

Based upon recent updates to rainfall amounts for various return periods by the National Oceanographic and Atmospheric Administration (NOAA), the Natural Resource Conservation Service (NRCS) has developed the attached revised New Jersey 24 Hour Rainfall Frequency Data. The attached table provides the revised 24-hour rainfall depths for each county in New Jersey for the 1, 2, 5, 10, 25, 50, and 100-year return periods. These new depths are to be used in calculating runoff flows effective immediately. Any projects that have already been submitted to the Bureau of Dam Safety will be evaluated on a case-by-case basis on whether or not the new rainfall depths will be required.

Please contact this office if you have any specific questions.

To: B D S A T
From: Jm
9/9/04



Natural Resources Conservation Service
220 Davidson Ave, 4th Floor
Somerset, NJ 08873

Telephone: 732-537-6040
Fax: 732-537-6095
Web site: <http://www.nj.nrcs.usda.gov>

September 8, 2004

NEW JERSEY BULLETIN NO. NJ210-4-1

SUBJECT: ENG – Engineering Field Handbook Supplement
Rainfall Frequency Data

Purpose: To distribute a supplement to Chapter 2 of the Engineering Field Handbook revising rainfall frequency data for New Jersey.

Effective Date: Effective upon receipt.

County rainfall frequency data for New Jersey has been revised following a study conducted by the National Oceanic and Atmospheric Administration (NOAA) for the Ohio River Basin and Surrounding States. This study incorporates rainfall data collected since National Weather Service Technical Paper 40 was developed in the early 1960's. The revised data contained in NOAA Atlas 14 replaces TP-40 rainfall frequency values for New Jersey. This revised data will need to be incorporated into the county rainfall tables used by the EFH-2 and WinTR55 software.

The attached table of average county rainfall frequency data was developed by NRCS based on the individual weather station values contained in NOAA Atlas 14. Rainfall frequency values for the individual weather stations can be accessed through the Hydrometeorological Design Studies Center (HDSC) Precipitation Frequency Data Server at <http://hdsc.nws.noaa.gov>.

Our National Water and Climate Center will be undertaking a subsequent study to see if any changes need to be made to storm distributions due to the updated rainfall information. Currently, the Type III storm distribution is recommended throughout New Jersey. The study will begin this fall.

Filing Instructions: Remove Exhibit 2 NJ 2 dated March 1978 from Chapter 2 of the Engineering Field Handbook and replace with the revision.

DAVID LAMM, PE
State Conservation Engineer

Enclosure

Dist: O

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

NEW JERSEY 24 HOUR RAINFALL FREQUENCY DATA

Rainfall amounts in Inches

County	1 year	2 year	5 year	10 year	25 year	50 year	100 year
Atlantic	2.8	3.3	4.3	5.2	6.5	7.6	8.9
Bergen	2.8	3.3	4.3	5.1	6.3	7.3	8.4
Burlington	2.8	3.4	4.3	5.2	6.4	7.6	8.8
Camden	2.8	3.3	4.3	5.1	6.3	7.3	8.5
Cape May	2.8	3.3	4.2	5.1	6.4	7.5	8.8
Cumberland	2.8	3.3	4.2	5.1	6.4	7.5	8.8
Essex	2.8	3.4	4.4	5.2	6.4	7.5	8.7
Gloucester	2.8	3.3	4.2	5.0	6.2	7.3	8.5
Hudson	2.7	3.3	4.2	5.0	6.2	7.2	8.3
Hunterdon	2.9	3.4	4.3	5.0	6.1	7.0	8.0
Mercer	2.8	3.3	4.2	5.0	6.2	7.2	8.3
Middlesex	2.8	3.3	4.3	5.1	6.4	7.4	8.6
Monmouth	2.9	3.4	4.4	5.2	6.5	7.7	8.9
Morris	3.0	3.5	4.5	5.2	6.3	7.3	8.3
Ocean	3.0	3.4	4.5	5.4	6.7	7.9	9.2
Passaic	3.0	3.5	4.4	5.3	6.5	7.5	8.7
Salem	2.8	3.3	4.2	5.0	6.2	7.3	8.5
Somerset	2.8	3.3	4.3	5.0	6.2	7.2	8.2
Sussex	2.7	3.2	4.0	4.7	5.7	6.6	7.6
Union	2.8	3.4	4.4	5.2	6.4	7.5	8.7
Warren	2.8	3.3	4.2	4.9	5.9	6.8	7.8