NWS Form E-5 **U.S. DEPARTMENT OF COMMERCE** **(04-2006)** **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION** **(PRES. BY NWS Instruction 10-924)** **NATIONAL WEATHER SERVICE**	HYDROLOGIC SERVICE AREA (HSA) San Juan, Puerto Rico
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH: April YEAR: 2008
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283	SIGNATURE Althea Austin-Smith, Service Hydrologist DATE 05/21/2008

When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).

☐ An X inside this box indicates that no flooding occurred within this hydrologic service area.

Summary: The San Juan ASOS reported 4.86 inches of rain for the month of April … 1.15 inches more than the normal of 3.71 inches. The ASOS rainfall report at Truman Field in St. Thomas reported 1.65 inches of rain for the month of April … 0.74 inches less than the normal of 2.39 inches.

The Rio Cayaguas and Rio Valenciano … tributaries to the Upper Rio Grande de Loiza, Rio Fajardo, Rio Cibuco, Rio Guayanes and Rio Mameyes all exceeded flood stage in response to a rainfall event at the end of the month. Maximum rainfall amounts in Eastern Puerto Rico, for the 24 hour period ending at 7 am on April 28th, 2008 ranged from 5 inches to over 12 inches in Northeast Puerto Rico. Flash Flooding was reported in numerous areas in the Northeast including along the Rio Mameyes near Sabana – 12.6 inches of rainfall (headwaters in El Yunque rainforest). On the positive side, the Carraizo Dam which supplies water to the San Juan Metropolitan Area received some welcome improvement to their lake levels from this event.

As is usually the case, April is a transition month into the wet season after the lower rainfall values that are often times experienced during the first three months of the year. Although the Virgin Islands showed a marked increase in rainfall in April after a very dry March (only 0.01 inches in St. Thomas), the monthly total still fell short of the long term rainfall normal. Puerto Rico fared much better, exceeding the long term normal rainfall amount for the month. Naturally, this led to enough runoff to require the issuance of a reasonable number of Hydrologic products during the month of April. Unfortunately, the rainfall was limited to a couple of intense significant events which caused some smaller rivers to exceed flood stage. Even with urban and flash flooding during the month of April, there was very little time for any significant basin ground water recharge with these events.

In order to positively impact the rainfall deficits in the long term across the Region, rainfall events need to be more frequent, of lower intensity and over a broader area. The wet season should bring an increase in this type of pattern, which is much needed since a good portion of Puerto Rico remains "Abnormally Dry" as defined by the U.S. Drought Monitor. Although not depicted on the graphic, the Virgin Islands have also been experiencing rainfall deficits over the past couple of years.

Please note the following drought related graphic…updated weekly:
http://www.drought.unl.edu/dm/DM_state.htm?PR

Table 1 - Hydrologic Products Issued

Non-Routine Hydrologic Products Issued:	Approximate number of Products for the month
Hydrologic Outlooks (SJUESFSJU)	0
Flood Watches (SJUFFASJU)	2
Flood Warnings (SJUFLWSJU)	1
Flash Flood Warnings (SJUFFWSJU)	15
Flash Flood Statements (SJUFFSSJU)	6
Urban/Small Stream Flood Advisories (SJUFLSSJU)	67