Hydrologic Conditions Report

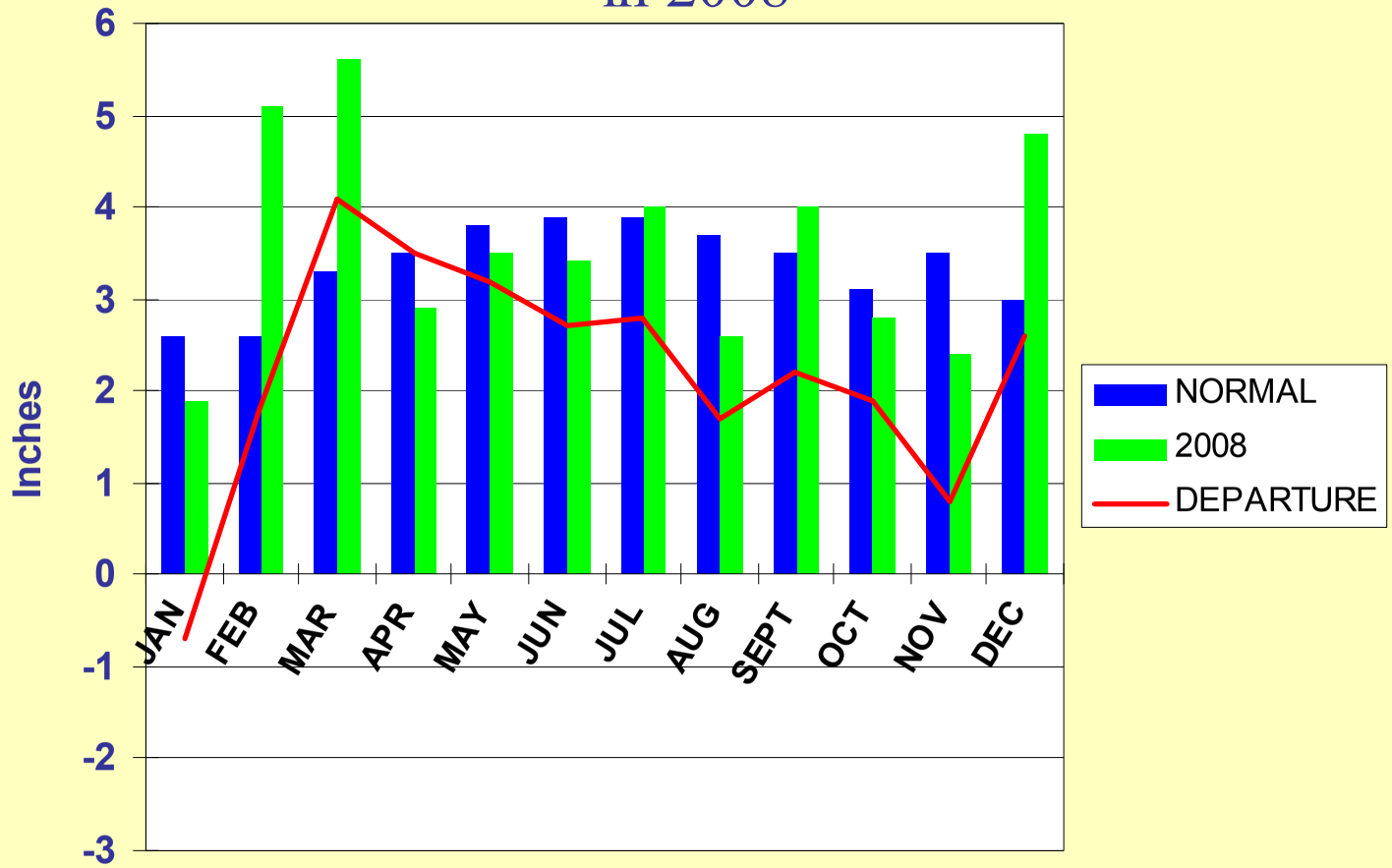
March 12, 2009 **Scranton, PA**

Ice Breakup and Movement

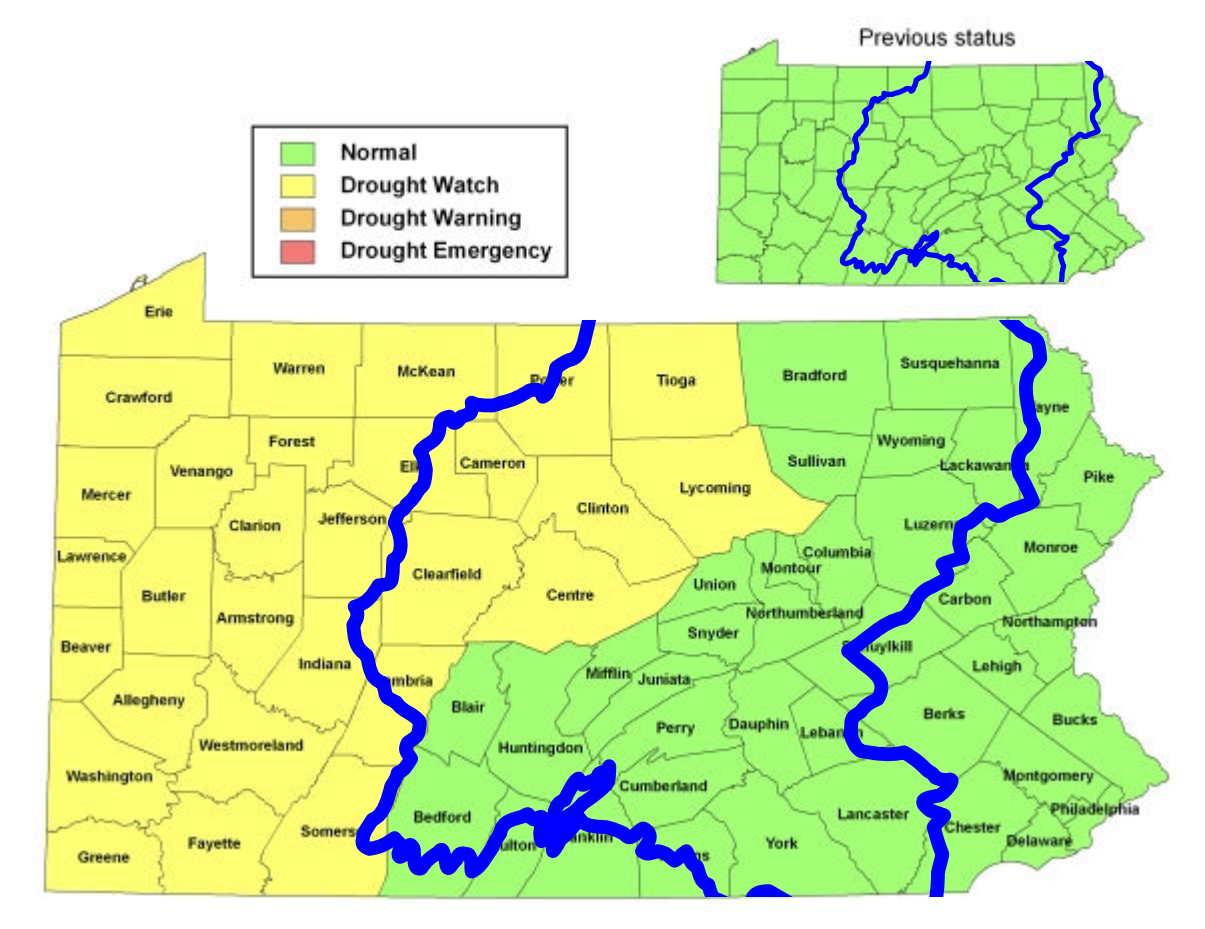
February 12

Harrisburg

Precipitation Departure Above Harrisburg in 2008



Pa. Drought Watch Declaration

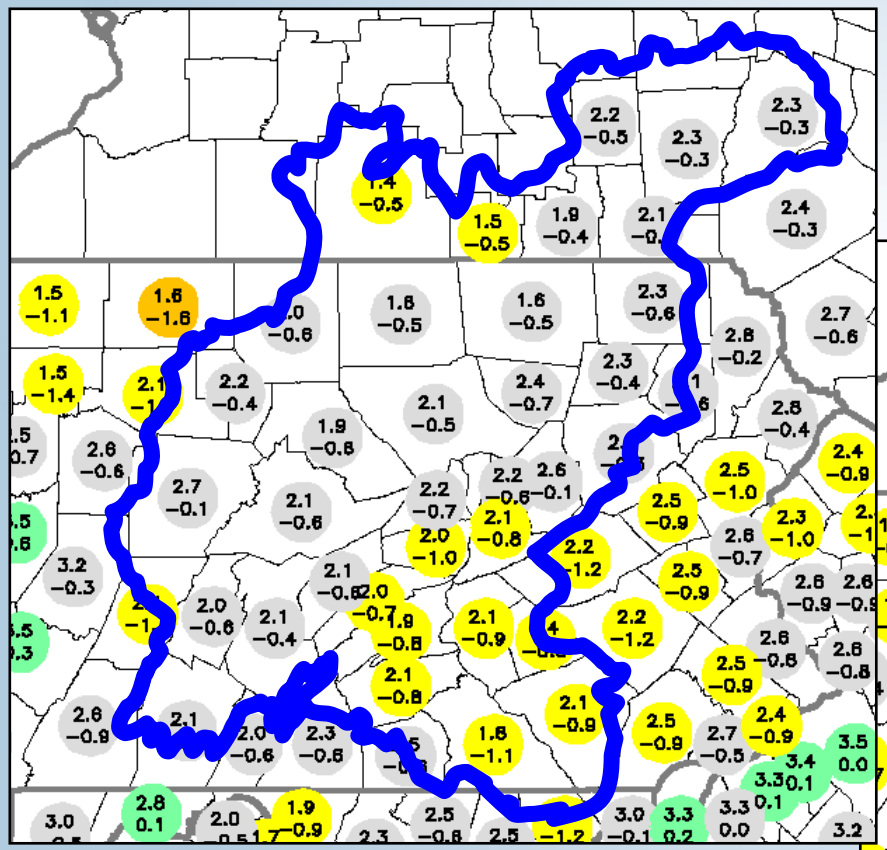


Credit: Pa. DEP

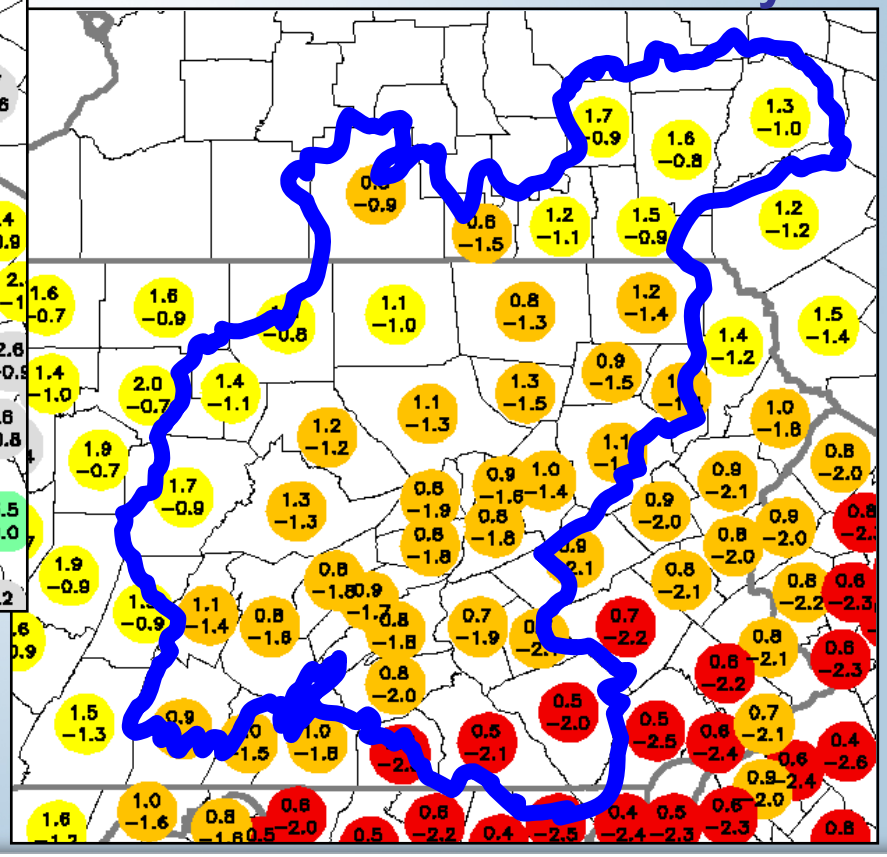
Watch declared November 7 for 29 counties (13 partially or completely in the SRB).

Watch lifted on January 26 in response to rain in December and early January.

2009 Precipitation Departure



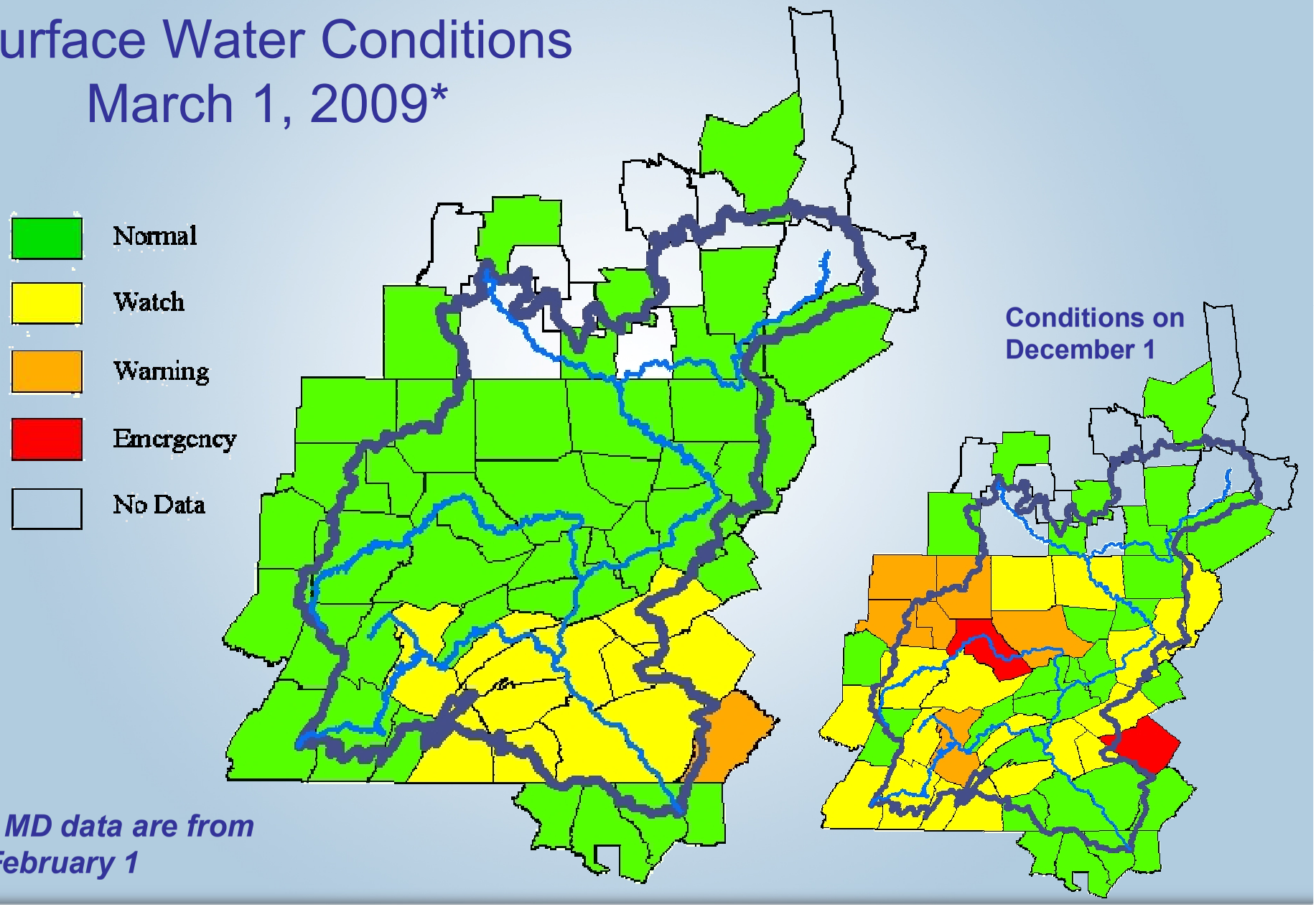
January



February

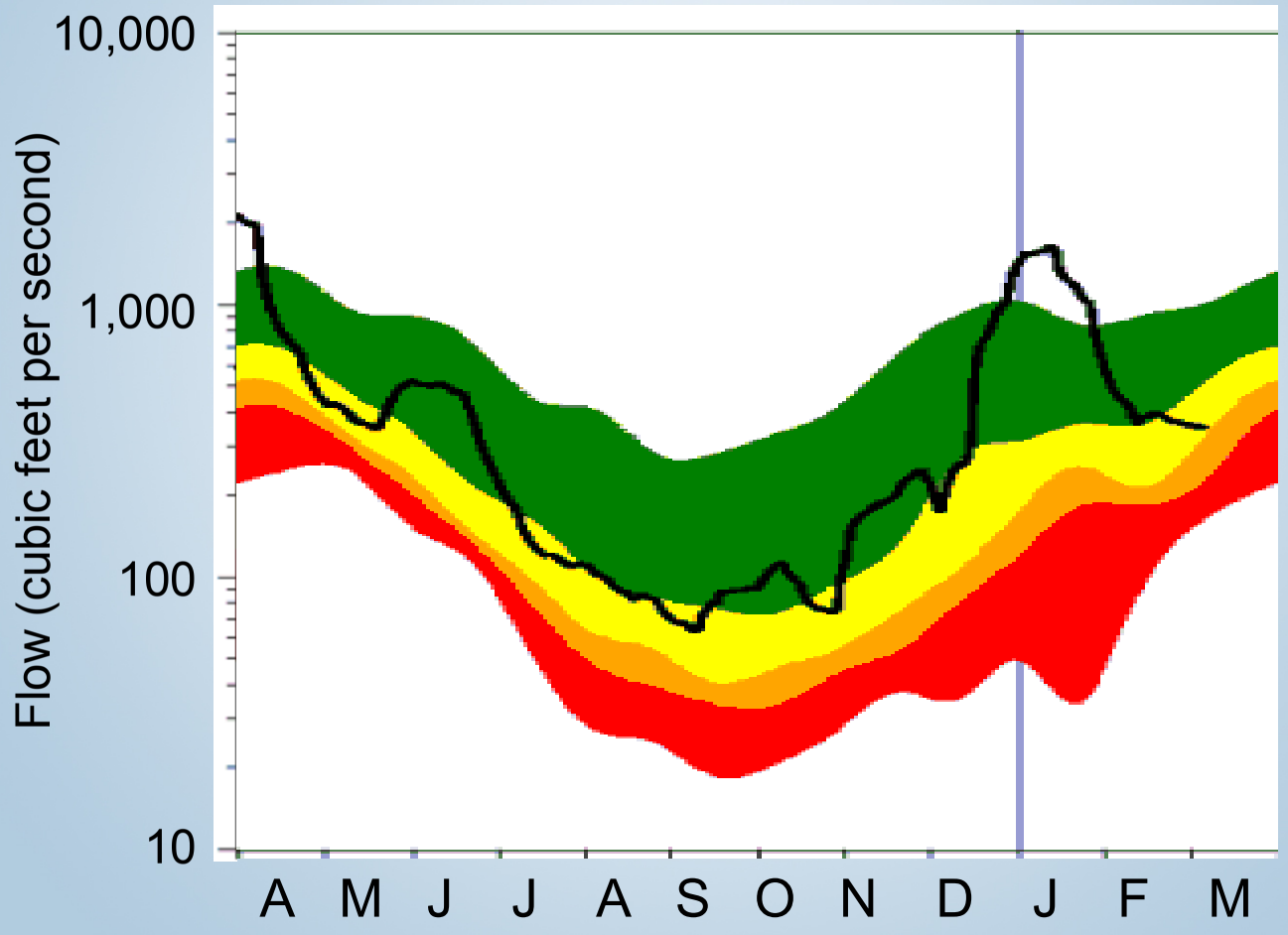
Credit: MARFC

Surface Water Conditions
March 1, 2009*



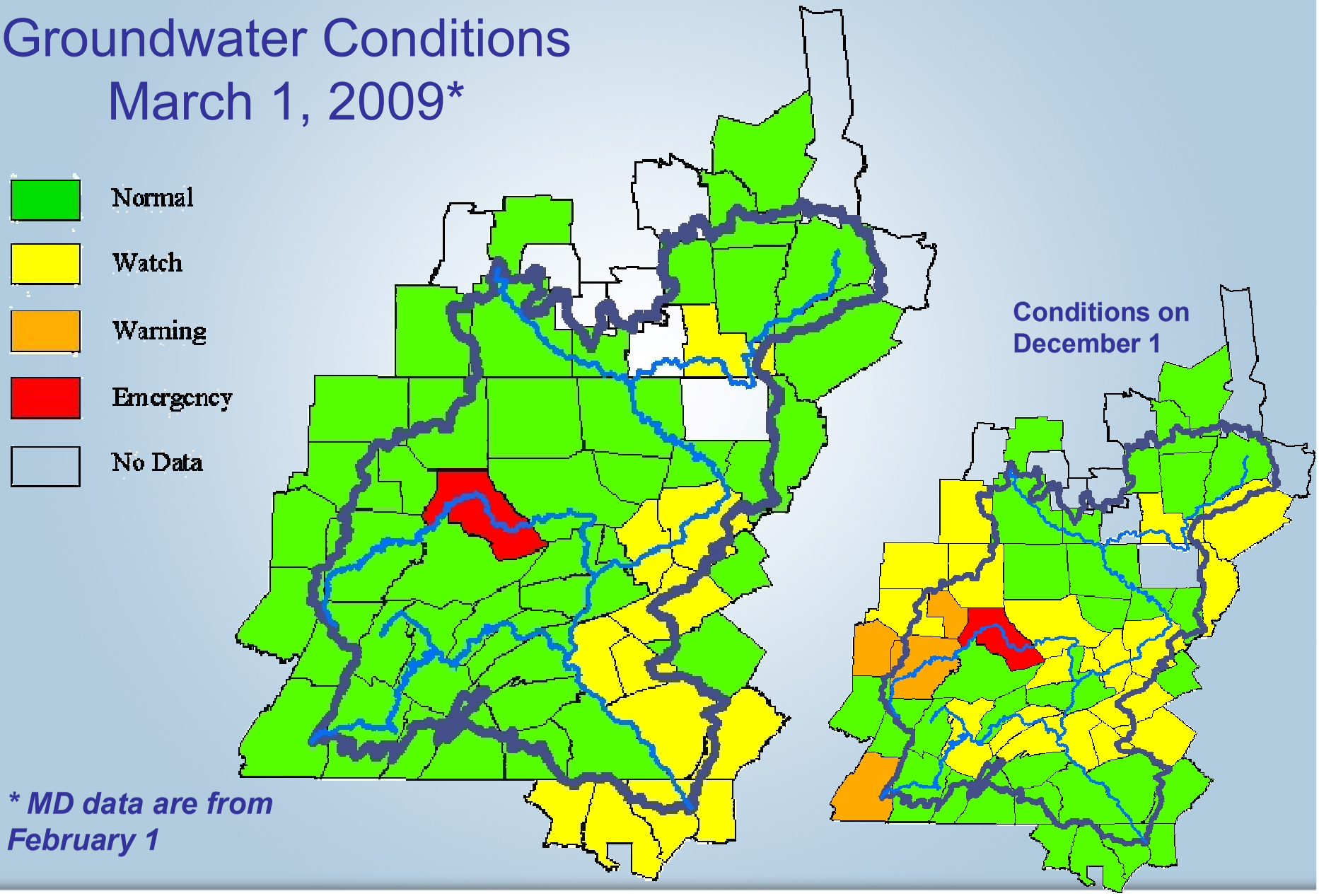
** MD data are from February 1*

Streamflow on Swatara Creek (Lebanon Co.)



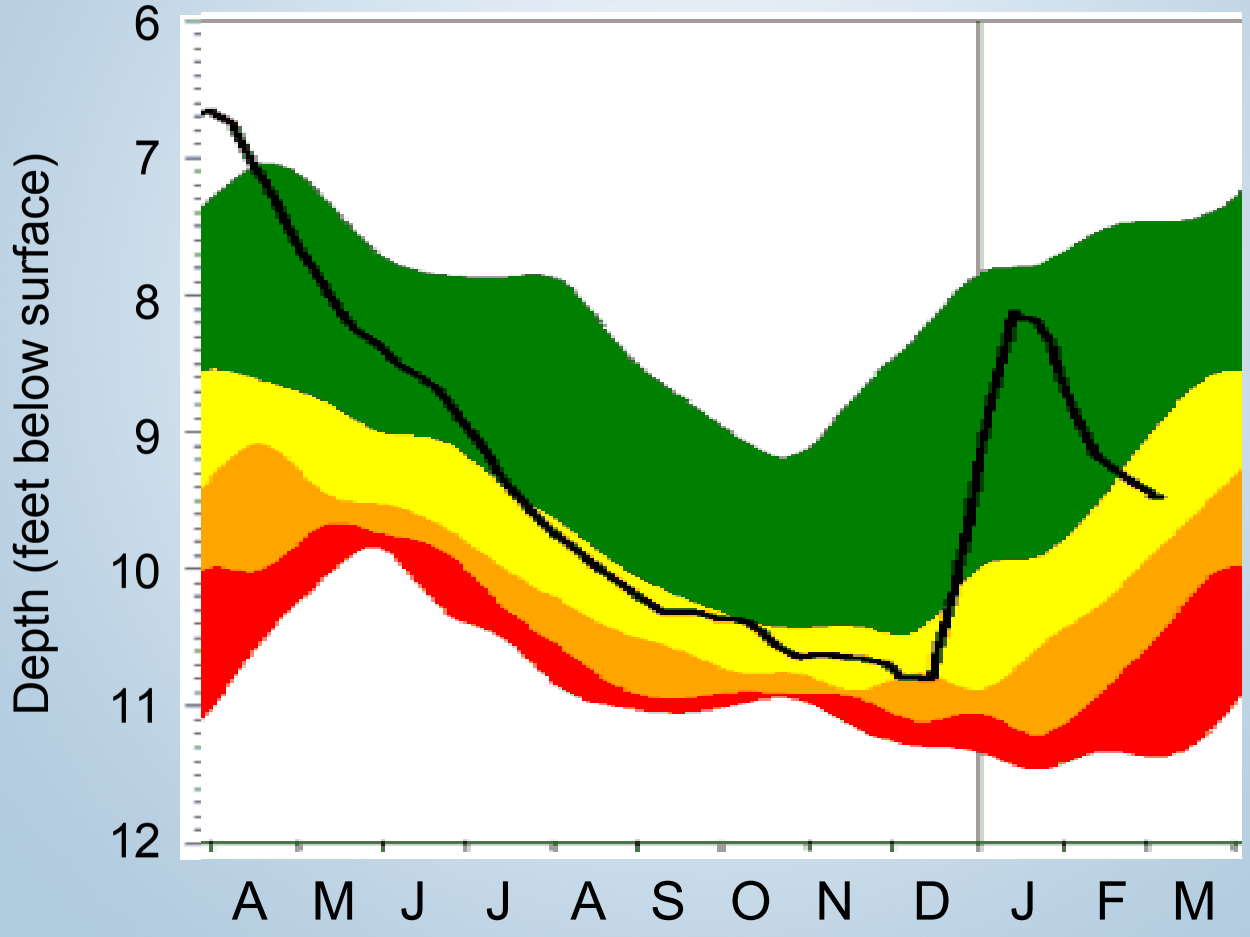
30-day running average flow credit: Pa. DEP

Groundwater Conditions
March 1, 2009*

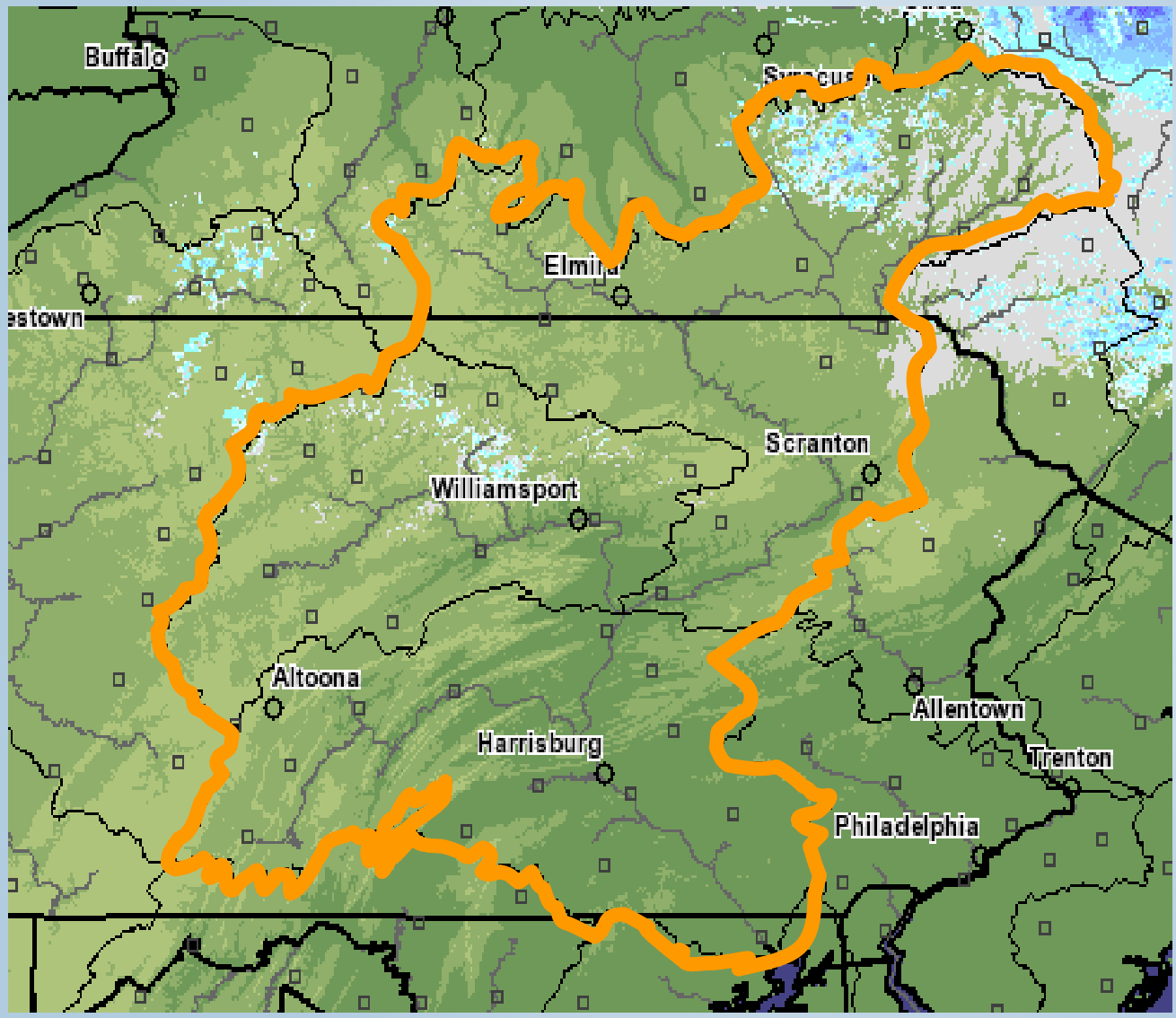


** MD data are from February 1*

Groundwater Levels in Lebanon Co.



30-day average depth credit: Pa. DEP



Snow-Water Equivalent

March 11, 2009

Inches of water equivalent

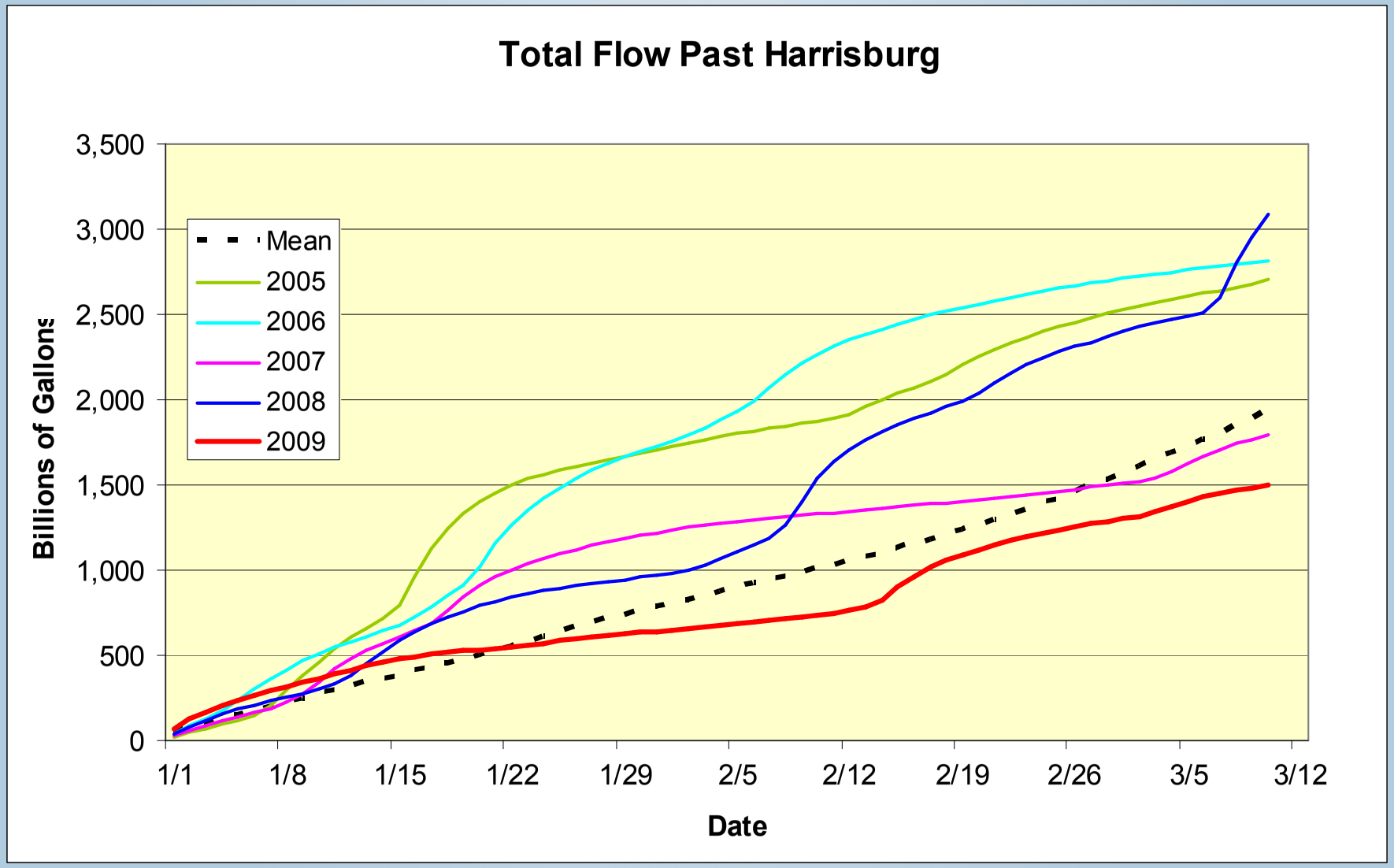
- 8 to 10
- 6 to 8
- 4 to 6
- 2 to 4
- 1 to 2
- 0 to 1

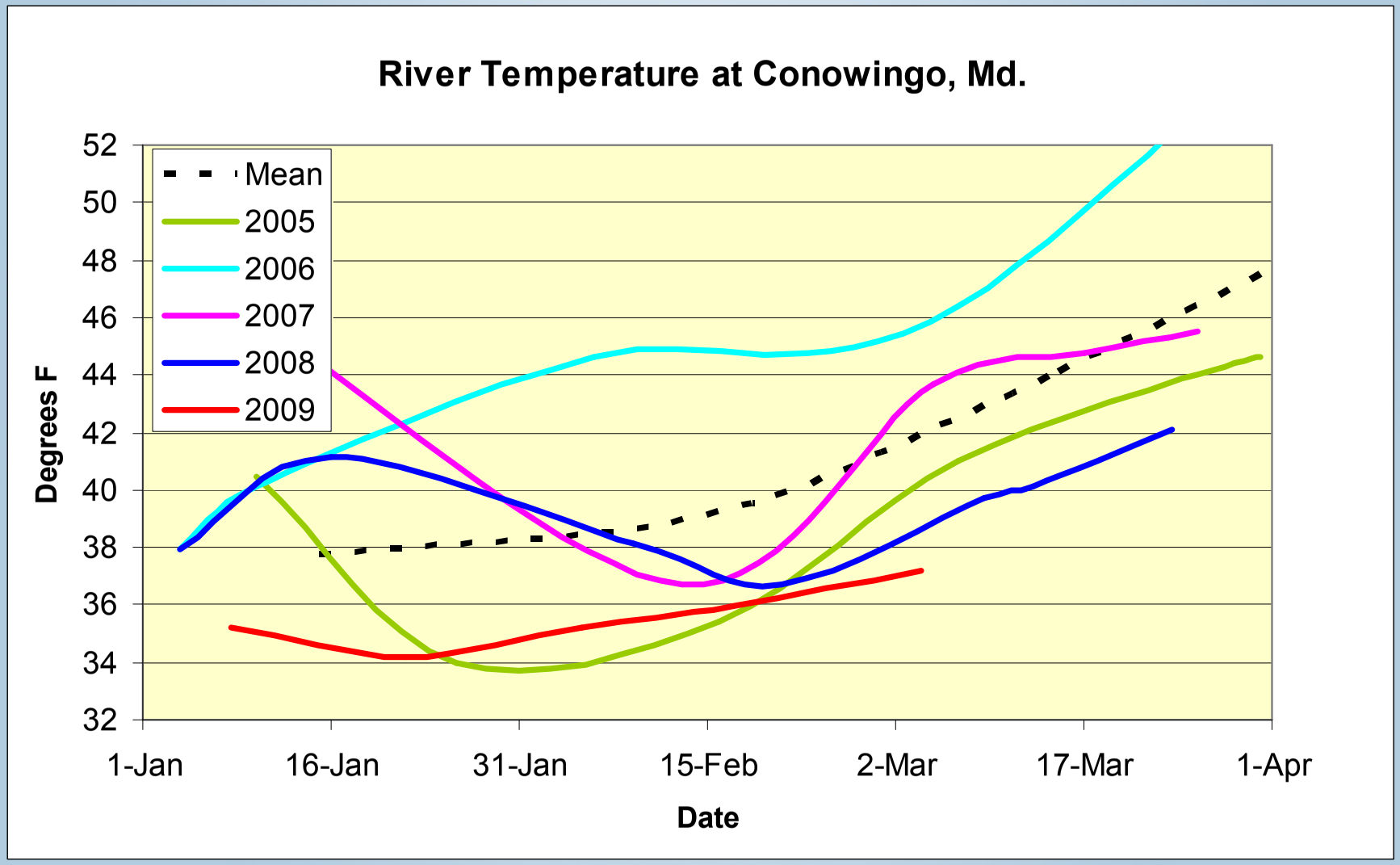
Credit: NOHRSC

Susquehanna Smallmouth Bass

Columnaris infection evident in Spring 2005, 2007 & 2008

Remains unresolved, but possibly due to stress associated with high water temperatures and low dissolved oxygen


Total Flow Past Harrisburg
Billions of Gallons
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Mean
2005
2006
2007
2008
2009
1/1
1/8
1/15
1/22
1/29
2/5
2/12
2/19
2/26
3/5
3/12
Date


River Temperature at Conowingo, Md.
Degrees F
52
50
48
46
44
42
40
38
36
34
32
Mean
2005
2006
2007
2008
2009
1-Jan
16-Jan
31-Jan
15-Feb
2-Mar
17-Mar
1-Apr
Date

Hydrologic Outlook?

- Susquehanna basin does not lend itself well to forecasting beyond 30 to 60 days
- Previous March conditions were not reliable indicators of summer conditions to follow:
  - 1930 – 5th wettest March on record (Harrisburg records, 1890 through 2008) ushered in record-setting drought
  - 2006 – normal-to-wet summer was preceded by the single driest March on record