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Following is a checklist of the necessary components of all erosion & sediment control plans. This list must be completed and signed by the plan preparer and must accompany all erosion & sediment plans submitted to the Peter Francisco SWCD for review.

All submittals must include: Three copies of the plan, printed on size 24" x 36" paper; one for the District's records, one for the County's records and one to send back to applicant.

ALL calculations must be included with plan submittal; a review will not be made until calculations are received.

If you have any questions, feel free to call the PFSWCD office at 434-983-7923.

Please refer to the 1992 Virginia Erosion and Sediment Control Handbook

PFSWCD Erosion & Sediment Control Checklist

Project Name: _____

A. Minimum Standards:

***See separate 2 page checklist for minimum standards**

Each of the 19 Minimum Standards of the 1992 Virginia Erosion and Sediment Control Handbook (VESCH) must be satisfied.

- All Minimum Standards must be adhered to during the entire project regardless of the phasing.
- Request for a Variance should be addressed.

B. Narrative:

Project Description: Briefly describes the nature and purpose of the land disturbing activity, and the acres to be disturbed.

- What time of year will the project start and finish?
- How long will it take to complete the project?
- How many acres will be disturbed for completion of this project?
- How much impervious area will the project have in post-developed conditions?
- What will be the ultimate developed conditions of the site?

Existing site conditions: A description of the existing topography, vegetation and drainage.

- Should list percentages of slope on the site.
- Types of existing vegetation that can be used as erosion control, or areas to be left undisturbed.
- Discuss marking of areas where existing vegetation is to be preserved.
- Discuss size of drainage areas in pre-development and post-development conditions.
- Discuss any existing drainage or erosion problems and how they are to be corrected.
- Discuss orientation of slopes (north or south facing).
- Discuss how existing site conditions can be used to reduce the potential for erosion and how proposed E&S controls will be designed to "fit" the site.
- Photographs?

Adjacent Areas: A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which may be affected by the land disturbance.

- The potential for off-site damages must be considered and discussed.
- ANY environmentally sensitive areas should be mentioned.
- Other private or public lands adjacent to the site should be described and considered for possible problems during and after construction (traffic problems, dust control, increases in runoff, etc.)
- Discuss perimeter controls to be used.

_____ Off-site areas: Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

- Any off-site borrow or spoil areas should have an approved plan to supplement the overall project plan.
- If off-site areas are under other permits, proof of permits should be provided.
- List specific locations of all off-site areas.
- Discuss who will be responsible for final stabilization and maintenance of off-site areas.

_____ Soils: A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.

- Indicate references for soil information.
- Provide a copy of soil survey map.
- Indicate what sheet of site plans soils are delineated.
- Check for soils with a high K factor, or poor drainage, low pH, etc.

_____ Critical areas: A description of areas on the site which have potentially serious erosion problems (i.e. steep slopes, channels, wet areas, streams, underground springs, etc.).

- Discuss any area of the project which may become critical during the project. Some areas of the site may have become critical during the project. Some areas of the site may have long steep slopes during a certain phase of the grading.
- Indicate areas to be left alone until they can be graded and stabilized in favorable conditions.
- Discuss precautions to communicate limits of these areas to contractors and equipment operators.

_____ Erosion & Sediment Control Measures: A description of the methods which will be used to control erosion & sedimentation on the site (Controls should meet the specifications in Chapter 3, VESCH).

- List all controls used, list specification numbers (i.e. 3.02) and location of practice.
- Discuss why that specific control was selected.
- List sequence of installation, maintenance and removal for each control.
- Discuss temporary seeding as a means of erosion control and list the types and rates to be used.

_____ Permanent Stabilization: A brief description, including specifications, of how the site will be stabilized after construction is completed.

- Final stabilization needs careful review.
- Is the timing of seeding correct with the construction sequence?
- List soil testing requirements.
- Provide seeding specifications (pure live seed minimums, certified seed), fertilizer and liming specifications. Seeding tables and rates must be specific and not just excerpted from the VESCH.
- Is the type of permanent vegetation appropriate for the site geographically?
- Discuss all other areas to be stabilized other than vegetation (gravel, paved, etc.).

_____ Stormwater runoff considerations: Will the developed site cause an increase in peak runoff rates? Will increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.

- Discuss how downstream properties and waterways will be protected (i.e. basins, channel improvements, easements).
- Discuss how increased runoff will be managed during construction.
- List or discuss all other references for design or permanent facilities.

_____ Calculations: Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.

- All calculations showing pre-development and post-development runoff should be provided. Worksheets, assumptions and engineering decisions should be clearly presented to assist the plan reviewer in his or her duties.
- Calculation methods should be clearly presented and organized.

- Have the calculations shown that adequate protection of down-stream properties and waterways are protected?

_____ Maintenance: A schedule of maintenance for permanent stormwater control measures should be provided.

- Should list who is responsible during construction and who will be responsible once the project is complete.
- Should provide a schedule of inspections to be conducted.
- List maintenance items to check and perform as well as precautions for large storm events.

C. Site Plan:

_____ Vicinity Map: A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.

- Provide a reproduction of a top map, road map, etc.

_____ Indicate North: The direction of North in relation to the site.

- Useful tool for determining slope orientation.
- Useful for communicating written inspection reports and plan review comments.
- Useful in predicting areas off-site that might be affected by dust drift.

_____ Limits of clearing and grading: Areas which are to be cleared and graded.

- Show all areas to be disturbed on the site plan.
- Provide notes on how areas will be marked.
- Provide notes and illustrations to clearly indicate areas NOT to be disturbed.

_____ Existing contours: The existing contours of the site.

- Should be shown as dashed light lines in intervals from 1 to 5 feet.
- Represent pre-developed drainage areas (check these for accuracy).
- Show potential critical areas (i.e. slopes).
- Helps to determine cut or fill areas, low spots.
- Helps to determine if E&S controls have been properly designed.

_____ Final contours: Changes to the existing contours, including final drainage patterns.

- Should be drawn as heavy solid lines with elevations noted.
- Determines final drainage areas.
- Check to see if pre-developed drainage areas have increased.
- Check final grade of slopes to see if they will become critical (may need diversions or flumes).
- Check vegetative specifications for final grade of slopes (i.e. low or high maintenance).
- Are erosion blankets needed?

_____ Existing vegetation: The existing tree lines, grassed areas, or unique vegetation.

- Clearly indicate existing tree lines, vegetation areas to remain.
- Provide notes on the plan for areas to be undisturbed.

_____ Soils: The boundaries of different soil types on the project site.

- Indicate soil boundaries of all soil types on the site. List K factor and soil survey classifications.
- Provide notes of soil properties (i.e. texture, etc.).

_____ Existing drainage patterns: The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.

- Should be indicated by acres and show the direction of flow for all existing drainage areas.
- Indicates the need for basins, traps or other structural measures.
- Helps to determine if controls are designed correctly.
- Helps to determine if off-site drainage needs to be diverted.
- Useful in planning to break up drainage areas into smaller more manageable areas during construction.

- _____ Critical erosion areas: Areas with potentially serious erosion problems.
- All critical, environmentally sensitive or prohibited areas should be denoted on the plan and notes provided to state reasons for critical nature.
 - Stream considerations, temporary crossings, other permits, location of stock piles, trash & debris removal, fuel storage, etc.

- _____ Site development: Show all improvements such as buildings, parking lots, access roads, utility construction, etc.
- All Improvements such as building, roads, temporary access roads, right-of-ways and temporary easements should be shown on the plan.
 - Utility improvements on and off-site should be shown.

- _____ Location of practices: The locations of erosion & sediment controls and stormwater management practices used on site. Use the standard symbols and abbreviations in Chapter 3 of the VESCH.
- The exact location of all practices including vegetation should be clearly shown on the plan.
 - A legend denoting symbols, line uses and other special characters should be provided.

- _____ Off-site areas: Identify any off-site land-disturbing activities (i.e. borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?).
- Are separate plans required for off-site borrow or disposal areas?
 - How will off-site areas be stabilized?
 - Are there any temporary easements to be disturbed during construction?
 - Who has final responsibility for off-site areas?

- _____ Detail drawings: Any structural practices used that are not referenced to the VESCH or local handbooks should be explained and illustrated with detail drawings.
- Details should be provided which are clearly dimensioned and reflected the ability to be "built" in the field according to the proper design criteria.
 - Alternative E&S measures must have proper drawings to indicate how and where they are to be constructed.
 - All plan drawings, elevations and cross sections should show scales used to prepare the drawings.
 - Outlet protection scheduled should be provided.
 - Sizes and materials should be shown for all pipes, flumes and slope drains.
 - ALL details should list the specification number from the VESCH.
 - If more than one type of specification is being used, details of all practices shall be provided.

- _____ Maintenance: A schedule of regular inspections and repair of E&S control structures should be set forth.
- Indicate who is responsible for maintenance and repair of all E&S measures on the project (RLD).
 - Indicate who is the primary contact for emergencies, for notification of problems, etc. (i.e. Owner).
 - Provide clean-out and maintenance specifications for all major structures (i.e. basins, traps, silt fence, etc.).
 - Require monitoring reports from the RLD.

CERTIFICATION OF PLAN PREPARER:

I certify that the above checklist components are satisfied in the accompanying erosion and sediment control plan, unless I have attached a written variance request for the omitted components.

SIGNATURE OF PLAN PREPARER

DATE

PRINTED NAME

PHONE NUMBER