|  |  |  |
| --- | --- | --- |
|  |  | 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). | | |

|  |  |  |
| --- | --- | --- |
|  |  | Equation 2 |

|  |  |  |
| --- | --- | --- |
|  |  | Equation 3 |

|  |  |  |
| --- | --- | --- |
|  |  | 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). | | |

|  |  |  |
| --- | --- | --- |
|  |  | 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). | | |