

**Town of Rising Sun & Cecil Soil Conservation District  
Checklist for Joint Agency Review  
Stormwater Management / Erosion and Sediment Control**

Project Name: \_\_\_\_\_

Tax Map \_\_\_\_\_ Parcel: \_\_\_\_\_ Acreage: \_\_\_\_\_ Plat: \_\_\_\_\_ ADC Map & Grid \_\_\_\_\_

Engineering Firm: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_

Owners Name: \_\_\_\_\_ Contract Purchaser's Name: \_\_\_\_\_

**The following are the minimum requirements for submittal, review, and approval of the Concept, Preliminary, and Final Stormwater Management / Erosion and Sediment Control Plans. Plans not meeting these requirements will be deemed incomplete and returned to the engineer. Please complete and submit the checklist with each plan submittal. ALL PLAN SUBMITTALS MUST BE FOLDED, SIGNED, SEALED and submitted to each agency SEPARATELY.**

**Concept Plan, Preliminary Plan, & Final Plan - Application Requirements**

**1st Review**

- Completed Application & Checklist
- Applicable Fees Due
- One (1) copy of folded plans (max size 24x36")
- One (1) copy of the geotechnical report signed and sealed (if required)
- One (1) copy of the Stormwater Management Computations (signed and sealed)
- One (1) copy of the soils report
- A narrative that supports the design and describes how Environmental Site Design (ESD) will be implemented to the Maximum Extent Practicable (MEP).
- One (1) copy of the Erosion and Sediment Control Design Computations

**Subsequent Reviews**

- Completed Application & Checklist
- Applicable Fees Due
- One (1) copy of a point by point response letter that addresses all comments from prior reviews
- One (1) copy of revised, folded plans (max size 24x36")
- One (1) copy of geotechnical report signed and sealed (if required)
- One (1) copy of the Stormwater Management Computations (signed and sealed)
- One (1) copy of the soils report
- One (1) copy of the Erosion and Sediment Control Design Computations

**Concept Plan - Minimum Plan Requirements**

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**Concept SWM/E&S Title Sheet (C-ESD-1)**

**CONCEPT PLAN INFORMATION**

- Vicinity Map (Site Location, North Arrow)
- ADC Map Coordinates
- Tax Map Coordinates
- Chesapeake Bay Critical Area relationship
- 100-yr Floodplain relationship
- Owner Information (Name, Address, Phone Number)
- Developer Information (Name, Address, Phone Number)
- Engineer Information (Name, Address, Phone Number)
- Legend
- "Call 811" Notification
- Site Analysis:
  - Total Site Area*
  - Total Area to be Disturbed*
  - Total Area to be Vegetatively Stabilized*
  - Total Area to Become Impervious*

**CONCEPT PLAN SIGNATURE/CERTIFICATION BLOCKS**

- CSCD and Concept signature blocks (each a min. size of 2" x 3")
- Engineer Concept Design Certification
- Owner/Developer Certification
- Professional Certification w/ license # and expiration date

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**Concept SWM/E&S Plan Sheet(s) (C-ESD-2 thru C-ESD-?)**

**EXISTING CONDITIONS SITE PLAN**

- Existing features
- Labeled Topographic Contours (2-5' contours)

**CONCEPT EXISTING CONDITIONS DRAINAGE AREA MAP (1:50 scale max., 1:100 scale min)**

- Labeled Topographic Contours (2-5' contours)
- Hydrologic Soil Group Delineation
- Label TC paths, providing length, slope and time of concentration
- Slopes from 15% to 25% delineated and Slopes greater than 25% delineated
- Drainage area boundaries with label and acreage to match report
- All proposed points of discharge labeled
- Show all sediment control structures
- Drainage area to sediment controls delineated in acres and properly labeled

**CONCEPT INTERMEDIATE CONDITIONS DRAINAGE AREA MAP (1:50 scale max., 1:100 scale min) (If applicable)**

- Labeled Topographic Contours (2-5' contours) (existing and proposed)
- Hydrologic Soil Group Delineation
- Label TC paths, providing length, slope and time of concentration
- Slopes from 15% to 25% delineated and Slopes greater than 25% delineated
- Drainage area boundaries with label and acreage to match report
- All proposed points of discharge labeled
- Show all sediment control structures
- Drainage area to sediment controls delineated in acres and properly labeled

**CONCEPT PROPOSED CONDITIONS DRAINAGE AREA MAP (1:50 scale max., 1:100 scale min)**

- Labeled Topographic Contours (2-5' contours) (existing and proposed)
- Hydrologic Soil Group Delineation
- Label TC paths, providing length, slope and time of concentration
- Slopes from 15% to 25% delineated and Slopes greater than 25% delineated
- Drainage area boundaries with label and acreage to match report
- All proposed points of discharge labeled
- Show all sediment control structures
- Drainage area to sediment controls delineated in acres and properly labeled

**PROJECT CONCEPT PLAN VIEW (1:50 scale max., 1:100 scale min)**

- Proposed impervious areas (buildings, roads, parking lots, driveways, etc.)
- Existing natural features:
  - Wetlands*
  - Streams*
  - Sensitive features*
  - Soil Boundaries*
  - Floodplain*
  - Existing contours (2' to 5' contours)*
- Proposed contours (2' to 5' contours)
- Existing and proposed drainage patterns
- All points of discharge from the development
- Limits of disturbance
- Location of proposed ESD practices
- Location of all structural practices
- Location of all sediment control structural practices
- Unified sizing criteria chart
- Soils delineated and labeled (2009 USDA soils)
  
- General description of predominant soil types w/ HEL determination
- Minimum of three (3) NAD 83m, x, y coordinates
- Forested areas to be protected
- Existing sewage areas and wells
- North arrow

**CONCEPT STORMWATER MANAGEMENT COMPUTATION REQUIREMENTS**

- A narrative that supports the site development design, describes how environmental site design will be used to meet the minimum control requirements to the maximum extent practicable, and justifies any proposed structural stormwater management measure(s). The narrative must incorporate a list of all SWM/E&S comments received from all of the reviewing agencies/departments and how each comment has been addressed.
- Preliminary calculations to determine Stormwater Management requirements and the selection of Environmental Site Design (ESD) practices. Provide ESDv calculations, grade in proposed SWM facilities, and provide existing and proposed discharges at all analysis points.
- Preliminary calculations to determine Erosion and Sediment Control requirements and the selection of Environmental Site Design practices.
- Soils Report
- Preliminary Geotechnical Report (required on all sites with predominantly "c" or "d" soils).

## **Preliminary Plan - Minimum Plan Requirements**

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### **Preliminary SWM/E&S Title Sheet (P-ESD-1)**

#### **PRELIMINARY PLAN INFORMATION**

- All information required on the Concept SWM/E&S Plan
- Estimated Cut & Fill Volume*
- Statement of Determination of MD 378*
- Engineer's notes to be placed on the TITLE SHEET stating approval authority for each small pond*

#### **PRELIMINARY PLAN SIGNATURE/CERTIFICATION BLOCKS**

- CSCD and Preliminary signature blocks (each a min. size of 2" x 3")
  - Engineer Preliminary Design Certification
  - Owner/Developer Certification
  - Professional Certification w/ license # and expiration date
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### **Preliminary SWM/E&S Plan Sheet(s) (P-ESD-2 to P-ESD-?)**

#### **PRELIMINARY EXISTING CONDITIONS DRAINAGE AREA MAP (1:50 scale max.)**

- All information required on the Concept Existing Conditions Drainage Area Map plus the following:
  - Labeled Topographic Contours at 1-2' intervals*

#### **PRELIMINARY INTERMEDIATE CONDITIONS DRAINAGE AREA MAP (if applicable – 1:50 scale max.)**

- All information required on the Concept Intermediate Conditions Drainage Area Map plus the following:
  - Labeled Topographic Contours at 1-2' intervals (existing and proposed)*

#### **PRELIMINARY PROPOSED CONDITIONS DRAINAGE AREA MAP (1:50 scale max.)**

- All information required on the Concept Proposed Conditions Drainage Area Map plus the following:
  - Labeled Topographic Contours at 1-2' intervals (existing and proposed)*

#### **PROJECT PRELIMINARY PLAN VIEW (1:50 scale max.)**

- All information shown on the approved Concept SWM/E&S plan
- Sequence of Construction explaining the Utility / Access Construction and the Single Lot Construction / Disturbances (w/ time estimates):
  - Utility/Access Development Sequence of Construction*
  - Single Lot Development Sequence of Construction*
- Proposed impervious area locations
- Existing contours at 1-2' intervals
- Proposed contours at 1-2' intervals
- Detailed location of all Environmental Site Design (ESD) practices
- Location of all test borings
- All required easements
- North Arrow
- Proposed stormwater conveyance systems:
  - Ditches*
  - Storm drain inlets and pipe*
  - Q10 and V10 at the outfall of all swales, ditches, and culverts*
- Property lines and names of adjacent property owners
- 100-yr Floodplain delineated
- Chesapeake Bay Critical Areas delineated

- Show proposed location of all water and sanitary sewer mains
- Existing and proposed tree lines
- Proposed locations of all sediment controls
- Stockpile locations delineated (15' max)
- Construction Staging Area(s) Delineated
- Topography to a defined outfall channel
- Location of the proposed limits of disturbance:
  - Forested areas to be protected*
  - Infiltration areas to be protected*
- Structural Practices (if proposed):
  - Existing and proposed contours (1'-2' intervals)*
  - Emergency spillway and outlet channel*
  - Location of all test borings(embankment, structure, center of facility)*
  - Easements*
  - Location of riser structure*
  - Fences and gate locations*
  - Outflow pipes, outlet protections, outfall channels*
  - Access ramp (max slope 5%)*
  - Downstream property owners, property lines*
  - Infiltration trench dimensions*
  - Low flow orifices/pipes*
  - Sediment control structures (if applicable)*
  - Embankment stationing*
  - Sediment control elevations (if applicable)*

**PRELIMINARY SITE/LOT GRADING PLAN (1:50 scale max.)**

- Existing and proposed contours (1'-2' contours)
- Spot grades at all high and low spots and elsewhere as necessary to demonstrate adequate fall
- Drainage flow arrows
- Proposed building/house location(s)
- Proposed finished floor elevation(s)
- Spot grades at the corners of building(s) to demonstrate required protective slopes.
- Proposed driveways, parking lots, entrances, curbing, ramps, etc.
- Driveway slopes labeled
- Utility locations (existing and proposed)
- Proposed individual water and sanitary sewer services including cleanouts and curb stops

**PRELIMINARY SWM / E&S PLAN NOTES AND DETAILS**

- Detailed sequence of construction for each nonstructural/structural bmp
- Rain gardens and infiltration trench cross section:
  - Existing and proposed contours*
  - Bypass structure*
  - Soil or stone specifications*
  - Horizontal and vertical dimensions*
  - Filter fabric specifications*
  - Water surface elevations*
  - Monitoring wells*
- Water Quality Swales:
  - Typical cross section*
  - Longitudinal slope*
  - Bottom width*
  - Underdrain detail (if applicable)*
  - Side slopes*
  - Ground cover specifications*

- Ponds and Underground Retention Structures:
    - Cross section of facility:
      - Existing and proposed grade
      - Structural/material specifications
      - Top of unsettled embankment
      - Top of settled embankment
      - Cut off trench
      - Impervious core
      - Riser structure elevations and dimensions
      - Weir and orifice elevation
      - Top of structure
    - Riser structure details and dimensions
    - Trash rack details
    - Emergency spillway profile:
      - Q100 & V100
      - Cross section of spillway
      - Slope
      - Top of dam elevation (settled and unsettled)
      - Location of emergency spillway
    - Profile along centerline of dam/embankment:
      - Existing and proposed grade
      - Top of dam elevation (settled and unsettled)
      - Location of emergency spillway
    - Sediment basin and trap criteria:
      - Inflow Protection
      - Outflow Protection
      - Baffle Locations
      - Flowlines through the basin\*
  - Trash rack
    - Discharge pipe inverts, size, material, length and slope
    - Phreatic line
    - Anti-seep collars or sand diaphragm
    - Pipe bedding
    - Emergency Spillway
    - Design storm elevations
  - Existing and proposed grade
  - Bottom of pond
  - Core trench
  - Stationing
  - Barrel/weir location
  - Core trench location
  - Stationing
  - Barrel/weir location
  - Baffle elevations provided
  - All information contained on sheet **G.24\***
  - Baffles designed of CDX plywood
  - ¾" stone covering the dewatering device\*
- \*Information for sediment basin only**
- Boring logs
  - Unified sizing criteria chart
  - Statement of determination of small pond approval
  - MD 378 construction specifications
  - Stormwater management data table/basin summary chart
  - Maintenance and Inspection Schedule and Procedures for each type of SWM Facility proposed
  - Erosion and Sediment Control Notes and Details:
    - Vegetative Stabilization Methods and Materials Notes (B.9 to B.17)
    - Permanent and Temporary Seeding Summaries w/ 2 mixes for each
    - Standard Sediment Control Notes (26 standard notes)
    - Details and specifications for each sediment control measure utilized

## PRELIMINARY STORMWATER MANAGEMENT/E&S COMPUTATIONS

- Table of Contents
- A narrative that supports the site development design, describes how environmental site design will be used to meet the minimum control requirements to the maximum extent practicable and justifies any proposed structural stormwater management measure(s). The narrative must incorporate a list of all SWM/E&S comments received from all of the reviewing agencies/departments and how each comment has been addressed.
- Stormwater management volume computations to confirm the selection of the environmental site design and structural practices
- Geotechnical investigation including soils map, borings, site specific recommendations, and any additional information necessary to justify the proposed design
- Ground water recharge, water quality and channel protection volume calculations (if applicable)
- Basin Computation/Underground Facilities:
  - Orifice and weir computations*
  - Stage/storage curve and table*
  - Elevation, discharge, and storage table*
  - Routing for 1, 2, 10 and 100 year storms*
  - Outlet protection computations*
  - Stability and seepage computations for weir structure*
  - Height of embankment computations*
  - Anti-seep collar/sand diaphragm computations*
  - Dam safety routing*
  - Notice of construction completion form*
  - Pond summary sheet for ponds and basins*
  - Unified sizing criteria chart*
- Sediment Trap Computations
- Breach Analysis
- Completed Step-By-Step Decision Aid to Determine Embankment Design Category and Approval Authority for each small pond
- Completed CSCD MD-378 Small Pond Review Checklist (if applicable).

## **Final Plan - Minimum Plan Requirements**

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### **Final SWM/E&S Title Sheet (F-ESD-1)**

#### **FINAL PLAN INFORMATION**

- All information required by the Preliminary SWM/E&S Plan

#### **FINAL PLAN SIGNATURE/CERTIFICATION BLOCKS**

- CSCD and Final signature blocks (each a min. size of 2" x 3")
- CSCD Small Pond Approval signature block (if applicable)
- Engineer Final Design Certification
- Owner/Developer Certification
- Professional Certification w/ license # and expiration date
- Stormwater Management As-Built Certification
- Geotechnical Certification

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### **Final SWM/E&S Plan Sheet(s) (F-ESD-2 to F-ESD-?)**

#### **FINAL EXISTING CONDITIONS DRAINAGE AREA MAP (1:50 scale max.)**

- All information shown on the Preliminary Existing Conditions Drainage Area Map

#### **FINAL INTERMEDIATE CONDITIONS DRAINAGE AREA MAP (if applicable – 1:50 scale max.)**

- All information shown on the Preliminary Intermediate Conditions Drainage Area Map

#### **FINAL PROPOSED CONDITIONS DRAINAGE AREA MAP (1:50 scale max.)**

- All information shown on the Preliminary Proposed Conditions Drainage Area Map

#### **PROJECT FINAL PLAN VIEW (1:50 scale max.)**

- All information shown on the approved Preliminary SWM/E&S plan

#### **FINAL SITE/LOT GRADING PLAN (1:50 scale max.)**

- All information shown on the Preliminary Site/Lot Grading Plan

#### **FINAL LANDSCAPE PLAN (1:50 scale max.)**

- Existing and proposed contours (1'-2' contours)
- Planting plan/layout with plantings labeled to match the planting schedule
- Planting schedule
- Planting details
- Tree staking detail
- Label all appropriate water surface elevations
- Mulching specifications
- Topsoil specifications
- Seeding specifications
- Fertilizer specifications
- Maintenance plan

#### **FINAL ADDITIONAL NOTES AND DETAILS**

- All information shown on the Preliminary Additional Notes and Details

#### **FINAL STORMWATER MANAGEMENT/E&S COMPUTATIONS**

- All information from the Preliminary Stormwater Management/E&S Computations