

## **ANNE ARUNDEL SOIL CONSERVATION DISTRICT** **EROSION AND SEDIMENT CONTROL PLAN FOR FOREST HARVEST OPERATIONS**

### **I. General Requirements**

Maryland State law and regulations require that an erosion and sediment control plan be developed and approved before undertaking any earth-disturbing activity in excess of 5,000 square feet or 100 cubic yards. This requirement applies to construction on residential, commercial, industrial, and institutional sites as well as on forest harvest projects. **No stump removal, understory vegetation removal or conversion of woodlands to cropland or pasture will be allowed.**

This AASCD Plan can be used for forest harvest operations in Anne Arundel County when **all** of the following Standard Plan requirements are met:

1. No cuts or fills are allowed under this Plan.
2. Grades for haul roads do not exceed 15%.
3. Landings are located on slopes 10% or less.
4. Grades for skid trails do not exceed 20%.
5. The site has no stream crossings.

If the above conditions or any other criteria cannot be met, a Custom Plan, based on the 2015 Standards is required. If harvesting is proposed within a Streamside Management Zone (SMZ), a SMZ Plan must accompany this Plan.

### **II. Conditions**

A. The forest harvest operator working on this site assumes full responsibility for implementing this Plan on behalf of the landowner. An operator is defined as any individual or company which has contracted or subcontracted a portion of the harvest operation. This also applies to those operators conducting firewood cutting or separate forest harvest operations in conjunction with or subsequent to the initial harvest. Each operator must be identified on Attachment 1/Sheet 1 and must implement and maintain the required practices as indicated on the approved Plan.

B. The landowner or operator shall notify the Anne Arundel County Department of Inspections and Permits (410-222-7780) at least 48 hours prior to commencing forest harvest operations and 48 hours prior to the completion of work. **Note:** Outstanding site work or outstanding correction orders issued by the inspector must be resolved before any other forest harvest operations can be reviewed and approved on behalf of the landowner or operator.

C. A copy of the approved Plan and any applicable SMZ Plan must be available on site during harvest operations and until timber removal operations have been completed.

D. Each site will be periodically inspected by local government and/or State inspectors for compliance with the approved Plan. State and local inspectors, as well as AASCD personnel, may require AASCD approved Plan modifications to this Plan as conditions dictate, to prevent movement of sediment from the site.

**ANNE ARUNDEL SOIL CONSERVATION DISTRICT**  
**EROSION AND SEDIMENT CONTROL PLAN FOR FOREST HARVEST OPERATIONS**  
**CHECKLIST (Check attached items)**

**THESE PLANS MUST BE EXECUTED BY A MARYLAND LICENSED PROFESSIONAL FORESTER**

\_\_\_\_\_ **ATTACHMENTS 1-4**

\_\_\_\_\_ **SEDIMENT AND EROSION CONTROL DETAILS** attached to the Plan

\_\_\_\_\_ **GRADING PERMIT APPLICATION**

\_\_\_\_\_ **VICINITY/LOCATION MAP:** This map shall delineate the site location, street names and show distances from the nearest major road intersection. Provide map at a legible scale, note the map scale and highlight the site on the vicinity/location map.

\_\_\_\_\_ **USGS TOPO MAP:** These maps clearly show the location of blue lined streams and can also be utilized as the Vicinity/Location Map. Clearly delineate street names, the site and harvest areas on this map. This scale is not large enough to show all the necessary items required under Site Plan.

\_\_\_\_\_ **SITE PLAN:** Site plans or sketches shall be prepared for all forest harvests. All access points, property boundaries, harvest areas, existing farm lanes, landings, haul roads, skid trails, steep slopes, all waters of the State, SMZ's, wetlands, uncut/cut buffer areas, and stream crossings must be identified on the site plan or sketch. Said items must be shown in a legend and/or clearly labeled on site plan. A more detailed map of the buffer may be required. Provide a legible map scale (preferably 100-scale) and note the map scale on the site plan. The 100-scale base sheet topography and color photo may be obtained from DPW's map room, 2662 Riva Road, Second Floor. This topography map must be clear enough to show the practices necessary to prevent sediment and erosion impacts.

\_\_\_\_\_ **CUSTOM EROSION AND SEDIMENT CONTROL PLAN (If applicable):** Situations may arise when it is not possible, even with careful planning, to comply with all general requirements of a Standard Plan. In such cases, a Custom Plan is necessary. Two pieces of information must be included in a Custom Plan: 1) a description as to why the Standard Plan requirements cannot be met; and 2) provide the specific erosion and sediment control measures to be used for the forest harvest operation. A sketch or map of the harvest site that identifies this information must be submitted with a Custom Plan. For example, if proposed haul road grade exceeds 15%, and turnouts are to be used to drain water from the road, the location of the turnouts must be noted. If stone is to be installed at the discharge end of the turnout to prevent side bank erosion, then the location of the stone must also be shown. Another example is locating a landing on a slope exceeding 10%. It may be necessary to install reinforced silt fence on the downstream side of the landing to act as a sediment filter. In this case, the location of sediment controls and the type of final stabilization to be used at the landing must be noted on the custom plan.

AASCD may require certification of a Custom Plan by a professional engineer, land surveyor, landscape architect, architect or a LPF, verifying that the plan has been designed in accordance with the appropriate erosion and sediment control ordinances, regulations, standards, and criteria. AASCD has the option to require a specific design if a particular situation demands it. In summary, it is important to develop a Custom Plan that identifies the location and describes the specific erosion and sediment controls to be utilized whenever the Standard Plan requirements cannot be met.

\_\_\_\_\_ **STREAMSIDE MANAGEMENT ZONE (SMZ) AND SMZ PLAN (If applicable):** The establishment of a SMZ is required, at a minimum, along all blue line streams. A SMZ is generally required in lieu of structural measures such as reinforced silt fence, diversion dikes, and sediment traps. Harvesting is allowed within a SMZ provided that a SMZ Plan is prepared by a LPF and approved by AASCD. A SMZ Plan must be very specific when describing which trees are to be cut, what precautions for sediment control will be taken, and where the sediment controls will be located. The location of any harvesting within a SMZ must be identified on a sketch of the SMZ. The sediment controls to be used for waterway protection within the SMZ also must be identified on this sketch. If a SMZ Plan is required, all other Standard or Custom Plan criteria must still be met. If other conditions of the harvest necessitate a Custom Plan, requirements for harvesting within the SMZ will be made a part of the Plan. **Each site must be evaluated on its own individual characteristics and limitations. The SMZ Plan must include an executed Attachment #3.**



E. Failure to properly implement or maintain the practices required by this Plan, or failure to comply with written requirements for corrective action, may result in the operation being stopped (issuance of a stop work order) until the deficiencies have been corrected. Failure to take required corrective action may also result in legal action. Outstanding site work or outstanding correction notices issued by the inspector must be resolved before other forest harvest operations can be reviewed and approved on behalf of the landowner or operator.

F. All erosion and sediment controls must be implemented in accordance with specifications contained in the 2015 Standards, available from MDE, Maryland Department of Natural Resources and AASCD's Reinforced Silt Fence detail.

G. The issuance of an approval by MDE, a SCD, or a jurisdiction not within a SCD, does not relieve the applicant of the continuing responsibility to effectively abate sediment pollution and to comply with all other applicable local and State laws.

### **III. Plan Requirements**

#### **A. Site Maps:**

1. Site maps shall be prepared for all forest harvests and submitted with the Plan. The maps shall identify the site location and provide directions and distances from the nearest major road intersection.

2. The topo map and site plan/sketch must include scale and text must be both accurate and legible. All access points, property boundaries, harvest areas, existing farm lanes, landings, haul roads, skid trails, steep slopes, waters of the States, SMZ's, wetlands, uncut/cut buffer areas, and stream crossings must be identified on the maps. The harvest area must be delineated on copies of the vicinity map, the United States Geological Survey (USGS) topographic map, and/or any other maps required by AASCD.

3. If harvesting is planned in a SMZ, a more detailed map (larger scale) of the SMZ area is required. Additionally, a SMZ Plan must also accompany the Standard or Custom Plan. The harvest area should be delineated on a photocopy of the USGS 7.5 Minute Series Topographic quadrangle maps.

#### **B. Site Access:**

1. Access points to the site shall be stabilized with wood chips, corduroy logs, a stone stabilized construction entrance or other methods approved in the 2015 Standards. Any soil or debris which is tracked onto off-site paved roads shall be removed immediately and deposited in a controlled area by the end of each working day.

2. A grading or entrance permit may be required for a new entrance onto a county or state road. Details may be obtained from the appropriate county, city permitting department or State Highway Administration.

3. Existing public road drainage shall not be blocked or damaged by access to the construction area. Pipe culverts shall be installed to maintain existing drainage (if applicable).

4. The stabilized harvest entrance is to be removed at the end of the forest harvest per the 2015 Standards, unless an entrance permit has been obtained from the county, city or State Highway Administration. A copy of the entrance permit must be submitted and made part of the Standard or Custom Plan.

### C. Waterway Protection:

1. Any required SMZ shall be marked and properly maintained (see specifications for SMZ section.) Uncut buffer zones shall be marked and maintained on all sides of perennial or intermittent streams, rivers, lakes, ponds, bogs, marshes and wetlands. These features are identified on USGS 7.5 Minute Series (topographic) quadrangle maps and on other maps as applicable.
2. The minimum SMZ width is 50 feet on land with no slope (less than 1%). Where sloping land is encountered, the following formula shall be applied:

$$50 \text{ feet} + (2 \text{ feet} \times \% \text{ slope}) = \text{SMZ width (to a maximum of 150 feet)}$$

*Example for 20% Slope:*  $50 \text{ feet} + (2 \text{ feet} \times 20\%) = 50 \text{ feet} + 40 \text{ feet} = 90 \text{ feet SMZ}$

**Table 2 – SMZ Width vs. Site Slope**

Slope %	Width of SMZ (feet) on each side of watercourse
0	50
5	60
10	70
15	80
20	90

3. Unless part of an approved SMZ Plan, new roads, trails, and harvesting equipment are not allowed in any SMZ except to provide access to authorized stream crossings.
4. Harvesting within the SMZ is not allowed unless a SMZ Plan, along with the approved Plan, is submitted to and approved by AASCD. The SMZ Plan must be prepared by a Licensed Professional Forester (LPF) and include the harvest method, the square footage of basal area to be removed and retained, provisions for removing and restocking the cut trees, and other criteria for the harvest operation.
5. Although not all Waters of the State require the establishment of a SMZ, protecting water quality when harvesting within or near these areas is still required. At a minimum, the following criteria must be adhered to when a SMZ Plan is not required:
  - a. Locating log decks and landings at least 50 feet from any Waters of the State.
  - b. Locating truck haul roads at least 50 feet from any Waters of the State.
  - c. Limiting skidding operations to single-pass trails within 50 feet of any Waters of the State.
  - d. Fell trees away from Waters of the State and remove any slash that enters Waters of the State.
  - e. Avoid crossing Waters of the State. When crossing is unavoidable, required permits must be obtained if a ford or culvert is proposed.
  - f. Stabilize within three days any disturbed areas (damage to the humus layer) within 50 feet of Waters of the State unless other sediment control practices have been installed.
6. Roads, trails, and harvesting equipment shall not be allowed in any buffer area except to provide access or authorized stream crossings. AASCD may make exceptions for existing roads. Existing roads, if serviceable, and not creating a pollution problem, may be utilized if identified on the Plan and approved by AASCD.



7. The restriction on harvesting within the SMZ may be waived providing that a SMZ Plan (referred to as SMZ Plan in the 2015 Standards) is submitted to and approved by AASCD as part of this Standard or Custom Plan. The SMZ Plan shall be designed by a LPF and must include the forest harvest method, the square footage of basal area to be removed and retained, provisions for removing and restocking the cut trees, the sediment and erosion control practices, and any other criteria established in the 2015 Standards. All trees to be removed from the SMZ shall be marked at the base of the stump (so the mark remains after harvesting) by the LPF in advance of the harvest operation. The SMZ Plan is a Plan modification to the Standard or Custom Plan and must be available on site during harvest operations.

8. Harvesting within SMZ areas must adhere to the following criteria: Basal area may not be reduced below 60 square feet measured at breast height. Any slash which inadvertently falls into adjacent water bodies must be removed to prevent waterway blockage. Roads, trails, and equipment will not be allowed within 50 feet of any water body except at approved stream crossings. Timber cut within this 50 foot area must be removed by cable.

#### **D. Haul Roads and Skid Trails:**

1. Grading of existing roads and/or trails will be limited to that necessary to make them operable. If any of the conditions cannot be met, an approved Custom Plan will be required in order to utilize the existing roads and/or trails.

2. Haul roads and skid trails shall be laid out along natural land contours. No cut or fills are allowed. All new roads must be sketched on the Plan map and must be flagged in advance of the harvest.

3. Drainage structures shall be provided at the time of construction of haul roads and skid trails according to specifications contained in the 2015 Standards.

4. Crossing of perennial or intermittent streams should be avoided. Where it becomes necessary to cross either a perennial or intermittent stream, a bridge, culvert, or ford crossing shall be temporarily installed. A MDE- WMA Waterway Construction Permit may be required prior to crossing any stream. No permanent culvert crossings or permanent stream crossings will be allowed. The location of the stream crossing must be shown on the Plan and the detail must be attached to this Plan.

5. Grades for haul roads shall not exceed 15%. Grades for skid trails shall not exceed 20%. If it is not feasible to maintain these grade limits, a Custom Plan that identifies the controls required to prevent erosion, must be approved by AASCD prior to road or trail construction.

6. No haul roads or skid trails other than those providing access to waterway crossings shall be constructed within the SMZ, unless a SMZ Plan has been prepared and approved. Drainage from approaches to waterway crossings shall be diverted to undisturbed areas.

7. Skid trails and earth disturbance on slopes with highly erodible soils must be stabilized within seven days of land disturbance.

#### **E. Landings and Log Decks:**

Landings shall be located outside of the SMZ and at least 50 feet from any Waters of the State. Landings shall be located on reasonably level (between 3% and 10% slope), well-drained ground. If harvest sites do not have any area with a slope of at least 3%, landings shall be located on the maximum slope of the site. Landings located on slopes exceeding 10% must be shown on an approved Custom Plan.

**F. Stabilization:**

1. All unstable material (exposed soil) resulting from the roads, skid trails and landings, which are not adjacent to a buffer, shall be stabilized within three days of disturbance with seed and mulch. When adjacent to an SMZ, soil disturbance shall be stabilized at the end of the each work day.
2. Following completion of installation of all perimeter erosion and sediment controls and slopes steeper than 3:1 (H:V), stabilization must be accomplished within three calendar days.
3. Within seven days of completion of the harvest, all roads, trails, and landings located on slopes 10% or greater shall be graded or back-dragged, seeded and mulched according to standards and specifications. The surface of roads, landings, and skid trails less than 10% should be back-dragged and left in a condition that permits successful natural regeneration of trees, shrubs, or other annual and perennial plants. Under certain circumstances, stabilization of these roads and landings with seed and/or mulch may be required (e.g. highly erodible soils and steep slopes).
4. Temporary stabilization may be required to minimize the potential for erosion or if a forest harvest is halted prior to completion. In addition to the practices noted in Item 2 above; mats, wood chips, and compacted wood slash may be used as temporary stabilization practices.

**G. Maintenance:**

All practices installed shall be maintained at all times to function as intended. Any practice that fails to function properly must be repaired and correctly immediately.

**IV. Certification:**

I/We certify that I/we have read the requirements of the Erosion and Sediment Control Plan for Forest Harvest Operations and that all criteria of this Plan will be followed.

Landowner's Name (Print): \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_

Operator's Name (Print): \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_