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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
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CONSERVATION PROGRAMS SECTION

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SEDIMENT & STORMWATER PROGRAM
REGULATORY GUIDANCE MEMORANDUM
RGM - 5

Date: November 1, 2025

Title: Standard Plan Curve Number Comparison

Synopsis: A curve number (CN) comparison of a given parcel is required to demonstrate compliance for some common standard plan types. To assist applicants, a CN comparison spreadsheet has been developed which reduces the effort required to demonstrate compliance. The procedures for using the tool are enumerated in this RGM. This methodology is not required, and compliance via a traditional evaluation of the NRCS TR-55 curve number will be accepted.

Effective Date: January 1, 2026

Responsible Staff Member

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Background

Delaware Sediment and Stormwater Regulations (DSSR) allows for simple projects that meet applicability criteria and agree to conditions specified in the DSSR to be approved as a Standard Plan. There are twelve categories of Standard Plans listed in the DSSR, including residential, utility, demolition, and small non-residential projects. Standard Plan projects do not require a licensed professional to design the project.

Two of the Standard Plan options, Non-residential construction less than 1.0 acre disturbed, and Sidewalk, Trail, or Other Linear Impervious Surfaces, have applicability criteria that include the following:

> *Comparison of the existing parcel curve number (CN) based upon the Department's 2017 aerial photography to the proposed CN for the parcel after construction results in less than one whole number change in the CN.*

Calculation of the CN change can be a challenge to standard plan applicants, particularly those who are not licensed design professionals.

Procedure

CN comparison calculation workbook *StdPlan_CNComparison_2026-01-01.xls* has been developed to assist in determining whether the above standard plan criterion is met. The workbook consists of two worksheets, representing the existing parcel in the "Pre LOD" worksheet and the proposed parcel in the "Post LOD" worksheet. The format of the worksheets is comparable to the DURMM "CA-RCN" worksheet.

In the header of the Pre LOD worksheet, enter the project name and select the appropriate standard plan type from the dropdown list. Enter the total parcel area in the Pre LOD worksheet header. The total parcel area value will be used in calculating the CN change for the parcel.

The remainder of the entries in the Pre LOD worksheet will be acres entered for areas within the limit of disturbance (LOD) for the cover conditions. All pre development cover must be considered in "good" hydrologic condition.

At the bottom of the Pre LOD worksheet, the Pre LOD Area in acres is computed based on the entries. This number should never exceed the parcel area in the header. The weighted CN for the existing parcel LOD area is computed.

The header information on the Post LOD worksheet carries over from the Pre LOD worksheet. As with the Pre LOD entries, on the Post LOD worksheet enter the developed land cover only for areas within the LOD of the site. The computed Post LOD Area in acres must be equal to the Pre LOD Area. The weighted CN for the proposed parcel LOD is computed.

Finally, the Delta CN for the parcel is computed based on the pre and post CN and the parcel area. If the Delta CN for the parcel is less than 1.00, the applicability criterion has been met.

Alternatives

The CN comparison workbook is provided as a tool to assist applicants in determining if the standard plan criteria is met. However, an applicant may provide CN computations for both the existing and proposed condition for the parcel using any process employing NRCS TR-55 curve number computation methodology.