



**August 9, 2004**  
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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.*

**Management conclusions:**

The probability of releases this summer and fall from the Washington metropolitan area's back-up water supply reservoirs is quite low. Generally, the use of Jennings Randolph and Little Seneca reservoirs is triggered by low flows brought about by a combination of low summer rainfall and low groundwater levels. Stream flows are more than adequate, groundwater levels in the basin are at normal to above-normal levels, and precipitation has been plentiful. Even in the event of a drought, the metro area is well protected from a water supply shortage because of foresight and careful planning.

**ICPRB outlook:**

As of August 1, there is a 1- to 3-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 occur when flow is less than demand. Demand includes a 100 MGD minimum flow recommendation at Little Falls, plus about 400 to 500 MGD of water supply withdrawals.

**Outlook for Potomac River at Little Falls – August 1, 2004**

Natural flow (MGD)	Historical probability of lower flow August 1 through December 31 <sup>1</sup>	Conditional probability of lower flow August 1 through December 31 <sup>2</sup>
1200	67%	39%
1000	52%	19%
800	27%	6%
700 (water supply releases possible)	16%	3%
600 (water supply releases possible)	10%	1%

<sup>1</sup> The historical probability was calculated based on an examination of the historical streamflow record.

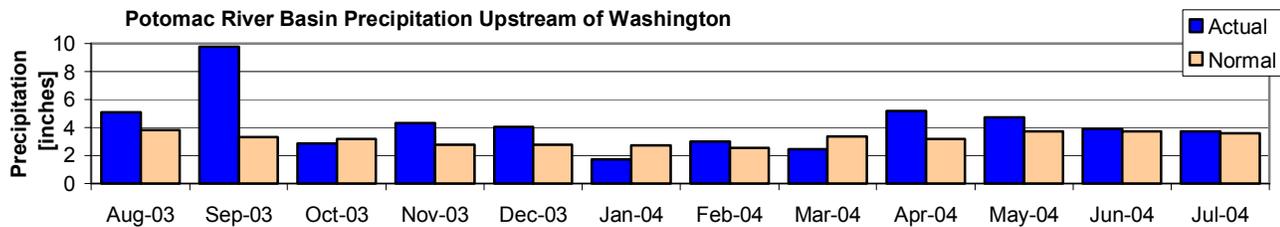
<sup>2</sup> Historical years in which conditions most closely resemble recent conditions are weighted more heavily in the determination of conditional probability. While both historical and conditional probabilities are given, the conditional probability is considered the more reliable indicator. Recent streamflow values, precipitation totals, groundwater levels, and drought indices are used to estimate the conditional probability of future low flows.

**Potomac River flow** (view graph at [http://www.potomacriver.org/water\\_supply/2004flow.htm](http://www.potomacriver.org/water_supply/2004flow.htm))

The Potomac flow is near median for this time of year. July daily flow averaged about 3.6 billion gallons per day, about 111-percent of the normal flow for the month (Source: USGS). Washington area water suppliers withdrew an average of about 482 MGD from the Potomac in July.

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

The National Weather Service's Middle Atlantic River Forecast Center reports that as of August 1, 2004, precipitation in the Potomac basin upstream of Washington, D.C. has been nearly 12 inches above average for the prior 12 months (since August 1, 2003), for a total 50.8 inches. Since January of 2004, precipitation in the basin has been 1.8 inches above normal.



The Climate Prediction Center of the National Oceanic and Atmospheric Administration predicts approximately equal chances of normal temperatures in August, September, and October for the Potomac basin and approximately equal chances of precipitation being either below or above normal.

**Reservoir Storage:**

Facility	Percent Full	Current usable storage, bg	Total usable storage, bg
WSSC's Patuxent reservoirs:	93	9.5	10.2
FCWA's Occoquan reservoir:	100	8.1	8.1
Little Seneca Reservoir	100	3.8	3.8
Jennings Randolph water supply account	100	13.4	13.4
Jennings Randolph water quality account	85	14.2	16.6
Savage Reservoir	74	4.7	6.3

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

Monitoring wells show that groundwater levels are at normal or above-normal levels throughout the basin (Data Source: USGS). The current NOAA Drought Monitor shows non-drought conditions in the basin, and the Palmer Drought Severity Index shows near normal to very moist conditions in the basin.

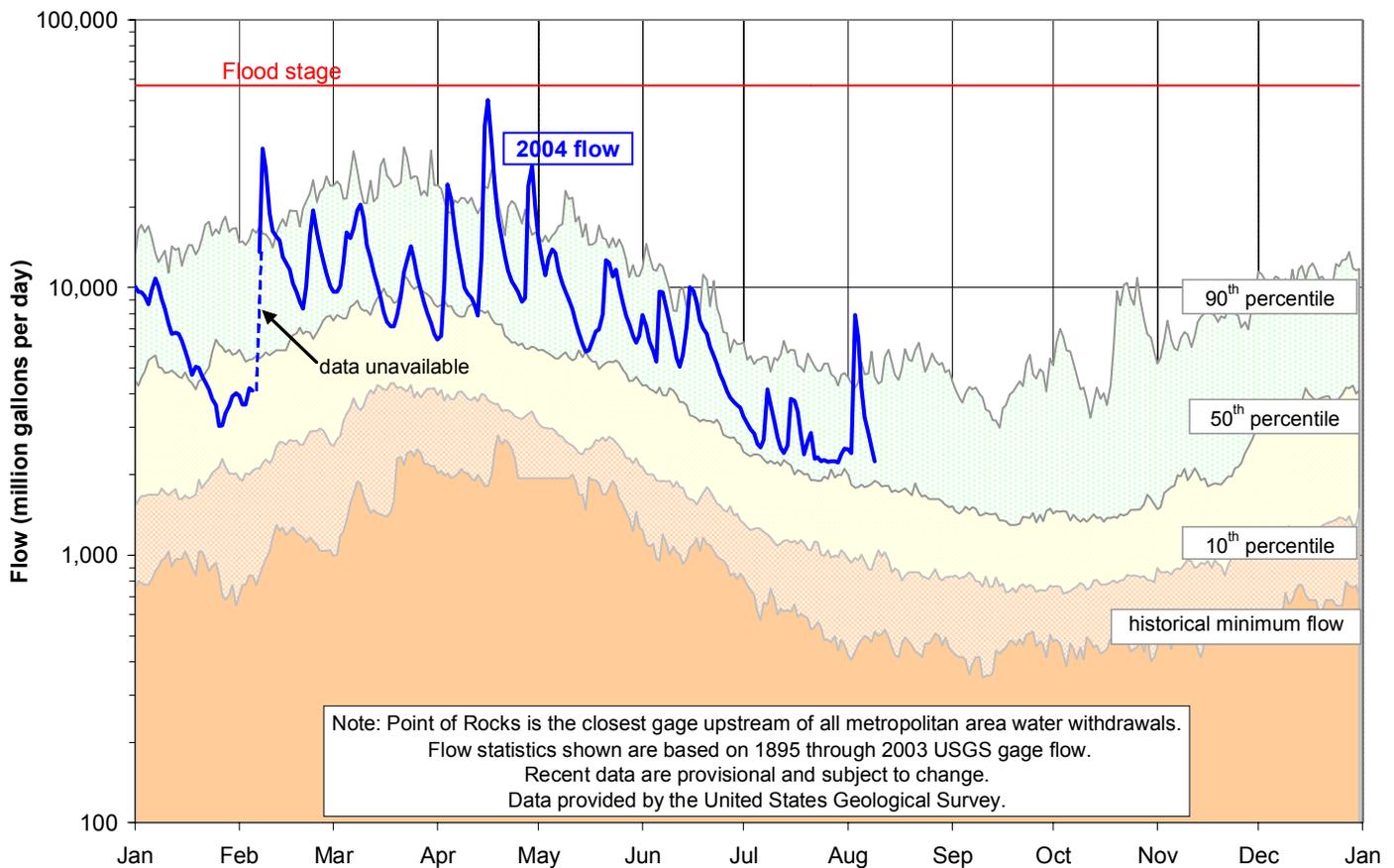
**Drought Status:**

The Metropolitan Washington Council of Government's Drought Awareness Response Plan status is "Normal."

**Environmental Flow-by**

Average Potomac flow at Little Falls in July was about 36 times the minimum flow recommendation of 100 MGD.

**Flow on the Potomac River at Point of Rocks 2004, and historical percentiles**



Information provided by USGS, the Middle Atlantic River Forecast Center, and the National Weather Service.