Outlook for Pittsburgh:

- A respite from the colder than normal temperatures into early January, then turning much colder.
- Very cold in February with some larger snowstorms
- Continue the cold/snow into March with late spring

Areas to the South of us like Dallas, Atlanta, Knoxville, likely a severe winter very snowy in New Mexico and Southern Colorado, Year without a much of winter in Montana, British Columbia Western Europe expected to be very cold this winter.

HIGH WATER POTENTIAL


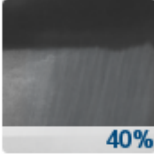

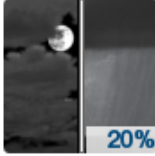



High water potential is below normal. A minimum of 1.75 inch basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. Total rainfall through the first week of January should average between 2.00 and 3.00 inches which is about normal.

| <i>Location</i> | <i>Nov 2015 Precipitation</i> | <i>Departure (Inches)</i> |
|-------------------|-----------------------------------|-------------------------------|
| <i>Pittsburgh</i> | 1.38 | -1.85 |

| <i>Location</i> | <i>Nov Average Temperature</i> | <i>Departure Degrees</i> | <i>Extreme High</i> | <i>Extreme Low</i> |
|-------------------|------------------------------------|------------------------------|-------------------------|--------------------|
| <i>Pittsburgh</i> | 48.5 | +5.6 | 76 Nov 4,5 | 20 Nov 23 |

| | 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 |

WEATHER FORECAST

| Wednesday | Wednesday Night | Thursday | Thursday Night | Friday | Friday Night | Saturday |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| 30% | 40% | | 20% | | | |
| Chance Showers | Chance Showers | Partly Sunny | Mostly Cloudy then Slight Chance Showers | Partly Sunny | Mostly Cloudy | Partly Sunny |
| High: 54 °F | Low: 42 °F | High: 54 °F | Low: 44 °F | High: 56 °F | Low: 46 °F | High: 62 °F |

8-14 Day Outlook... Above normal temperatures and below normal rainfall.

30 Day Outlook... Normal temperatures and normal precipitation.

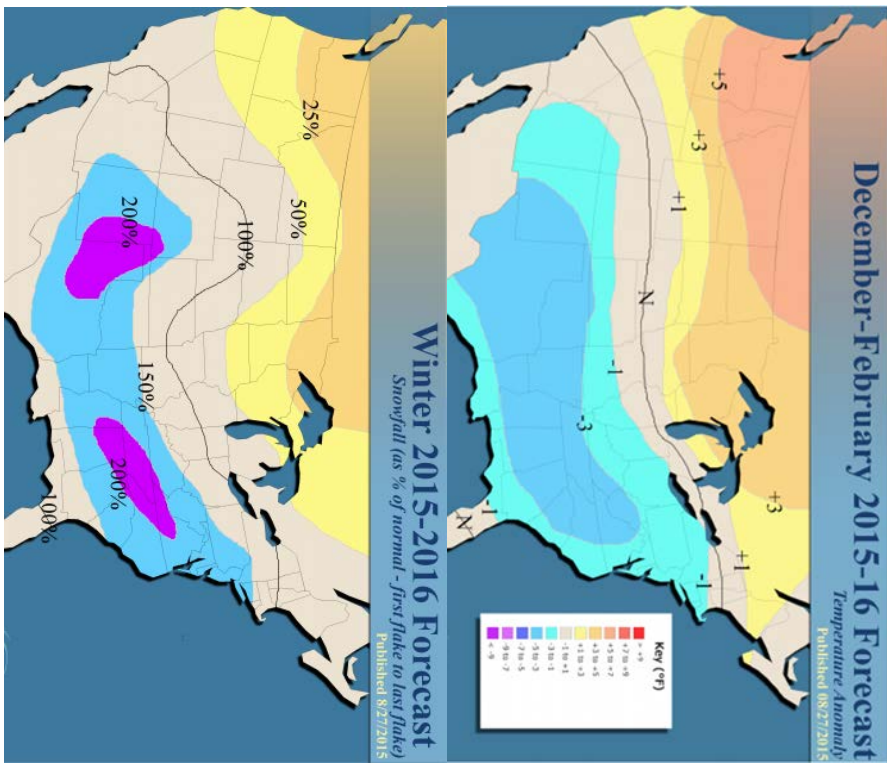
Jan-Feb-Mar Outlook... Below normal temperatures and above normal precipitation

Mar-Apr-May Outlook... Below normal temperatures and near normal precipitation

May-Jun-Jul Outlook... Normal temperatures and normal precipitation

Average Yearly rainfall Pittsburgh: 38.19 inches **So far in 2015:** 37.90 (+1.78)

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



Water temperatures December 8...

2015

| | |
|----------------|----|
| Grays Landing | 46 |
| CW Bill Young | 42 |
| Montgomery | 44 |
| Mean Lake Erie | 46 |

2014

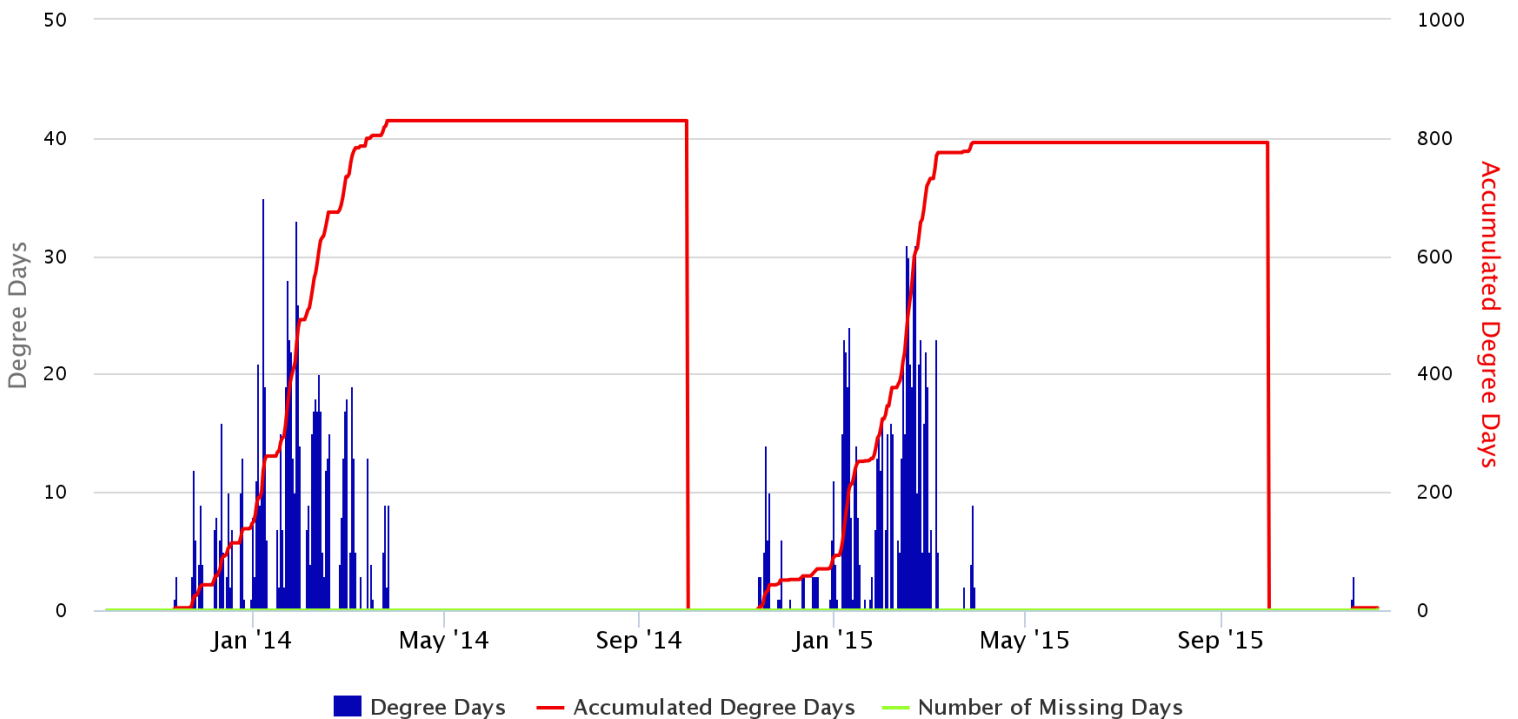
| | |
|----------------|----|
| Grays Landing | 40 |
| CW Bill Young | 37 |
| Montgomery | 39 |
| Mean Lake Erie | 41 |

2013

| | |
|----------------|----|
| Grays Landing | 39 |
| CW Bill Young | 36 |
| Montgomery | 37 |
| Mean Lake Erie | 42 |

Freezing Degree Days (Base 32F) for PITTSBURGH INTL AP(PA)

Midwestern Regional Climate Center



160, Freezing Degree days seems to be key number for ice to start forming on Pittsburgh Rivers
Dec 30 2013, Jan 8 2015

Click and drag to zoom