

VDOT ESC Plan Template for Maintenance Activities Software Reference Guide

The screenshot displays the VDOT ESC Plan software interface. It includes a 'Project Information' section with fields for Project Name, Location, and Dates. A 'Maintenance Task List & Project Details' table lists tasks like 'Ditching' and 'Grading' with associated codes and dates. A 'Typical Erosion & Sediment Control Plan for Ditching' diagram shows a cross-section of a ditch with various control measures like silt fences and sediment basins. A table of 'Task Specific Erosion and Sediment Control Measures' lists items like 'Silt Fence' and 'Silt Basins' with their respective codes and quantities.

Task	ESC Measure	Quantity	Section on VDOT Final Order*	MS Additional
Maintenance Task 1 Ditching	Silt Fence	100	ESC-1	MS-1, 2, 3, 5, 11
	Silt Basins	2	ESC-2	MS-11
Maintenance Task 2 Pipe Replacement (Dry)	Silt Fence	100	ESC-1	MS-1, 2, 3, 5, 11
	Silt Basins	2	ESC-2	MS-11

Prepared for:
Virginia Department of Transportation
Location and Design Division
1401 East Broad Street
Richmond, Virginia 23219

Prepared by:
EEE Consulting, Inc.
8525 Bell Creek Road
Mechanicsville, Virginia 23116
(804) 442-3330

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VDOT ESC Plan Template for Maintenance Activities

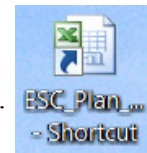
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Installation Instructions:

- I. Using Windows Explorer, create a folder where you plan to save the ESC Plans created with this tool. This can be a location on your computer (*My Documents*, your *Desktop*, etc.) or a location on your internal office network (ask an IT Administrator for help with the network if needed).
- II. Save the Template file, *ESC_Plan_Template.xls*, to this folder. The Template file should be marked as read-only (To check: right click on the file in windows explorer, select *Properties* from the pop-up menu, and make sure *Read-only* has a check mark next to it, then hit OK)
- III. Navigate to the folder you just saved the Template to and copy the Template file (right-click on the file and choose *Copy* from the pop-up menu, or select the file and press *Ctrl+C*)
- IV. Right-click on an empty spot on your desktop and select *Paste Shortcut* from the pop-up menu.

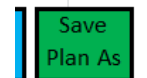
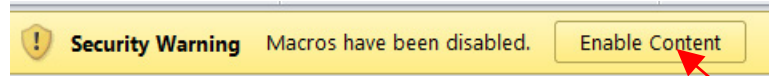
This will be the short-cut you use to open the ESC Plan Template.

Since the tool is activated by simply opening the template file in Microsoft Excel, more advanced users may wish to pin the file to their Start Menu or Task Bar (Windows 7 only)



Opening the Template:

- A. For new projects, double-click on the icon you created when you installed the template. It should be on your desktop and be similar the image to the right.
(It may also have been pinned to the *Start Menu* or *Task Bar* under *Microsoft Excel*→ *ESC_Plan_Template.xls*)
 1. If a security warning pops up saying Macros have been disabled, be sure to click the button for **Enable Content**. If macros are not enabled, the program will not run correctly, but will open to a page warning that the macros are disabled.
 2. Enter at least a **Project Name** and **ESC Plan Date** if not the entire **Project Information** (see Start Page Section 2 on page 4) and press the green **Save Plan As** button.
- B. For existing projects, open the folder where you are storing your ESC Plans and double click on an existing plan.
 1. Be sure to enable macros if the security warning pops up (see A.1. above).
 2. If you are continuing to work on the same project, proceed where you left off.
 3. If you are using an existing plan as a guide, change the **Project Name** and/or **ESC Plan Date** and click the green **Save Plan As** button.



Disclaimer & Limitations of Use

- This ESC Plan - consisting of this narrative, typical sketches for each activity, and any required site-specific sketches (critical areas, wetlands, etc.) - must be used in conjunction with the most up-to-date version of the VDOT Road and Bridge Standards and/or Specifications to constitute a complete and compliant ESC Plan as allowed by VDOT's approved ESC and SWM program.
- Typical Sketches generated by this program are NOT to be used as the final sketch for obtaining Water Quality Permits.
- This ESC Plan cannot be used as an approved ESC Plan for any bridge renovation work, new construction or other activity that does not meet the definition of Routine Maintenance.
- No work will be conducted within wetlands, live waterways or other aquatic resources without review & approval from the Residency Environmental Specialist; ALL WORK TO BE CONDUCTED IN THE DRY.
- All Erosion & Sediment controls will be in place prior to commencement of work or installed as soon as an area to be disturbed is made accessible.

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General Operation:

- The Template runs using Microsoft Excel Macros, so make sure that they are enabled when you open the Template (See A.1. under Opening the Template, above). If Macros are disabled, the Template will open to a warning page which shows how to enable them.
- The Template is set up as a series of pages (tabs) with drop-down lists, yes/no questions and information boxes to be filled in. The boxes are color coded to show required, recommended, and default entries. For Example:

Maintenance Task List & Project Details						
	Type	Location	Begin Loc. / Access Point	End Loc.	Side	Location Type:
Maintenance Task 1	▼					

Yellow Boxes: These are required fields that are used to generate the narrative.
ALL YELLOW FIELDS MUST BE FILLED OUT!

Blue Boxes: These are recommended fields that will help clarify items in the narrative, but can be left blank if they do not apply.

Gray Boxes: These are default fields that fill automatically based on your input, but can be changed as necessary.

Input Hints: Most boxes have pop-up instructions to help you enter the right information. These can be turned on and off by pressing the blue **Show/Hide Input Hints** button at the top of the screen.

- There are three main types of pages: the Start page, Narrative page, and Sketch page(s). Each type of page builds off of the information entered on the previous pages and therefore should be edited in that order (Start, Narrative, Sketch).

Start Page: On the start page, you will enter basic information such as the project name, location, timeframe, etc. as well as answer questions about the size of the project and certain features that will determine whether an ESC Plan is required and whether this tool may be used to create it. Once all of the required information (yellow boxes) is entered, press the **Show Results** button to determine how to proceed.

Narrative Page: On the narrative page, you will describe the tasks to be performed as part of this project as well as answer questions about the site conditions and responsible parties. These answers will determine the elements required for the ESC Plan, generate the ESC Narrative, and add the required typical sketches to the plan. You will also select the ESC Measures to be used for each task at the bottom of the page before proceeding to edit the typical sketches.

Sketch Pages: Based on your input on the Narrative Page, task-specific typical sketches will be added to the ESC Plan. These will be used to demonstrate how the ESC Measures are typically installed during each type of maintenance task. Please note that additional site-specific sketches will be required for all critical or sensitive areas.

- Each page has a button bar across the top with buttons that perform various actions, such as showing/hiding entry instructions for each field; generating, printing, and saving the plan; resetting default entries, and resetting the form back to a blank template. Some pages also have task-specific buttons that help navigate through the program and/or reset parts of the Template individually. The buttons are described in more detail later in this guide.

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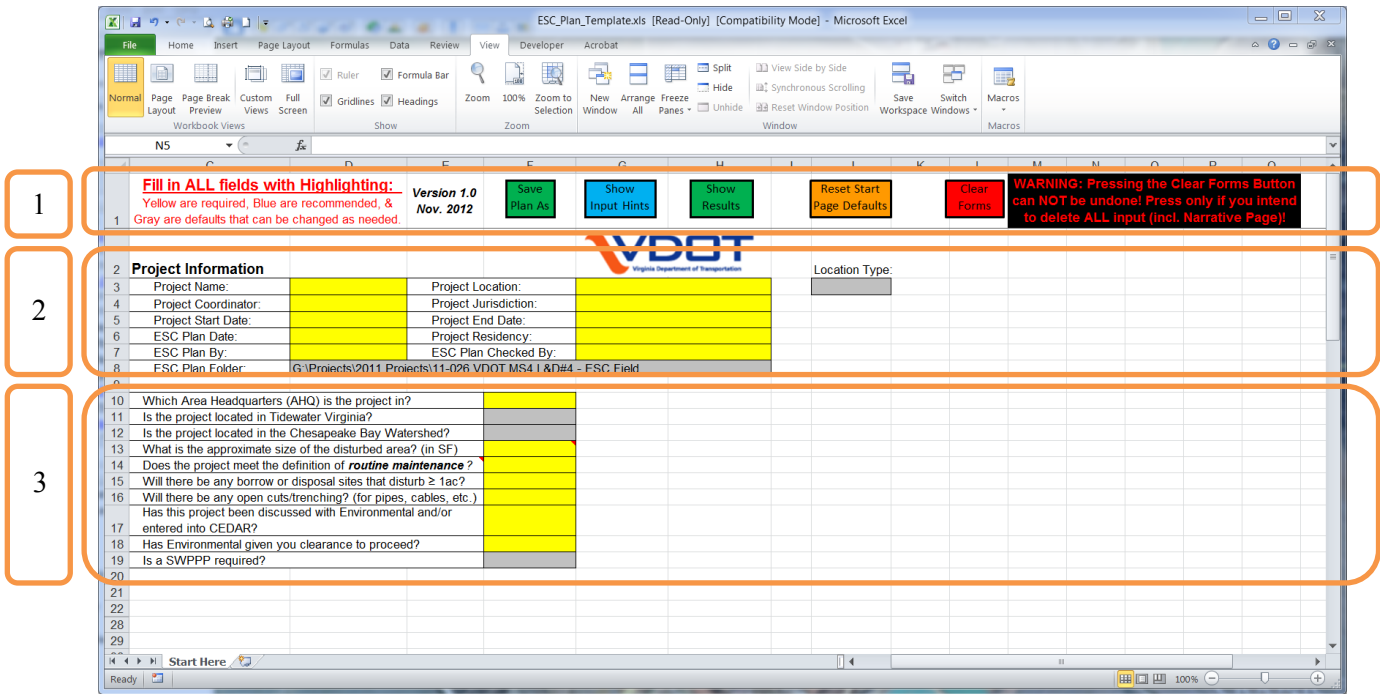


Figure 1: Start Page Layout. (Instructions are on pg. 4)

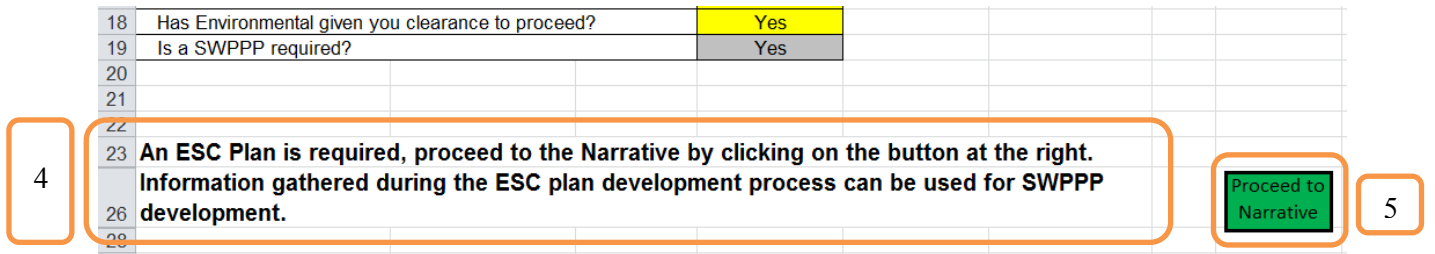


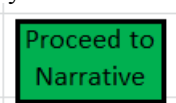
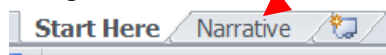
Figure 2: Start Page Results. (Instructions are on pg. 4)

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Start Page (see Figure 1 & Figure 2 on pg. 3):

1. **Button Bar:** Here you will find buttons to perform actions related to the Start page:
 - a. **Save Plan (As):** This button will be used to save the ESC Plan so that you can access it again later.
 - b. **Show/Hide Input Hints:** This button will turn the in-program instructions (beige pop-ups) on or off for the page that you are on.
 - c. **Show Results:** This button will show information about how to proceed based on the information provided on the Start page. *Do not press this button until all yellow (and gray) fields are filled out!*
 - d. **Reset Start Page Defaults:** This button will reset all gray fields on this screen to their original settings. *WARNING: This cannot be undone!*
 - e. **Clear Forms:** This button will clear ALL entries made in the program, essentially starting over from the blank template. *WARNING: This cannot be undone!*
2. **Project Information:** Here you will enter basic information such as project name, location, coordinator, timeframe, ESC plan preparer, etc.
 - a. **Project Name:** Try to use a standard naming convention, such as Rte. # & Type of Work, the CEDAR Project Name, Contract or UPC #, etc.
 - b. **Project Coordinator:** This is the person responsible for the work being performed. It can be a member of the field crew or a person in the office.
 - c. **Project Location:** This is the general location of the work to be performed such as Rte. 1, the Smith Property, etc. Remember to check that the *Location Type* fills in correctly & change it if needed.
 - d. **Project Jurisdiction:** This is the locality the work will be performed in, such as City of Richmond or Hanover County. The VDOT Jurisdiction will be entered under **Project Residency** and **Area Headquarters**. *Note: The Residency should be selected from the drop-down menu and anytime the residency is changed, it will reset the AHQ.*
3. **Project Questionnaire:** The answers to these questions will determine if an ESC Plan is required and whether or not this Template may be used to generate it.
 - a. **Area Headquarters (AHQ):** This will determine the answers to the next two questions about the projects location. Please check that those answers appear correctly.
 - b. **Size of the disturbed area:** This box must be entered as a number in square feet in order to determine if an ESC Plan is required. The red arrow indicates a tool-tip that can be shown by placing the cursor over the box regardless of whether Input Hints are turned on or off.
 - c. **Routine Maintenance:** If a project does not meet the definition of routine maintenance, it is not exempt from VSMP coverage. Borrow and Disposal sites are not included in routine maintenance and will require separate plans if they exceed the VSMP thresholds, which vary by location.
*Note: Any changes made in this section after pressing the **Show Results** button will hide the results, including the Narrative Page, requiring you to press the **Show Results** button again to continue.*
4. **Questionnaire Results:** This section provides information about how to proceed based on the entries in the Project Information and Project Questionnaire Sections.
 - a. After pressing the **Show Results** button, the Questionnaire Results section will be highlighted.
 - b. If it doesn't already show on your screen in its entirety, be sure to scroll down so that you can see the entire section. There could be as many as five boxes of information based on your entries.
5. **Narrative Page:** If so instructed, press the **Proceed to Narrative** button or left-click on this tab to continue generating an ESC Plan.



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6 Fill in ALL fields with Highlighting:
Yellow are required, Blue are recommended, & Gray are defaults that can be changed as needed.

7 Project Information

Project Name:	00690-026-16093199	Project Location:	Rte. 690	Location Type:	Roadway
Project Coordinator:	B. Hayes	Project Jurisdiction:	Dinwiddie County		
Project Start Date:	12/3/2011	Project End Date:	12/15/2011		
ESC Plan Date:	11/15/2012	Project Residency:	Petersburg		
ESC Plan By:	J. Archer	ESC Plan Checked By:	D. Tribble		

8 Maintenance Task List & Project Details

	Type	Location	Begin Loc. / Access Point	End Loc.	Side	Location Type:	GO TO:	Associated Sketch:
11							Task 1 ESC Measures	None
12							Task 2 ESC Measures	None
13							Task 3 ESC Measures	None
14							Task 4 ESC Measures	None
15							Task 5 ESC Measures	None

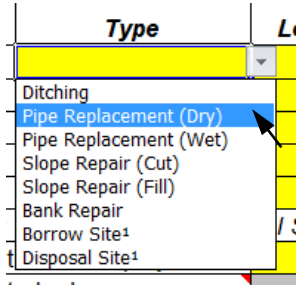
Note 1: Any Borrow or Disposal Site that disturbs 1 ac. or more requires VSMP Permit Coverage!

Figure 3: Narrative Page, section 1 of 3. (Instructions are on pg. 6)

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Narrative Page (see Figure 3 on pg. 5):

6. **Button Bar:** Here you will find buttons to perform actions related to the Narrative page:
 - a. **Generate/Print ESC Plan:** This button creates a printable version of the narrative and when pressed again, prints the entire ESC Plan, including the sketches. To return to editing mode, press the **Show All Fields** button.
 - b. **Show All Fields:** This button returns to the data entry mode of the narrative page.
 - c. **Save Plan (As):** This button will be used to save your plan so that you can access it again later.
 - d. **Show/Hide Input Hints:** This button will turn the in-program instructions (beige pop-ups) on or off for the page that you are on.
 - e. **Reset Defaults:** This button will reset all gray fields on this screen to their original settings. A version of this button is also available to reset each task individually. *WARNING: This cannot be undone!*
 - f. **Clear Forms:** This button will clear ALL entries made in the program, essentially starting over from the blank template. *WARNING: This cannot be undone!*
7. **Project Information:** This section carries over automatically from the Start Page.
8. **Maintenance Task List:** This section is where the specific tasks to be performed during the project will be chosen and described.

- a. **Type:** Select the type of maintenance task from the drop-down list by clicking in the box, then on the grey arrow that shows up on the right. Once selected, the sketch for that task will automatically show up as another tab at the bottom of the window. See the Glossary on page 13 for descriptions of each maintenance type. *NOTE: These eight (8) types of tasks are the only types this tool can be used for. If other types of tasks are part of this project, they will require a separate plan, but this tool may be used to generate the plan for those tasks that are included.*
- 
- b. **Location:** Type the specific location where this task will be performed. If a task is to be performed at multiple locations with the same ESC measures, you may list them all as one task, however if the measures will vary, please list them as separate tasks. *Examples of locations include: route #'s, parcel names, driveways, etc.*
 - c. **Begin Location/Access Point:** Type a descriptive location for the beginning of the task or its access point. *This can be an intersection, mile marker, station number, or can be left blank.*
 - d. **End Location:** Same as Begin Location/Access Point.
 - e. **Side:** Enter the side of the road or site where the task will be performed. This can be selected from the drop-down list or typed in all lowercase letters, but the input is limited to cardinal directions, left, right, or both.
 - f. **Location Type:** Check that the type of location for the task was generated correctly. This will help word the narrative correctly. The choices are *roadway* for linear tasks and *site* for non-linear tasks.
 - g. **Navigation Buttons:** The green & blue buttons to the right of the Maintenance Task List can be used to jump directly to the ESC Measures Selection area for each task. However, don't forget to come back to fill out the Project Details (see directions on next page).

NOTE: *If Borrow or Disposal Sites are involved with this project, they will require separate VSMP Permit Coverage if they exceed the local thresholds for disturbed area.*

Narrative page instructions continued on next page...

REMEMBER:

*ALL YELLOW BOXES MUST BE FILLED OUT
IF YOU HAVE QUESTIONS ABOUT WHAT TO PUT IN THEM, TURN ON THE INPUT HINTS!*

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9	17	Approximate size/length of the overall project:				
	18	Approximate size of the disturbed area:	79,200 SF			
	19	Are there any steep or long slopes/grades?				
	20	Are there any highly erodible soils?				
	21	Has Environmental told you of any culturally sensitive areas?				
	22	Has Environmental told you of any environmentally sensitive areas?				
	23	Is there any in-stream work with this project?				
	24	Responsible Land Disturber (RLD):		Phone:		
	25	Certified Plan Reviewer or P.E.:		Phone:		
26	ESC Inspector: (person or company)		Phone:			
27	Environmental clearance given by:		Date:			
10	29	Project Narrative:				
	30	This project is located along Route 1 in the Ashland Residency. This project will disturb approx. 79,200 SF. It involves				
	31					
	32					
	33					
	34					
	35					
	36	There are no critical or sensitive areas, and there is no work in a live watercourse. The Plan Reviewer assigned to this project is and can be reached at . The Responsible Land Disturber for this project is and can be reached at . The RLD or other qualified personnel shall inspect the site at least once per week and 48 hours after any runoff producing rain event.				
37						
11	39	Additional Project Information:				
	40					

Figure 4: Narrative Page, section 2 of 3. (Instructions are on pg. 8)

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Narrative Page (*cont'd, see Figure 4 on pg. 7*):

9. **Project Details:** Similar to the Questionnaire section of the Start Page, this section is used to determine the requirements of the ESC Plan and word the narrative accordingly.
- a. **Size of the Project & Disturbed Area:** Enter the approx. size of the total project (incl. units) here. The size of the disturbed area is entered on the Start page and carries over here automatically.
 - b. **Steep Slopes and Erodible Soils:** Please answer these questions with “Yes” or “No.” These two questions determine if the project contains critical areas, which will require clarification in the *Additional Project Information* section as well as their own site-specific detailed sketch. Press the **Show Input Hints** button for the definitions of these areas (or see the Glossary on page 13).
 - c. **Culturally and Environmentally Sensitive Areas:** Please answer these questions with “Yes” or “No.” These areas also require clarification in the *Additional Project Information* (see 11 below) and may require further coordination with Environmental. Press the **Show Input Hints** button for the definitions of these areas (or see the Glossary on page 13).
 - d. **In-stream work:** Please answer this question with “Yes” or “No.” In-stream work is also a critical area, which requires clarification in the *Additional Project Information* section (see 11 below) and its own sketch. It will also likely require further discussion with the District Hydraulics Section and/or Environmental.
 - e. **Responsible Parties:** Enter the names and phone numbers for the RLD, Plan Reviewer, ESC Inspector & the person in Environmental that gave the project clearance to proceed. RLD is always required, and the other three names may be required based on the answers of the earlier questions.
Yellow Boxes are required, while Blue Boxes are recommended.
10. **Project Narrative:** This section will be automatically filled out based on your input from the preceding sections.
11. **Additional Project Information:** This section allows for free-form entry of additional details that affect the overall project or individual tasks. This is also where any critical or sensitive areas must be explained in detail.
HINT: Press Alt & Enter at the same time to create paragraphs within this box.

Narrative page instructions continued on next page...

REMEMBER:

*ALL YELLOW BOXES MUST BE FILLED OUT
IF YOU HAVE QUESTIONS ABOUT WHAT TO PUT IN THEM, TURN ON THE INPUT HINTS!*

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Narrative Page (cont'd):

12	42	Task Specific Erosion and Sediment Control Measures:			
	43	Maintenance Task 1: Ditching - Erosion and Sediment Control Measures			
	44	ESC Measure*	Reference(s)	Section in VDOT Field Guide**	M.S. Addressed
	45	Silt Fence (no wire support)	R&B Std.'s: 113.07	6.1	MS-4
	46	Check Dam - Rock	R&B Std.'s: 113.06	6.3	MS-4, 11
	47	EC-2 Matting	R&B Std.'s: 113.02	6.3	MS-1, 3, 11
	48	EC-3 Ditch Stabilization	R&B Std.'s: 113.03	6.3	MS-7, 11
	49	Seeding & Mulching	Spec. Book: S-244	6.2	MS-1, 2, 3, 5, 11
	50	0			
	51	0			
52	0				
53	0				
54	0				
55	0				
56	0				
57					
58					
59					
60	Maintenance Task 2: Pipe Replacement (Dry) - Erosion and Sediment Control Measures				
61	ESC Measure*	Reference(s)	Section in VDOT Field Guide**	M.S. Addressed	
62	Check Dam - Rock	R&B Std.'s: 113.06	6.3	MS-4, 11	
63	EC-2 Matting	R&B Std.'s: 113.02	6.3	MS-1, 3, 11	
64	Culvert Outlet Protection - Riprap	R&B Std.'s: 113.01	6.5	MS-11	
65	Seeding & Mulching	Spec. Book: S-244	6.2	MS-1, 2, 3, 5, 11	
66	0				
67	0				
68	0				
69	0				

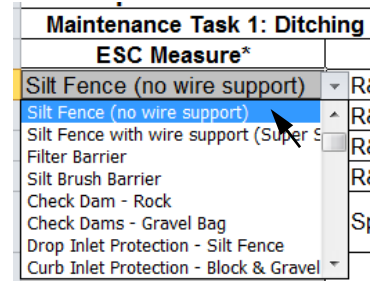
Reset Task 1
Back to Top
Go To Sketch 1

Reset Task 2
Back to Top
Go To Sketch 2

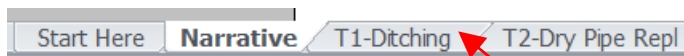
Figure 5: Narrative Page, section 3 of 3.

12. **ESC Measures:** This is where the ESC Measures to be used for each individual task should be selected.

- a. **Default Measures:** Based on the type of task selected, the most commonly used ESC Measures will be selected automatically. All measures here may be changed, added, or deleted as necessary by clicking on the box to be changed and selecting a new measure from the drop-down list (gray arrow at right of box) or by pressing delete. 0's are just empty spaces
- b. **References, Field Guide, & Min. Standards:** The related page in the Road & Bridge Standards or Specifications, Maintenance ESC Field Guide and the Minimum Standards that the measure addresses will be selected automatically. *Note: If you have internet access, clicking on the blue headings (hyperlinks) will take you to webpages where you can find more information about those sections.*
- c. **Task Buttons:** Buttons are provided to the right of each Maintenance Task in this section to allow the default measures for that task to be reselected as well as navigation buttons to go to the Sketch for each task or back to the top of the Narrative Page.



Task Specific Sketches: Once you've selected the ESC Measures for each task, use the navigation buttons beside each task or left-click on each sketch tab (Task#-Task-type, e.g. T1-Ditching) and see instructions on next page.



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Sketch Page(s):

13	<p style="color: red; margin: 0;">Check all gray fields and textboxes: See instructions at right for more details</p>	Show Only Used Measures	Generate Plan	Back to ESC Measures	Next Sketch	Reset Form																		
14a	<p>Maintenance Task 1: Ditching along Rte. 1 beginning at England St. & ending at Ashcake Rd. on the west side of the road.</p> <p>ESC Measures selected for this task & how they apply to the drawing:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Measure</th> <th style="width: 15%;">Dwg. Label</th> <th style="width: 80%;"></th> </tr> </thead> <tbody> <tr> <td>Silt Fence (no wire support)</td> <td style="background-color: #cccccc;">C</td> <td></td> </tr> <tr> <td>Seeding & Mulching</td> <td style="background-color: #cccccc;">D</td> <td></td> </tr> <tr> <td>EC-3 Ditch Stabilization</td> <td style="background-color: #cccccc;">B</td> <td></td> </tr> <tr> <td>EC-2 Matting</td> <td style="background-color: #cccccc;">B</td> <td></td> </tr> <tr> <td>Check Dam - Rock</td> <td style="background-color: #cccccc;">A</td> <td></td> </tr> </tbody> </table>	Measure	Dwg. Label		Silt Fence (no wire support)	C		Seeding & Mulching	D		EC-3 Ditch Stabilization	B		EC-2 Matting	B		Check Dam - Rock	A		<p>ESC Plan Date: 11/1/2012 Project Name: Sample Project Coordinator: John Smith Project Location: Route 1</p>				
Measure	Dwg. Label																							
Silt Fence (no wire support)	C																							
Seeding & Mulching	D																							
EC-3 Ditch Stabilization	B																							
EC-2 Matting	B																							
Check Dam - Rock	A																							
14b	<p>NOTES: Sketch below shows typical installations only; critical areas require separate sketches. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 45%;"> <p>GENERAL NOTES:</p> <ol style="list-style-type: none"> THIS METHOD APPLIES ONLY TO DITCHES THAT DO NOT CONTAIN FLOWING WATER AND ARE NOT CONSIDERED A WATERCOURSE. ALL WORK TO BE DONE IN THE DRY. WORK CAN BE DONE IN SEQUENCE PROVIDED THAT THE PIPE LEFT FLOWING IS ADEQUATELY SIZED TO ACCOMMODATE THE CURRENT FLOW OF THE WATERCOURSE AND WORK IS COORDINATED & APPROVED BY HYDRAULICS. <p>EROSION CONTROL MEASURES LEGEND:</p> <p>(A) BARRIER TO REDUCE VELOCITY IN DITCH; EXAMPLES INCLUDE: ROCK CHECK DAMS TYPE 1 OR 2 (EC-4), GRAVEL BAG CHECK DAMS (EC-4), TEMPORARY SILT FENCE (EC-5) OR WIRE BACKED SILT FENCE (EC-5)</p> <p>(B) DITCH LINING AS NECESSARY; EXAMPLES INCLUDE SOIL RETENTION MAT OR JUTE MESH (EC-2), SOIL STABILIZATION MAT (EC-3), AND RIP-RAP</p> <p>(C) BARRIER TO PREVENT SEDIMENT TRANSPORT OUTSIDE OF THE RIGHT OF WAY OR EASEMENT</p> <p>(D) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Check Dam Spacing Guidelines</th> </tr> <tr> <th style="width: 50%;">Ditch Grade (%)</th> <th style="width: 50%;">Spacing (feet)</th> </tr> </thead> <tbody> <tr><td>1</td><td>200</td></tr> <tr><td>2</td><td>100</td></tr> <tr><td>4</td><td>50</td></tr> <tr><td>6</td><td>33</td></tr> <tr><td>8</td><td>25</td></tr> <tr><td>10</td><td>20</td></tr> </tbody> </table> <p style="font-size: small;">**Ditch grades above 6% are not recommended**</p> </div> </div>						Check Dam Spacing Guidelines		Ditch Grade (%)	Spacing (feet)	1	200	2	100	4	50	6	33	8	25	10	20		
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8	25																							
10	20																							
14c	<p style="text-align: center;">Typical Erosion & Sediment Control Plan for Ditching NOT TO SCALE</p>																							

Figure 6: Sketch Pages

13. **Button Bar:** Here you will find buttons to perform actions related to the Sketch pages:
- Show All/Only Used Measures:** This button will show either All ESC Measures in the typical sketch or only those with labels listed in section 14.a.
 - Generate Plan:** This button takes you back to the Narrative Tab and sets the plan up for printing.
 - Navigation Buttons:** These two buttons take you back to the ESC Measure Selection for this task and to the next sketch in the plan respectively.
 - Reset Form:** This button will reset the entire Sketch and cannot be undone.
14. **Sketch Pages:** A Sketch page will be created for each Maintenance Task described on the Narrative Page (see section 8 above)
- Selected Measures:** Review the ESC measures listed and make sure the Drawing Label automatically selected matches your intended use of the measure. All the ESC Measures selected on the Narrative page (section 12, above) for each Task are listed here along with the most common way the measure is used. Refer to the Sketch of the Typical ESC Plan for each task (14b) and its ESC Measures Legend (14c) and make any changes necessary to the Drawing Labels (14a) here. See the instructions at the right side of each sketch for more detail. Be careful not to use A – F unless you intend to use it as a label!
*HINT: To create a blank sketch, delete all labels and press the **Show Only Used Measures** button.*
 - Typical Sketch:** Review the text boxes for *Begin Work*, *End Work*, and *Location*; and move, resize, or delete them as necessary. The north arrow can also be adjusted as necessary (*Excel 2007 & newer only*). See the instructions at the right side of each sketch for more detail.
 - ESC Measures Legend:** These are the drawing labels which are referenced in the gray boxes of 14a. Use these to make sure the correct labels are selected for each ESC Measure.

VDOT ESC Plan Template for Maintenance Activities

Software Reference Guide

Fill in ALL fields with Highlighting:
Yellow are required, Blue are recommended, & Gray are defaults that can be changed as needed.

Generate ESC Plan Show All Fields Save Plan Show Input Hints Reset Defaults Clear Screen

File Path: G:\Projects\2011\Projects\11-026_VDOT_MSA_L&DR4 - ESC Plan

Project Information

Project Name:	Sample	Project Location:	Rte 1
Project Coordinator:	B. Miller	Project Jurisdiction:	Hannover County
Project Start Date:	12/30/12	Project End Date:	12/14/2012
ESC Plan Date:	11/12/12	Project Residency:	Ashland
ESC Plan By:	J. Smith	ESC Plan Checked By:	A. Jones

Maintenance Task List & Project Details

Type	Location	Begin Loc. / Access Point	End Loc.	Side
Maintenance Task 1	Ditching	Rte 1 Location 1	Location 2	
Maintenance Task 2	Disposal Site ¹	Site 2	Route 602	
Maintenance Task 3	Disposal Site ¹	Site 3	Route 603	
Maintenance Task 4				
Maintenance Task 5				

Note 1: Any Erosion or Disposal Site that disturbs 2,500 sq ft or more requires VSDMP Permit Coverage

Approximate scallength of the overall project: 2 miles
 Approximate size of the disturbed area: 110,616 SF
 Are there any steep or long slopes/grades? No
 Are there any highly erodible soils? No
 Has Environmental told you of any culturally sensitive areas? No
 Has Environmental told you of any environmentally sensitive areas? No
 Is there any in-stream work with this project? No

Responsible Land Disturber (RLD): Q. Jones Phone: (804) 555-1213
 Certified Plan Reviewer or P.E.: Phone: (804) 555-1213
 ESC Inspector (person or company): Phone: (804) 555-1213
 Environmental clearance given by: Date:

Project Narrative:
 This project is located along Rte 1 in the Ashland Residency. The overall project is 2 miles, of which 110,616 SF will be disturbed. It involves 3 tasks including:
 1. Ditching along Rte 1 beginning at Location 1 & ending at Location 2
 2. Disposal Site¹ along Site 2 beginning at Route 602
 3. Disposal Site¹ along Site 3 beginning at Route 603

There are no critical or sensitive areas, and there is no work in a live watercourse.
 The Plan Reviewer assigned to this project is A. Jones. The Responsible Land Disturber for this project is Q. Jones and can be reached at (804) 555-1213. The RLD or other qualified personnel shall inspect the site at least once per week, and 48 hours after any runoff producing rain event.

Additional Project Information:
 Both disposal sites involved with this project shall be less than 2500 SF.

Task Specific Erosion and Sediment Control Measures:

ESC Measure*	Reference(s)	Section in VDOT Field Guide*	M.S. Addressed
Maintenance Task 1: Ditching - Erosion and Sediment Control Measures			
Silt Fence (no wire support)	R&B Std's: 113.07	6.1	MS-4
Check Dam - Flock	R&B Std's: 113.06	6.3	MS-4, 11
EC-2 Matting	R&B Std's: 113.02	6.3	MS-1, 3, 11
EC-3 Ditch Stabilization	R&B Std's: 113.03	6.3	MS-7, 11
Seeding & Mulching	Spec. Book: S-244	6.2	MS-1, 2, 3, 5, 11
Maintenance Task 2: Disposal Site¹ - Erosion and Sediment Control Measures			
Construction Entrance	R&B Std's: 113.15	6.1	MS-4, 10
Silt Fence (no wire support)	R&B Std's: 113.07	6.1	MS-4
Silt Fence with wire support (Super S.F.)	R&B Std's: 113.19	6.1	MS-4
Seeding & Mulching	Spec. Book: S-244	6.2	MS-1, 2, 3, 5, 11

Figure 7: Narrative Page, prior to pressing Generate ESC Plan button.

Generating the ESC Plan:

15. **Generate the ESC Plan:** Once you have reviewed the sketches for each task, you are ready to generate and print the ESC Plan.

- From either the Narrative Page or a Sketch page, press the green **Generate ESC Plan** button. A printable version of the plan will be created (*all of the input areas and unused rows on the Narrative page will be hidden, the color removed, and page breaks inserted*) and the button will change to say **Print ESC Plan**.
- Save the ESC Plan by pressing the green **Save Plan (As)** button.
- Click on the green **Print ESC Plan** button to bring up the print dialogue and print your plan.

Fill in ALL fields with Highlighting:
Yellow are required, Blue are recommended, & Gray are defaults that can be changed as needed.

Print ESC Plan Show All Fields Save Plan Show Input Hints Reset Defaults

Project Information

Project Name:	Sample	Project Location:	Rte 1
Project Coordinator:	B. Miller	Project Jurisdiction:	Hannover County
Project Start Date:	12/30/12	Project End Date:	12/14/2012
ESC Plan Date:	11/12/12	Project Residency:	Ashland
ESC Plan By:	J. Smith	ESC Plan Checked By:	A. Jones

Project Narrative:
 This project is located along Rte 1 in the Ashland Residency. The overall project is 2 miles, of which 110,616 SF will be disturbed. It involves 3 tasks including:
 1. Ditching along Rte 1 beginning at Location 1 & ending at Location 2
 2. Disposal Site¹ along Site 2 beginning at Route 602
 3. Disposal Site¹ along Site 3 beginning at Route 603

There are no critical or sensitive areas, and there is no work in a live watercourse.
 The Plan Reviewer assigned to this project is A. Jones. The Responsible Land Disturber for this project is Q. Jones and can be reached at (804) 555-1213. The RLD or other qualified personnel shall inspect the site at least once per week, and 48 hours after any runoff producing rain event.

Additional Project Information:
 Both disposal sites involved with this project shall be less than 2500 SF.

Task Specific Erosion and Sediment Control Measures:

ESC Measure*	Reference(s)	Section in VDOT Field Guide*	M.S. Addressed
Maintenance Task 1: Ditching - Erosion and Sediment Control Measures			
Silt Fence (no wire support)	R&B Std's: 113.07	6.1	MS-4
Check Dam - Flock	R&B Std's: 113.06	6.3	MS-4, 11
EC-2 Matting	R&B Std's: 113.02	6.3	MS-1, 3, 11
EC-3 Ditch Stabilization	R&B Std's: 113.03	6.3	MS-7, 11
Seeding & Mulching	Spec. Book: S-244	6.2	MS-1, 2, 3, 5, 11
Maintenance Task 2: Disposal Site¹ - Erosion and Sediment Control Measures			
Construction Entrance	R&B Std's: 113.15	6.1	MS-4, 10
Silt Fence (no wire support)	R&B Std's: 113.07	6.1	MS-4
Silt Fence with wire support (Super S.F.)	R&B Std's: 113.19	6.1	MS-4
Seeding & Mulching	Spec. Book: S-244	6.2	MS-1, 2, 3, 5, 11

Figure 8: Printable version of the ESC Plan Narrative.

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Glossary:

Start Page Definitions:

Project Name: Name for this project that will be used in creating the default file name. Please use a consistent format such as the CEDAR name, Route#_Description, etc. so that it is easy to find projects again.

Project Coordinator: This is the person responsible for the project. It can either be a member of the field crew or a supervisor in the office.

Project Start/End Date: This is the date (or at least season) that the project is expected to start & end.

Project Location: This is the general location of the work to be performed such as Rte. 1, the Smith Property, etc.

Project Jurisdiction: This is the locality the work will be performed in, such as City of Richmond or Hanover County.

Project Residency: This is the Residency where the project is located. It will be used to populate the list of Area Headquarters (AHQ). *Note: the selected AHQ will reset whenever the Residency is changed.*

ESC Plan Date: This is the date that you started to fill out the ESC Plan.

ESC Plan By: This is the person filling out the ESC Plan.

ESC Plan Checked By: This is the person responsible for a peer review of the ESC Plan.

Tidewater Virginia: These are the areas VDOT has determined to be subject to the stricter limits of the Chesapeake Bay Preservation Act. *Note: this is predefined and fills out automatically based on the AHQ selected.*

Chesapeake Bay Watershed: This is the area that drains to the Chesapeake Bay and will be subject to the Chesapeake Bay TMDL. *Note: some AHQ's contain areas both within and outside of the watershed. If that is the case for the selected AHQ, please determine whether or not your project is in the watershed.*

Disturbed Area: This is the area that will be cleared of vegetation, graded, or otherwise impacted during this project. It must be entered in Square Feet (SF).

Routine Maintenance: Land Disturbing Activities that meet the Routine Maintenance definition of section §10.1-603.8.B.8 of the Code of Virginia are exempt from VSMP Coverage. Both the legal definition and a plainly worded definition can be found on the Start Page.

Open Cuts or Trenching: Areas where utilities will be installed (such as stormwater pipes) are subject to MS-16, which lists specific requirements when open cuts and/or trenching is part of a project.

SWPPP: StormWater Pollution Prevention Plan – A separate document that is required when an ESC Plan is required. Information from this ESC Plan will be needed in order to create the SWPPP.

VDOT ESC Plan Template for Maintenance Activities

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Narrative Page Definitions:

Ditching: Removing accumulated sediment to return a ditch back to its original construction or design.

Pipe Replacement (Dry): Replacing a pipe in a non-flowing conveyance channel such as a roadside ditch.

Pipe Replacement (Wet): Replacing a pipe in a stream, lake, etc. that contains water (i.e. *in-stream work*, see below).

Slope Repair (Cut): Repairing an eroded embankment that slopes towards the roadway.

Slope Repair (Fill): Repairing an eroded embankment that slopes away from the roadway.

Bank Repair: Repairing an eroded embankment that slopes towards a water body.

Borrow Site¹: An area that will be used to obtain fill for a maintenance project.

Disposal Site¹: An area that will be used to stockpile or dispose of material removed during the maintenance project.

¹: **Borrow & Disposal Sites** are not included in the Routine Maintenance Exemption & will require VSMP Permit Coverage when they exceed 1 acre (or 2,500 SF in Tidewater Virginia)

Critical Areas: Certain criteria, such as long or steep slopes/grades, highly erodible soil, and in-stream work complicate the installation of ESC Measures. These areas will require additional detail to be provided in the Additional Project Information section of the Narrative page, and a site-specific detailed sketch created outside of the ESC Plan Template. These sketches can be hand-drawn or computer generated. The plan will also require review by a Certified Plan Reviewer anytime it contains a Critical Area.

Steep or Long Slopes & Grades: For linear projects such as roads, see the table at right. For non-linear projects (sites), any slope greater than 3:1 (33% grade). *This is considered a Critical Area.*

Grade	Slope Length
0 – 5%	1000 LF
5 – 7%	500 LF
> 7%	100 LF

Highly Erodible Soils: Soils with a k-factor greater than or equal to 0.25 are considered highly erodible. In general, these are soils that contain a lot of silt. *This is considered a Critical Area.*

Culturally Sensitive Areas: These are areas that have historic resources on them and will require additional detail to be provided in the Additional Project Information section of the narrative page. They may also require additional coordination with Environmental.

Environmentally Sensitive Areas: These are areas with Jurisdictional Waters (Streams, Wetlands), Threatened or Endangered (T&E) Species, Trout Streams, Impaired Waters, and/or Total Maximum Daily Loads (TMDLs) within the project area or to which the disturbed areas drain to.

In-Stream Work: This is work to be done in a flowing stream. *This is considered a Critical Area.*

Responsible Land Disturber (RLD): The RLD is a person who has obtained a Certificate of Competence from the Virginia Department of Conservation & Recreation (DCR) and will ultimately be responsible for carrying out the project including the installation of all necessary Erosion & Sediment Controls.

Certified Plan Reviewer: When the project includes critical areas, it must be reviewed by someone with DCR's Certified Plan Reviewer or Combined Administrator certifications, or who is a licensed Professional Engineer (P.E.) in the Commonwealth of Virginia.

ESC Inspector: This is the name of the person, company, agency, or department that will be responsible for periodically examining the erosion and sediment control activities and premises of the maintenance project for consistency with the Erosion and Sediment Control Law and Regulations

Variance: A variance is required anytime an ESC Measure is not specifically approved by DCR as part of VDOT's ESC Program

R&B Std.'s: The most recent edition of the *Road & Bridge Standards*, currently 2008 (Location & Design).

Spec. Book: The most recent edition of the *Road & Bridge Specifications*, currently 2007 (Scheduling & Contract).

VDOT Field Guide: The most recent edition of the Erosion and Sediment Control Field Guide for Maintenance Activities, currently First Edition (Location & Design).

M.S. Addressed: How the selected ESC Measure applies to meet the 19 Minimum Standards (M.S.) required by the ESC Regulations. (4VAC50-30-40)


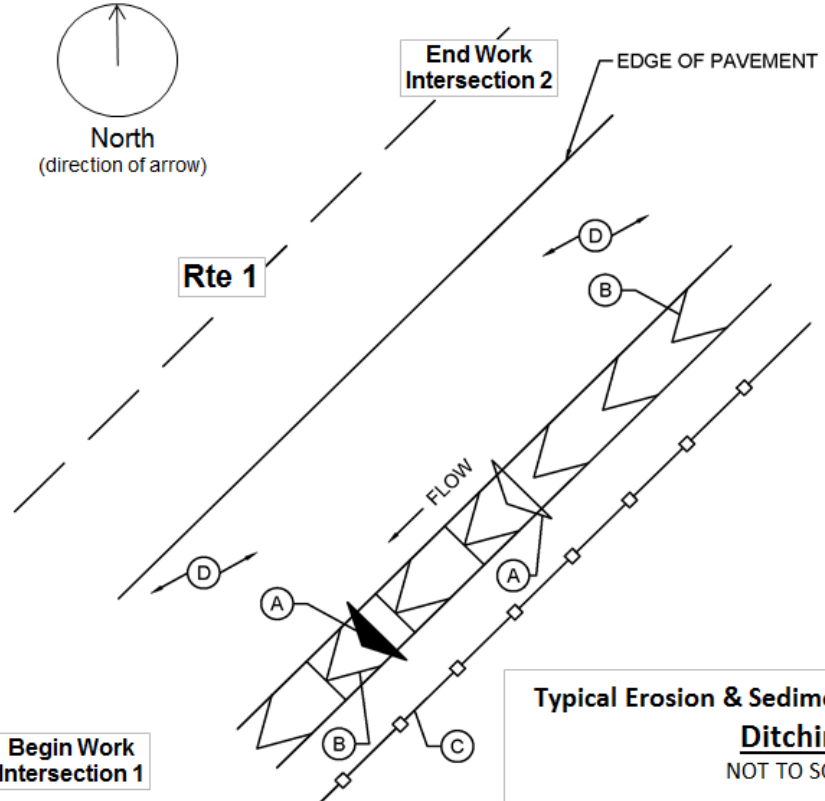
VDOT ESC Plan Template for Maintenance Activities Software Reference Guide

Appendix 1: Default Typical Sketches


	<p>USER INSTRUCTIONS:</p> <ul style="list-style-type: none"> • To change the task number or description, go to the Narrative tab (Mnt. Task List & Proj. Details). • Please check that the ESC Plan Date & Project Name, Coordinator & Location are correct (right side) If any of those fields are incorrect, please correct them on the Start Here tab. • The ESC Measures selected on the Narrative Tab are listed here along with their most common use. • If an ESC Measure applies to one of the labeled items on the sketch (see legend on the right), please list that label (A, B, A & B, etc.) next to the measure. Measures may be used for multiple purposes. • If a measure is used for a purpose not shown on the sketch, please <u>delete the label</u>, then <u>draw the new use on the sketch</u> and explain how it is to be used in the "Additional Project Information" section of the Narrative. • If a measure is used <u>differently across the project</u>, please <u>select the measure multiple times on the Narrative tab</u> and describe how it applies in the "Additional Project Information" section of the Narrative. • To Adjust direction of the North Arrow: click on arrow until red dot appears, then drag around circle until it points in the desired direction. (2007+ only) • The Location & Begin/End of Work labels are from the Narrative Tab (Mnt. Task List & Proj. Details). To change them, go back to the narrative tab and adjust the entries for this task in the Mnt. Task List. • All Text Box Labels (Location, Begin/End, N. Arrow, etc.) can be moved &/or reshaped by clicking on the text box and dragging it as desired. Dragging the shape is accomplished by clicking in the middle, and resizing is accomplished by dragging an edge or corner. • Those text boxes that are empty because information was not filled in on the Narrative tab (under Mnt. Task List & Proj. Details) can be removed by clicking on the text box and pressing delete. • If you accidentally move one of the pictures, try Undo first (Ctrl+Z), and if that doesn't work, make note of the changes you've made from the default sketch (Dwg Labels, Text Boxes, etc.) & press the orange Reset Form button
--	--

Figure 9: User Instructions from the ESC Plan Template Sketch Pages

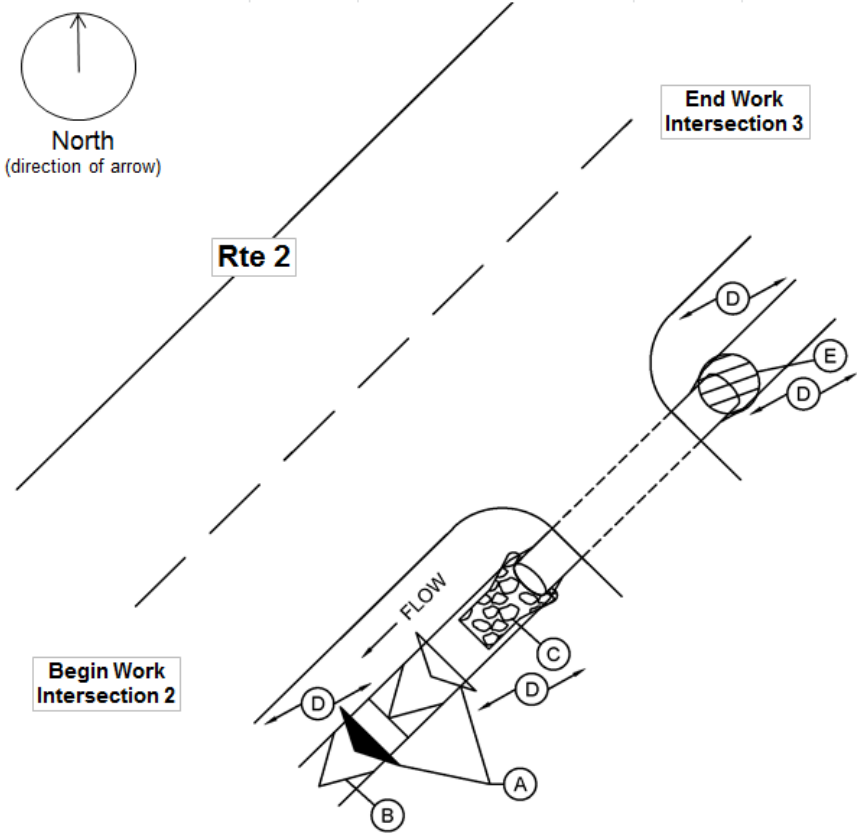
VDOT ESC Plan Template for Maintenance Activities Software Reference Guide

Check all gray fields and textboxes: See instructions at right for more details		Show Only Used Measures	Generate Plan	Back to ESC Measures	Next Sketch	Reset Form														
Maintenance Task 1: Ditching along Rte 1 beginning at Intersection 1 & ending at Intersection 2.																				
ESC Measures selected for this task & how they apply to the drawing:																				
Measure	Dwg Label																			
Silt Fence (no wire support)	C																			
Seeding & Mulching	D																			
EC-3 Ditch Stabilization	B																			
EC-2 Matting	B																			
Check Dam - Rock	A																			
					ESC Plan Date: 11/1/2012 Project Name: Sample Project Coordinator: B. Miller Project Location: Rte 1															
NOTES: Sketch below shows typical installations only; critical areas require separate sketches. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.																				
				GENERAL NOTES: 1. THIS METHOD APPLIES ONLY TO DITCHES THAT DO NOT CONTAIN FLOWING WATER AND ARE NOT CONSIDERED A WATERCOURSE. 2. ALL WORK TO BE DONE IN THE DRY. 3. WORK CAN BE DONE IN SEQUENCE PROVIDED THAT THE PIPE LEFT FLOWING IS ADEQUATELY SIZED TO ACCOMMODATE THE CURRENT FLOW OF THE WATERCOURSE AND WORK IS COORDINATED & APPROVED BY HYDRAULICS.																
				EROSION CONTROL MEASURES LEGEND: (A) BARRIER TO REDUCE VELOCITY IN DITCH; EXAMPLES INCLUDE: ROCK CHECK DAMS TYPE 1 OR 2 (EC-4), GRAVEL BAG CHECK DAMS (EC-4), TEMPORARY SILT FENCE (EC-5) OR WIRE BACKED SILT FENCE (EC-5) (B) DITCH LINING AS NECESSARY; EXAMPLES INCLUDE SOIL RETENTION MAT OR JUTE MESH (EC-2), SOIL STABILIZATION MAT (EC-3), AND RIP-RAP (C) BARRIER TO PREVENT SEDIMENT TRANSPORT OUTSIDE OF THE RIGHT OF WAY OR EASEMENT (D) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE.																
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4	50																			
6	33																			
8	25																			
10	20																			
Typical Erosion & Sediment Control Plan for Ditching NOT TO SCALE				**Ditch grades above 6% are not recommended**																

VDOT ESC Plan Template for Maintenance Activities Software Reference Guide

Check all gray fields and textboxes: See instructions at right for more details		Show Only Used Measures	Generate Plan	Back to ESC Measures	Next Sketch	Reset Form
Maintenance Task 2: Pipe Replacement (Dry) along Rte 2 beginning at Intersection 2 & ending at Intersection 3.						
ESC Measures selected for this task & how they apply to the drawing:					ESC Plan Date: 11/1/2012 Project Name: Sample Project Coordinator: B. Miller Project Location: Rte 1	
Measure	Dwg Label					
Seeding & Mulching	D					
EC-2 Matting	B					
Culvert Outlet Protection - Riprap	C					
Check Dam - Rock	A					

NOTES:
 Sketch below shows typical installations only; critical areas require separate sketches.
 This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.



GENERAL NOTES:


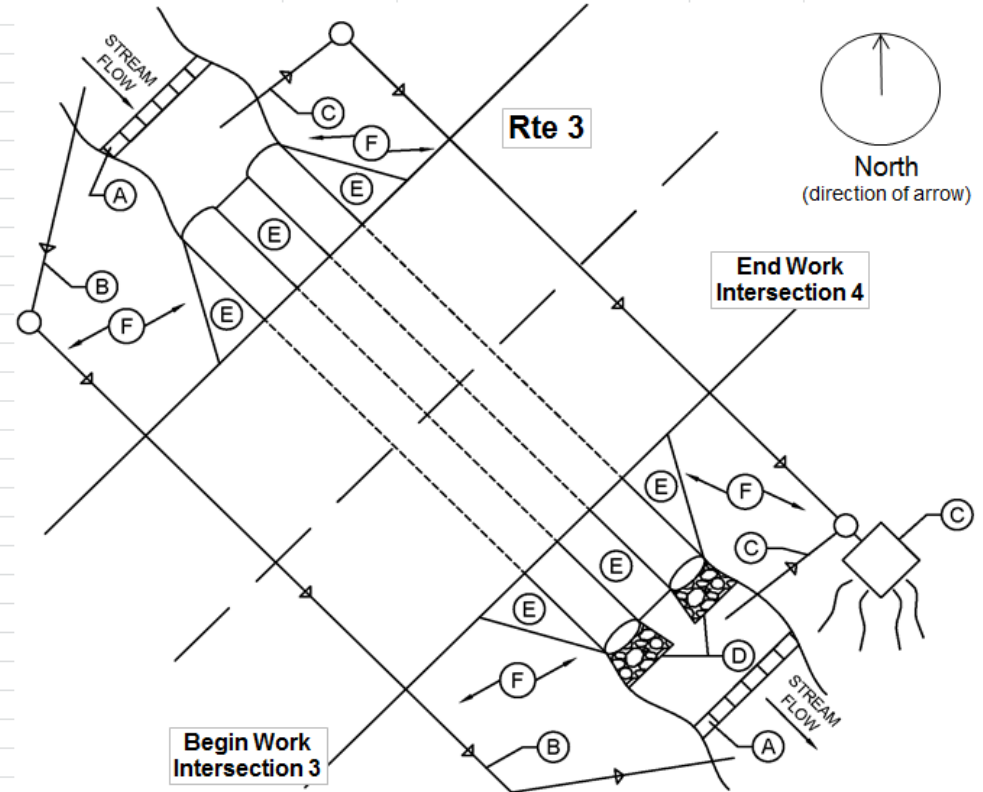
- THIS METHOD APPLIES ONLY TO DITCHES THAT DO NOT CONTAIN FLOWING WATER AND ARE NOT CONSIDERED A WATERCOURSE.
- ALL WORK TO BE DONE IN THE DRY.
- WORK CAN BE DONE IN SEQUENCE PROVIDED THAT THE PIPE LEFT FLOWING IS ADEQUATELY SIZED TO ACCOMMODATE THE CURRENT FLOW OF THE WATERCOURSE AND WORK IS COORDINATED & APPROVED BY HYDRAULICS.

EROSION CONTROL MEASURES LEGEND:

- (A) BARRIER TO REDUCE VELOCITY IN DITCH; EXAMPLES INCLUDE: ROCK CHECK DAMS TYPE 1 OR 2 (EC-4), GRAVEL BAG CHECK DAMS (EC-4), TEMPORARY SILT FENCE OR WIRE BACKED SILT FENCE (EC-5)
- (B) DITCH LINING AS NECESSARY; EXAMPLES INCLUDE SOIL RETENTION MAT OR JUTE MESH (EC-2), SOIL STABILIZATION MAT (EC-3), AND RIPRAP .
- (C) OUTLET PROTECTION AS NECESSARY.
- (D) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE.
- (E) INLET PROTECTION AS NECESSARY.

**Typical Erosion & Sediment Control Plan for
Dry Pipe Replacement
 NOT TO SCALE**

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<p style="color: red; text-align: center;">Check all gray fields and textboxes: See instructions at right for more details</p>	<div style="border: 1px solid black; background-color: #0056b3; color: white; padding: 2px; width: 50px; margin: 0 auto;">Show Only Used Measures</div>	<div style="border: 1px solid black; background-color: #008000; color: white; padding: 2px; width: 50px; margin: 0 auto;">Generate Plan</div>	<div style="border: 1px solid black; background-color: #0056b3; color: white; padding: 2px; width: 50px; margin: 0 auto;">Back to ESC Measures</div>	<div style="border: 1px solid black; background-color: #008000; color: white; padding: 2px; width: 50px; margin: 0 auto;">Next Sketch</div>	<div style="border: 1px solid black; background-color: #ff8c00; color: white; padding: 2px; width: 50px; margin: 0 auto;">Reset Form</div>																								
<p>Maintenance Task 3: Pipe Replacement (Wet) along Rte 3 beginning at Intersection 3 & ending at Intersection 4.</p>																													
<p>ESC Measures selected for this task & how they apply to the drawing:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Measure</th> <th style="width: 10%;">Dwg Label</th> <th style="width: 20%;">Measure</th> <th style="width: 10%;">Dwg Label</th> </tr> </thead> <tbody> <tr> <td>Siltbag</td> <td style="background-color: #cccccc;">C</td> <td>Cofferdams</td> <td style="background-color: #cccccc;">A</td> </tr> <tr> <td>Seeding & Mulching</td> <td style="background-color: #cccccc;">F</td> <td></td> <td></td> </tr> <tr> <td>Pumping</td> <td style="background-color: #cccccc;">B & C</td> <td></td> <td></td> </tr> <tr> <td>EC-3 Slope Stabilization</td> <td style="background-color: #cccccc;">E</td> <td></td> <td></td> </tr> <tr> <td>Culvert Outlet Protection - Riprap</td> <td style="background-color: #cccccc;">D</td> <td></td> <td></td> </tr> </tbody> </table>					Measure	Dwg Label	Measure	Dwg Label	Siltbag	C	Cofferdams	A	Seeding & Mulching	F			Pumping	B & C			EC-3 Slope Stabilization	E			Culvert Outlet Protection - Riprap	D			<p>ESC Plan Date: 11/1/2012 Project Name: Sample Project Coordinator: B. Miller Project Location: Rte 1</p>
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Siltbag	C	Cofferdams	A																										
Seeding & Mulching	F																												
Pumping	B & C																												
EC-3 Slope Stabilization	E																												
Culvert Outlet Protection - Riprap	D																												
<p>NOTES: Sketch below shows a typical installation only; please draw site specific conditions by hand. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.</p>																													
					<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> ALL WORK TO BE DONE IN THE DRY. WORK CAN BE DONE IN SEQUENCE PROVIDED THAT THE PIPE LEFT FLOWING IS ADEQUATELY SIZED TO ACCOMMODATE THE CURRENT FLOW OF THE WATERCOURSE AND WORK IS COORDINATED & APPROVED BY HYDRAULICS. <p>EROSION CONTROL MEASURES LEGEND:</p> <ul style="list-style-type: none"> (A) BARRIER TO ALLOW WORK TO BE DONE IN THE DRY & PREVENT SEDIMENT TRANSPORT; EXAMPLES INCLUDE: SANDBAGS, COFFERDAM, OR OTHER APPROVED DEVICE. (B) BYPASS PUMPING OF CLEAN WATER (C) PUMPING OF SEDIMENT LADEN WATER FROM WORK AREA TO A SILTBAG, SEDIMENT TRAP OR OTHER DEVICE TO TREAT WATER & RELEASE IN A DIFFUSE MANNER . (D) OUTLET PROTECTION AS REQUIRED (EC-3). (E) SLOPE STABILIZATION AS REQUIRED; EXAMPLES INCLUDE: GEOTEXTILE FABRIC (EC-3), RIP-RAP, OR OTHER APPROVED METHOD. (F) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 																								
<p>Typical Erosion & Sediment Control Plan for Wet Pipe Replacement</p> <p>NOT TO SCALE</p>																													


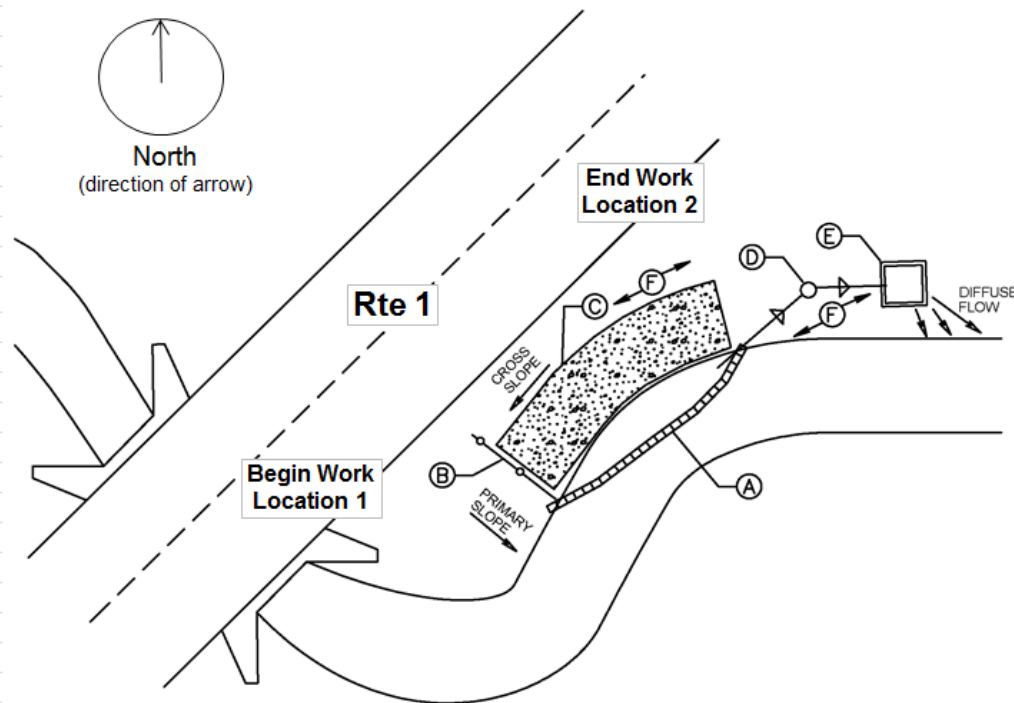
VDOT ESC Plan Template for Maintenance Activities Software Reference Guide

Check all gray fields and textboxes: See instructions at right for more details		Show Only Used Measures	Generate Plan	Back to ESC Measures	Next Sketch	Reset Form
Maintenance Task 4: Slope Repair (Cut) along Rte 4 beginning at Intersection 4 & ending at Intersection 5.						
ESC Measures selected for this task & how they apply to the drawing:					ESC Plan Date: 11/1/2012	
Measure	Dwg Label	Measure	Dwg Label			
Silt Fence with wire support (Super S.F.)	A & F	Check Dam - Rock	C			
Silt Fence (no wire support)	A & F			Project Name: Sample		
Seeding & Mulching	E			Project Coordinator: B. Miller		
Rip Rap Armoring - Class I	D			Project Location: Rte 1		
EC-2 Matting	B					
NOTES: Sketch below shows typical installations only; critical areas require separate sketches. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.						
				GENERAL NOTES: <ol style="list-style-type: none"> 1. PLACEMENT OF RIPRAP IN STREAM OR WETLAND IS PROHIBITED. 2. PLACE CONTAINMENT TARPS OR BARRIER TO PREVENT MATERIAL FROM ENTERING STREAM OR DITCH. 3. SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 4. CLASS I AND II STONE ONLY 5. RIPRAP LINER OR GEOTEXTILE BEDDING MATERIAL SHALL BE INSTALLED. 		
				EROSION CONTROL MEASURE LEGEND: <ul style="list-style-type: none"> (A) BARRIER TO KEEP SEDIMENT FROM BEING TRANSPORTED BEYOND THE LIMITS OF DISTURBANCE AS NECESSARY; EXAMPLES INCLUDE: FILTER BARRIER, SILT FENCE, AND WIRE BACKED SILT FENCE (EC-5). (B) DITCH LINING AS NECESSARY; EXAMPLES INCLUDE: SOIL RETENTION MAT OR JUTE MESH (EC-2), SOIL STABILIZATION MAT (EC-3), AND RIPRAP. (C) BARRIER TO REDUCE VELOCITY IN DITCH; EXAMPLES INCLUDE: ROCK CHECK DAMS (EC-4), GRAVEL BAG CHECK DAMS (EC-4), TEMPORARY SILT FENCE (EC-5), AND WIRE-BACKED SILT FENCE (EC-5). (D) MATERIAL TO STABILIZE ERODED SLOPE; EXAMPLES INCLUDE: RIPRAP (CLASS I OR II) AND SOIL STABILIZATION MAT (EC-3). (E) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. (F) BARRIER TO KEEP SEDIMENT FROM BEING TRANSPORTED INTO THE DITCH AS NECESSARY; EXAMPLES INCLUDE: FILTER BARRIER, SILT FENCE, OR WIRE BACKED SILT FENCE (EC-5). 		
				Typical Erosion & Sediment Control Plan for Cut Slope Erosion Repairs NOT TO SCALE		

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<p style="color: red; margin: 0;">Check all gray fields and textboxes: See instructions at right for more details</p>	<div style="background-color: #0056b3; color: white; padding: 2px; border: 1px solid black;">Show Only Used Measures</div>	<div style="background-color: #008000; color: white; padding: 2px; border: 1px solid black;">Generate Plan</div>	<div style="background-color: #0056b3; color: white; padding: 2px; border: 1px solid black;">Back to ESC Measures</div>	<div style="background-color: #008000; color: white; padding: 2px; border: 1px solid black;">Next Sketch</div>	<div style="background-color: #ff8c00; color: white; padding: 2px; border: 1px solid black;">Reset Form</div>																																
<p>Maintenance Task 5: Slope Repair (Fill) along Rte 5 beginning at Intersection 5 & ending at Intersection 6.</p>																																					
<p>ESC Measures selected for this task & how they apply to the drawing:</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th style="width: 25%;">Measure</th> <th style="width: 25%;">Dwg Label</th> <th style="width: 25%;">Measure</th> <th style="width: 25%;">Dwg Label</th> </tr> </thead> <tbody> <tr> <td>Silt Fence with wire support (Super S.F.)</td> <td>A & F</td> <td>Check Dam - Rock</td> <td style="background-color: #cccccc;">C</td> </tr> <tr> <td>Silt Fence (no wire support)</td> <td>A & F</td> <td></td> <td></td> </tr> <tr> <td>Seeding & Mulching</td> <td>E</td> <td></td> <td></td> </tr> <tr> <td>EC-3 Slope Stabilization</td> <td>D</td> <td></td> <td></td> </tr> <tr> <td>EC-2 Matting</td> <td>B</td> <td></td> <td></td> </tr> </tbody> </table>					Measure	Dwg Label	Measure	Dwg Label	Silt Fence with wire support (Super S.F.)	A & F	Check Dam - Rock	C	Silt Fence (no wire support)	A & F			Seeding & Mulching	E			EC-3 Slope Stabilization	D			EC-2 Matting	B			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">ESC Plan Date:</td> <td style="padding: 2px;">11/1/2012</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Project Name:</td> <td style="padding: 2px;">Sample</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Project Coordinator:</td> <td style="padding: 2px;">B. Miller</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">Project Location:</td> <td style="padding: 2px;">Rte 1</td> </tr> </table>	ESC Plan Date:	11/1/2012	Project Name:	Sample	Project Coordinator:	B. Miller	Project Location:	Rte 1
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<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 50%;"> <p>GENERAL NOTES:</p> <ol style="list-style-type: none"> 1. PLACEMENT OF RIPRAP IN STREAM OR WETLAND IS PROHIBITED. 2. PLACE CONTAINMENT TARPS OR BARRIER TO PREVENT MATERIAL FROM ENTERING STREAM OR DITCH. 3. SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 4. CLASS I AND II STONE ONLY. 5. RIPRAP LINER OR GEOTEXTILE BEDDING MATERIAL SHALL BE INSTALLED. <p>EROSION CONTROL MEASURE LEGEND:</p> <p>(A) BARRIER TO KEEP SEDIMENT FROM BEING TRANSPORTED BEYOND THE LIMITS OF DISTURBANCE AS NECESSARY; EXAMPLES INCLUDE: FILTER BARRIER, SILT FENCE, AND WIRE BACKED SILT FENCE (EC-5).</p> <p>(B) DITCH LINING AS NECESSARY; EXAMPLES INCLUDE: SOIL RETENTION MAT OR JUTE MESH (EC-2), SOIL STABILIZATION MAT (EC-3), AND RIPRAP.</p> <p>(C) BARRIER TO REDUCE VELOCITY IN DITCH; EXAMPLES INCLUDE: ROCK CHECK DAMS (EC-4), GRAVEL BAG CHECK DAMS (EC-4), TEMPORARY SILT FENCE (EC-5), AND WIRE-BACKED SILT FENCE (EC-5).</p> <p>(D) MATERIAL TO STABILIZE ERODED SLOPE; EXAMPLES INCLUDE: RIPRAP (CLASS I OR II) AND SOIL STABILIZATION MAT (EC-3).</p> <p>(E) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE.</p> <p>(F) BARRIER TO KEEP SEDIMENT FROM BEING TRANSPORTED INTO THE DITCH AS NECESSARY; EXAMPLES INCLUDE: FILTER BARRIER, SILT FENCE, AND WIRE BACKED SILT FENCE (EC-5).</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>Typical Erosion & Sediment Control Plan for Fill Slope Erosion Repairs</p> <p>NOT TO SCALE</p> </div>																																					

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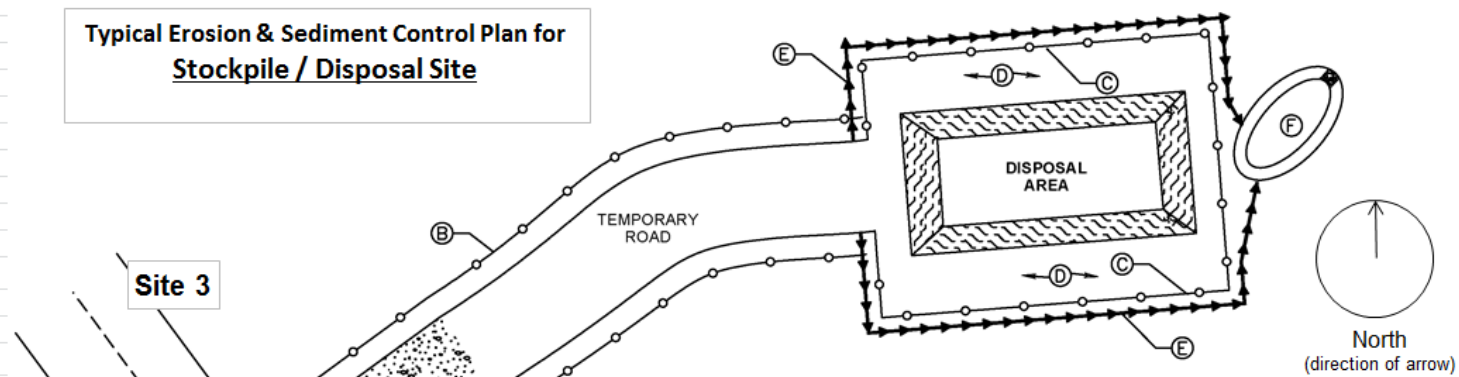
Check all gray fields and textboxes: See instructions at right for more details		Show Only Used Measures	Generate Plan	Back to ESC Measures	Next Sketch	Reset Form
Maintenance Task 1: Bank Repair along Rte 1 beginning at Location 1 & ending at Location 2.						
ESC Measures selected for this task & how they apply to the drawing:						
Measure	Dwg Label	Measure	Dwg Label			
Siltbag	E	Cofferdams	A			
Silt Fence (no wire support)	B					
Seeding & Mulching	F					
Rip Rap Armoring - Class I	C					
Pumping	D					
				ESC Plan Date:	11/1/2012	
				Project Name:	Sample	
				Project Coordinator:	B. Miller	
				Project Location:	Rte 1	
NOTES: Sketch below shows typical installations only; critical areas require separate sketches. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.						
				GENERAL NOTES: <ol style="list-style-type: none"> 1. PLACEMENT OF RIPRAP IN STREAM OR WETLAND IS PROHIBITED UNLESS AUTHORIZED BY PERMIT. 2. PLACE CONTAINMENT TARPS OR BARRIER TO PREVENT MATERIAL FROM ENTERING STREAM OR DITCH. 3. SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 4. CLASS I AND II STONE ONLY. 5. RIPRAP LINER OR GEOTEXTILE BEDDING MATERIAL SHALL BE INSTALLED. 		
				EROSION CONTROL MEASURE LEGEND: <ol style="list-style-type: none"> (A) PHYSICAL BARRIER TO ALLOW WORK TO BE PERFORMED IN THE DRY; EXAMPLES INCLUDE: SAND BAGS, COFFERDAM AND OTHER NON ERODING MATERIALS. (B) TEMPORARY SILT FENCE OR FILTER BARRIER TO KEEP SEDIMENT FROM BEING TRANSPORTED BEYOND THE LIMITS OF DISTURBANCE. (C) MATERIAL TO STABILIZE ERODED SLOPE; EXAMPLES INCLUDE RIPRAP (CLASS I, II, OR IA) AND SOIL STABILIZATION MAT (EC-3). (D) PUMP & PIPING TO ALLOW WORK TO BE DONE IN THE DRY. (E) DEVICE TO REMOVE SEDIMENT FROM WATER PUMPED OUT OF DISTURBED AREA; FOR EXAMPLE DEWATERING BASIN OR BAG (EC-8). (F) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 		
				Typical Erosion & Sediment Control Plan for Stream Bank Erosion Repairs NOT TO SCALE		

VDOT ESC Plan Template for Maintenance Activities

Software Reference Guide

<p style="color: red; margin: 0;"><u>Check all gray fields and textboxes:</u> See instructions at right for more details</p>	<div style="background-color: #0056b3; color: white; padding: 2px; border: 1px solid black;">Show Only Used Measures</div>	<div style="background-color: #008000; color: white; padding: 2px; border: 1px solid black;">Generate Plan</div>	<div style="background-color: #0056b3; color: white; padding: 2px; border: 1px solid black;">Back to ESC Measures</div>	<div style="background-color: #008000; color: white; padding: 2px; border: 1px solid black;">Next Sketch</div>	<div style="background-color: #ff8c00; color: white; padding: 2px; border: 1px solid black;">Reset Form</div>								
<p>Maintenance Task 2: Borrow Site¹ along Site 2 beginning at Route 602.</p> <p>ESC Measures selected for this task & how they apply to the drawing:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Measure</th> <th style="width: 50%;">Dwg Label</th> </tr> </thead> <tbody> <tr> <td>Silt Fence (no wire support)</td> <td style="background-color: #cccccc;">B</td> </tr> <tr> <td>Seeding & Mulching</td> <td style="background-color: #cccccc;">C</td> </tr> <tr> <td>Construction Entrance</td> <td style="background-color: #cccccc;">A</td> </tr> </tbody> </table>			Measure	Dwg Label	Silt Fence (no wire support)	B	Seeding & Mulching	C	Construction Entrance	A			
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Construction Entrance	A												
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Project Name:	Sample												
Project Coordinator:	B. Miller												
Project Location:	Rte 1												
<p>NOTES: Sketch below shows typical installations only; critical areas require separate sketches. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.</p>													
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Typical Erosion & Sediment Control Plan for Borrow Site</p> </div>													
<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> 1. SLOPES IN BORROW PIT SHALL NOT BE STEEPER THAN 2:1. 2. TEMPORARY ROAD GRADE SHALL NOT EXCEED 10%. 3. ALL CUT & FILL SLOPES SHALL BE 2:1 OR LESS IF POSSIBLE. 4. TEMPORARY ROAD SHALL BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. 5. TYPE 1 COARSE AGGREGATE SHALL BE USED FOR ROAD SURFACE. 6. SEED AND MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 													
<p>EROSION CONTROL MEASURES LEGEND:</p> <p>(A) STABILIZED CONSTRUCTION ENTRANCE (EC-11).</p> <p>(B) PERIMETER CONTROLS AS NEEDED DOWNHILL OF ALL DISTURBED AREAS TO KEEP SEDIMENT FROM BEING TRANSPORTED BEYOND THE LIMITS OF DISTURBANCE. EXAMPLES INCLUDE: TEMPORARY FILTER BARRIERS (EC-5), DIVERSION DIKES (EC-9), AND BERM & SLOPE DRAINS (EC-10).</p> <p>(C) SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE.</p>													

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Check all gray fields and textboxes: See instructions at right for more details		Show Only Used Measures	Generate Plan	Back to ESC Measures	Next Sketch	Reset Form
Maintenance Task 3: Disposal Site ¹ along Site 3 beginning at Route 603.						
ESC Measures selected for this task & how they apply to the drawing:					ESC Plan Date: 11/1/2012	
Measure	Dwg Label				Project Name: Sample Project Coordinator: B. Miller Project Location: Rte 1	
Silt Fence with wire support (Super S.F.)	B & C					
Silt Fence (no wire support)	B & C					
Seeding & Mulching	D					
Construction Entrance	A					
NOTES: Sketch below shows typical installations only; critical areas require separate sketches. This sketch is NOT to be used as the final sketch for obtaining Water Quality Permits.						
Typical Erosion & Sediment Control Plan for Stockpile / Disposal Site						
						
GENERAL NOTES: <ol style="list-style-type: none"> SLOPES ON STOCKPILES SHALL NOT EXCEED 3:1 TEMPORARY ROAD GRADE SHALL NOT EXCEED 10%. ALL CUT & FILL SLOPES SHALL BE 2:1 OR LESS IF POSSIBLE. TEMPORARY ROAD SHALL BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. TYPE 1 COARSE AGGREGATE SHALL BE USED FOR ROAD SURFACE. SEED AND MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. 						
EROSION CONTROL MEASURES LEGEND: <ol style="list-style-type: none"> STABILIZED CONSTRUCTION ENTRANCE (EC-11). PERIMETER CONTROLS AS NEEDED DOWNHILL OF DISTURBED AREAS TO KEEP SEDIMENT FROM BEING TRANSPORTED BEYOND THE LIMITS OF DISTURBANCE. EXAMPLES INCLUDE: TEMPORARY FILTER BARRIERS (EC-5), DIVERSION DIKES (EC-9), AND BERM & SLOPE DRAINS (EC-10). TEMPORARY SILT FENCE OR FILTER BARRIER (EC-5) AROUND DISPOSAL AREA TO KEEP SEDIMENT FROM BEING TRANSPORTED BEYOND THE LIMITS OF DISTURBANCE. WIRE-BACKED SILT FENCE SHALL BE USED WHERE STOCKPILE IS ADJACENT TO LIVE WATERCOURSE. SEED & MULCH ALL DISTURBED AREAS PER REFERENCES LISTED IN NARRATIVE. PERIMETER CONTROLS AS NEEDED DOWNHILL OF DISTURBED AREAS TO CONVEY SEDIMENT LADEN RUNOFF TO A SEDIMENT TRAP; EXAMPLES INCLUDE: DIVERSION DIKES (EC-9) AND BERM & SLOPE DRAINS (EC-10). SEDIMENT TRAPPING MEASURE TO FILTER RUNOFF BEFORE DISCHARGING TO AN ADEQUATE CHANNEL OR LEVEL SPREADER. 						