# NEW JERSEY DEPARTMENT OF AGRICULTURE STATE SOIL CONSERVATION COMMITTEE Chapter 251, PL 1975 as amended, Engineering Policies- Technical Bulletin 

| Technical Bulletin: | Effective Date: |
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| Subject: | From: |
| NRCS revisions to 24 hr design storm 1, 2005 <br> depths | Hunter Birckhead, P.E., Section Chief |

### 1.01 PURPOSE

To distribute the revised 24 hr NRCS design rainfall depth tables for use in runoff modeling with NRCS procedures such as TR-55 and TR-20

### 1.02 SUMMARY

The National Oceanographic and Atmospheric Administration (NOAA) is responsible for developing statistical estimates of rainfall amounts for various return periods. Based on recent updates by NOAA, these changes have been incorporated by NRCS into their 24 hr design storm depth tables and have been released for use in New Jersey.

The attached table provides the previous and revised 24 hr 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 stormwater runoff effective immediately.

NRCS 24 hr Design Storm Rainfall Depths Revised September 2004 (revised)
SSCC - NJDA - SCD

| Storm Period | 1 yr |  | 2 yr |  | 5 yr |  | 10yr |  | 25yr |  | 50 yr |  | 100yr |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| County | old | new | old | new | old | new | old | new | old | new | old | new | old | new |
| Atlantic | 2.8 | 2.8 | 3.5 | 3.3 | 4.5 | 4.3 | 5.5 | 5.2 | 6.2 | 6.6 | 6.8 | 7.6 | 7.6 | 8.9 |
| Bergen | 2.7 | 2.8 | 3.3 | 3.3 | 4.3 | 4.3 | 5.3 | 5.1 | 5.7 | 6.3 | 6.5 | 7.3 | 7.5 | 8.4 |
| Burlington | 2.8 | 2.8 | 3.4 | 3.4 | 4.4 | 4.3 | 5.3 | 5.2 | 6.0 | 6.4 | 6.6 | 7.6 | 7.4 | 8.8 |
| Camden | 2.8 | 2.8 | 3.4 | 3.3 | 4.4 | 4.3 | 5.3 | 5.1 | 5.9 | 6.3 | 6.6 | 7.3 | 7.4 | 8.5 |
| Cape May | 2.9 | 2.8 | 3.5 | 3.3 | 4.6 | 4.2 | 5.6 | 5.1 | 6.3 | 6.4 | 6.9 | 7.5 | 7.7 | 8.8 |
| Cumberland | 2.8 | 2.8 | 3.4 | 3.3 | 4.5 | 4.2 | 5.4 | 5.1 | 6.0 | 6.4 | 6.8 | 7.5 | 7.5 | 8.8 |
| Essex | 2.7 | 2.8 | 3.3 | 3.4 | 4.3 | 4.4 | 5.3 | 5.2 | 5.7 | 6.4 | 6.4 | 7.5 | 7.5 | 8.7 |
| Gloucester | 2.8 | 2.8 | 3.4 | 3.3 | 4.4 | 4.2 | 5.3 | 5.0 | 5.9 | 6.2 | 6.6 | 7.3 | 7.4 | 8.5 |
| Hudson | 2.7 | 2.7 | 3.3 | 3.3 | 4.3 | 4.2 | 5.3 | 5.0 | 5.7 | 6.2 | 6.4 | 7.2 | 7.5 | 8.3 |
| Hunterdon | 2.6 | 2.9 | 3.2 | 3.4 | 4.2 | 4.3 | 5.0 | 5.0 | 5.7 | 6.1 | 6.5 | 7.0 | 7.3 | 8.0 |
| Mercer | 2.7 | 2.8 | 3.3 | 3.3 | 4.3 | 4.2 | 5.2 | 5.0 | 5.8 | 6.2 | 6.4 | 7.2 | 7.5 | 8.3 |
| Middlesex | 2.7 | 2.8 | 3.3 | 3.3 | 4.3 | 4.3 | 5.2 | 5.1 | 5.9 | 6.4 | 6.4 | 7.4 | 7.5 | 8.6 |
| Monmouth | 2.8 | 2.9 | 3.4 | 3.4 | 4.4 | 4.4 | 5.3 | 5.2 | 6.0 | 6.6 | 6.5 | 7.7 | 7.5 | 8.9 |
| Morris | 2.6 | 3.0 | 3.3 | 3.5 | 4.3 | 4.5 | 5.2 | 5.2 | 5.7 | 6.3 | 6.5 | 7.3 | 7.5 | 8.3 |
| Ocean | 2.8 | 3.0 | 3.5 | 3.4 | 4.5 | 4.5 | 5.4 | 5.4 | 6.2 | 6.7 | 6.6 | 7.9 | 7.5 | 9.2 |
| Passaic | 2.6 | 3.0 | 3.3 | 3.5 | 4.3 | 4.4 | 5.4 | 5.3 | 5.7 | 6.6 | 6.5 | 7.5 | 7.6 | 8.7 |
| Salem | 2.8 | 2.8 | 3.3 | 3.3 | 4.4 | 4.2 | 5.3 | 5.0 | 5.9 | 6.2 | 6.6 | 7.3 | 7.4 | 8.5 |
| Somerset | 2.7 | 2.8 | 3.3 | 3.3 | 4.3 | 4.3 | 5.2 | 5.0 | 5.7 | 6.2 | 6.5 | 7.2 | 7.5 | 8.2 |
| Sussex | 2.6 | 2.7 | 3.2 | 3.2 | 4.2 | 4.0 | 5.0 | 4.7 | 5.7 | 5.7 | 6.6 | 6.6 | 7.5 | 7.6 |
| Union | 2.7 | 2.8 | 3.3 | 3.4 | 4.3 | 4.4 | 5.3 | 5.2 | 5.8 | 6.4 | 6.4 | 7.5 | 7.5 | 8.7 |
| Warren | 2.6 | 2.8 | 3.2 | 3.3 | 4.1 | 4.2 | 4.9 | 4.9 | 5.6 | 5.9 | 6.5 | 6.8 | 7.2 | 7.8 |

