Table D6-1a   Peak Flow Regression Equations

Equation	SE$_E$ (percent)	SE$_P$ (percent)	Average equivalent years of record	95-percent prediction interval factor	
				Lower limit	Upper limit
$Q_{1.5} = 12.7(AREA^{0.626})((LAT-40)^{-1.18})$	66	72	3.2	0.266	3.76
$Q_2 = 22.2(AREA^{0.608})((LAT-40)^{-1.24})$	60	66	3.2	.292	3.43
$Q_{2.33} = 28.1(AREA^{0.600})((LAT-40)^{-1.26})$	59	64	3.3	.301	3.32
$Q_5 = 66.4(AREA^{0.567})((LAT-40)^{-1.35})$	53	59	4.7	.328	3.05
$Q_{10} = 116(AREA^{0.544})((LAT-40)^{-1.40})$	52	57	6.4	.336	2.98
$Q_{25} = 204(AREA^{0.520})((LAT-40)^{-1.44})$	52	58	8.5	.331	3.02
$Q_{50} = 290(AREA^{0.504})((LAT-40)^{-1.46})$	53	60	9.7	.320	3.13
$Q_{100} = 394(AREA^{0.489})((LAT-40)^{-1.47})$	56	63	10.4	.304	3.29
$Q_{200} = 519(AREA^{0.476})((LAT-40)^{-1.48})$	59	67	10.9	.286	3.49
$Q_{500} = 719(AREA^{0.459})((LAT-40)^{-1.49})$	64	73	11.1	.261	3.83

SE$_E$=average standard error of estimate; SE$_P$=average standard error of prediction; Q$_T$=estimated peak flow (cfs) for the recurrence interval of T years; AREA=total drainage area (mi^2); LAT=latitude of basic outlet location in decimal degrees.