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|  |  | Equation 1 |
| where *SSYEV* is suspended sediment yield (tons) from t=0=storm start to T=storm end, *SSC* is suspended sediment concentration (mg/L), and *Q* is water discharge (L/sec). | | |

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|  |  | Equation 2 |
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|  |  | Equation 3 |
| where *SSYdisturbed* is SSY from disturbed areas only (tons), *SSYsubwatershed* is SSY measured from the disturbed subwatershed (tons), *sSSYUPPER* is specific SSY from the UPPER subwatershed (tons/km2), and *Areaundisturbed* is the area of undisturbed forest in the disturbed subwatershed (km2). | | |

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|  |  | Equation 4 |
| where X is a storm metric, and the regression coefficients α and β are obtained by ordinary least squares regression on the logarithms of *SSYEV* and *X* (Basher et al., 2011; Duvert et al., 2012; Hicks, 1990). Model fits for each storm metric were compared using coefficients of determination (r2) and Root Mean Square Error (RMSE). | | |

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|  |  | Equation 5 |
| where PE is the cumulative probable error for individual measured values (±%), EQmeas = uncertainty in Q measurements (±%), ESSCmeas = uncertainty in SSC measurements (± %), EQmod = uncertainty in Q modeled by the Stage-Q relationship (RMSE, as ±% of the mean observed Q), ESSCmod = uncertainty in SSC modeled by the T-SSC relationship (RMSE, as ± % of the mean observed SSC)(Harmel et al., 2009). | | |

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|  |  | Equation 6 |
| where SSYannual is estimated SSY from storms, SSYmeasured is SSY measured in storms (all, Tables 2 and 3), measured precip is precip measured during the sampled storms, and expected annual storm precip is the precip measured during all storms measured in 2014. | | |