# STANDARD EROSION AND SEDIMENT CONTROL PLAN FOR FOREST HARVEST OPERATIONS

I. Site Information

| A.             | Location   |   |                      |          |
|----------------|--|---|----------------------|----------|
| В.             | Nature of Operation  | (Include sketch map of property)  (logging, woodchipping, firewood)                                   | Acres harvested      |          |
| II. Lan        | downer and Operator Ir   |   |                      |          |
| A.             | -<br>T 1   | <u> </u>  | Phone                |          |
|                | A ddress   |   | <del>-</del>         |          |
| B.             | <b>O</b> 4   |   |                      |          |
|                | Address  |   |                      |          |
|                | Phone  | Current F.P.O L   |                      |          |
|                | 1. List the names of nature of their of  | of other operators who will be in   |                      |          |
|                | nature of their o  | perations.  |                      |          |
|                |  |   |                      |          |
|                | responsibility fo  | ontracting to any of the operators or ensuring their compliance wit ey must obtain a separate plan in | th this plan? If you |          |
| III. <u>Ag</u> | reement  |   |                      |          |
| A.             | <u> </u>   | to the terms of the attached stan<br>nt inspectors the right of entry to                              | *                    |          |
| В.             | I am aware of the landowner's responsibility in preventing accelerated erosion and sedimentation during and subsequent to forest harvest operations as mandated by the rules and regulations adopted by the State of Maryland and local jurisdictions. |   |                      | Ĺ        |
| C.             |  | all operators conducting forest<br>e requirements of the standard p                                   |                      |          |
|                | Landowner  | Date  | Operator Date        | <u> </u> |
| D.             | Approved:  |   |                      |          |
|                |  | Conservation District   | Date                 |          |

## FORESTRY DECLARATION OF INTENT

| District   | Map  | Grid   | Parcel   | Lot  |  |
|--|--|--|--|--|--|
| Owner's Named Location:  |  |  |  |  | <u> </u>   |
| identified above, use the above pro  | hereby declare my<br>operty, in accordar<br>icle III, Section 3.2                              | y (our) intention to<br>nce with the provis  | the O continue and/or place sions of the Cecil Cou at least five (5) cons  | te into commercial to<br>inty Forest Conserv   | forestry<br>ation  |
| Forest Conservation notify the Cecil (activity regulated year period, the conservation through t | tion Program. If the County Office of Polynder the Forest Cecil County Officeshold established | e land does not red<br>Planning and Zoning<br>Conservation Progree of Planning and<br>in the Forest Cons | mercial forestry active<br>main in commercial for any of the Owner maked<br>gram, on all or part of Zoning may require<br>servation Regulations as cut in violation of | orestry use, the Ownes the application for the parcel within the Owner to meet to Articles VII and V | ner must<br>or an<br>ne five (5)<br>the forest<br>III, and |
| forms and statem   | nents, has been exa  | mined by me (us)   | at this declaration, inc<br>and the information<br>correct and complete.   | contained herein, to   |  |
| Signature(s)   |  |  |  | te:  |  |

### **BUFFER MANAGEMENT PLAN**

| Lan         | Landowner's Name: Telephone:   |   |                                   |     |  |  |
|-------------|--|---|-----------------------------------|-----|--|--|
| Add         | ress:  |   |                                   |     |  |  |
| <u>Site</u> | Site Conditions – (please attach map)  |   |                                   |     |  |  |
| 1.          | Area in buffer (acres)   |   | 1                                 |     |  |  |
| 2.          | Average slope of land to   | watercourse (percent)   | 2                                 |     |  |  |
| 3.          | Average width of buffer of   | on each side of watercourse (feet)  | 3                                 |     |  |  |
| 4.          | Present stand density  | <ul><li>4a. Average basal area/acre</li><li>4b. % stocking</li></ul>  | 4a<br>4b                          |     |  |  |
| 5.          | Species composition  | <ul><li>5a. % loblolly pine present</li><li>5b. % yellow poplar present</li></ul>   | 5a<br>5b                          |     |  |  |
| 6.          | Is buffer even or uneven a   | age?  | 6                                 |     |  |  |
| 7.          | What is dominant size cla  | ass?  | 7                                 |     |  |  |
| 8.          | What species dominate th   | ne understory?  | 8                                 |     |  |  |
| 9.          | Is competition in the under  | erstory light, moderate, or severe?   | 9                                 |     |  |  |
| 10.         | How large is the watershed drainage area?  |   | 10                                |     |  |  |
| 11.         | Is this a Habitat Protectio  | n Area? If so, show area on the attached map.   | 11                                |     |  |  |
|             | nments:  |   |                                   |     |  |  |
| wetl        | ands, except as permitted b  | narvesting will occur within the first 60' from meany the Buffer Management Guideline.  | an high water line or edge of tie | dal |  |  |
| 1.          | selection, shelterwood, se   | diate thinning, single tree selection, group ed tree, clearcut. (Clearcutting will only be osition consists of 25% or greater with either oplar.) | 1                                 |     |  |  |
| 2.          | Amount of basal area being   | ng harvested (sq. ft./acre)   | 2                                 |     |  |  |
| 3.          | Amount of basal area to re   | emain (sq. ft/acre)   | 3                                 |     |  |  |
| 4.          | How many stream crossing   | gs are planned or needed?   | 4                                 |     |  |  |
| 5.          | Will the next stand be predominantly advanced reproduction, seed tree, or seedling stock?  5 |   | 5                                 |     |  |  |
| 6.          | Site preparation methods   | to be utilized?   | 6                                 |     |  |  |

| 7.       | Will control of the understory or vegetation be necessary to establish desirable regeneration? | successfully 7. |      |
|----------|--|-----------------|------|
| 8.       | Follow up work needed?   | 8.              |      |
| Cor      | nments:  |                 |      |
|          |  |                 |      |
| Prej     | pared by:  |                 |      |
| X<br>Lie | censed Forester L  | icense Number   | Date |

## NONTIDAL WETLANDS BEST MANAGEMENT PRACTICES FOR FOREST HARVEST OPERATIONS

| Ap | plicant Name: Phone #:  |       |
|----|---|-------|
| Ad | dress:  |       |
| Lo | cation of Operation:  |       |
| La | ndowner:  |       |
| De | and in areas that have been determined to be wetlands according to the "Federal Manual for Identifying a lineating Jurisdictional Wetlands," 1989, or its amended versions, the applicant will adhere to and follow nagement practices (BMPs) including, but not limited to, the following: |       |
| Ch | eck when appropriate:   |       |
| _  | Major skid trails, wherever feasible, will be located on soils that resist compaction and ruts or other disturbances that adversely impact nontidal wetland hydrology.  |       |
| _  | Appropriate equipment to skid logs will be selected based on slope and the ability of soil to resist erosion other disturbances.  | 1 or  |
| _  | Truck roads, wherever feasible, will be located on uplands or on the highest available ground so as to minimize impacts to nontidal wetlands.   |       |
| _  | Truck roads will be of minimum dimensions necessary to accomplish their purpose and minimize impact nontidal wetlands.  | ts to |
| _  | Truck roads will follow the natural contour of the land, wherever feasible, and shall be stabilized to mini erosion.  | mize  |
| _  | Wetland hydrology will be maintained by constructing diversion ditches at the minimum depth to maintain flow of water.  | ain   |
| _  | Wooden mats, filter cloth, or similar temporary structures will be used to reduce compaction or creation ruts.  | of    |
| _  | Fill material will be used only when absolutely necessary to maintain or construct a road. If needed, fill see the excavated from uplands and shall be free from state or federally designated toxic pollutants.  | shall |
| _  | Intermittent and perennial streams, sloughs, or channels will not be crossed unless absolutely necessary. When necessary, crossing will be at the shortest distance feasible, be of appropriate design, and allow unrestricted movement of aquatic life in the stream.                      |       |

NOTE: A WATERWAY CONSTRUCTION PERMIT MAY BE REQUIRED.

| _   | Landings will be located prior to road layout, located in uplands as far from streams and/or nontidal wetlands as practicable or on the highest available ground if uplands are unavailable, and kept to minimum size and number necessary for the operation. Diversion ditches will be installed to direct water away from the deck during use. |  |  |
|-----|--|--|--|
| _   | Trash, debris, and chemicals will be collected and disposed of outside wetland areas.  |  |  |
| _   | Utilization of low ground pressure equipment (i.e. high flotation tires, wide tracks, etc.) will be used when nontidal wetland soils are unable to support conventional equipment.   |  |  |
| _   | Scheduling of forest harvest operations will be during periods when wetlands soils are dry or frozen and are capable of supporting conventional equipment to prevent compaction, ruts, or other significant disturbances to nontidal wetland soils or hydrology.   |  |  |
| _   | All forest harvest operations will be conducted so as to prevent impoundment of water or increased runoff in the nontidal wetland, unless the change is recommended in a sediment and erosion control plan.  |  |  |
| _   | Harvesting will be conducted during dry periods or at times that enhance natural regeneration.   |  |  |
| _   | Natural regeneration will be utilized where feasible and will be the preferred method of regeneration in wetland areas.  |  |  |
| _   | Other (describe additional practices)  |  |  |
|     |  |  |  |
|     |  |  |  |
|     |  |  |  |
|     |  |  |  |
|     |  |  |  |
| Pre | epared by:   |  |  |
| X   |  |  |  |
| L   | icensed Forester License Number Date   |  |  |
|     |  |  |  |

#### STANDARD EROSION AND SEDIMENT CONTROL PLAN FOR FOREST HARVEST OPERATIONS IN MARYLAND

#### I. General Requirements

A Sediment Control Plan is required for any forest harvest operation that disturbs more than 5,000 square feet or 100 cubic yards of soil.

This Standard Erosion and Sediment Control Plan may be used when all of the following conditions are met:

- 1. Road cuts/fills are 3 feet or less (5 feet in Garrett, Allegany, Washington, and Frederick counties).
- 2. Grades for haul roads do not exceed 15 percent.
- 3. Landings are located on slopes 10 percent or less.
- 4. Grades for skid trails do not exceed 20 percent.

If any of these conditions or any other criteria of the Standard Plan cannot be met, a Custom Plan must be developed by a licensed professional forester and submitted along with this plan to the local Soil Conservation District for approval.

#### **II. Conditions**

- 1. Unless one operator assumes full responsibility for implementing an approved plan, all forest harvest operators working at a site must obtain an erosion and sediment control plan. An operator is defined as any individual or company that 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 implement and maintain the required practices.
- 2. The applicant shall notify the Maryland Dept. of the Environment, 1-410-901-4020, at least 3 days prior to commencing forest harvest operations. The inspection agency must also be notified at least 2 days prior to the completion of work.
- 3. A copy of this plan and any approved plan modifications shall be available on site during harvest operations.
- 4. Each site may be inspected periodically by local government and/or State inspectors for compliance with the approved plan. State and local inspectors may require field modifications or a plan revision as conditions dictate, to prevent movement of sediment from the site. Plan revisions require approval by the SCD.
- 5. Failure to properly implement or maintain the practices required by an approved plan, or 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.
- 6. All erosion and sediment controls must be implemented in accordance with specifications contained in the 2015 Maryland Soil Erosion and Sediment Control Standards and Specifications for Forest Harvest Operations.
- 7. The issuance of an approval by the 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.

#### **Standard Plan Specifications**

#### A. Site Maps:

- 1. Site maps or sketches must be prepared for all harvests and submitted with the plan application for approval. The map or sketch must identify the site location and provide directions and distances from the nearest major road intersection.
- 2. All access points, landings, haul roads, Waters of the State, Streamside Management Zones (SMZ), and existing stream crossings must be identified on the map or sketch.
- 3. If harvesting is planned in a SMZ, a more detailed map of the SMZ areas is required. Additionally, a SMZ Plan must accompany the Standard Plan. The harvest area should also be delineated on a photocopy of the United States Geological Survey 7.5 Minute Series (Topographic) quadrangle maps (USGS maps).

#### B. Site Access:

- 1. Access points to the site shall be stabilized with wood chips, corduroy mats, stone aggregate pad, or other methods as shown in the Specifications for Stabilized Harvest Entrance. Any soil or debris that is tracked onto adjoining off-site roads shall be removed and deposited in a controlled area immediately.
- 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 local permitting agency or the State Highway Administration.
- 3. Existing public road drainage shall not be blocked or damaged by access construction. Pipe culverts or a bridge shall be installed if necessary to maintain existing drainage.

#### C. Waterway Protection:

- 1. Any required SMZ shall be marked and properly maintained. (See Specifications for Streamside Management Zone section.)
- 2. The minimum SMZ width is 50 feet on land with no slope. Where sloping land is encountered, the following formula shall be applied:

50 ft. + (2 ft. x % slope) = SMZ width (to a maximum of 150 ft.)

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

Slope % Width of SMZ (ft.) on

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

Table 2 – SMZ Width vs. Site Slope

- 3. Unless part of an approved SMZ Plan, new roads, trails, and harvesting equipment are <u>not</u> allowed in any SMZ except to provide access to authorized stream crossings.
- 4. Harvesting within the SMZ is <u>not</u> allowed unless a SMZ Plan, along with the Standard Plan, is submitted to and approved by the SCD. The SMZ Plan must be prepared by a Maryland licensed professional forester 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 an 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 landing 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.
  - f. Stabilize within three (3) 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.

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

- 1. Grading of existing roads and/or trails will be limited to that necessary to make them operable, provided that the requirements of Section D (2) and (5) below are met. 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 to avoid excessive cuts, fills, and grades. No road cut or fill shall exceed 3 feet (5 feet in Garrett, Allegany, Washington, and Frederick Counties). 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 requirements contained in the 2015 Maryland Soil Erosion and Sediment Control Standards and Specifications for Forest Harvest Operations.
- 4. Crossing of perennial or intermittent streams should be avoided. Where it becomes necessary to cross either a perennial or an 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.
- 5. Grades for haul roads shall not exceed 15 percent. Grades for skid trails shall not exceed 20 percent. 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 the SCD 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.

#### 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 percent slope), well-drained ground. If harvest sites do not have any area with a slope of at least 3 percent, landings shall be located on the maximum slope of the site. Landings located on slopes exceeding 10 percent must be shown on an approved Custom Plan.

#### F. Stabilization:

- 1. Following completion of installation of all perimeter erosion and sediment controls, areas disturbed by the installation and all cut and fill slopes steeper than 3:1 (H:V) must be stabilized within three (3) calendar days.
- 2. Within three (3) days of completion of the harvest, all roads, trails, and landings located on slopes 10 percent or greater shall be graded or backdragged, and seeded and mulched according to specifications. The surface of roads, landings, and trails less than 10 percent shall be graded or backdragged 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 mulch shall be required.

3. 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, woods chips, and compacted wood slash may be used as temporary stabilization practices.

#### G. Maintenance:

- 1. All practices installed shall be maintained at all times to function as intended.
- 2. Any practice that fails to function properly will be repaired or corrected immediately.

## FOREST HARVEST OPERATION PLAN CHECKLIST

| Land   | owner Acres harvested  |
|--------|--|
| Opera  | ator Submittal Date  |
| Site I | Location Approval Date   |
| Requ   | irements:  |
|        | Standard Erosion and Sediment Control Plan for Forest Harvest Operations form (with original signatures)   |
|        | Forestry Declaration of Intent with tax map, parcel and lot completed (with original signatures)   |
|        | Site Map (must be reproducible) should identify and delineate:   |
|        | Location (note existing roads) Harvest area Access points Landings Haul roads and major skid trails Water bodies and wetlands Stream crossings Buffer areas (cut and no cut) with widths noted Critical Area |
|        | Soils map with harvest area outlined. Hydric soils, poorly drained soils, and soils with severe erosion hazard are poor choices for log landing and road locations.  |
|        | Topographic map with harvest area outlined. If roads or trails are proposed on slopes 15% or greater, a custom plan with BMPs for preventing erosion must be prepared by a Maryland licensed forester.       |
|        | Buffer Management Plan (if applicable) signed and sealed by Maryland licensed forester   |
|        | BMPs for harvesting in wetlands (if applicable) signed and sealed by Maryland licensed forester  |
|        | Copy of operator's green card and forest product operator's license  |
|        | Copy of Maryland licensed forester's forestry license (if applicable)  |
|        | Copy of letter from Forestry Board or Town approving harvest in the Critical Area (if applicable)  |
|        | Copy of letter from Forestry Board approving harvest in Forest Retention Area (if applicable)  |
|        | Copy of general waterway construction permit for stream crossings (if applicable)  |
|        | Driveway permit acknowledgement (with original signatures) (if applicable)   |

#### SEQUENCE OF OPERATIONS

- 1. Obtain all necessary permits and approvals. \*
- 2. A Maryland licensed forester shall delineate wetlands and stream buffers. All trees proposed for harvest within stream buffer zones will be marked at eye level and at the base of the stump.
- 3. Mark limits of harvest area.
- 4. Contact Maryland Department of the Environment (410-901-4020) to arrange a pre-harvest meeting.
- 5. Hold pre-harvest meeting.
- 6. Install stabilized entrance. Install all best management practices (BMPs) as indicated on the plan.
- 7. Construct haul road, landings, and skid roads as delineated on the approved standard erosion and sediment control plan for forest harvest operations.
- 8. Maintain and repair BMPs and haul roads, landings, and skid roads to prevent erosion and sedimentation throughout harvest.
- 9. Fell trees away from streams, wetlands, and sensitive areas. Avoid damage to other trees in the area. Immediately remove any tops, slash, or other debris which fall into wetlands and water bodies.
- 10. When harvest has been completed, grade and backdrag roads and landings according to standard plan requirements. Remove any stream crossings. Install permanent BMPs as indicated on the plan. Seed and mulch disturbed areas.
- 11. Contact MDE to perform site visit, prepare close-out report, and ensure that site has been returned to an acceptable condition.

\* This may include, but is not limited to, the Standard Erosion and Sediment Control Plan for Forest Harvest Operations, stream crossing permits, and approved timber harvest plans for harvests within the Chesapeake Bay Critical Area or Forest Retention Areas. When site conditions exceed the restrictions of the Standard Erosion and Sediment Control Plan, a Maryland licensed forester must prepare the appropriate plan modifications. Modifications include buffer management plans for harvests in stream buffers and best management practices for harvesting on steep slopes or in wetlands.

+ Plan is valid for 2 years from date of approval.

## DRIVEWAY PERMIT ACKNOWLEDGEMENT

| Owner's Name(s):                         |  |
|--|--|
| I ocation:                               |  |
|  |  |
|  |  |
|  |  |
| I (we),                                  | the owner(s) of the property                             |
| identified above, are aware that a drive | way entrance permit is required for the new access point |
| 1 1                                      | ) will contact Cecil County Department of Land Use &     |
| Development Services to acquire a driv   | veway permit.  |
|  |  |
|  |  |
| Signature(s)                             | Date:  |
| Signature(s)                             |  |
|  | Date:  |