

Completing 3D Series Hydraulic Summary Plan Sheets, Including Drainage Summary Sheets and Stormwater Control Measure Summary Sheets

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Construction plan sheets include 3D Series drainage summary sheets. Traditionally these sheets have included the summary of pipe and drainage structure types. With the implementation of Project Delivery Network version 2.0 the 3D series sheets will now also include stormwater control measure summaries for projects where stormwater controls are included. Not all projects will include stormwater control measures, thus these sheets should be the last sheets within the 3D series.

Drainage Summary Sheets:

Drainage summary sheets should be filled out per guidance in the “Drainage Summary Sheet – Steps for Hydraulic Users” located on the Connect site here:

<https://connect.ncdot.gov/resources/hydro/Geopak%20Applications%20Documents/Drainage%20Summary%20Sheet%20-%20Hydro%20Steps.pdf>

Once the traditional drainage summary sheets have been filled out the user should add the stormwater control summary sheets starting with the next available consecutive page number.

Stormwater Control Measure Summary Sheets:

The Highway Stormwater Program (HSP) has amended the Stormwater Management Plan (SMP) template to automate the creation of the stormwater control measure summary sheet. Hydraulic design engineers are required to complete a Stormwater Management Plan (SMP) for all projects and should always use the latest SMP template version found on the Connect Site here:

<https://connect.ncdot.gov/resources/hydro/Pages/HSPProductPages.aspx?PROD=SMP>

Users should complete the SMP per the instruction included in that document. As a general summary, users should fill out the ‘General Project Information’ and ‘Waterbody Information’ tabs along with any applicable stormwater control measure tabs (Swales, Filter Strip, PSHs & Energy Dissipators, Level Spreader & HSB, Other Toolbox BMPs, Other Non-Toolbox BMPs). These tabs are illustrated in Figure 1.

Figure 1. Stormwater Management Plan Template

As a user completes the SCM tabs on the SMP, the SCM Summary tab will be auto populated and sorted by plan sheet number, alignment (L, Y1, etc.), and Station. After completion of the SCM tabs, the user should click on the SCM Summary tab. The table should be complete and sorted. The user should complete the Computed By and Checked By with dates box in the upper left corner of the first sheet, cells D7, D8, F7, and F8 (see Figure 2). The user should also fill in the next consecutive 3D series plan sheet number in the upper right corner of the first sheet, cell Z8. Any additional sheets will be automatically numbered. All other cells within the worksheet should be locked and non-editable.

Figure 2. Stormwater Control Measure Summary Sheet

The worksheet print area is preset to include only the first sheet, if additional sheets are needed then the user should expand the print area manually to include those sheets. Once the print area is set appropriately the user should print the sheets to PDFs at the ANSI D size (22"x34", full-size plan sheet).

Deliverables:

Printed PDF should be combined with the Drainage Summary Sheets into one consolidated PDF file. This total 3D series sheets PDF file should then be sent to the project Roadway Design Engineer to be incorporated into the final plan set. The final stormwater management plan should be uploaded to the Preconstruction Connect site via the ATLAS workbench.