



August 31, 2006
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ICPRB, through its Section for Cooperative Water Supply Operations (CO-OP), coordinates water supply operations during times of drought and recommends releases of stored water. These operations ensure adequate water supplies for the major Washington metropolitan area water users and for environmental flow levels.

Summary/conclusions:

The probability of releases this fall from the Washington metropolitan area’s back-up water supply reservoirs is near normal. Note that these probabilities do not account for the significant rainfall forecast for the Potomac basin with Tropical Depression Ernesto approaching. The anticipated rainfall will reduce the probability of water supply releases this fall, perhaps significantly. Generally, the use of Jennings Randolph and Little Seneca reservoirs is triggered by low flows brought about by a combination of low summer rainfall, low precipitation in the prior 12 months, and low groundwater levels. At present, precipitation in August in the Potomac basin is below normal, 12 month precipitation is near average, and groundwater levels in the basin are normal to above normal. In the event that low-flow conditions re-establish this summer, the metro area is well-protected from a water supply shortage because of carefully laid drought-contingency plans and full storage in back-up water supply reservoirs.

ICPRB outlook:

There is an 8 to 15 percent conditional probability that Potomac flow will drop below 600- to 700-million gallons per day (MGD) at Little Falls through December 31 of this year: at those flow levels, water supply releases from Jennings Randolph and Little Seneca reservoirs become more likely. Releases occur when predicted flow is less than demand: demand is equal to 400 to 500 MGD, plus a 100 MGD minimum flow recommendation at Little Falls.

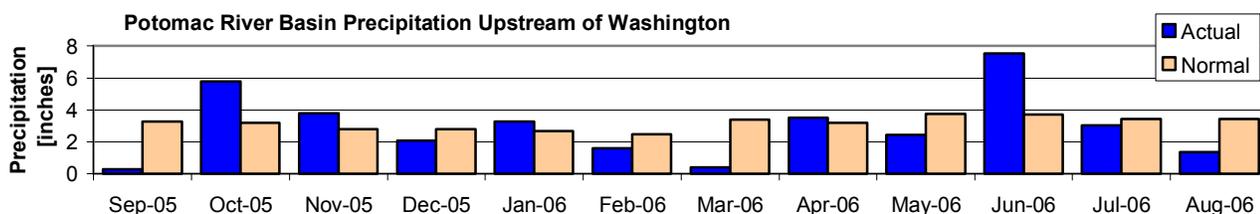
Past years in which watershed conditions most closely resemble current conditions are weighted more heavily in the determination of conditional probability. In contrast, the historical probability is based on an analysis of the historical stream flow record without weighting for current conditions. The conditional probability of 8 to 15 percent compares to a historical probability of 8 to 13 percent and is considered the more reliable indicator. The conditional probability for this outlook was estimated by analyzing the historical stream flow records and giving consideration to the precipitation total for the prior 12-months, current Potomac flow levels, the current Palmer Drought Severity Index, and current groundwater levels.

Outlook for Potomac River at Little Falls – Watershed conditions as of August 31, 2006

Low flow threshold (MGD)	Historical probability of lower flow August 31 through December 31	Conditional probability of lower flow August 31 through December 31
1200	64%	85%
1000	48%	72%
800	24%	35%
700	13%	15%
600	8%	8%

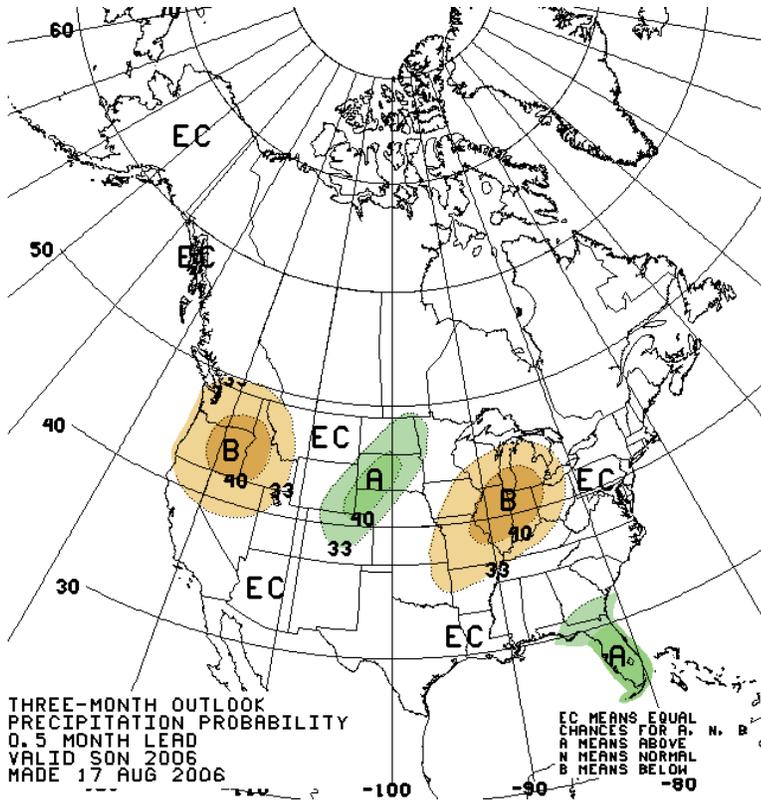
Precipitation summary for the Potomac basin:

The National Weather Service’s Middle Atlantic River Forecast Center reports that precipitation in the Potomac basin upstream of Washington, D.C. was 1.76 inches for the month of August (through August 30), 2.05 inches below normal. Precipitation is 3.0 inches below average for the prior 12 months (September 1, 2005 through August 30, 2006), for a total of 35.6 inches.



Data source: Middle Atlantic River Forecast Center, NWS

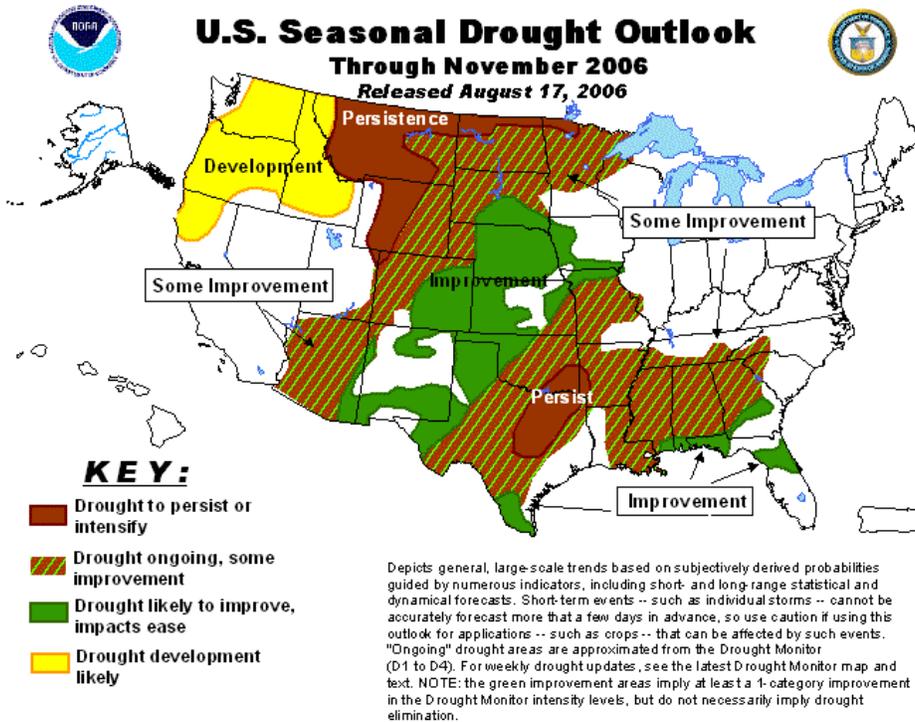
Precipitation and temperature outlook for September, October and November:

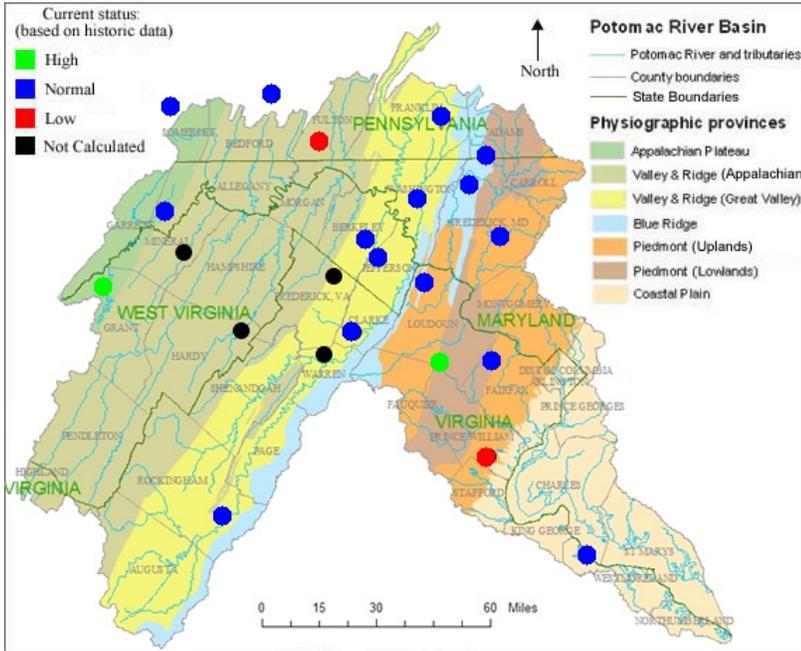


The Climate Prediction Center (CPC) of the National Oceanic and Atmospheric Administration predicts approximately equal chances of both Potomac basin precipitation and temperature being either above or below normal for September, October, and November (see image to left).

(Image source: CPC. "EC" means equal likelihood or chance, the green area corresponds to above normal likelihood, and "B" corresponds to below normal likelihood.

As of August 17, the CPC's drought outlook does not indicate drought conditions for the Potomac basin, per image below.



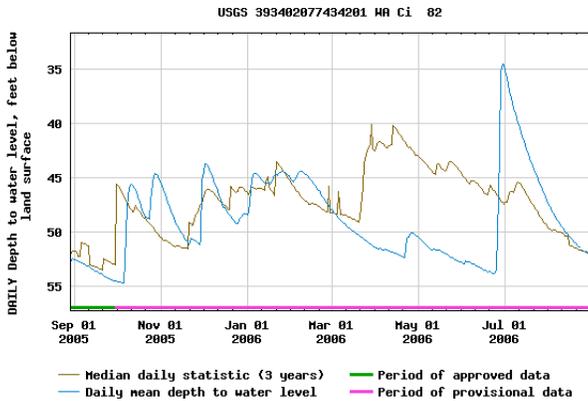


Groundwater:

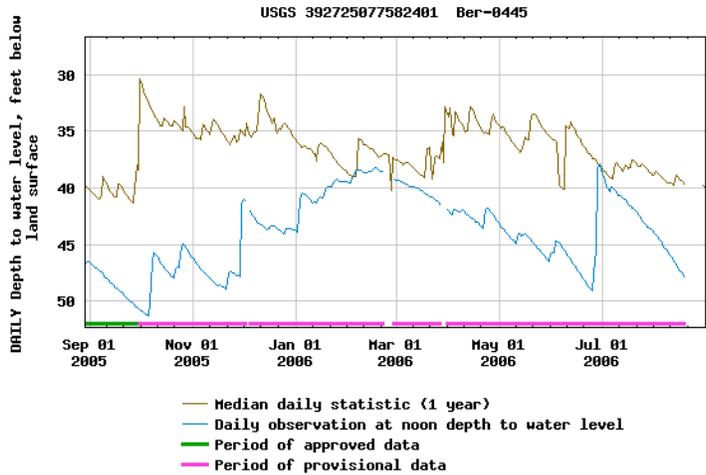
Most basin groundwater levels were at “high” to “normal” levels as of August 16th (see image to left). Well levels from two wells are shown in the graphics below.

Image sources: United States Geological Survey. USGS defines “high” as greater than 75th percentile, “normal” as between the 25th and 75th percentiles, and “low” as less than the 25th percentile.)

USGS gage MD Wa Ci 82, Washington County, MD



USGS gage BER 0445, Berkeley County



Reservoir Storage:

Facility	Percent Full	Current usable storage, bg	Total usable capacity, bg
WSSC's Patuxent reservoirs	55	5.6	10.2
FCWA's Occoquan Reservoir	61	4.8	8.0
Little Seneca Reservoir	100	3.8	3.8
Jennings Randolph water supply	100	13.3	13.3
Jennings Randolph water quality	65	10.8	16.5
Savage Reservoir	61	3.8	6.2

Note: Patuxent reservoirs are drawn down for maintenance.

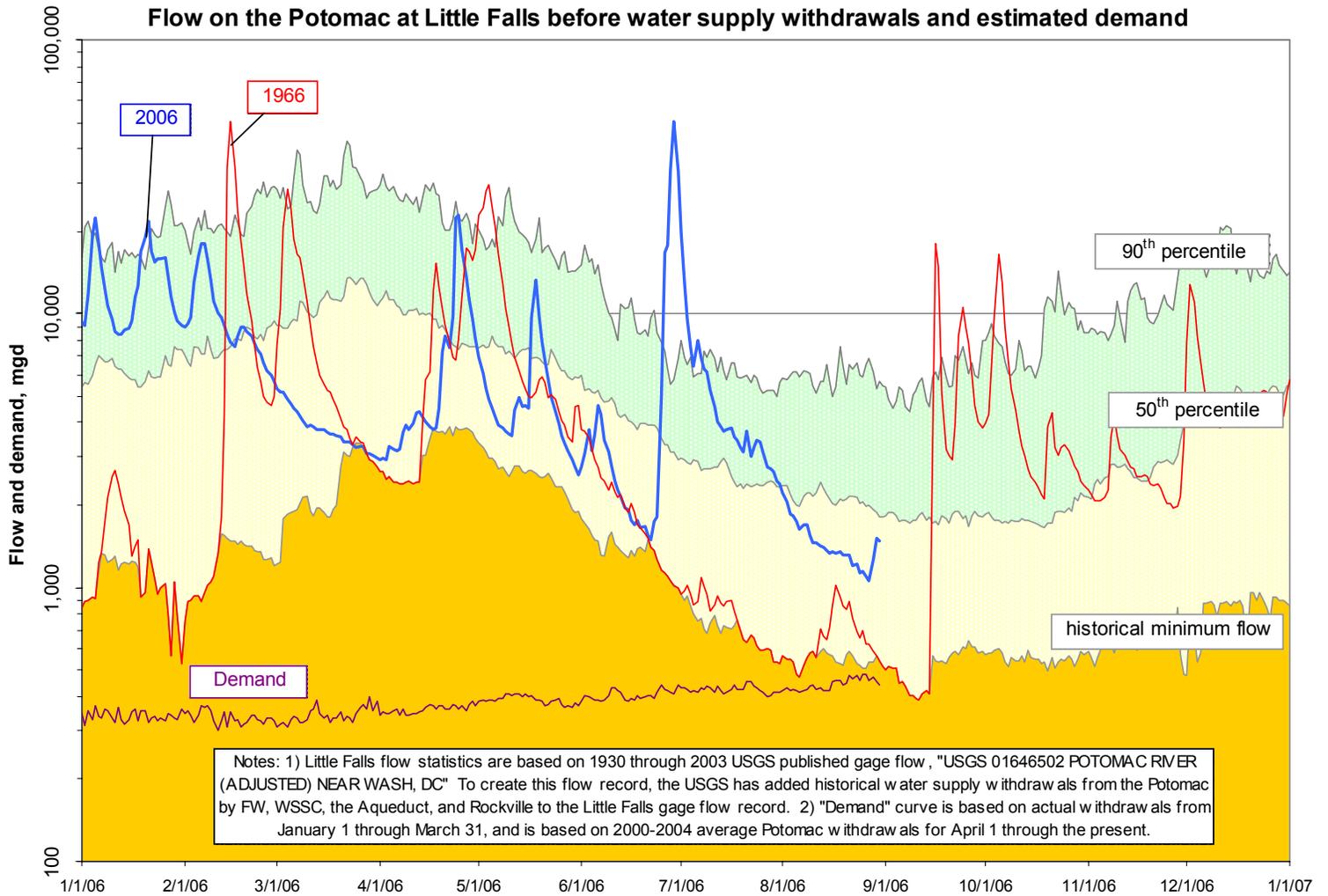
Note: Forecasted rainfall for Friday and Saturday September 1-2 may increase reservoir storage significantly.

Environmental Flow-by

Average Potomac flow at Little Falls in August (through August 30) was approximately 1,573 cubic feet per second (1,016 MGD), approximately 10 times the minimum flow recommendation of 100 MGD.

Potomac River flow

Estimated daily Potomac flow at Little Falls is slightly below median. (See graphic, below.) Estimated flow is the flow that would have occurred before water supply withdrawals, and is based on estimated withdrawal data and on provisional Little Falls gage data.



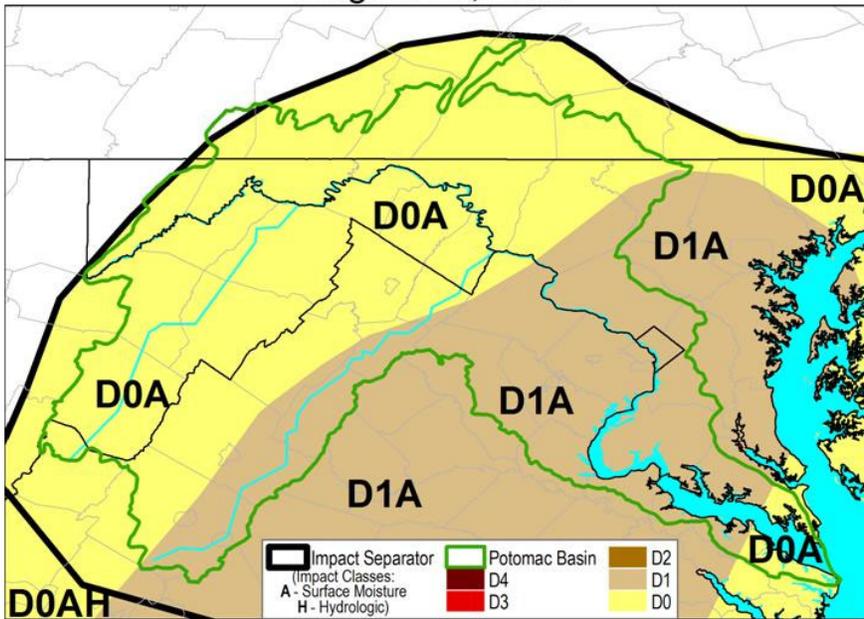
Drought Status:

The Metropolitan Washington Council of Government's Drought Awareness Response Plan status is "Normal." The drought status would change to "Watch" if the CPC's drought monitor shows the entire Potomac basin in D-1 status.

Drought Monitor

The current Drought Monitor from the NOAA Climate Prediction Center (CPC) shows that the Potomac basin upstream of Little Falls is between “abnormally dry” and “moderate drought” status.

Potomac Basin Drought Monitor August 29, 2006



Selected Basin-Average Indices on August 29, 2006

	<i>Raw Value</i>	<i>Anomaly</i>	<i>Percentile</i>
Palmer Drought	-1.46	-1.50	27.6 [D0]
Palmer Hydrologic	-1.25	-1.51	31.1 [--]
Palmer Z	-2.96	-3.14	3.3 [D3]
CPC Soil Moisture	n/a	n/a	25.5 [D0]
1-Month Precipitation	1.86"	-1.79"	8.3 [D2]
3-Month Precipitation	12.88"	+1.43"	64.9 [--]
6-Month Precipitation	18.14"	-4.38"	15.6 [D1]
12-Month Precipitation	37.80"	-3.97"	34.8 [--]
24-Month Precipitation	81.15"	-2.44"	53.4 [--]
<i>Basin Coverage:</i> 0.4% Not Dry 62.8% D0A 36.8% D1A			

Soil moisture

The Palmer Drought Severity Index shows much of the basin is either in “near normal” or “moderate drought” status. (See image below.)

Drought Severity Index by Division

Weekly Value for Period Ending 26 AUG 2006

Long Term Palmer

