



**September 6, 2005**

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*ICPRB, through its Section for Cooperative Water Supply Operations, 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 suppliers during droughts.*

**Summary/conclusions:**

The probability of releases this fall from the Washington metropolitan area's back-up water supply reservoirs is low. Generally, the use of Jennings Randolph and Little Seneca reservoirs is triggered by low flows brought about by a combination of low summer/fall rainfall, low precipitation in the prior 12 months, and low groundwater levels. At present, average groundwater levels in the basin are near-normal, precipitation in the prior 12 months is near-normal, and last months' precipitation in the Potomac basin was slightly below-normal. In the unlikely event of a drought this fall, the metro area is well protected from a water supply shortage because of carefully laid drought-contingency plans.

**ICPRB outlook:**

As of September 1, there is a three to eleven percent conditional probability that natural Potomac flow will drop below 600- to 700-million gallons per day (MGD) at Little Falls through December 31 of this year. Water supply releases from Jennings Randolph and Little Seneca Reservoirs would occur when predicted flow is less than demand. Demand is equal to a 100 MGD minimum flow recommendation at Little Falls plus about 400 to 500 MGD of water supply withdrawals.

The conditional probability is estimated by analyzing the historical stream flow records and giving consideration to recent stream flow values, precipitation totals for the prior 12 months, current groundwater levels, and the current Palmer Drought Index. Past years in which watershed conditions most closely resemble current conditions are weighted more heavily in the determination of conditional probability. The historical probability is based on an analysis of historical stream flow records without weighting for current conditions. The current conditional probability of three to eleven percent compares to a historical probability of ten to sixteen percent and is considered the more reliable indicator.

***Outlook for Potomac River at Little Falls – Watershed conditions as of September 1, 2005***

Natural flow (MGD)	<i>Historical probability of lower flow Sept. 1 through December 31</i>	<i>Conditional probability of lower flow Sept. 1 through December 31</i>
1200	67%	72%
1000	52%	51%
800	27%	20%
700 (water supply releases possible)	16%	11%
600 (water supply releases possible)	10%	3%

**Potomac River flow** (view graph at [http://www.potomacriver.org/water\\_supply/2005flow.htm](http://www.potomacriver.org/water_supply/2005flow.htm))

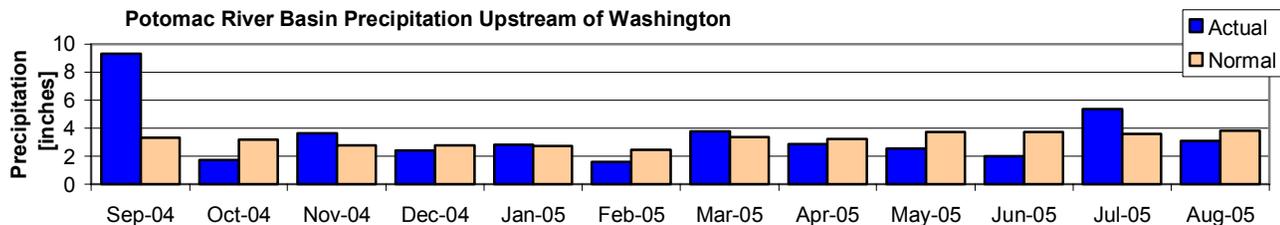
The Potomac flow was 78% of normal in August, averaging 2.1 billion gallons per day (BGD). Normal flow is 2.7 BGD. Flow varied from a high of about 2.6 BGD to a low about 1.5 BGD. Washington area water suppliers withdrew approximately 454 MGD from the Potomac in August, about 1% less than August 2004. (Data Source: USGS).

**Reservoir Storage:**

Facility	Percent Full	Current usable storage, bg	Total usable storage, bg
WSSC's Patuxent reservoirs:	82	8.3	10.1
FCWA's Occoquan reservoir:	93	7.4	8.0
Little Seneca Reservoir	100	3.8	3.8
Jennings Randolph water supply account	100	13.3	13.3
Jennings Randolph water quality account	70	11.6	16.5
Savage Reservoir	67	4.1	6.2

**Precipitation summary and long-term forecast:**

The National Weather Service’s Middle Atlantic River Forecast Center reports that precipitation in the Potomac basin upstream of Washington, D.C. has been 2.6 inches below normal since January 1, 2005. Rainfall in August totaled 3.1 inches, 0.7 inches below normal. The Climate Prediction Center of the National Oceanic and Atmospheric Administration predicts approximately equal chances of Potomac basin precipitation and temperature being either above- or below-normal in September through November.



**Drought Monitor, Soil moisture, and Groundwater:**

Monitoring wells show that on average, groundwater levels are near normal levels throughout the basin for this time of year (Data Source: USGS). The current NOAA Drought Monitor shows “non-drought” conditions in most of the basin, although a portion is “abnormally dry.” The Palmer Drought Severity Index shows “near-normal” conditions for most of the basin, although the panhandle of Maryland in the Potomac headwaters is in “moderate drought” status.

**Drought Status:**

The Metropolitan Washington Council of Government’s Drought Awareness Response Plan status is “Normal.”

**Environmental Flow-by**

Average Potomac flow at Little Falls in August was about 21 times the minimum flow recommendation of 100 MGD.

Flow on the Potomac River at Point of Rocks 2005, and historical percentiles

