Checklist for Joint Agency Review
Stormwater Management / Erosion and Sediment Control

Project Name: _____________________________________________
Tax Map: _______ Parcel:_______ Lot:_______ Disturbed Acreage: _____
Engineering Firm: _________________________________________ Phone Number: ________________
Contact Person: __________________________________________ Email: ____________________________
Address: _______________________________________________________________________________
Owners Name: __________________________________________ Contract Purchaser’s Name: ____________

The following list of items 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 the plan submittal. ALL PLAN SUBMITTALS MUST BE FOLDED, SIGNED, SEALED and submitted to each agency SEPARATELY. An appropriate plan scale must be selected that is legible and easily interpreted. If the engineer determines that some of the minimum requirements are not applicable to the project, justification must be provided in the narrative. All agencies must issue approval letters prior to submitting plans for signature and approval.

Concept Plan, Preliminary Plan, & Final Plan – Application Requirements

<table>
<thead>
<tr>
<th>1st Review</th>
<th>Subsequent Review(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Completed Application &amp; Checklist for each Department</td>
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</tr>
<tr>
<td>☐ Applicable Fees Due for each Department</td>
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</tr>
<tr>
<td>☐ One (1) copy of folded plans (max. size 24x36”) for each Department</td>
<td>☐ One (1) copy of redline mark up plans for each Department</td>
</tr>
<tr>
<td>☐ One (1) copy of the geotechnical report signed and sealed (if required) Development Plans Review (DPR) only</td>
<td>☐ One (1) copy of revised, folded plans for each Department (max. size 24x36”) (signed and sealed)</td>
</tr>
<tr>
<td>☐ One (1) copy of the Stormwater Management Computations, DPR and Cecil Soil Conservation District (CSCD)</td>
<td>☐ One (1) copy of revised Stormwater Management Computations (signed and sealed) (DPR only)</td>
</tr>
<tr>
<td>☐ One (1) copy of the soils report (DPR &amp; CSCD)</td>
<td>☐ One (1) copy of the soils report (DPR &amp; CSCD only)</td>
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<td>☐ A narrative that supports the design and describes how Environmental Site Design (ESD) will be implemented to the Maximum Extent Possible (MEP) (DPR &amp; CSCD only)</td>
<td>☐ One (1) copy of the geotechnical report signed and sealed (if required) (DPR only)</td>
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<tr>
<td>☐ One (1) copy of the Erosion and Sediment Control Design Computations (CSCD only)</td>
<td>☐ One (1) copy of the revised Erosion and Sediment Control Design Computations (CSCD only)</td>
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<tr>
<td>☐ Preliminary and Final Forest Conservation Plan (Planning and Zoning only)</td>
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</table>
### Concept Plan – Minimum Plan Requirements

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

**CONCEPT PLAN INFORMATION**
- Vicinity Map (Site Location, North Arrow)
- Tax Map, ADC Map and Grid
- Chesapeake Bay Critical Area Designation
- 100-year Flood Plain Designation
- Site Analysis
  - Total Site Area
  - Total Area to be Disturbed
  - Total Area to be Vegetatively Stabilized
  - Total Area to Become Impervious
  - Estimated Cut Volume
  - Estimated Fill Volume
- Owner Information (Name, Address, Phone Number)
- Developer Information (Name, Address, Phone Number)
- Engineer Information (Name, Address, Phone Number)
- Legend
- Sheet Index

**CONCEPT PLAN SIGNATURE/CERTIFICATION BLOCKS**
- CSCD and Concept signature blocks (each a min. size of 2” x 4”)
- Engineer Concept Design Certification
- DPR Approval signature block
- Health Department signature blocks
- Planning and Zoning signature blocks
- Owner/Developer Certification
- Professional Certification w/license # and expiration date

Note: A Title Sheet is not required for Concept Plan review and approval. However, all information specified above must be shown on the first sheet.

#### Concept Existing Conditions Plan (1:100 scale minimum)
- Label Existing Topographic Contours (2’-5’ contours)
- Soil Group Delineated and labeled (2009 USDA soils)
- Soils Table
  - Hydrologic Groups
  - HES Determinations
  - Map Unit
- Show Existing TC Flow Paths
- Slopes from 15% to 25% delineated
- Slopes greater than 25% delineated
- Drainage Areas in acres and properly labeled
- Delineate all drainage areas with all existing points of discharge
- Existing natural features
  - Wetlands
  - Streams
  - Forested Areas Stand Delineation Plan (See Planning and Zoning for checklist)
  - Sensitive Features
  - Soil Boundaries
  - 100-year Flood Plain
  - Critical Area Limits and Designation (Concept Forest Conservation Plan. See Planning and Zoning for checklist)
- Existing Drainage Patterns
- North Arrow
**Concept Initial Conditions Plan (If Applicable) 1:100 scale minimum**

- Label Existing Topographic Contours (2-5’ contours)
- Label Proposed Topographic Contours (2-5’ contours)
- Soil Group Delineated and Labeled (2009 USDA Soils)
- Soils Table
  - Hydrologic Group
  - HES Determinations
  - Map Unit
- Proposed TC Flow Paths
- Slopes from 15% to 25% delineated
- Proposed Drainage Areas Delineated, labeled with all proposed points of discharge
- Existing Natural Features
  - Wetlands
  - Streams
  - Forested Areas to be protected (Forest Retention Areas)
  - Sensitive Features
  - Soil Boundaries
  - 100-year Flood Plain
  - Critical Area Limits and Designation
- Proposed Drainage Patterns
- North Arrow
- Show all Sediment Control Structures
- Drainage area to sediment controls delineated in acres and properly labeled

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**Concept Proposed Conditions Plan (1:100 scale minimum)**

- Label Proposed Topographic Contours (2-5’ contours)
- Soil Group Delineated and Labeled (2009 USDA Soils)
- Soils Table
  - Hydrologic Group
  - HES Determinations
  - Map Unit
- Proposed TC Flow Paths
- Slopes from 15% to 25% delineated
- Slopes greater than 25% delineated
- Proposed Drainage Areas Delineated, labeled with all proposed points of discharge
- Existing Natural Features
  - Wetlands
  - Streams
  - Forested Areas to be protected (Forest Retention Areas)
  - Sensitive Features
  - Soil Boundaries
  - 100-year Flood Plain
  - Critical Area Limits and Delineations
- Proposed Drainage Patterns
- Proposed impervious area (buildings, roads, parking lots, driveways, etc.)
- Location of all Sediment Control Structural Practices
- Location of all proposed ESD practices with necessary protection practices
- Limits of Disturbance
- Existing and Proposed Sewage Areas and wells
- North Arrow
### Concept Stormwater Management Computation Requirements
- Conceptual calculations to determine Stormwater Management requirements and the selection of Environmental Site Design practices.
- Conceptual calculations to determine Erosion and Sediment Control requirements and the selection of Environmental Site Design practices.
- Soils Report with limitations.
- Preliminary Geotechnical Report it will be the responsibility of the design engineer to determine the level of detail required within the geotechnical report to provide a feasible conceptual design and should provide details of the future study.

### Preliminary Plan – Minimum Plan Requirements

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

<table>
<thead>
<tr>
<th>PRELIMINARY PLAN INFORMATION</th>
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<tbody>
<tr>
<td>All information required on the Concept SWM/E&amp;S Plan</td>
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<tr>
<td>Unified Sizing Criteria Chart</td>
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<tr>
<td>Overall Sequence of Construction</td>
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<td>Engineer Preliminary Design Certification</td>
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<td>DPRR Approval signature block</td>
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**Preliminary SWM/E&S Plan Sheet(s) (P-ESD-2 to P-ESD-?)**

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<tr>
<th>PRELIMINARY EXISTING CONDITIONS DRAINAGE AREA PLAN (1:50 scale min.)</th>
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<td>Labeled Topographic contours (1-2’ contours)</td>
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<td>Drainage area in acres and properly labeled</td>
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<tr>
<td>Hydrologic Soil Group Delineation</td>
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<td>Delineate all drainage areas with all proposed points of discharge</td>
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<td>Label TC paths, proving length, slope and time of concentration</td>
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<tr>
<td>Show all sediment control structures</td>
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<td>Drainage area to sediment controls delineated in areas and properly labeled</td>
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<th>PRELIMINARY INTERMEDIATE CONDITIONS DRAINAGE AREA PLAN (if applicable – 1:50 scale min.)</th>
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<td>Slopes from 15% to 25% delineated</td>
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<tr>
<td>Show all environmental site design practices and quantity control structures</td>
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<td>Slopes greater than 25%</td>
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PROJECT PRELIMINARY PLAN (1:50 scale min.)

- 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
- Exact impervious area locations
- Proposed contours at 1-2’ intervals
- Proposed stormwater conveyance systems
  - ditches
  - storm drain inlets and pipe
- Detailed location of all Environmental Site Design practices
- Location of all borings
- Proposed contours at 1-2’ intervals
- Property lines and names of adjacent property owners
- All required easements
- Existing contours at 1-2’ intervals
- Location of the proposed limit of disturbance
- Locations of existing wells and septic that are 100’ from any property line
- Proposed stormwater conveyance systems
  - forested areas to be protected
  - infiltration areas to be protected
- Proposed wells, septic reserve areas, tanks, pump tanks, and percolation holes
- Show proposed location of all water mains, sewer mains and septic structures
- North Arrow
  - location of all borings (embankment, structure, center of facility)
  - outflow pipes, outlet protections, outfall channels
  - low flow orifices/pipes
  - embankment stationing
  - fences and gate locations
  - infiltration trench dimensions
  - sediment control structures (if applicable)
- Structural Practices (if proposed)
  - existing and final contours (1-2’ intervals)
  - location of riser structure
  - downstream property owners, property lines
  - emergency spillway and outlet channel
  - easements
  - access ramp (max. slope 5%)
  - sediment control elevations (if applicable)
- Exact locations of all sediment controls
  - 100-yr Floodplain delineated
  - Chesapeake Bay Critical Areas delineated
  - Q10 and V10 at the outfall of all swales, ditches, and culverts
  - Stockpile locations delineated (15’ max.)
  - Construction Staging Area(s) Delineated
  - Proposed stormwater conveyance systems
  - Existing and proposed tree lines
- Topography to a defined outfall channel
  - Topography to a defined outfall channel
- PRELIMINARY LOT GRADING PLAN (1:50 scale min.)
- Existing and proposed contours (1-2’ contours)
  - location of riser structure
  - downstream property owners, property lines
  - emergency spillway and outlet channel
  - easements
  - access ramp (max. slope 5%)
  - sediment control elevations (if applicable)
  - location of all borings (embankment, structure, center of facility)
  - outflow pipes, outlet protections, outfall channels
  - low flow orifices/pipes
  - embankment stationing
  - fences and gate locations
  - infiltration trench dimensions
  - sediment control structures (if applicable)
- Driveway slope
- House and driveway location
- Drainage flow arrows
- Finished floor elevation
- Septic reserve areas
- Utility locations/well locations
- PRELIMINARY ADDITIONAL NOTES AND DETAILS
- Detailed sequence of construction for each nonstructural/structural bmp
  - existing and proposed contours
  - soil or stone specifications
  - structural/material specifications
  - filter fabric specifications
  - monitoring wells
  - horizontal and vertical dimensions
  - bypass structure
  - embankment stationing
  - water surface elevations
  - embankment stationing
  - emergency spillway
  - anti-seep collars or sand diaphragm
  - structural/material specifications
  - cross section
  - ground cover specifications
  - Ponds and Underground Retention Structures
  - cross sections of dam and proposed grade
  - cross sections of dam and proposed grade
  - top of unsetttled embankment
  - impervious core trench
  - cut off trench
  - wier and orifice elevation
  - riser structure elevations and dimensions
  - top of structure
  - pipe elevation, size material, length and slope
  - trash rack
  - anti-seep collars or sand diaphragm
  - phreatic line
  - storm elevations
  - pipe bedding
  - emergency spillway
Trash rack details
Emergency spillway profile
   - Q100 & V100
   - Slope
   - Location of emergency spillway
   - Bottom of pond
   - Stationing
Profile along centerline of dam
Sediment basin and trap criteria
   - Inflow Protection
   - Baffle Locations*
   - Baffle elevations provided
   - Baffles designed of CDX plywood
Boring logs
MD 378 Statement of determination
Erosion and Sediment control Notes and Details
   - Vegetative Stabilization Methods and Materials Notes (A-J w/fig 4 & 5)
   - Permanent and Temporary Seeding Summaries w/2 mixes for each
   - Standard Sediment control Notes (25 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 measures. The narrative must incorporate a list of all comments, pertaining to ESD, received from all of the reviewing agencies/departments and how each comment was 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
   - Basin Computation/Underground Facilities
     - Orifice and weir computations
     - Elevation, discharge, and storage table
     - Outlet protection computations
     - Height of embankment computations
     - Dam safety routing
     - MD-14 summary sheet for ponds and basins
   - Sediment Trap Computations

Minimum Plan Requirements (Final Plan)
   - 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”)
   - Engineer Final Design Certification
   - DPR Approval signature block
   - Health Department signature blocks
   - Planning and Zoning signature blocks
   - Owner/Developer Certification
Professional Certification w/license # and expiration date
As-Built Certification
Geotechnical Certification

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

FINAL EXISTING CONDITIONS DRAINAGE AREA PLAN (1:50 scale maximum)
☑ All information shown on the Preliminary Existing Conditions Drainage Area Plan

FINAL INTERMEDIATE CONDITIONS DRAINAGE AREA PLAN (if applicable – 1:50 scale maximum)
☑ All information shown on the Preliminary Intermediate Conditions Drainage Area Plan

FINAL PROPOSED CONDITIONS DRAINAGE AREA PLAN (1:50 scale maximum)
☑ All information shown on the Preliminary Proposed Conditions Drainage Area Plan

PROJECT FINAL PLAN (1:50 scale maximum)
☑ All information shown on the approved Preliminary SWM/E&S plan

FINAL LOT GRADING PLAN (1:50 scale maximum)
☑ All information shown on the Preliminary Lot Grading Plan

FINAL LANDSCAPE PLAN (1:50 scale maximum)
☑ Existing and proposed contours (1’ – 2’ contours)    ☑ Planting details
☑ Planting plan/layout    ☑ Tree staking detail
☑ Label all appropriate water surface elevations
☑ Planting schedule
☑ 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