Tree Removal Worksheet

Note: if you are not using USLE or RUSLE2, or a Sediment Delivery Model please have your approach, pre-approved by the Sonoma County Agricultural Commissioner's Consulting Engineer*.

1) **Do you have a CEQA Document for your project?** .... ☐YES ☐NO

    a. If YES, please include provide a copy for review with you completed application packet
    b. If NO, please continue to #2

2) **Are you using a soil loss equation or model?** .... ☐ YES ☐NO

    a. - If No, you are using a sediment delivery model. Please contact the Sonoma County Agricultural Commissioner's Consulting Engineer *****

    b. If YES,

        i. Do you plan to use the USLE (for projects with slopes 0 - 25%)? .... ☐ YES ☐NO
        If YES, please indicate the LS, C, and P values for your project in the blanks below (and on reverse)

USLE Calculations

BLOCK ID_____   *Use values from BMP Appendix. Submit one set of calculations for each development block. Use reverse side for additional blocks*

PRE-DEVELOPMENT		POST-DEVELOPMENT

$$A = R \times K \times \underline{} \times \underline{} \times \underline{}$$
$$ \text{LS} \quad\quad \text{C} \quad\quad \text{P}$$

$$=$$

$$A = R \times K \times \underline{} \times \underline{} \times \underline{}$$
$$ \text{LS} \quad\quad \text{C} \quad\quad \text{P}$$

Total Predicted Soil Loss (A)_____   Total Predicted Soil Loss (A)_____

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        ii. Do you plan to use the RUSLE2 (for projects with slopes 26 – 50%)?   ☐ YES ☐NO
        If YES, please include the details in your Erosion Control Plan

        If No, you are using an alternate Soil Loss Model. Please contact the Sonoma County Agricultural Commissioner's Consulting Engineer *****

        iii. Do you plan to use an alternate Soil Loss Model? .... ☐ YES ☐NO
        If YES, Please contact the Sonoma County Agricultural Commissioner's Consulting Engineer *****

CUMULATIVE PREDICTED SOIL LOSS (for project)

Cumulative <u>Pre-Development</u> Predicted Soil Loss (A) - sum of "A values" for all development blocks _____

Cumulative <u>Post-Development</u> Predicted Soil Loss (A)-sum of "A values" for all development blocks _____

**Note: To contact the Sonoma County Agricultural Commissioner's Consulting Engineer, please leave a message at (707) 565-2371 or send an email to vesco@sonoma-county.org*

Instructions: Use the form below to demonstrate that your pre-development predicted soil loss will equal your post-development predicted soil loss. Use values from BMP Appendix. Submit one set of calculations for each development block. Include these values in the Predicted Soil Loss Summary (on reverse).

	Pre-Development					Post-Development			
Block ID	Calculated A value	LS value	C value	P value		Calculated A value	LS value	C value	P value

The USLE is composed of six factors to predict estimation of average annual soil loss (A)

$$A = R \times K \times LS \times C \times P$$

The equation includes the following factors:

        R is the rainfall erosivity factor.
        K is the soil erodibility factor.
        LS is the slope length and steepness factor.
        C is the cover and management factor.
        P is the support practice factor

Note: R and K values are consistent throughout development, and do not have to be included in these calculations