



**PUBLIC WORKS & WATER RESOURCES**  
CITY OF NEWARK

220 South Main Street · Newark, Delaware 19711  
302.366.7000 · Fax 302.366.7160 · www.newarkde.gov

**Preliminary Sediment & Stormwater Management Plan Review Checklist**

DATE RECEIVED: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

**General Information:**

1. \_\_\_\_\_ Completed application signed by the owner, review fee, one set of plans and reports, and a completed checklist must be submitted for review. Electronic plan and report program files (i.e., AutoCAD, Microstation, DURMM, HydroCAD, and/or equal/similar) shall be transmitted upon agency request.
2. \_\_\_\_\_ Provide a copy of the notice to DelDOT, a municipality, or a private entity (i.e., neighboring Homeowner's Association) for the intent to discharge or connect to their stormwater system. The notice shall indicate the proposed condition and that any comments regarding the discharge shall be returned within 30 calendar days, and if no comments are received than consent to discharge is assumed. If directly copied on the notice, indicate the date of the notice and the reviewer copied: \_\_\_\_\_
3. \_\_\_\_\_ Hydraulic and Hydrology computations shall reflect the proposed site conditions.
4. \_\_\_\_\_ All plans should be submitted on 24" x 36" (minimum) sheets unless otherwise approved.
5. \_\_\_\_\_ When two (2) or more sheets are used to illustrate the plan view, an index sheet is required, illustrating the entire project on one (1) 24" x 36" (minimum) sheet.
6. \_\_\_\_\_ Provide a north arrow on all plans.
7. \_\_\_\_\_ Provide all plan views to a defined scale with a scale bar.
8. \_\_\_\_\_ Provide names of adjacent property owners on all plans.
9. \_\_\_\_\_ Provide existing and proposed contours (if provided) based on NAVD 88 vertical datum at one (1) foot intervals (2 foot intervals can be provided for offsite drainage information based on the latest Lidar information).
10. \_\_\_\_\_ For small projects less than ½ acre of disturbance, provide existing and proposed spot elevations based on NAVD 88 vertical datum on a fifty-foot grid system. Include high and low points.
11. \_\_\_\_\_ Locate the site in NAD83 horizontal datum.
12. \_\_\_\_\_ Provide the contact information for the person or entity responsible for preparing the plans and report, including name, company, address and telephone number.. Locate on both the plans and report.
13. \_\_\_\_\_ All detailed plans submitted for review shall be prepared, signed, dated and sealed by a Licensed Professional in the State of Delaware.
14. \_\_\_\_\_ Provide the Preliminary Sediment and Stormwater Management plans in the following order and title. The sheet list is to appear on the Coversheet, and on each plan sheet shall be respectively titled (include the title of the plan within the title block or lower right-hand corner of the sheet):
  - a. \_\_\_\_\_ Coversheet
  - b. \_\_\_\_\_ Schematic Pre-Construction Site Stormwater Management Plan
  - c. \_\_\_\_\_ Schematic Construction Site Stormwater Management Plan
  - d. \_\_\_\_\_ Overall BMP Contributing Drainage Area Plan
  - e. \_\_\_\_\_ BMP Contributing Drainage Area Plan
  - f. \_\_\_\_\_ Pre-Developed Subarea Limit of Disturbance Drainage Area Plan

**Coversheet:**

- 15. \_\_\_\_\_ Project Header:
  - a. \_\_\_\_\_ Project Name and Phase (to duplicate in the title block on each sheet).
  - b. \_\_\_\_\_ Title of Plan Set: Preliminary Sediment and Stormwater Management Plans (to duplicate in the title block on each sheet)
  - c. \_\_\_\_\_ Project Location (including watershed, hundred, town, county, etc., as applicable).
  - d. \_\_\_\_\_ Project tax map identification number(s).
- 16. \_\_\_\_\_ Legend indicating plan symbols and lines, including but not limited to, soils, drainage area information, grading and site information.
- 17. \_\_\_\_\_ Provide a vicinity map with a scale appropriate to project size, and indicate the site boundary within the map. The map shall be no smaller than 4"x4" in size and shall clearly indicate at least one intersecting road.
- 18. \_\_\_\_\_ Project Notes:
  - a. Parcel Data:
    - i. \_\_\_\_\_ Project tax map identification number(s)
    - ii. \_\_\_\_\_ PLUS Number (if applicable)
    - iii. \_\_\_\_\_ DNREC Sediment and Stormwater Program [or relevant Delegated Agency] Number
    - iv. \_\_\_\_\_ Site Address (or Nearest Intersecting Street and Distance between)
    - v. \_\_\_\_\_ Latitude and Longitude State Plane coordinates, with approximate geographical location (ie., Benchmark #1, Northeast Site Corner, etc). Provide in degree decimal format.
    - vi. \_\_\_\_\_ Existing Site Area
    - vii. \_\_\_\_\_ Proposed Site Area
    - viii. \_\_\_\_\_ Existing Wetland Area
    - ix. \_\_\_\_\_ Proposed Discharge Location(s)
    - x. \_\_\_\_\_ Proposed Total Limit of Disturbance per Discharge Location
  - b. Contact Data:
    - i. Owner's Name, Title: \_\_\_\_\_ Owner \_\_\_\_\_ Land Developer \_\_\_\_\_ Designer
    - ii. Company/LLC: \_\_\_\_\_ Owner \_\_\_\_\_ Land Developer \_\_\_\_\_ Designer
    - iii. Full Street Address: \_\_\_\_\_ Owner \_\_\_\_\_ Land Developer \_\_\_\_\_ Designer
    - iv. Phone Number: \_\_\_\_\_ Owner \_\_\_\_\_ Land Developer \_\_\_\_\_ Designer
- 19. \_\_\_\_\_ Include a Licensed Professional Certification that states "I hereby certify that this plan has been prepared under my supervision and to the best of my knowledge complies with the applicable state and local regulations and ordinances." This shall be signed in ink or an original reproducible.
- 20. \_\_\_\_\_ Provide a list of all sheets and their corresponding sheet number for all Preliminary Sediment and Stormwater Management Plans.

**Schematic Construction Site Stormwater Management Plans:**

The purpose of the Schematic Construction Site Stormwater Management Plan is to provide a preliminary design of the site's phasing in relation to the site's existing conditions and its construction and stormwater facility locations. It will eventually be further developed into the Pre-Construction and Construction Site Stormwater Management Plan for the full plan submittal.

- 21. \_\_\_\_\_ Schematic Pre-Construction Site Stormwater Management Plan (if required, as determined at the SAS review meeting):
  - a. \_\_\_\_\_ Include the entire site boundary in an existing conditions plan view (i.e., site boundary, existing contours, wetlands, treelines, existing structures/utilities to remain or to be removed, etc).
  - b. \_\_\_\_\_ Indicate the approximate limit of disturbance per phase of construction. Provide a

- c. \_\_\_\_\_ legend indicating the total disturbed acreage per limit of construction.
  - c. \_\_\_\_\_ Indicate the location of all perimeter controls, stockpile locations, sediment trapping facilities, and other construction stormwater management controls needed for demolition and bulk grading (i.e., silt fence, stabilized construction entrances, temporary swales, sediment basins, etc).
  - d. \_\_\_\_\_ Proposed contours are not required.
  - e. \_\_\_\_\_ Provide a legend indicating the lines and symbols used to define the site and construction stormwater controls.
22. \_\_\_\_\_ Schematic Construction Site Stormwater Management Plan:
- a. \_\_\_\_\_ Include the entire site boundary in an existing conditions plan view (i.e., site boundary, existing contours, wetlands, treelines, existing structures to remain, etc).
  - b. \_\_\_\_\_ Include a preliminary site plan view overlaid with the existing conditions. Include all lot and/or building outlines; right-of-ways and/or paved areas (whichever is less constrictive); and proposed stormwater locations including facilities, structures and pipes.
  - c. \_\_\_\_\_ Indicate the approximate limit of disturbance per phase of construction. Provide a legend indicating the total disturbed acreage per limit of construction.
  - d. \_\_\_\_\_ Indicate the location of all construction site stormwater controls, including perimeter controls, sediment controls, water controls, and pollution prevention controls. (i.e., silt fence, stabilized construction entrances, temporary swales, sediment basins, etc). Graphic symbols representing the practice can be utilized (ie, sediment basins do not need to be graded out).
  - e. \_\_\_\_\_ Proposed contours are not required, but should be included when available. If not flow arrows showing the drainage intent with sample spot elevations can suffice.
  - f. \_\_\_\_\_ Provide a legend indicating the lines and symbols used to define the site and construction stormwater controls, corresponding to the current *Delaware Erosion and Sediment Control Handbook*.

#### **Drainage Area Plans:**

The drainage area plans shall provide a graphic portrayal of the information that is contained within the DURMM worksheets. .

23. \_\_\_\_\_ Overall BMP Contributing Drainage Area Plan
- a. \_\_\_\_\_ Provide only for sites that cannot be shown in their entirety at the maximum scale of 1"=100'.
  - b. \_\_\_\_\_ Provide the type and location of Stormwater BMP(s) including the BMP drainage area boundary.
  - c. \_\_\_\_\_ Provide the total area of each sub-drainage area.
  - d. \_\_\_\_\_ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.
24. \_\_\_\_\_ BMP Contributing Drainage Area Plan
- a. \_\_\_\_\_ Provide a plan correlating to the Contributing Area RCN worksheet (post development model for the entire drainage area) for each subarea (subareas may be combined onto the same sheet, so long as they are clearly distinguishable).
  - b. \_\_\_\_\_ Provide soils mapping on the plan, using the latest NRCS soil information, with a general description of each soil.
  - c. \_\_\_\_\_ Indicate the LOD and the OLOD contributing areas, separated per their respective land cover and soil type classification. Provide the area of each designation.
  - d. \_\_\_\_\_ Provide a legend indicating the various land covers per soil type classification (a hatch shall be provided for each type of land cover; i.e. grass-B soils, impervious-D soils).

- e. \_\_\_\_\_ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.
  - f. \_\_\_\_\_ Indicate the location, type and sizing information for each BMP including a representative cross section.
  - g. \_\_\_\_\_ Show the Tc path for the area outside the LOD as used in the OLOD worksheet.
  - h. \_\_\_\_\_ Show the Tc path for any other areas that require further analysis using other H&H software.
25. \_\_\_\_\_ Pre-Developed Subarea Limit of Disturbance Data Plan
- a. \_\_\_\_\_ Provide a plan correlating to the Pre-Developed LOD information requested in the LOD worksheet (location of woods/meadow and impervious conditions within the LOD per sub-area prior to disturbance) for each subarea (subareas may be combined onto the same sheet, so long as they are clearly distinguishable).
  - b. \_\_\_\_\_ Provide soils mapping on the plan, using the latest NRCS soil information, with a general description of each soil.
  - c. \_\_\_\_\_ Indicate the areas of woods/meadow and impervious condition per soil type classification. Provide the area of each designation.
  - d. \_\_\_\_\_ Provide a legend indicating the various land covers per soil type classification (a hatch shall be provided for each type of land cover; i.e. grass-B soils, impervious-D soils).
  - e. \_\_\_\_\_ Provide a summary table indicating the sub-areas and their respective point of analysis, total area, and RCN.
26. \_\_\_\_\_ Any additional hydraulic or hydrologic computations that are required to show compliance with the *Delaware Sediment and Stormwater Regulations* may require additional drainage area or watershed plans (i.e., to satisfy the Cv and Fv requirements). These plans are not prescribed, but shall follow similar guidelines, clearly indicate the parameters used within the calculations, and be contained within the plan Sediment and Stormwater Management Plan set.

**Stormwater Management Report:**

27. \_\_\_\_\_ Provide information in the report in the following order:
- a. \_\_\_\_\_ Coverpage
  - b. \_\_\_\_\_ Table of Contents
  - c. \_\_\_\_\_ Site Narrative:
    - i. \_\_\_\_\_ Introduction
    - ii. \_\_\_\_\_ Existing Conditions describing the drainage patterns, landuse(s), and existing features. Include 2007 site aerial, 2007 Land Use Land Cover mapping, and photos of the site conditions and at all discharge locations.
    - iii. \_\_\_\_\_ Existing Soils description per the NRCS Web Soil Survey including the hydrologic soil group; and soil testing results from on-site soil testing.
    - iv. \_\_\_\_\_ Post Development Conditions, including summary of the proposed development, the proposed drainage system, indication of why the standards or performance approach was utilized, methods for RPv, Cv, and Fv compliance, requests for waivers and/or offsets, etc.
    - v. \_\_\_\_\_ Construction Site Conditions, describing methods to prevent sediment and pollution discharge and illicit transportation.
    - vi. \_\_\_\_\_ Conclusion  
(Note: It is not the objective to provide in depth information on practices that might change in the future due to the preliminary state of the submittal. The narrative can be elaborated for future submittals once the design becomes finalized; however, the intent of the construction and post construction practices should be described, indicating how the site will be handled with any potential concerns documented.)

- d. \_\_\_\_\_ DURMM computations and a schematic of the drainage subareas and stormwater practices
  - e. \_\_\_\_\_ Additional hydraulic and hydrologic computations, such as supporting calculations for either the standards or performance based approach for the Cv and Fv events. Detailed information subject to change
  - f. \_\_\_\_\_ Supplementary Construction Site computations (i.e., temporary sediment basin sizing, anti-seep collar sizing, forebay sizing, etc). *[Provide place holder for future information; does not need to be included for Preliminary submittal]*.
  - g. \_\_\_\_\_ Soil report(s) including boring locations and log reports.
  - h. \_\_\_\_\_ Appendix containing any supplemental information (information previously included within the Stormwater Assessment Study report does not need to be duplicated).
28. \_\_\_\_\_ Provide drainage calculations for the RPv, Cv, and Fv events using the latest DURMM model and other approved H&H software as required.
29. \_\_\_\_\_ All inputted data must be supported by surveys, Lidar information, photos, aerials, maps, etc. and shall be referenced in the report and/or drainage area plans. Information previously included within the Stormwater Assessment Study submittal is acceptable and does not need to be duplicated, though shall be referenced accordingly.
30. \_\_\_\_\_ The storm duration for computational purposes shall be the 24-hour rainfall event, unless otherwise specified. For projects south of the Chesapeake and Delaware (C&D) Canal, the Delmarva Unit Hydrograph shall be used.
31. \_\_\_\_\_ The pre-development condition shall be based off of the 2007 aerial photography and the Land Use Land Cover overlay mapping provided by the State of Delaware, through Stormwater Assessment Study GIS Web Application. This may not directly correlate to current site conditions if the landuse has changed; however, the 2007 landuse shall be used regardless even if more or less conservative than the current landuse.
32. \_\_\_\_\_ The pre-development condition shall be computed assuming that all existing land uses in the site that are to be developed are in good hydrologic condition.
33. \_\_\_\_\_ Provide sizing information for the BMP(s) to be used and show they meet sizing guidelines according to section 3.06.2 Post Construction Stormwater BMP Standards and Specifications of the Technical Document.
34. \_\_\_\_\_ Provide BMP capacity information for any detention practices to be used.