Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia:

1-parameter candidate equations and fit are shown, describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected peak flow probability classes in each peak flow region.

The solid red line in each bivariate plot represents the line of best fit of the candidate regression model.

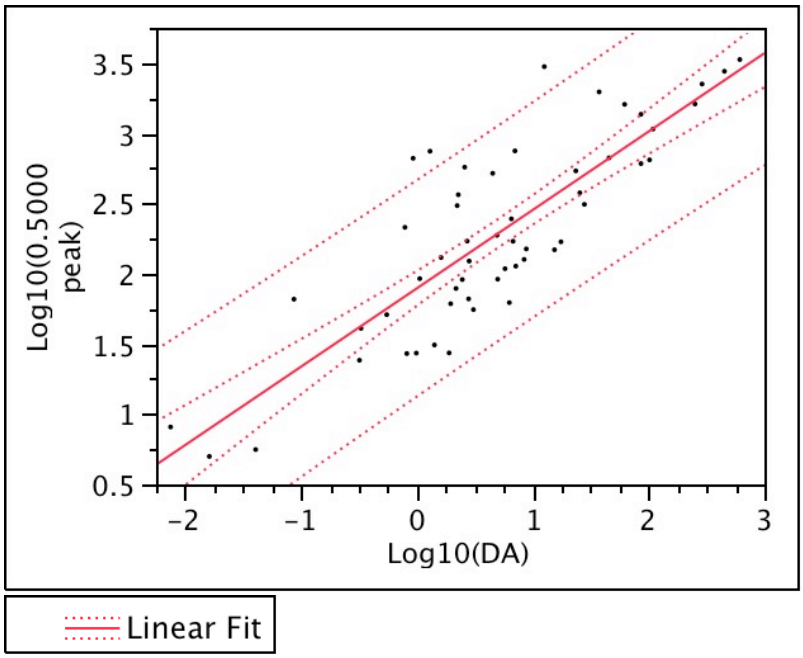
The inside dashed red lines in each bivariate plot represent the bounds of the 95 percent confidence interval of the best-fit line.

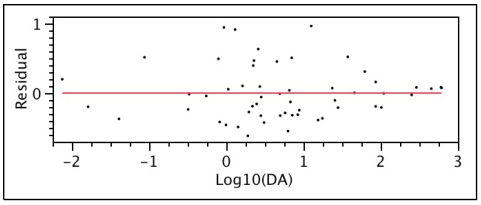
The outside dashed red lines in each bivariate plot represent the 95 percent confidence limits for an individual predicted value. The confidence limits reflect variation in the error and variation in the parameter estimates.

The solid red line in each residual plot is a reference line on the y-axis at zero (0).

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.5000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.5000 peak) = 1.8953651 + 0.5580955*Log10(DA)

Summary of Fit

RSquare	0.710091
RSquare Adj	0.704722
Root Mean Square Error	0.378999
Mean of Response	2.303715
Observations (or Sum Wgts)	56

Analysis of Variance

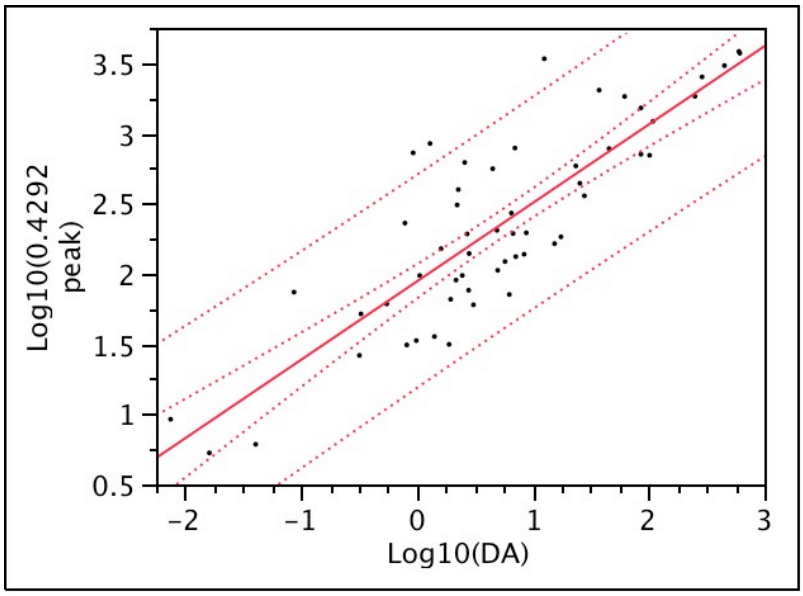
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	18.998598	18.9986	132.2653
Error	54	7.756563	0.1436	**Prob > F**
C. Total	55	26.755161		<.0001*

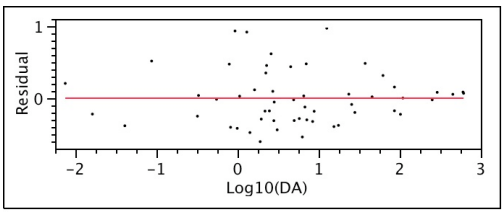
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.8953651	0.061852	30.64	<.0001*
Log10(DA)	0.5580955	0.048527	11.50	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.4292 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.4292 peak) = 1.944563 + 0.5583902*Log10(DA)

Summary of Fit

RSquare	0.716455
RSquare Adj	0.711204
Root Mean Square Error	0.373345
Mean of Response	2.353129
Observations (or Sum Wgts)	56

Analysis of Variance

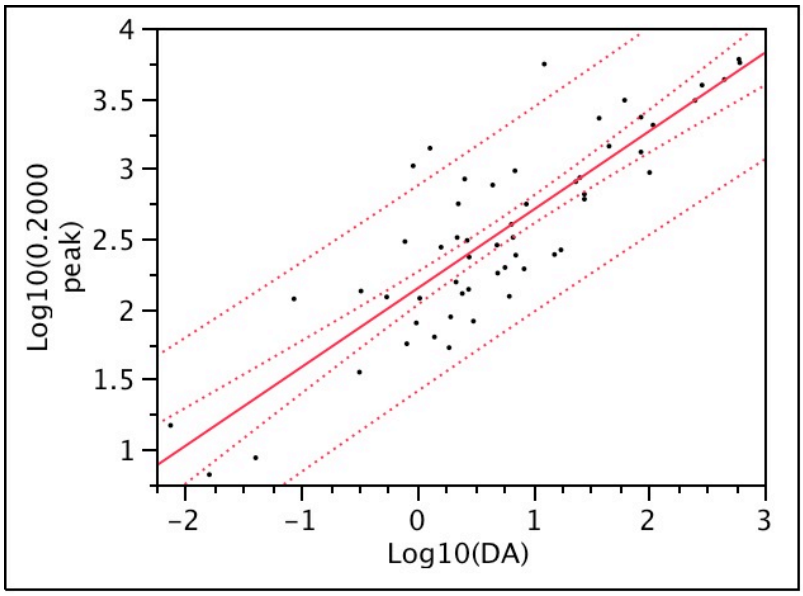
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.018673	19.0187	136.4458
Error	54	7.526857	0.1394	**Prob > F**
C. Total	55	26.545530		<.0001*

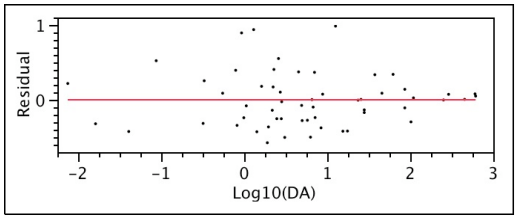
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.944563	0.06093	31.91	<.0001*
Log10(DA)	0.5583902	0.047803	11.68	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.2000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.2000 peak) = 2.1416425 + 0.5596146*Log10(DA)

Summary of Fit

RSquare	0.73171
RSquare Adj	0.726742
Root Mean Square Error	0.360145
Mean of Response	2.551104
Observations (or Sum Wgts)	56

Analysis of Variance

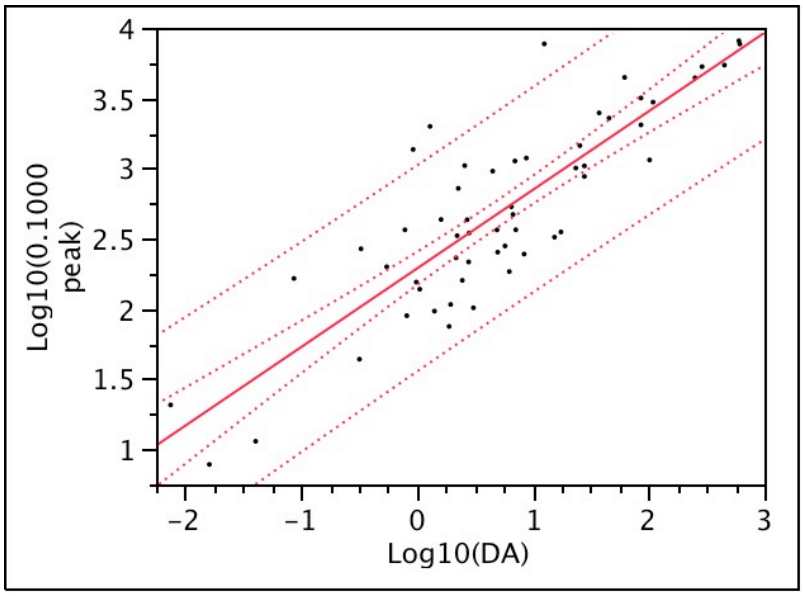
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.102166	19.1022	147.2748
Error	54	7.004030	0.1297	**Prob > F**
C. Total	55	26.106196		<.0001*

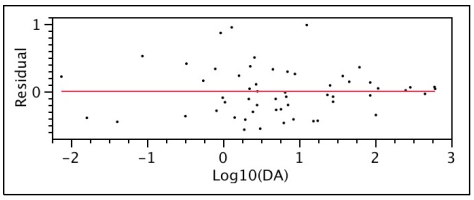
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1416425	0.058775	36.44	<.0001*
Log10(DA)	0.5596146	0.046113	12.14	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.1000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.1000 peak) = 2.2861068 + 0.5597067*Log10(DA)

Summary of Fit

RSquare	0.730677
RSquare Adj	0.72569
Root Mean Square Error	0.361152
Mean of Response	2.695636
Observations (or Sum Wgts)	56

Analysis of Variance

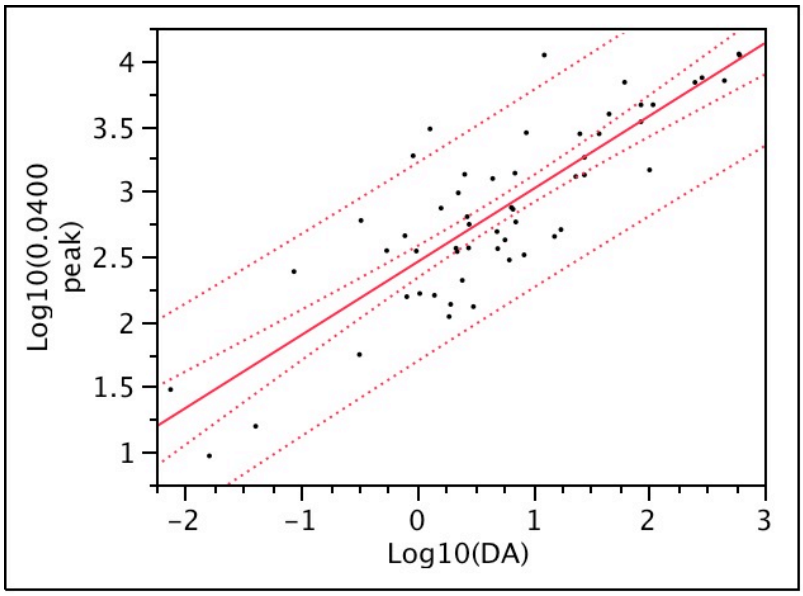
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.108455	19.1085	146.5029
Error	54	7.043252	0.1304	**Prob > F**
C. Total	55	26.151707		<.0001*

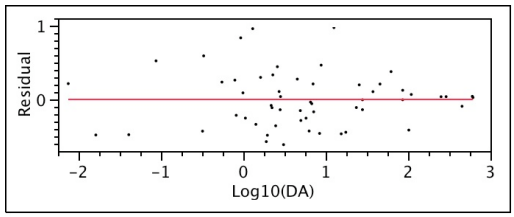
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.2861068	0.05894	38.79	<.0001*
Log10(DA)	0.5597067	0.046242	12.10	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.0400 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0400 peak) = 2.4520297 + 0.5596425*Log10(DA)

Summary of Fit

RSquare	0.716195
RSquare Adj	0.710939
Root Mean Square Error	0.374421
Mean of Response	2.861512
Observations (or Sum Wgts)	56

Analysis of Variance

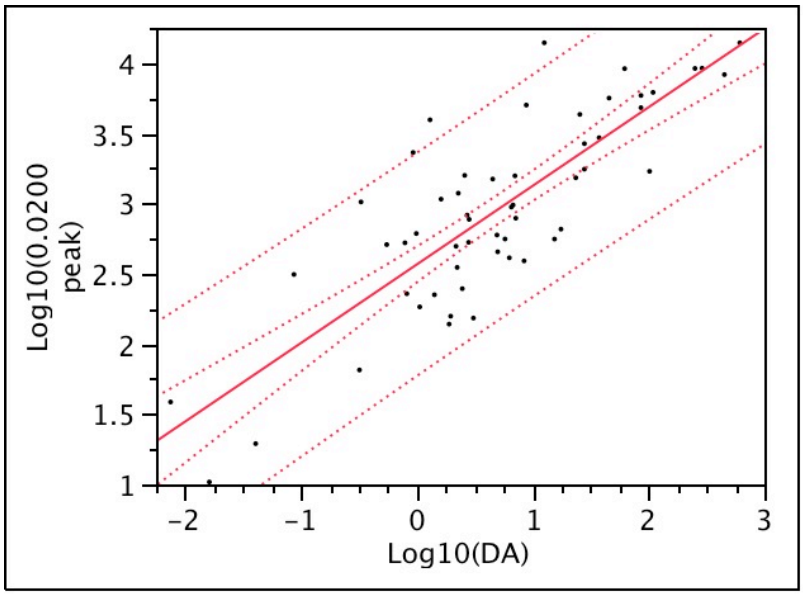
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.104069	19.1041	136.2715
Error	54	7.570329	0.1402	**Prob > F**
C. Total	55	26.674398		<.0001*

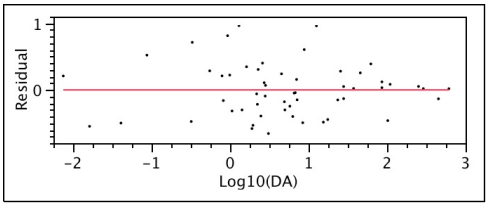
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4520297	0.061105	40.13	<.0001*
Log10(DA)	0.5596425	0.047941	11.67	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.0200 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0200 peak) = 2.5658629 + 0.5595404*Log10(DA)

Summary of Fit

RSquare	0.698109
RSquare Adj	0.692518
Root Mean Square Error	0.391066
Mean of Response	2.97527
Observations (or Sum Wgts)	56

Analysis of Variance

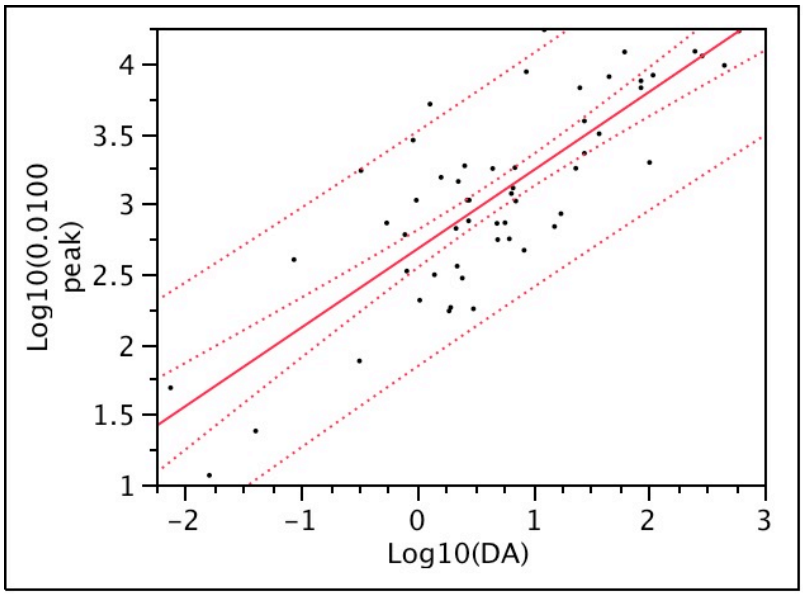
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.097102	19.0971	124.8725
Error	54	8.258371	0.1529	**Prob > F**
C. Total	55	27.355473		<.0001*

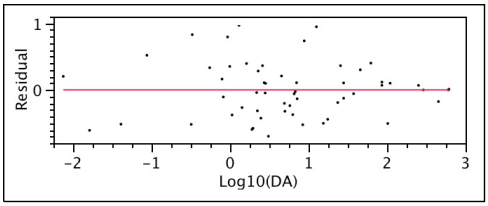
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5658629	0.063822	40.20	<.0001*
Log10(DA)	0.5595404	0.050072	11.17	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.0100 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0100 peak) = 2.6730476 + 0.5591869*Log10(DA)

Summary of Fit

RSquare	0.67575
RSquare Adj	0.669745
Root Mean Square Error	0.41168
Mean of Response	3.082196
Observations (or Sum Wgts)	56

Analysis of Variance

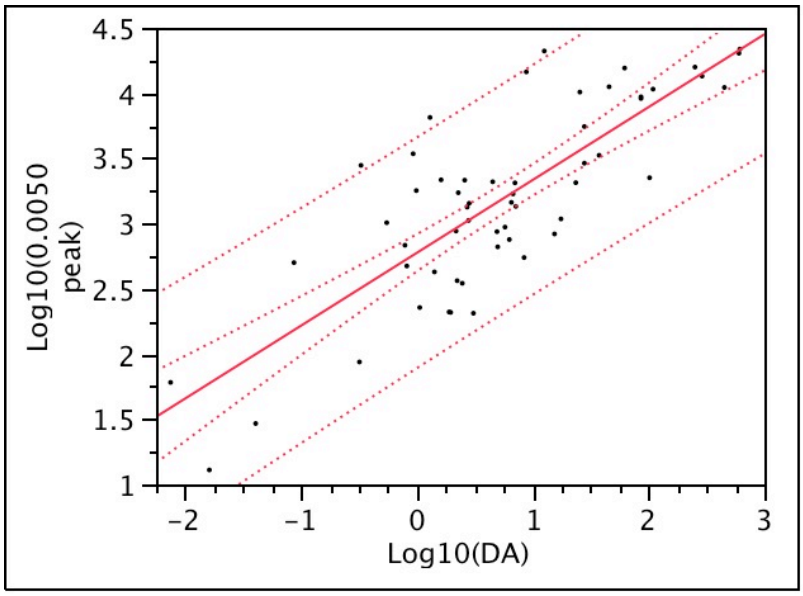
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.072979	19.0730	112.5381
Error	54	9.151927	0.1695	Prob > F
C. Total	55	28.224906		<.0001*

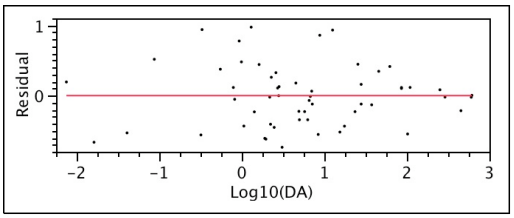
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6730476	0.067186	39.79	<.0001*
Log10(DA)	0.5591869	0.052712	10.61	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.0050 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0050 peak) = 2.7751003 + 0.5587307*Log10(DA)

Summary of Fit

RSquare	0.65044
RSquare Adj	0.643966
Root Mean Square Error	0.435327
Mean of Response	3.183915
Observations (or Sum Wgts)	56

Analysis of Variance

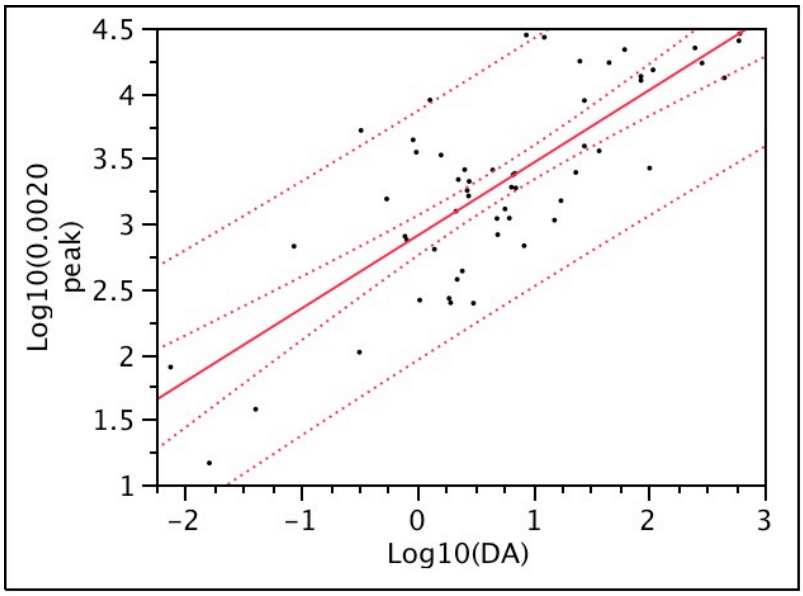
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.041872	19.0419	100.4797
Error	54	10.233520	0.1895	**Prob > F**
C. Total	55	29.275392		<.0001*

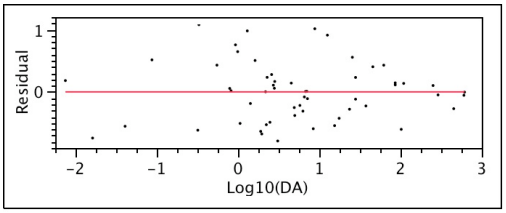
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7751003	0.071045	39.06	<.0001*
Log10(DA)	0.5587307	0.05574	10.02	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Coastal Plain peak flow probability classes.

Bivariate Fit of Log10(0.0020 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0020 peak) = 2.9036628 + 0.5581491*Log10(DA)

Summary of Fit

RSquare	0.61402
RSquare Adj	0.606872
Root Mean Square Error	0.470324
Mean of Response	3.312052
Observations (or Sum Wgts)	56

Analysis of Variance

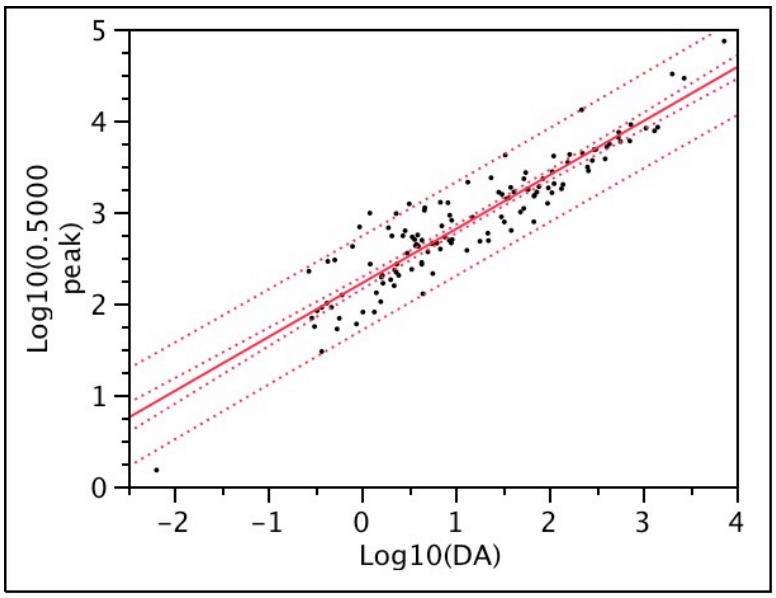
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.002247	19.0022	85.9034
Error	54	11.945055	0.2212	**Prob > F**
C. Total	55	30.947302		<.0001*

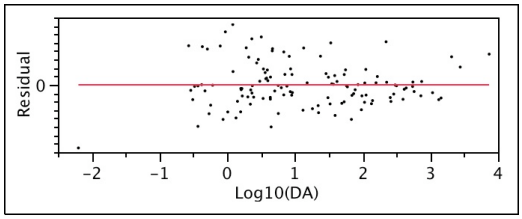
Parameter Estimates

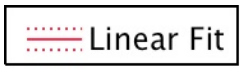
Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9036628	0.076757	37.83	<.0001*
Log10(DA)	0.5581491	0.060221	9.27	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.5000 peak) By Log10(DA)







Linear Fit

Log10(0.5000 peak) = 2.2207638 + 0.5893488*Log10(DA)

Summary of Fit

RSquare	0.857678
RSquare Adj	0.856548
Root Mean Square Error	0.257894
Mean of Response	2.888827
Observations (or Sum Wgts)	128

Analysis of Variance

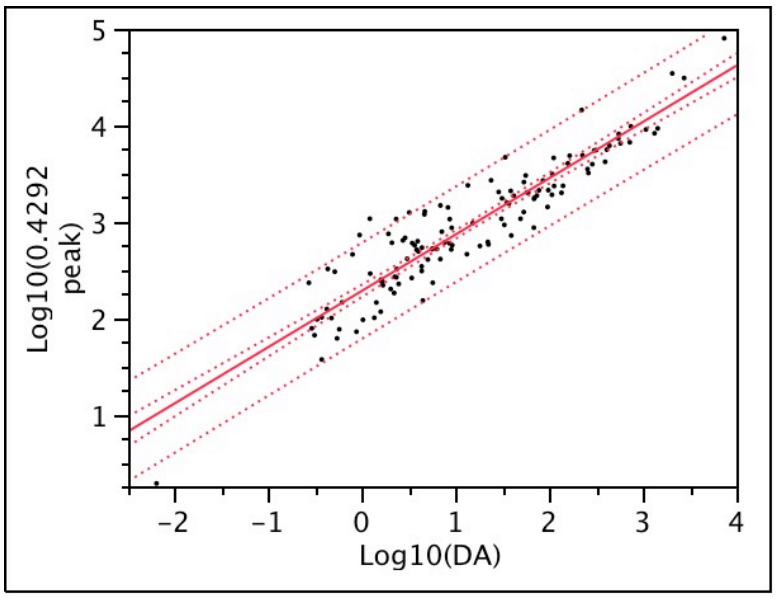
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	50.501694	50.5017	759.3156
Error	126	8.380196	0.0665	**Prob > F**
C. Total	127	58.881890		<.0001*

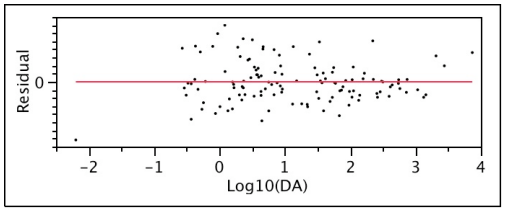
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.2207638	0.033277	66.73	<.0001*
Log10(DA)	0.5893488	0.021388	27.56	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.4292 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.4292 peak) = 2.2807415 + 0.5844651*Log10(DA)

Summary of Fit

RSquare	0.863036
RSquare Adj	0.861949
Root Mean Square Error	0.250117
Mean of Response	2.943269
Observations (or Sum Wgts)	128

Analysis of Variance

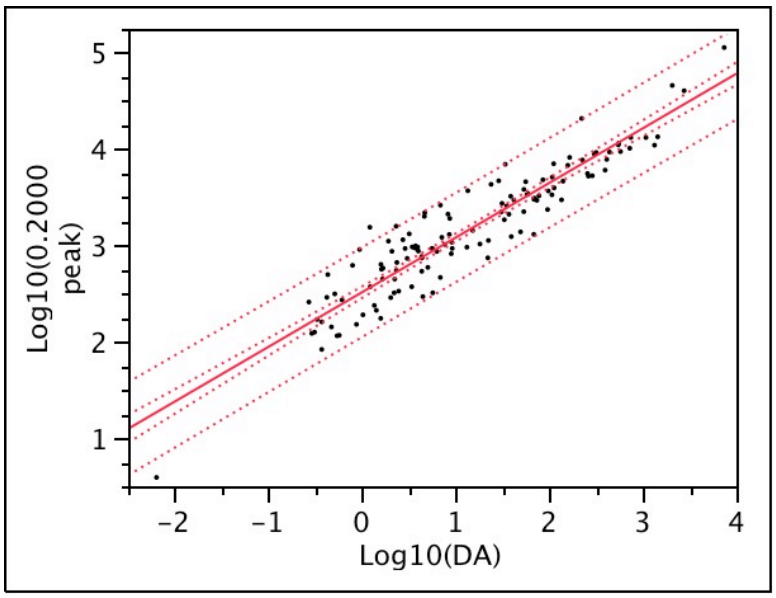
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	49.668182	49.6682	793.9474
Error	126	7.882374	0.0626	**Prob > F**
C. Total	127	57.550556		<.0001*

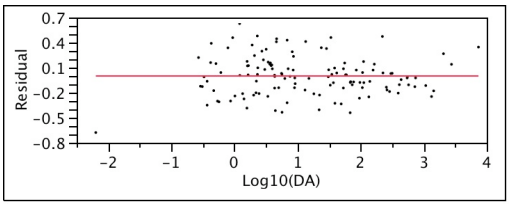
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.2807415	0.032274	70.67	<.0001*
Log10(DA)	0.5844651	0.020743	28.18	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.2000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.2000 peak) = 2.5151344 + 0.5674063*Log10(DA)

Summary of Fit

RSquare	0.872148
RSquare Adj	0.871133
Root Mean Square Error	0.233372
Mean of Response	3.158324
Observations (or Sum Wgts)	128

Analysis of Variance

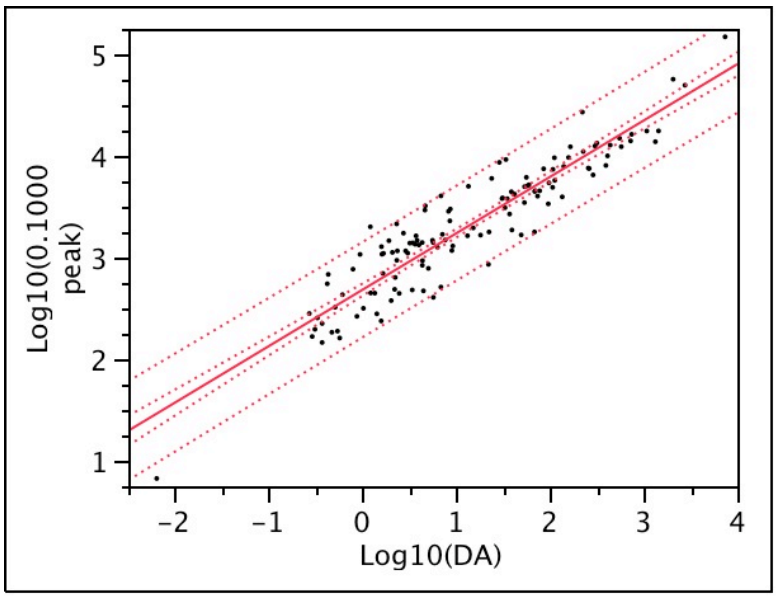
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	46.811151	46.8112	859.5115
Error	126	6.862276	0.0545	**Prob > F**
C. Total	127	53.673427		<.0001*

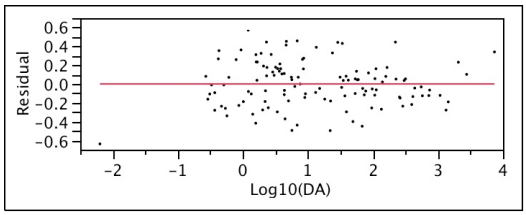
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5151344	0.030113	83.52	<.0001*
Log10(DA)	0.5674063	0.019354	29.32	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.1000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.1000 peak) = 2.6839157 + 0.5550437*Log10(DA)

Summary of Fit

RSquare	0.865598
RSquare Adj	0.864531
Root Mean Square Error	0.234946
Mean of Response	3.313092
Observations (or Sum Wgts)	128

Analysis of Variance

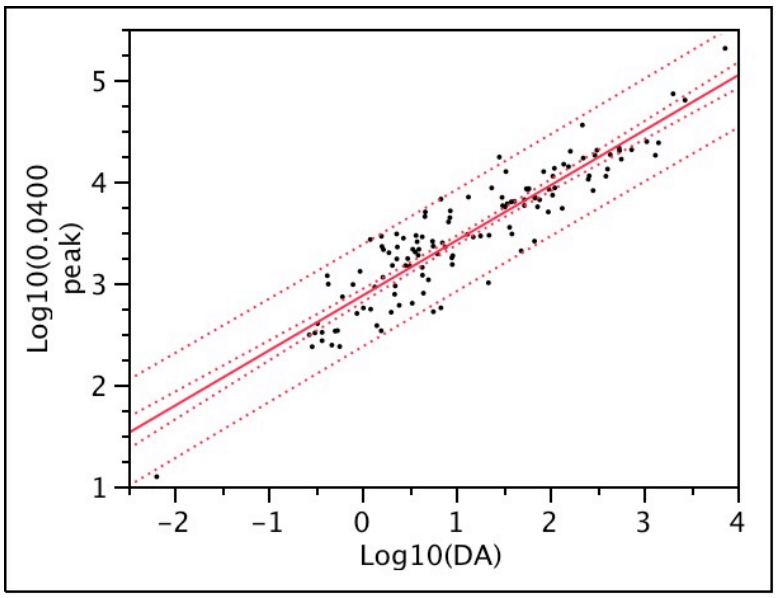
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	44.793551	44.7936	811.4860
Error	126	6.955126	0.0552	**Prob > F**
C. Total	127	51.748677		<.0001*

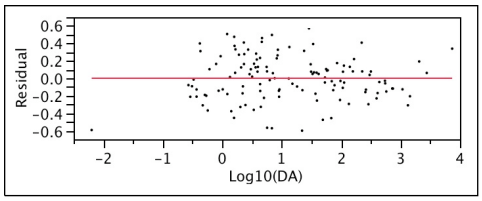
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6839157	0.030316	88.53	<.0001*
Log10(DA)	0.5550437	0.019484	28.49	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.0400 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0400 peak) = 2.875694 + 0.5410819*Log10(DA)

Summary of Fit

RSquare	0.842009
RSquare Adj	0.840755
Root Mean Square Error	0.251777
Mean of Response	3.489044
Observations (or Sum Wgts)	128

Analysis of Variance

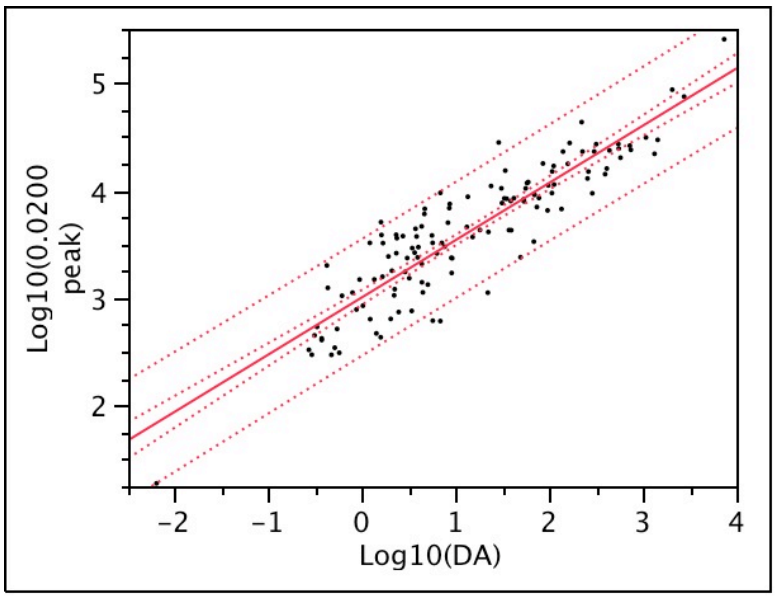
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	42.568382	42.5684	671.5141
Error	126	7.987347	0.0634	**Prob > F**
C. Total	127	50.555729		<.0001*

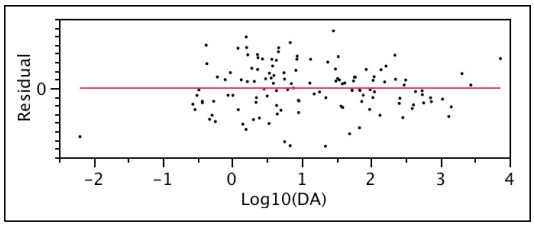
Parameter Estimates

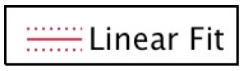
Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.875694	0.032488	88.52	<.0001*
Log10(DA)	0.5410819	0.02088	25.91	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.0200 peak) By Log10(DA)







Linear Fit

Log10(0.0200 peak) = 3.0062088 + 0.531618*Log10(DA)

Summary of Fit

RSquare	0.81549
RSquare Adj	0.814026
Root Mean Square Error	0.271641
Mean of Response	3.60883
Observations (or Sum Wgts)	128

Analysis of Variance

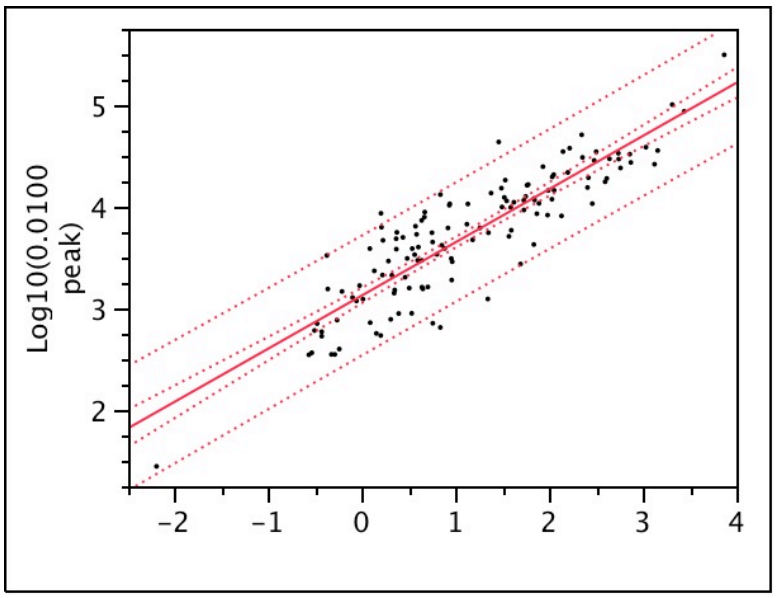
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	41.092303	41.0923	556.8899
Error	126	9.297403	0.0738	**Prob > F**
C. Total	127	50.389706		<.0001*

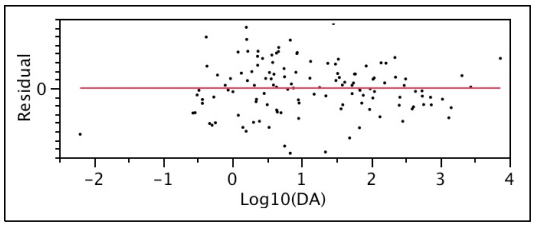
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0062088	0.035051	85.77	<.0001*
Log10(DA)	0.531618	0.022528	23.60	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.0100 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0100 peak) = 3.128059 + 0.5228702*Log10(DA)

Summary of Fit

RSquare	0.783264
RSquare Adj	0.781544
Root Mean Square Error	0.295461
Mean of Response	3.720764
Observations (or Sum Wgts)	128

Analysis of Variance

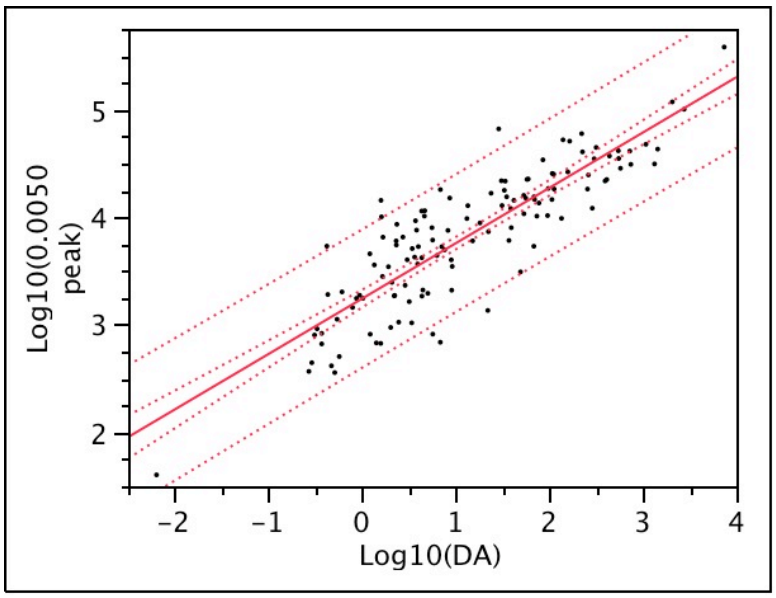
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	39.751073	39.7511	455.3528
Error	126	10.999462	0.0873	**Prob > F**
C. Total	127	50.750535		<.0001*

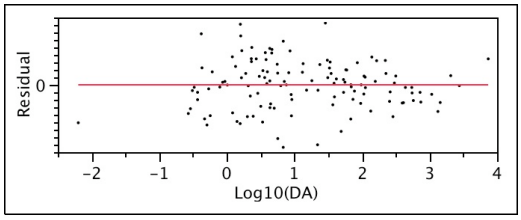
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.128059	0.038125	82.05	<.0001*
Log10(DA)	0.5228702	0.024503	21.34	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.0050 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0050 peak) = 3.2433429 + 0.5146243*Log10(DA)

Summary of Fit

RSquare	0.746767
RSquare Adj	0.744757
Root Mean Square Error	0.321924
Mean of Response	3.826701
Observations (or Sum Wgts)	128

Analysis of Variance

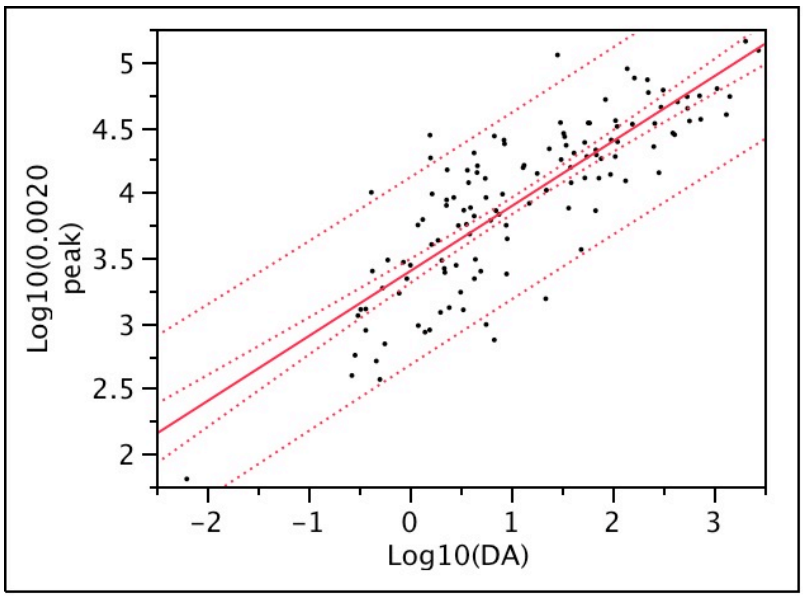
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	38.507177	38.5072	371.5655
Error	126	13.058006	0.1036	**Prob > F**
C. Total	127	51.565183		<.0001*

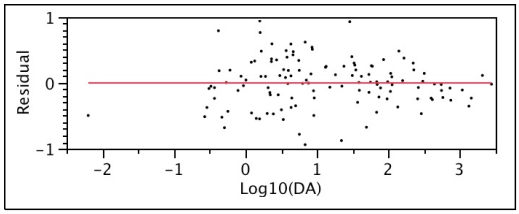
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2433429	0.041539	78.08	<.0001*
Log10(DA)	0.5146243	0.026698	19.28	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Piedmont peak flow probability classes.

Bivariate Fit of Log10(0.0020 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0020 peak) = 3.393007 + 0.4972785*Log10(DA)

Summary of Fit

RSquare	0.678453
RSquare Adj	0.675881
Root Mean Square Error	0.35952
Mean of Response	3.945992
Observations (or Sum Wgts)	127

Analysis of Variance

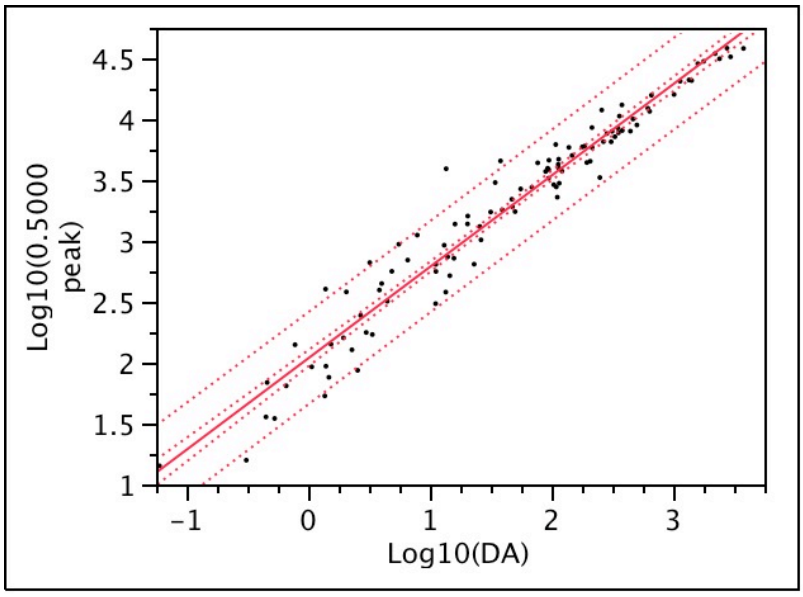
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	34.090397	34.0904	263.7456
Error	125	16.156857	0.1293	**Prob > F**
C. Total	126	50.247254		<.0001*

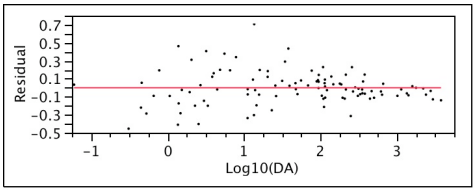
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.393007	0.04666	72.72	<.0001*
Log10(DA)	0.4972785	0.03062	16.24	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.5000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.5000 peak) = 2.0349197 + 0.7505971*Log10(DA)

Summary of Fit

RSquare	0.948183
RSquare Adj	0.947675
Root Mean Square Error	0.187837
Mean of Response	3.260701
Observations (or Sum Wgts)	104

Analysis of Variance

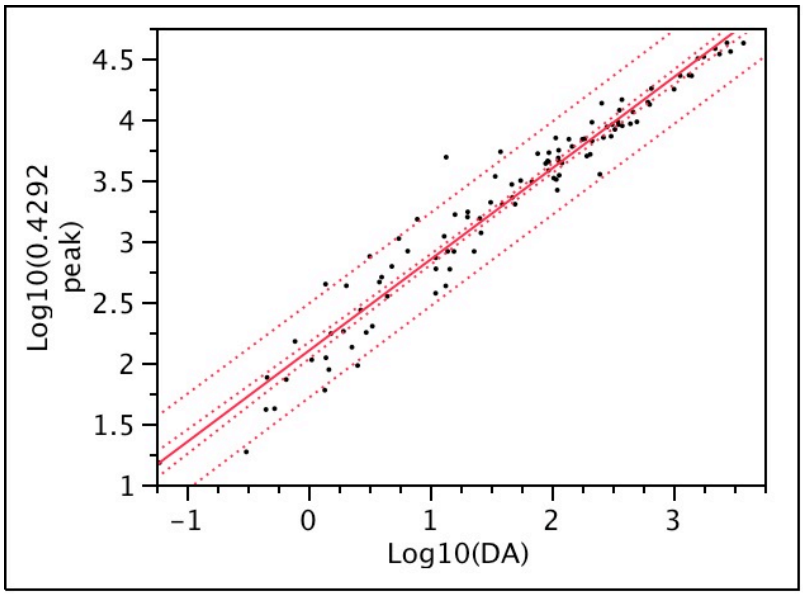
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	65.854113	65.8541	1866.474
Error	102	3.598829	0.0353	**Prob > F**
C. Total	103	69.452942		<.0001*

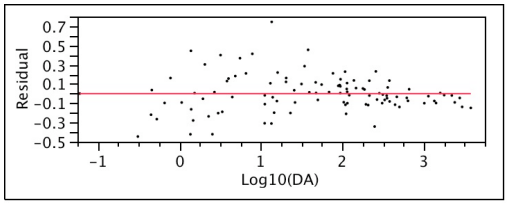
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.0349197	0.033827	60.16	<.0001*
Log10(DA)	0.7505971	0.017374	43.20	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.4292 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.4292 peak) = 2.0936767 + 0.7488426*Log10(DA)

Summary of Fit

RSquare	0.945841
RSquare Adj	0.94531
Root Mean Square Error	0.191823
Mean of Response	3.316593
Observations (or Sum Wgts)	104

Analysis of Variance

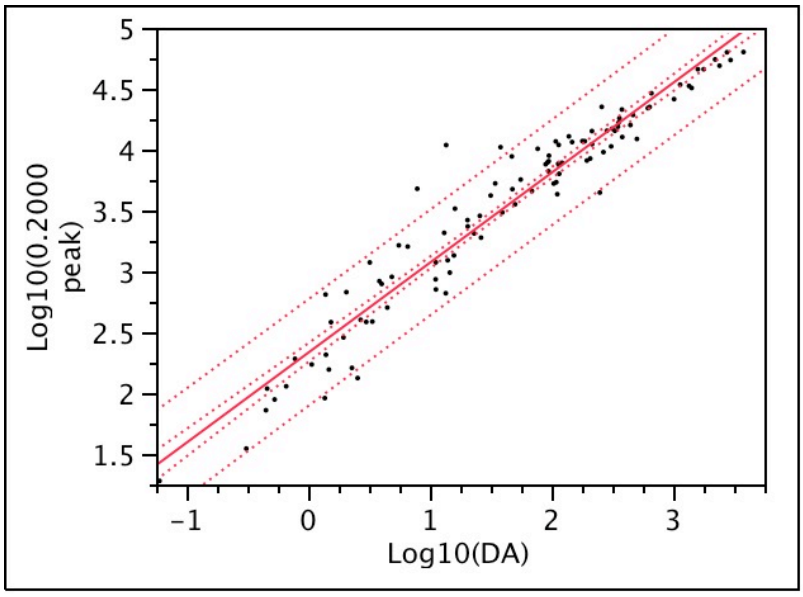
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	65.546606	65.5466	1781.354
Error	102	3.753186	0.0368	**Prob > F**
C. Total	103	69.299793		<.0001*

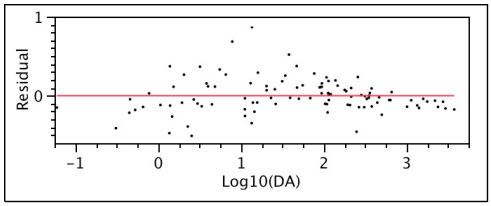
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.0936767	0.034545	60.61	<.0001*
Log10(DA)	0.7488426	0.017743	42.21	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.2000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.2000 peak) = 2.3311517 + 0.73907*Log10(DA)

Summary of Fit

RSquare	0.929896
RSquare Adj	0.929209
Root Mean Square Error	0.217232
Mean of Response	3.538108
Observations (or Sum Wgts)	104

Analysis of Variance

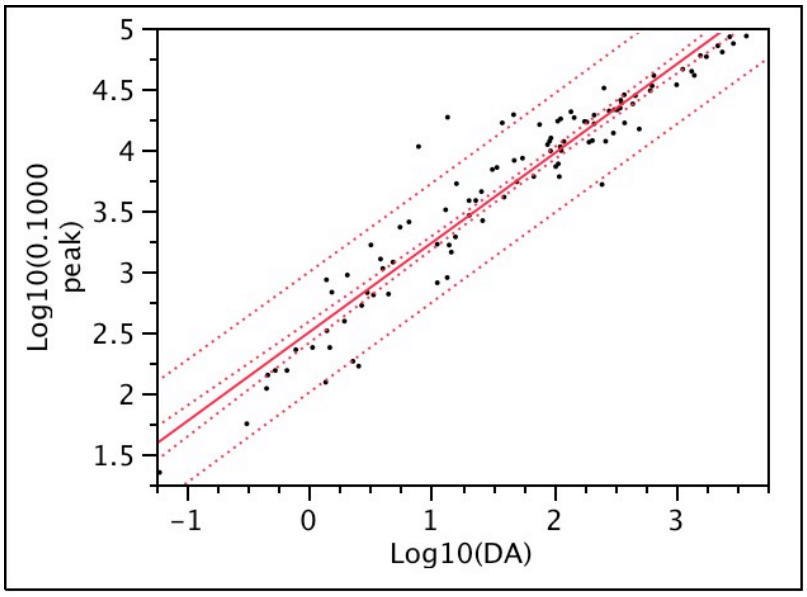
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	63.846970	63.8470	1352.987
Error	102	4.813344	0.0472	**Prob > F**
C. Total	103	68.660314		<.0001*

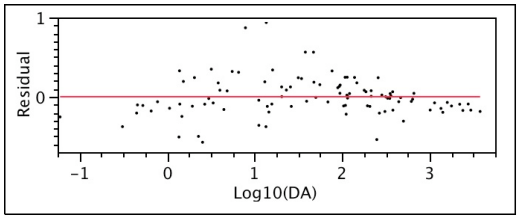
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3311517	0.039121	59.59	<.0001*
Log10(DA)	0.73907	0.020093	36.78	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.1000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.1000 peak) = 2.4985965 + 0.7324117*Log10(DA)

Summary of Fit

RSquare	0.910735
RSquare Adj	0.90986
Root Mean Square Error	0.245462
Mean of Response	3.69468
Observations (or Sum Wgts)	104

Analysis of Variance

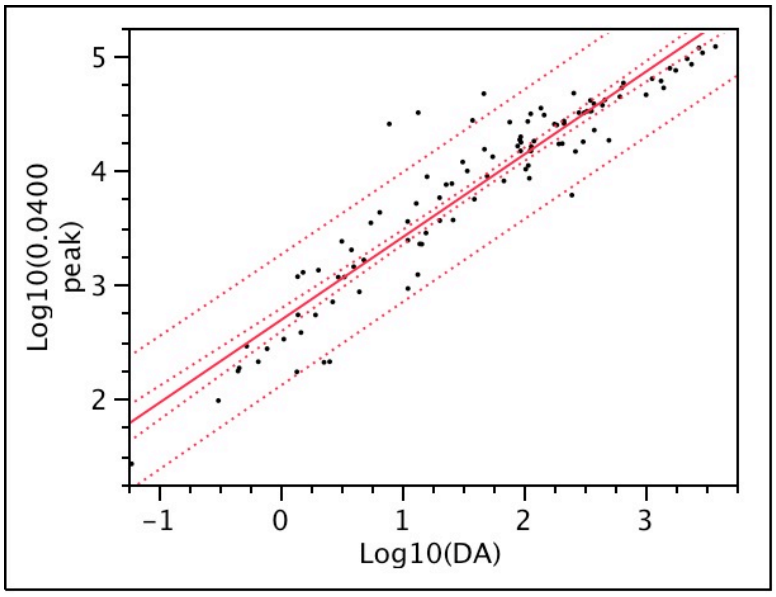
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	62.701754	62.7018	1040.663
Error	102	6.145678	0.0603	**Prob > F**
C. Total	103	68.847433		<.0001*

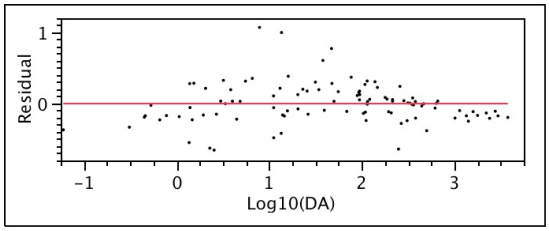
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4985965	0.044205	56.52	<.0001*
Log10(DA)	0.7324117	0.022704	32.26	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0400 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0400 peak) = 2.6854426 + 0.7253985*Log10(DA)

Summary of Fit

RSquare	0.881549
RSquare Adj	0.880388
Root Mean Square Error	0.284647
Mean of Response	3.870073
Observations (or Sum Wgts)	104

Analysis of Variance

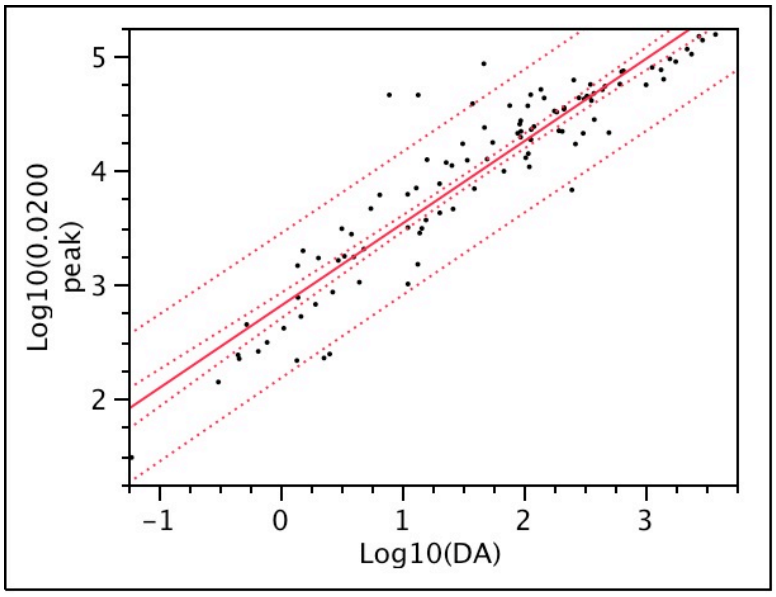
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	61.506701	61.5067	759.1169
Error	102	8.264450	0.0810	**Prob > F**
C. Total	103	69.771150		<.0001*

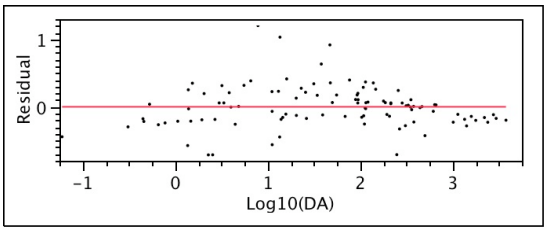
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6854426	0.051261	52.39	<.0001*
Log10(DA)	0.7253985	0.026328	27.55	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0200 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0200 peak) = 2.8108108 + 0.7209058*Log10(DA)

Summary of Fit

RSquare	0.857594
RSquare Adj	0.856197
Root Mean Square Error	0.314476
Mean of Response	3.988104
Observations (or Sum Wgts)	104

Analysis of Variance

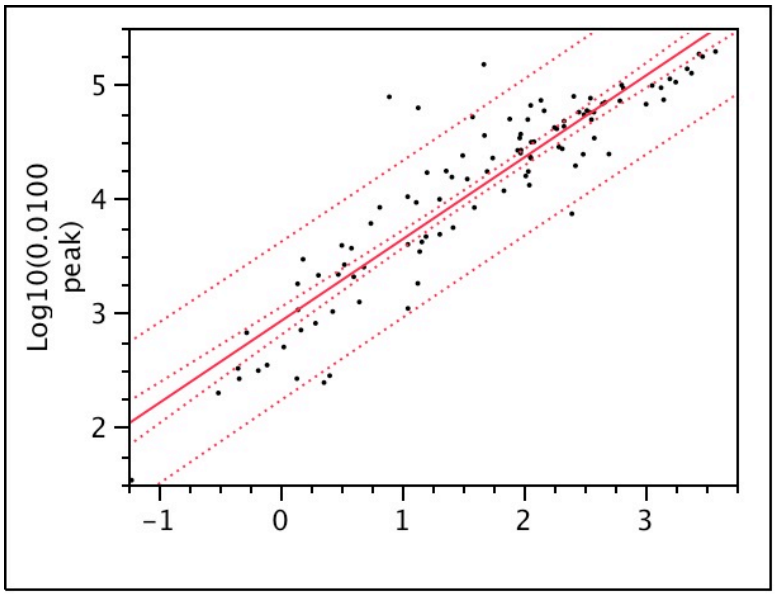
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	60.747176	60.7472	614.2598
Error	102	10.087282	0.0989	**Prob > F**
C. Total	103	70.834457		<.0001*

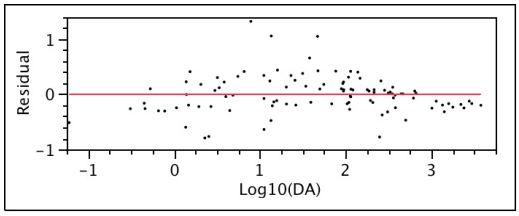
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8108108	0.056633	49.63	<.0001*
Log10(DA)	0.7209058	0.029087	24.78	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0100 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0100 peak) = 2.9266351 + 0.7169394*Log10(DA)

Summary of Fit

RSquare	0.832544
RSquare Adj	0.830903
Root Mean Square Error	0.344202
Mean of Response	4.097451
Observations (or Sum Wgts)	104

Analysis of Variance

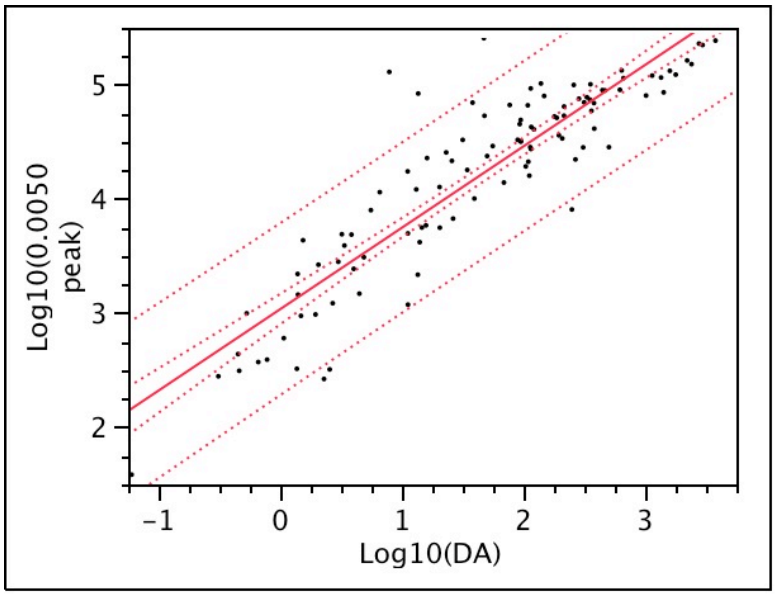
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	60.080559	60.0806	507.1164
Error	102	12.084440	0.1185	**Prob > F**
C. Total	103	72.164999		<.0001*

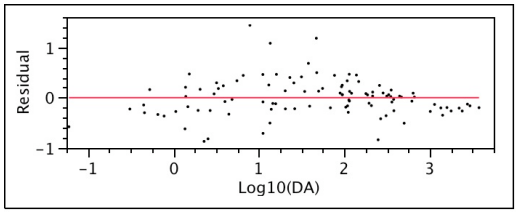
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9266351	0.061987	47.21	<.0001*
Log10(DA)	0.7169394	0.031837	22.52	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0050 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0050 peak) = 3.0353092 + 0.7133234*Log10(DA)

Summary of Fit

RSquare	0.806755
RSquare Adj	0.804861
Root Mean Square Error	0.373727
Mean of Response	4.20022
Observations (or Sum Wgts)	104

Analysis of Variance

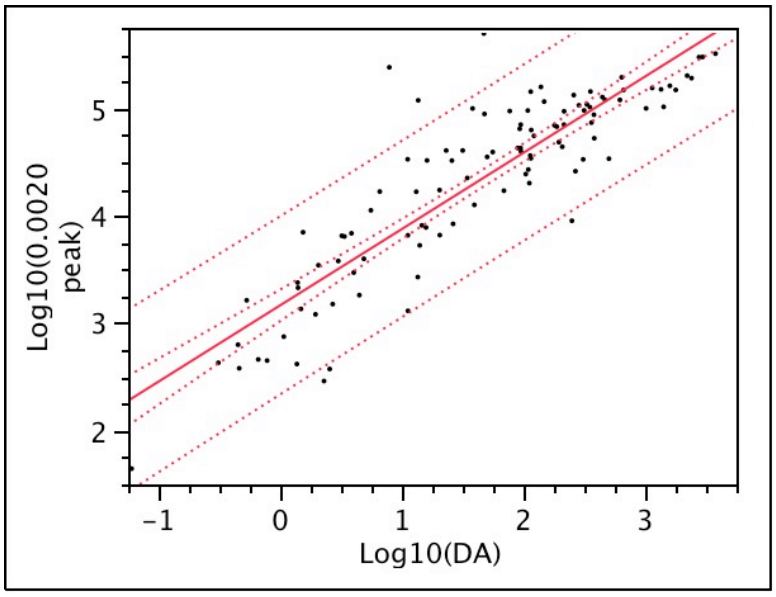
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	59.476041	59.4760	425.8280
Error	102	14.246493	0.1397	**Prob > F**
C. Total	103	73.722534		<.0001*

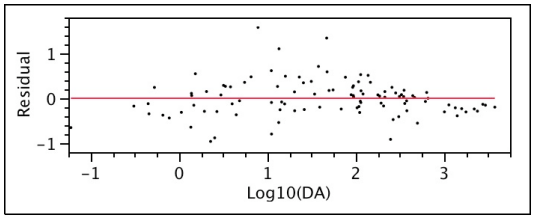
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0353092	0.067304	45.10	<.0001*
Log10(DA)	0.7133234	0.034568	20.64	<.0001*

Appendix 1 Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Blue Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0020 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0020 peak) = 3.1672088 + 0.7100478*Log10(DA)

Summary of Fit

RSquare	0.773448
RSquare Adj	0.771227
Root Mean Square Error	0.411378
Mean of Response	4.32677
Observations (or Sum Wgts)	104

Analysis of Variance

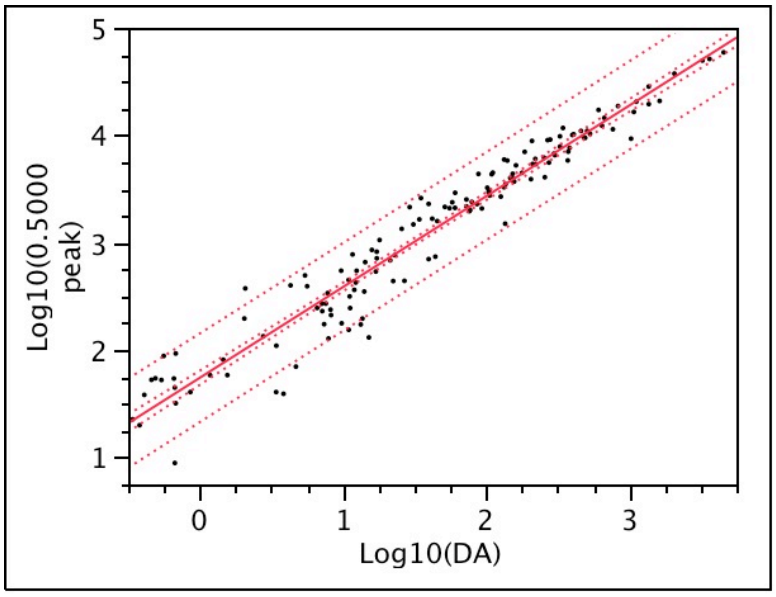
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	58.931067	58.9311	348.2274
Error	102	17.261622	0.1692	**Prob > F**
C. Total	103	76.192689		<.0001*

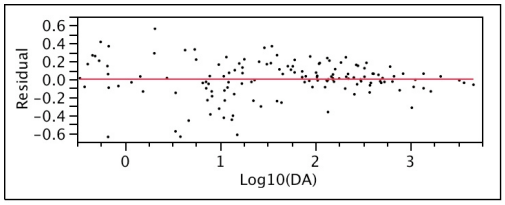
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1672088	0.074084	42.75	<.0001*
Log10(DA)	0.7100478	0.03805	18.66	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.5000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.5000 peak) = 1.7420141 + 0.844603*Log10(DA)

Summary of Fit

RSquare	0.942084
RSquare Adj	0.941676
Root Mean Square Error	0.206033
Mean of Response	3.120518
Observations (or Sum Wgts)	144

Analysis of Variance

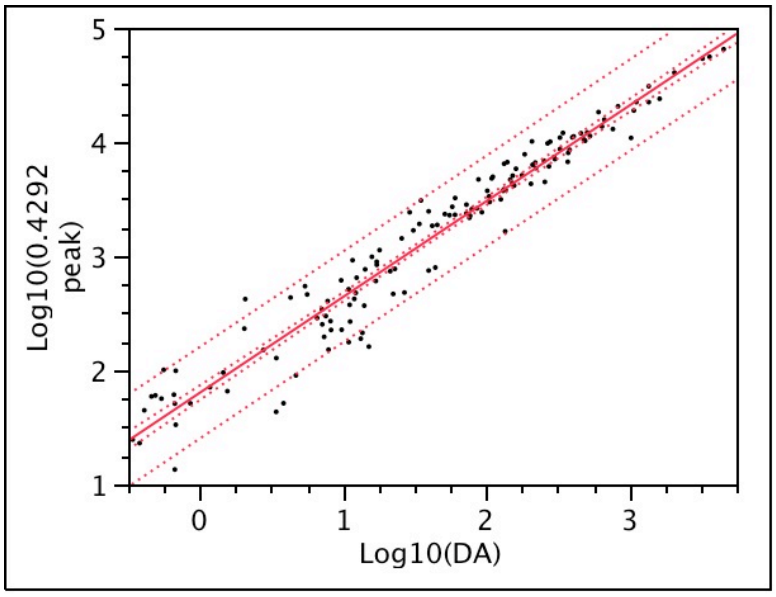
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	98.05090	98.0509	2309.828
Error	142	6.02782	0.0424	**Prob > F**
C. Total	143	104.07872		<.0001*

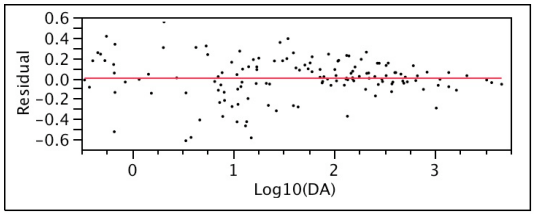
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.7420141	0.033429	52.11	<.0001*
Log10(DA)	0.844603	0.017574	48.06	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.4292 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.4292 peak) = 1.8023945 + 0.8384051*Log10(DA)

Summary of Fit

RSquare	0.944285
RSquare Adj	0.943893
Root Mean Square Error	0.200362
Mean of Response	3.170783
Observations (or Sum Wgts)	144

Analysis of Variance

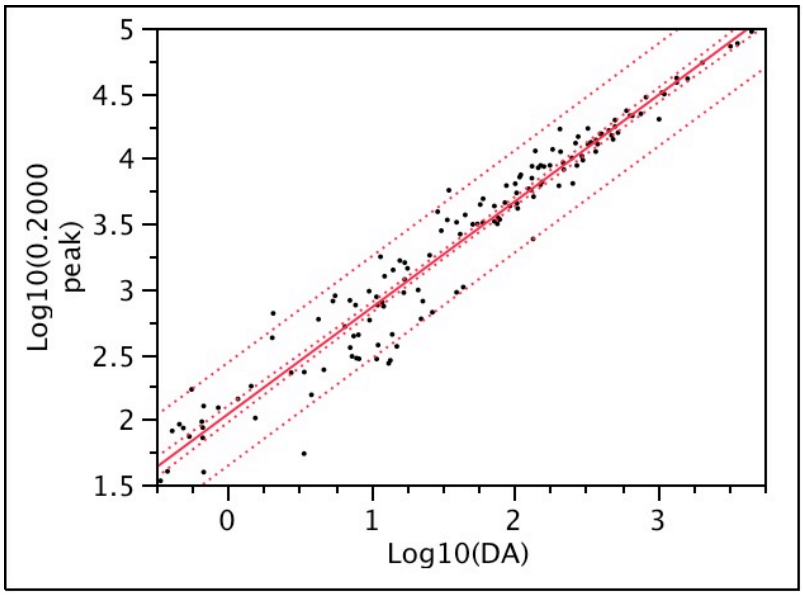
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	96.61715	96.6172	2406.697
Error	142	5.70061	0.0401	**Prob > F**
C. Total	143	102.31776		<.0001*

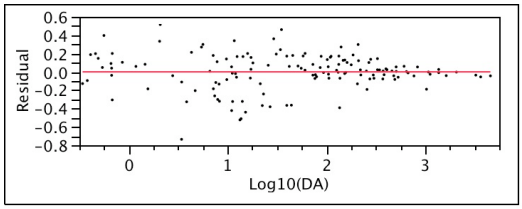
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.8023945	0.032509	55.44	<.0001*
Log10(DA)	0.8384051	0.01709	49.06	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.2000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.2000 peak) = 2.0366181 + 0.8135824*Log10(DA)

Summary of Fit

RSquare	0.94272
RSquare Adj	0.942317
Root Mean Square Error	0.197306
Mean of Response	3.364492
Observations (or Sum Wgts)	144

Analysis of Variance

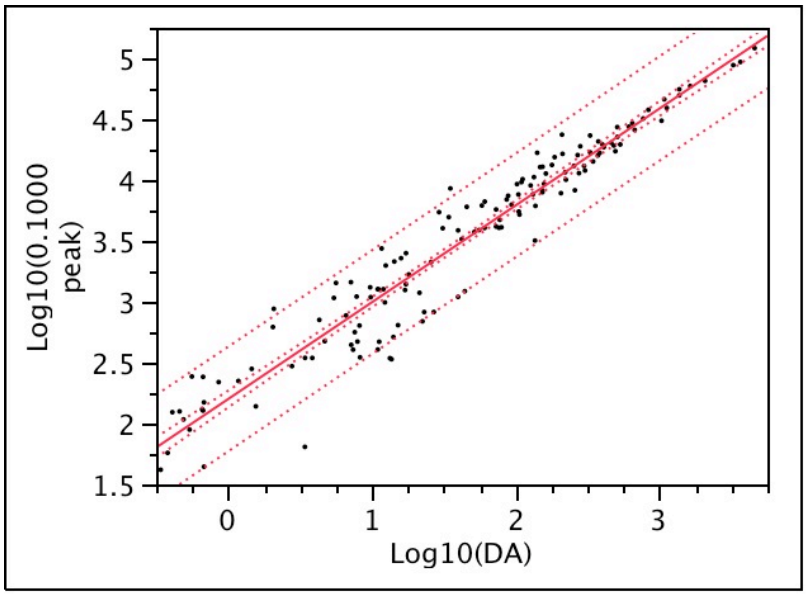
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	90.980754	90.9808	2337.048
Error	142	5.528029	0.0389	**Prob > F**
C. Total	143	96.508782		<.0001*

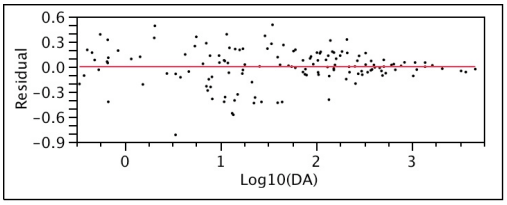
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.0366181	0.032013	63.62	<.0001*
Log10(DA)	0.8135824	0.016829	48.34	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.1000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.1000 peak) = 2.2004891 + 0.7956412*Log10(DA)

Summary of Fit

RSquare	0.930088
RSquare Adj	0.929596
Root Mean Square Error	0.214614
Mean of Response	3.499081
Observations (or Sum Wgts)	144

Analysis of Variance

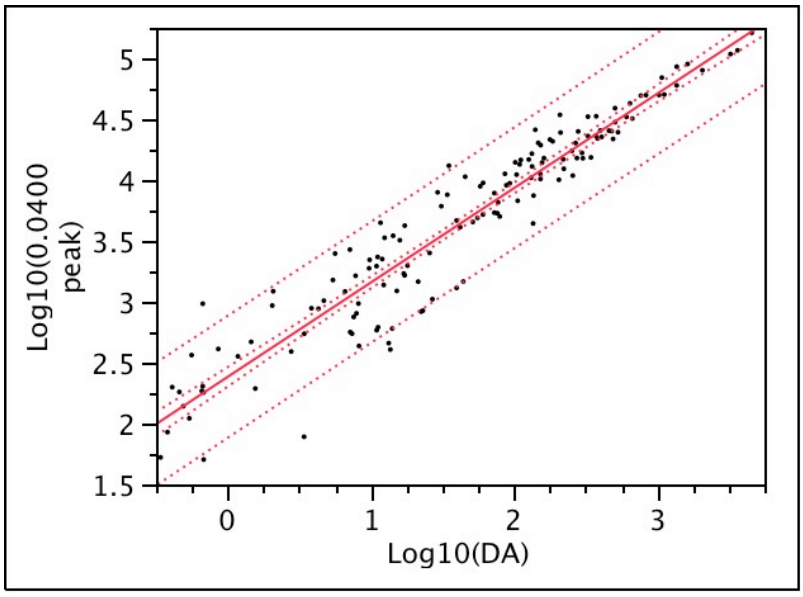
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	87.012358	87.0124	1889.139
Error	142	6.540417	0.0461	**Prob > F**
C. Total	143	93.552774		<.0001*

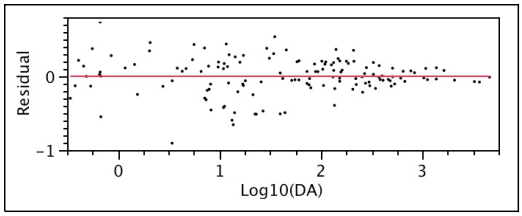
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.2004891	0.034821	63.19	<.0001*
Log10(DA)	0.7956412	0.018306	43.46	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0400 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0400 peak) = 2.3829349 + 0.7751534*Log10(DA)

Summary of Fit

RSquare	0.902765
RSquare Adj	0.90208
Root Mean Square Error	0.250288
Mean of Response	3.648088
Observations (or Sum Wgts)	144

Analysis of Variance

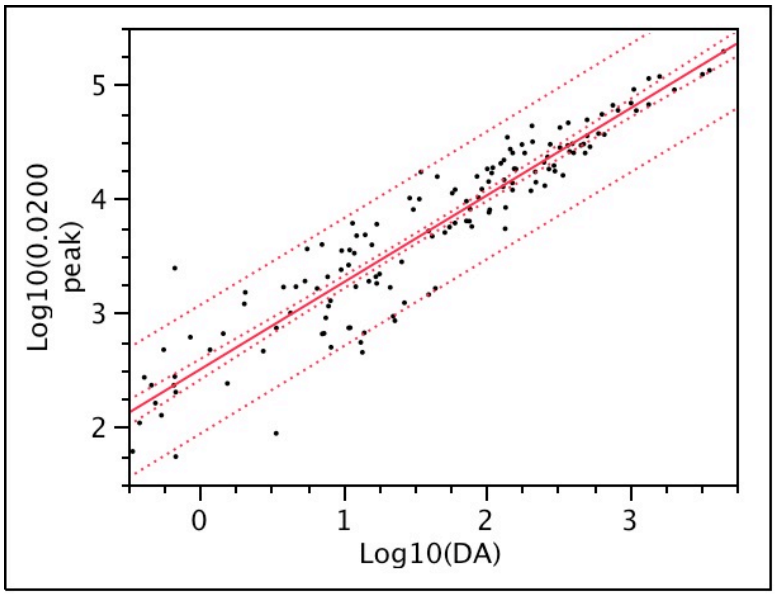
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	82.588904	82.5889	1318.379
Error	142	8.895489	0.0626	**Prob > F**
C. Total	143	91.484393		<.0001*

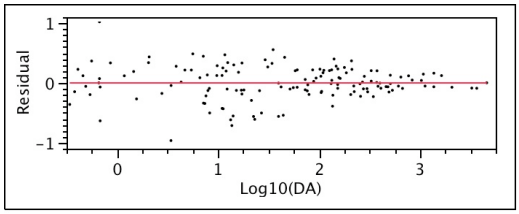
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3829349	0.040609	58.68	<.0001*
Log10(DA)	0.7751534	0.021349	36.31	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0200 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0200 peak) = 2.5050905 + 0.7611826*Log10(DA)

Summary of Fit

RSquare	0.876087
RSquare Adj	0.875215
Root Mean Square Error	0.281645
Mean of Response	3.747441
Observations (or Sum Wgts)	144

Analysis of Variance

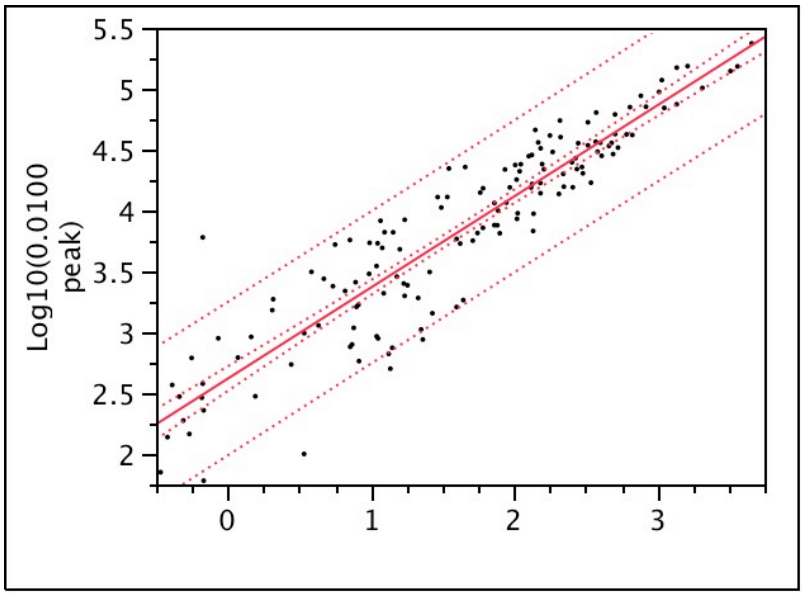
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	79.638695	79.6387	1003.969
Error	142	11.263992	0.0793	**Prob > F**
C. Total	143	90.902687		<.0001*

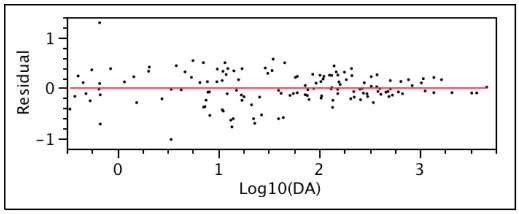
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5050905	0.045697	54.82	<.0001*
Log10(DA)	0.7611826	0.024023	31.69	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0100 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0100 peak) = 2.6179154 + 0.7480987*Log10(DA)

Summary of Fit

RSquare	0.845479
RSquare Adj	0.844391
Root Mean Square Error	0.314651
Mean of Response	3.838912
Observations (or Sum Wgts)	144

Analysis of Variance

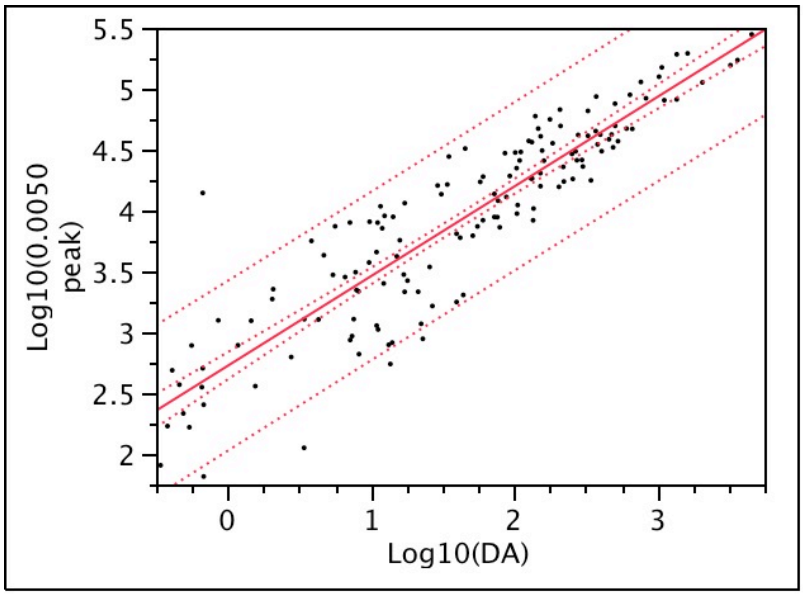
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	76.924421	76.9244	776.9713
Error	142	14.058779	0.0990	**Prob > F**
C. Total	143	90.983201		<.0001*

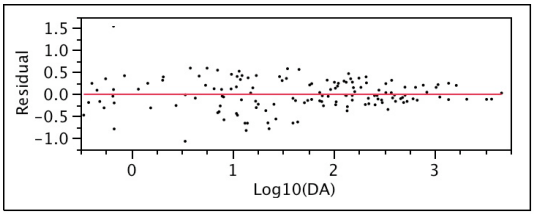
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6179154	0.051052	51.28	<.0001*
Log10(DA)	0.7480987	0.026838	27.87	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0050 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0050 peak) = 2.7236477 + 0.7356909*Log10(DA)

Summary of Fit

RSquare	0.811862
RSquare Adj	0.810537
Root Mean Square Error	0.348435
Mean of Response	3.924393
Observations (or Sum Wgts)	144

Analysis of Variance

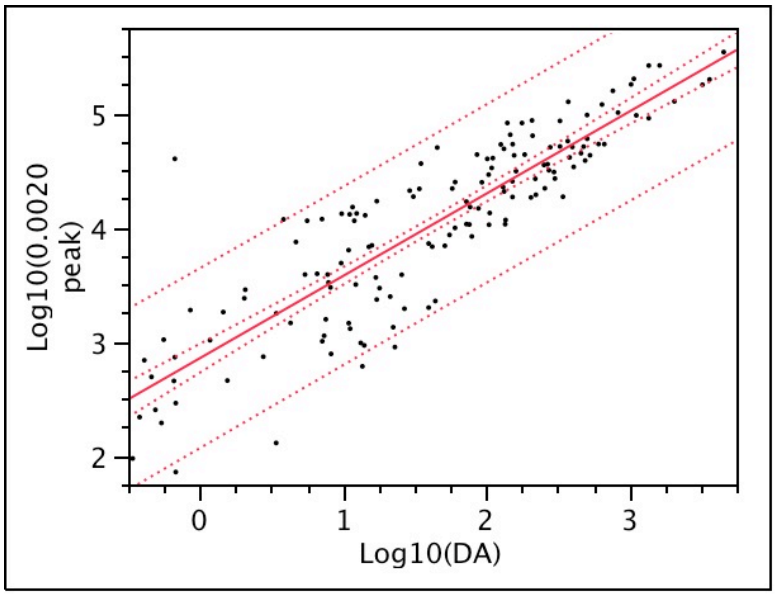
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	74.393871	74.3939	612.7652
Error	142	17.239768	0.1214	**Prob > F**
C. Total	143	91.633639		<.0001*

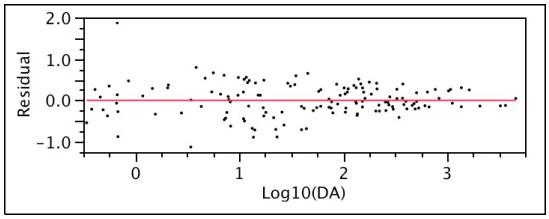
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7236477	0.056533	48.18	<.0001*
Log10(DA)	0.7356909	0.02972	24.75	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Valley and Ridge peak flow probability classes.

Bivariate Fit of Log10(0.0020 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0020 peak) = 2.8549825 + 0.7200882*Log10(DA)

Summary of Fit

RSquare	0.764222
RSquare Adj	0.762561
Root Mean Square Error	0.393511
Mean of Response	4.030262
Observations (or Sum Wgts)	144

Analysis of Variance

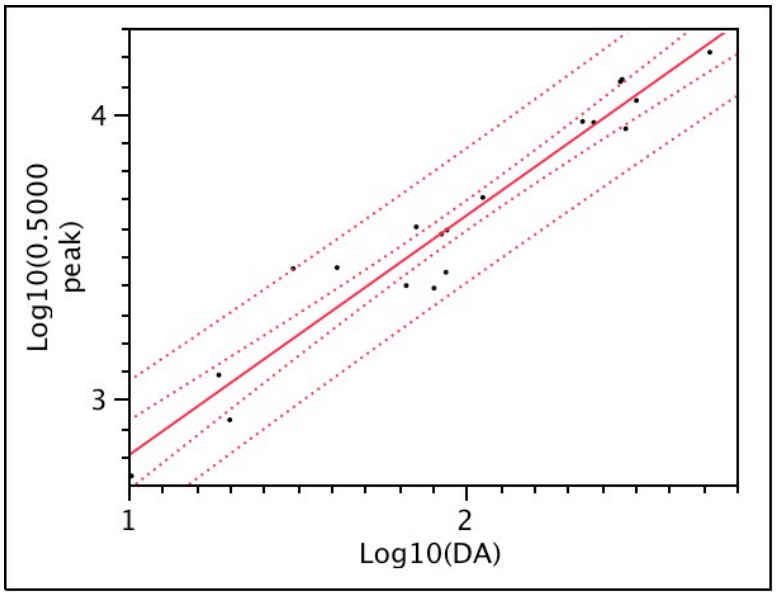
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	71.271800	71.2718	460.2609
Error	142	21.988825	0.1549	**Prob > F**
C. Total	143	93.260625		<.0001*

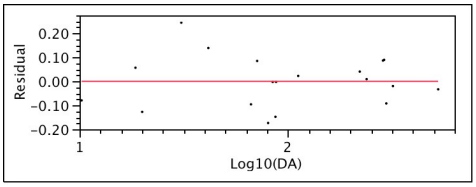
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8549825	0.063847	44.72	<.0001*
Log10(DA)	0.7200882	0.033565	21.45	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.5000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.5000 peak) = 1.960377 + 0.8405079*Log10(DA)

Summary of Fit

RSquare	0.935844
RSquare Adj	0.93207
Root Mean Square Error	0.108792
Mean of Response	3.617697
Observations (or Sum Wgts)	19

Analysis of Variance

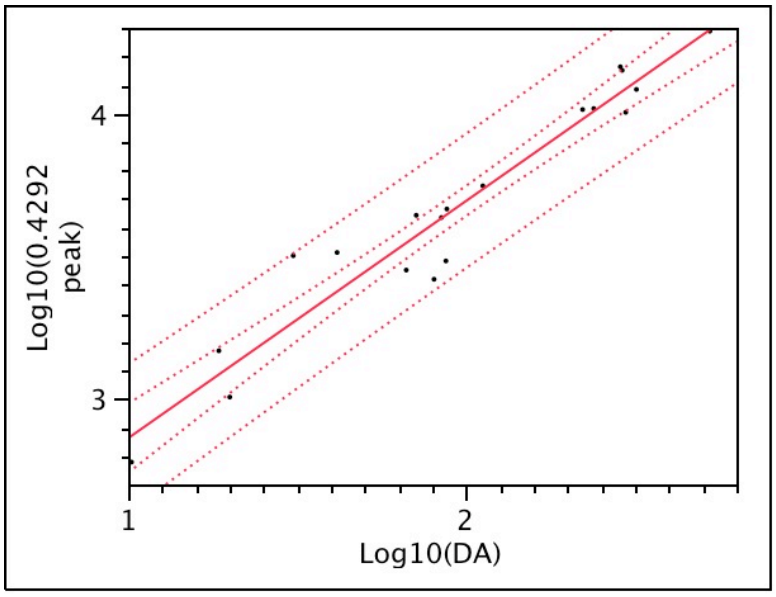
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.9350117	2.93501	247.9777
Error	17	0.2012084	0.01184	**Prob > F**
C. Total	18	3.1362201		<.0001*

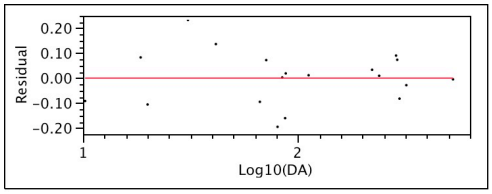
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.960377	0.108164	18.12	<.0001*
Log10(DA)	0.8405079	0.053375	15.75	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.4292 peak) By Log10(DA)





Linear Fit

Log10(0.4292 peak) = 2.0304783 + 0.8315039*Log10(DA)

Summary of Fit

RSquare	0.934586
RSquare Adj	0.930738
Root Mean Square Error	0.10875
Mean of Response	3.670044
Observations (or Sum Wgts)	19

Analysis of Variance

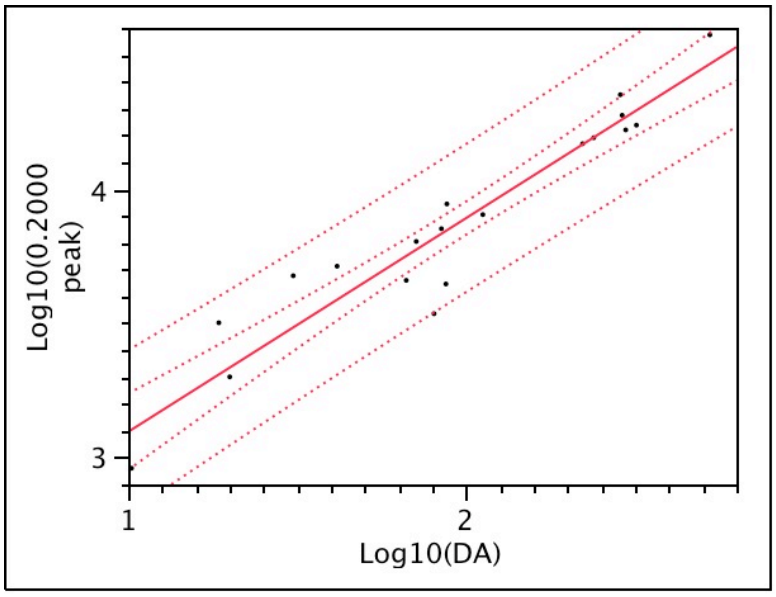
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.8724655	2.87247	242.8817
Error	17	0.2010522	0.01183	**Prob > F**
C. Total	18	3.0735177		<.0001*

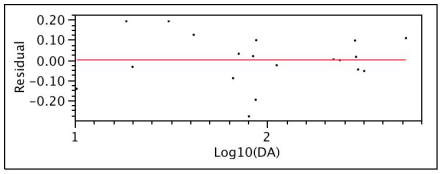
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.0304783	0.108122	18.78	<.0001*
Log10(DA)	0.8315039	0.053354	15.58	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.2000 peak) By Log10(DA)





Linear Fit

Log10(0.2000 peak) = 2.2998794 + 0.795868*Log10(DA)

Summary of Fit

RSquare	0.905224
RSquare Adj	0.899649
Root Mean Square Error	0.127307
Mean of Response	3.869178
Observations (or Sum Wgts)	19

Analysis of Variance

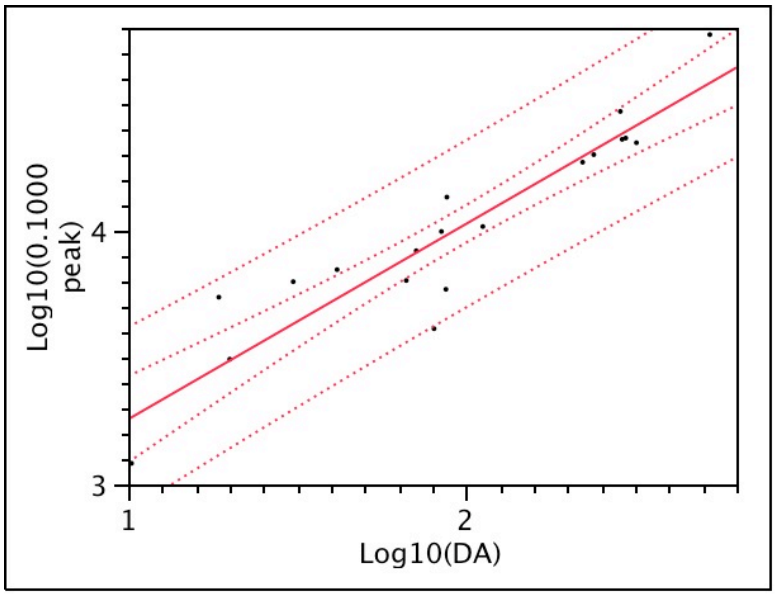
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.6315302	2.63153	162.3698
Error	17	0.2755193	0.01621	**Prob > F**
C. Total	18	2.9070495		<.0001*

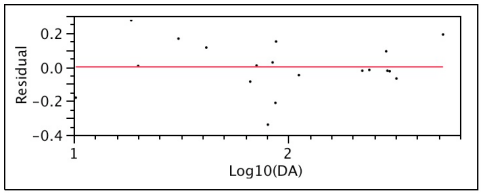
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.2998794	0.126571	18.17	<.0001*
Log10(DA)	0.795868	0.062458	12.74	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.1000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.1000 peak) = 2.4862757 + 0.7704117*Log10(DA)

Summary of Fit

RSquare	0.862331
RSquare Adj	0.854233
Root Mean Square Error	0.152175
Mean of Response	4.005379
Observations (or Sum Wgts)	19

Analysis of Variance

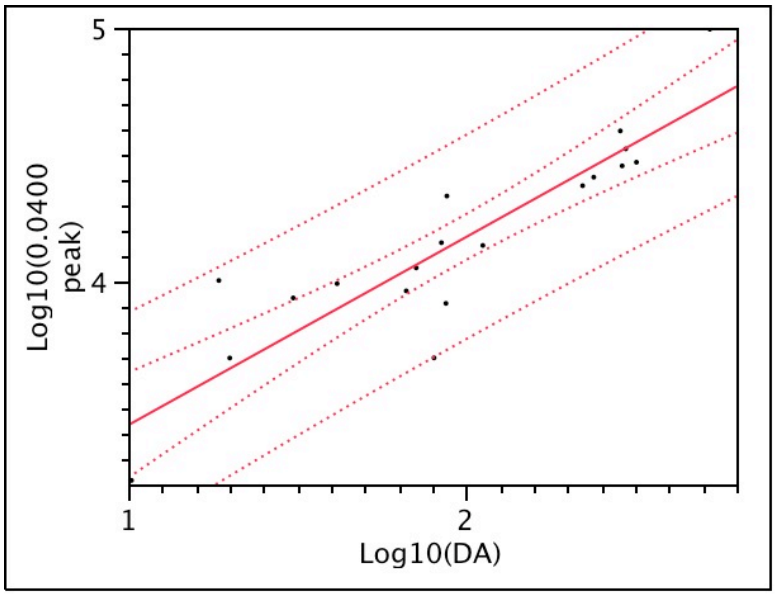
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.4658802	2.46588	106.4843
Error	17	0.3936726	0.02316	**Prob > F**
C. Total	18	2.8595529		<.0001*

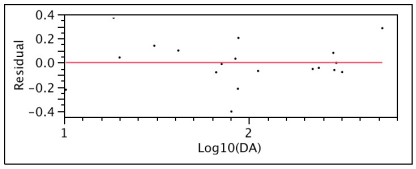
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.4862757	0.151295	16.43	<.0001*
Log10(DA)	0.7704117	0.074659	10.32	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.0400 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0400 peak) = 2.6918915 + 0.741642*Log10(DA)

Summary of Fit

RSquare	0.795326
RSquare Adj	0.783287
Root Mean Square Error	0.185991
Mean of Response	4.154267
Observations (or Sum Wgts)	19

Analysis of Variance

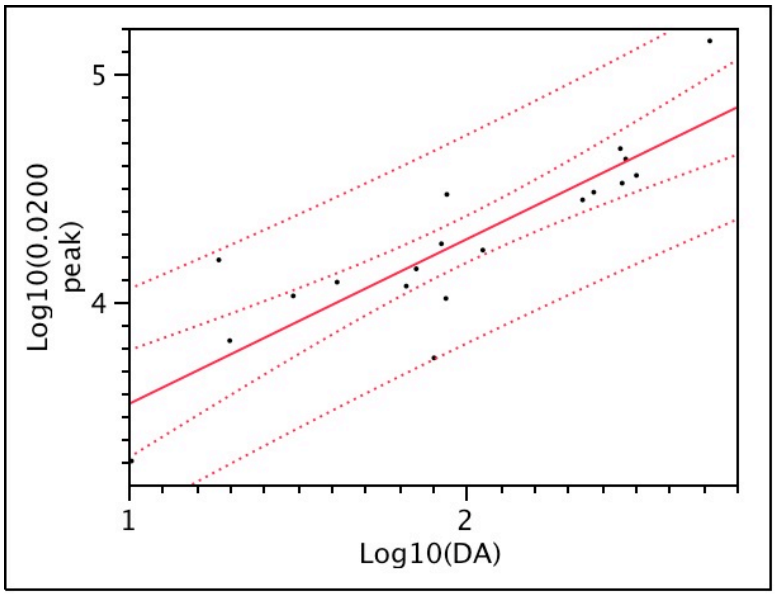
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.2851506	2.28515	66.0590
Error	17	0.5880734	0.03459	**Prob > F**
C. Total	18	2.8732240		<.0001*

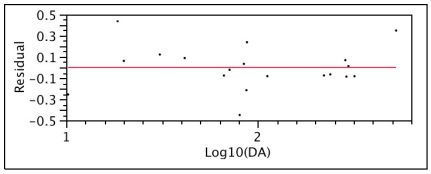
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.6918915	0.184916	14.56	<.0001*
Log10(DA)	0.741642	0.091249	8.13	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.0200 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0200 peak) = 2.8286648 + 0.7220925*Log10(DA)

Summary of Fit

RSquare	0.741388
RSquare Adj	0.726175
Root Mean Square Error	0.21083
Mean of Response	4.252492
Observations (or Sum Wgts)	19

Analysis of Variance

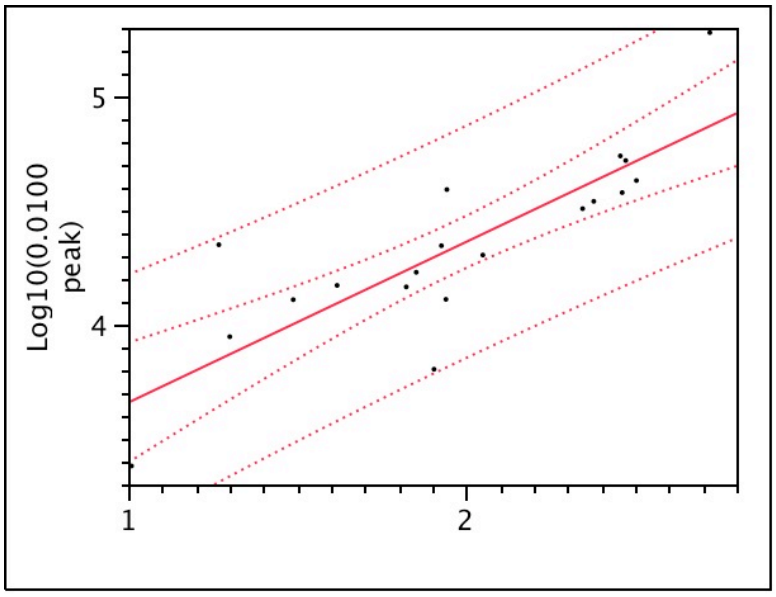
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.1662667	2.16627	48.7355
Error	17	0.7556410	0.04445	**Prob > F**
C. Total	18	2.9219077		<.0001*

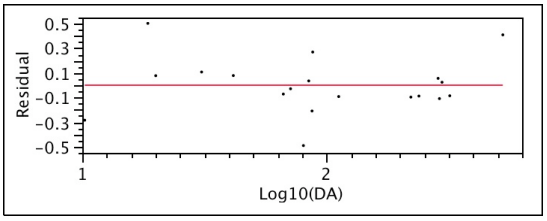
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8286648	0.209612	13.49	<.0001*
Log10(DA)	0.7220925	0.103436	6.98	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.0100 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0100 peak) = 2.9542151 + 0.7039578*Log10(DA)

Summary of Fit

RSquare	0.686959
RSquare Adj	0.668545
Root Mean Square Error	0.23492
Mean of Response	4.342284
Observations (or Sum Wgts)	19

Analysis of Variance

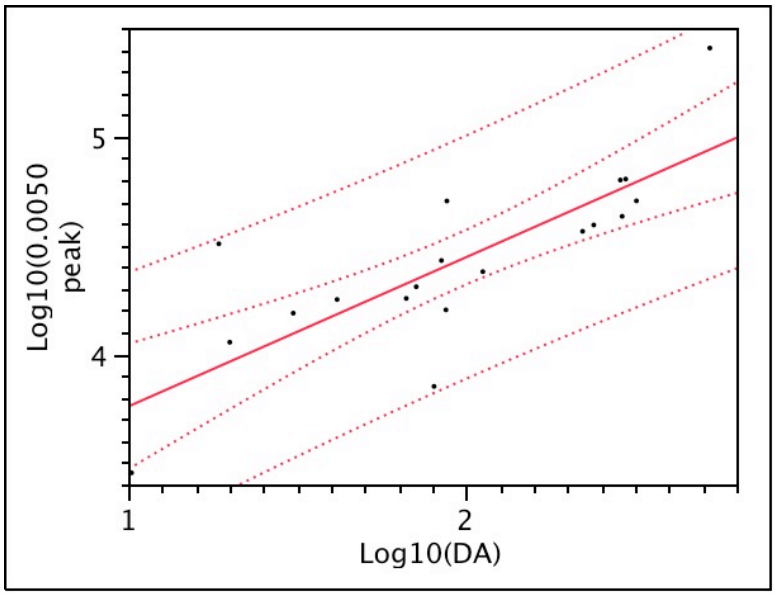
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2.0588254	2.05883	37.3061
Error	17	0.9381860	0.05519	**Prob > F**
C. Total	18	2.9970114		<.0001*

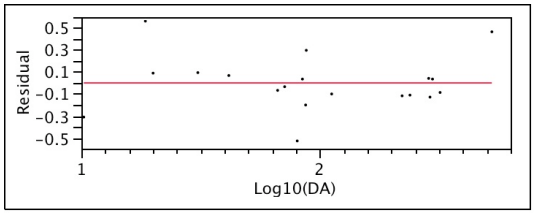
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.9542151	0.233562	12.65	<.0001*
Log10(DA)	0.7039578	0.115254	6.11	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.0050 peak) By Log10(DA)





Linear Fit

Log10(0.0050 peak) = 3.071225 + 0.6868856*Log10(DA)

Summary of Fit

RSquare	0.633486
RSquare Adj	0.611926
Root Mean Square Error	0.258285
Mean of Response	4.425631
Observations (or Sum Wgts)	19

Analysis of Variance

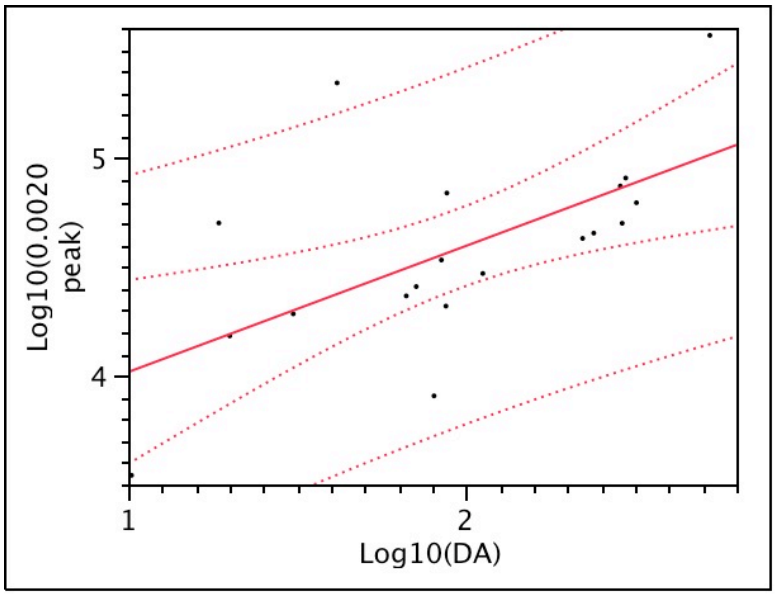
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	1.9601760	1.96018	29.3830
Error	17	1.1340923	0.06671	**Prob > F**
C. Total	18	3.0942682		<.0001*

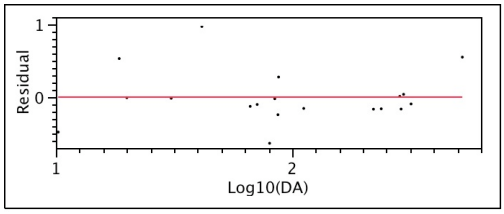
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.071225	0.256793	11.96	<.0001*
Log10(DA)	0.6868856	0.126718	5.42	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Appalachian Plateaus peak flow probability classes.

Bivariate Fit of Log10(0.0020 peak) By Log10(DA)





Linear Fit

Log10(0.0020 peak) = 3.4364025 + 0.5803823*Log10(DA)

Summary of Fit

RSquare	0.364791
RSquare Adj	0.327426
Root Mean Square Error	0.378608
Mean of Response	4.580805
Observations (or Sum Wgts)	19

Analysis of Variance

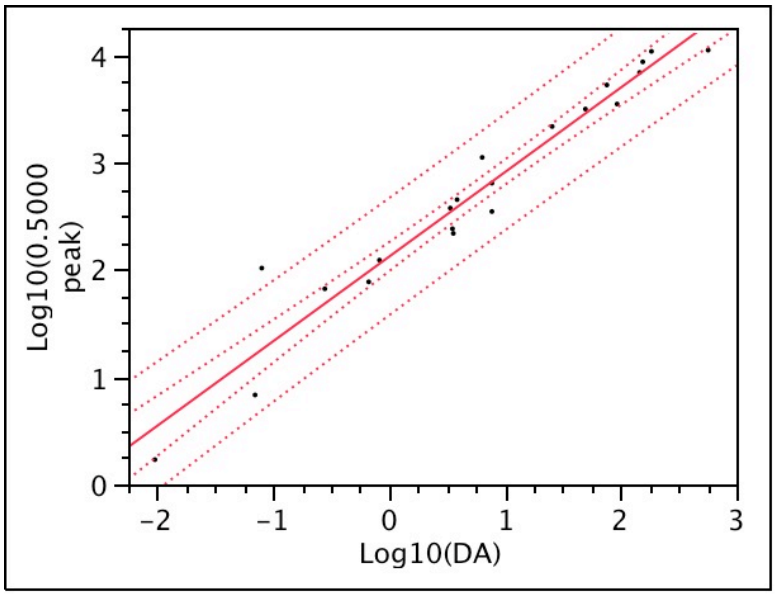
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	1.3994410	1.39944	9.7628
Error	17	2.4368430	0.14334	**Prob > F**
C. Total	18	3.8362840		0.0062*

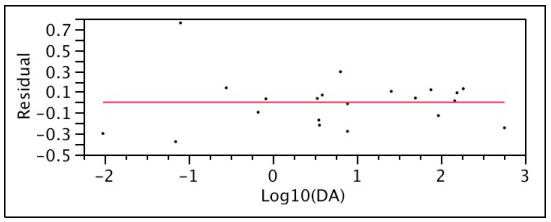
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.4364025	0.376419	9.13	<.0001*
Log10(DA)	0.5803823	0.185749	3.12	0.0062*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.5000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.5000 peak) = 2.1181248 + 0.7868713*Log10(DA)

Summary of Fit

RSquare	0.943518
RSquare Adj	0.940545
Root Mean Square Error	0.252346
Mean of Response	2.720111
Observations (or Sum Wgts)	21

Analysis of Variance

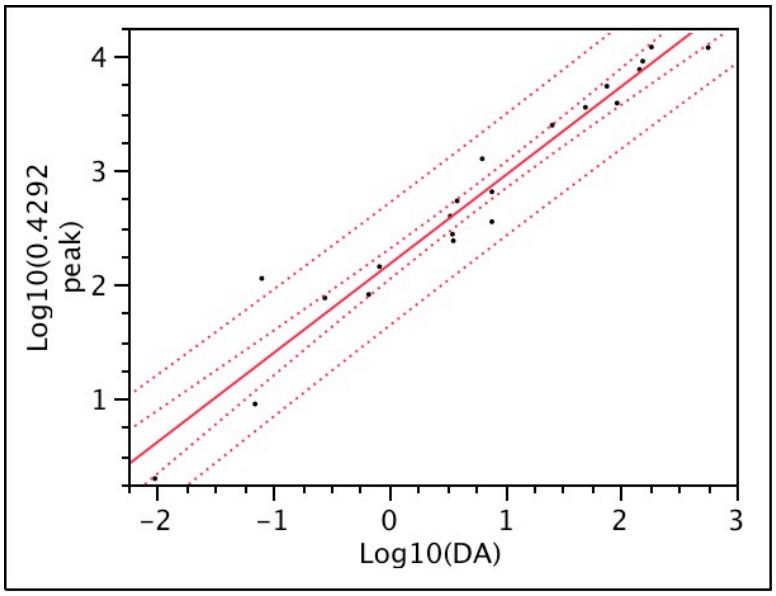
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	20.210764	20.2108	317.3888
Error	19	1.209887	0.0637	**Prob > F**
C. Total	20	21.420651		<.0001*

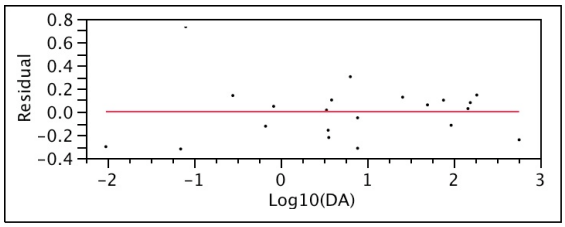
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1181248	0.064607	32.78	<.0001*
Log10(DA)	0.7868713	0.044168	17.82	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.4292 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.4292 peak) = 2.1748894 + 0.7782307*Log10(DA)

Summary of Fit

RSquare	0.943753
RSquare Adj	0.940792
Root Mean Square Error	0.249024
Mean of Response	2.770265
Observations (or Sum Wgts)	21

Analysis of Variance

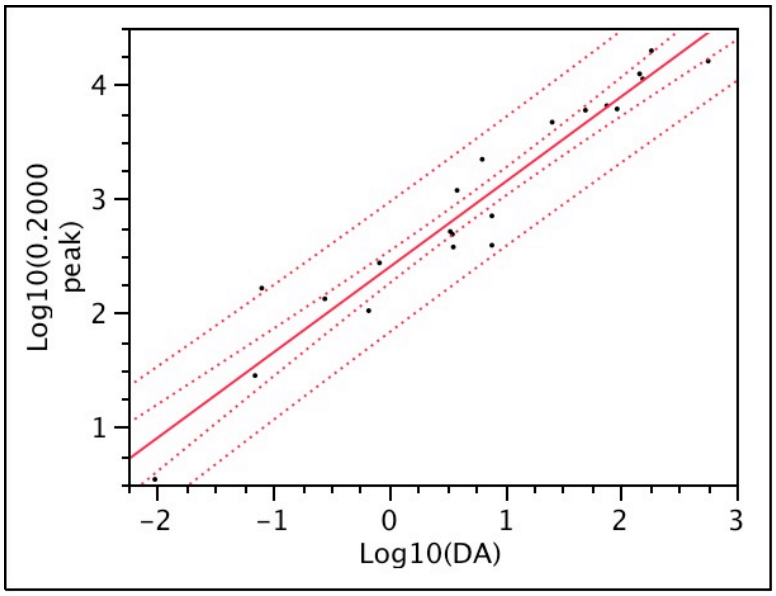
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	19.769332	19.7693	318.7948
Error	19	1.178242	0.0620	**Prob > F**
C. Total	20	20.947574		<.0001*

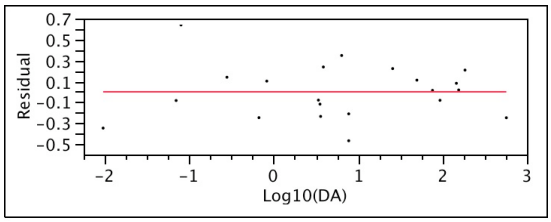
Parameter Estimates

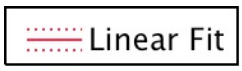
Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1748894	0.063757	34.11	<.0001*
Log10(DA)	0.7782307	0.043587	17.85	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.2000 peak) By Log10(DA)







Linear Fit

Log10(0.2000 peak) = 2.3992507 + 0.7467921*Log10(DA)

Summary of Fit

RSquare	0.932212
RSquare Adj	0.928644
Root Mean Square Error	0.263954
Mean of Response	2.970574
Observations (or Sum Wgts)	21

Analysis of Variance

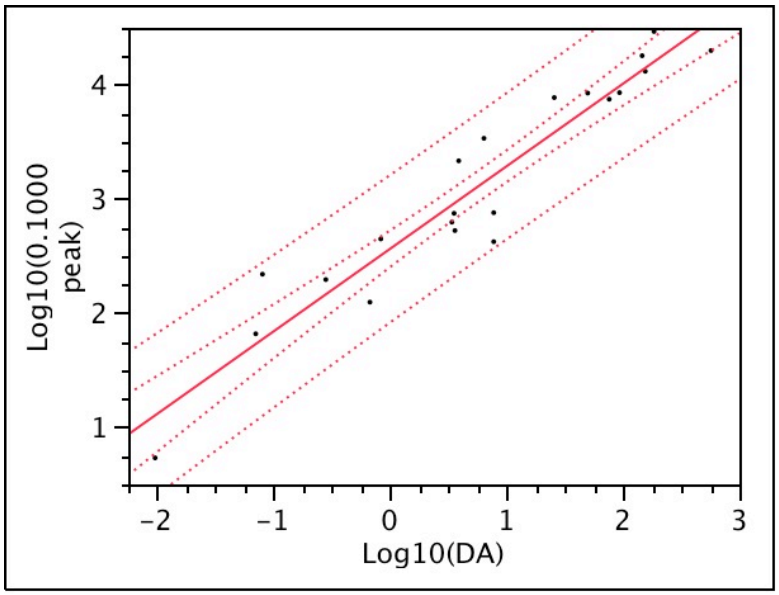
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	18.204330	18.2043	261.2867
Error	19	1.323765	0.0697	**Prob > F**
C. Total	20	19.528095		<.0001*

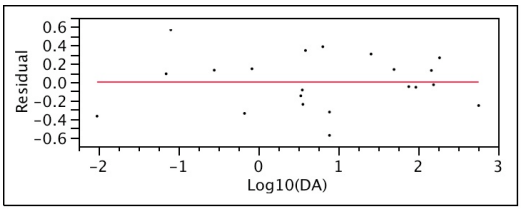
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.3992507	0.067579	35.50	<.0001*
Log10(DA)	0.7467921	0.0462	16.16	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.1000 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.1000 peak) = 2.5646952 + 0.7229753*Log10(DA)

Summary of Fit

RSquare	0.909525
RSquare Adj	0.904764
Root Mean Square Error	0.298876
Mean of Response	3.117798
Observations (or Sum Wgts)	21

Analysis of Variance

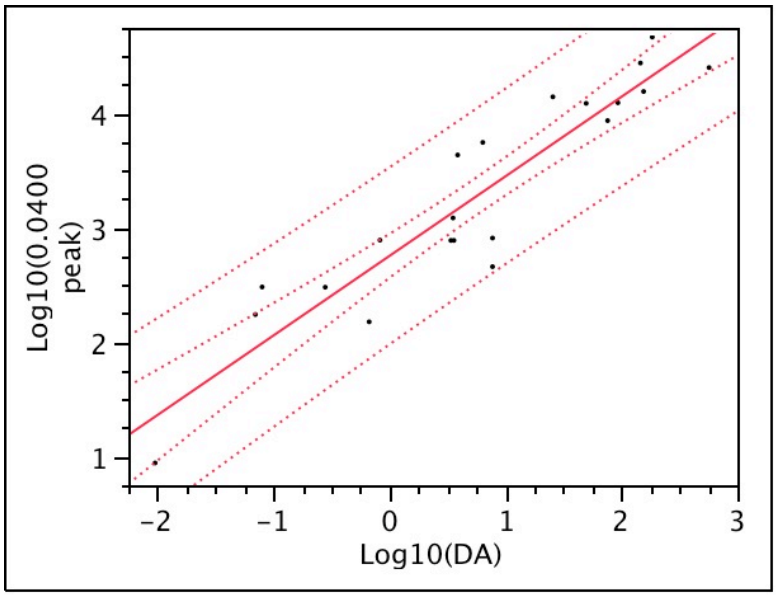
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	17.061698	17.0617	191.0036
Error	19	1.697205	0.0893	**Prob > F**
C. Total	20	18.758903		<.0001*

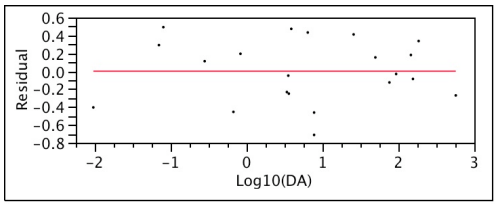
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.5646952	0.07652	33.52	<.0001*
Log10(DA)	0.7229753	0.052312	13.82	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.0400 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0400 peak) = 2.7548122 + 0.6960071*Log10(DA)

Summary of Fit

RSquare	0.866439
RSquare Adj	0.859409
Root Mean Square Error	0.358176
Mean of Response	3.287283
Observations (or Sum Wgts)	21

Analysis of Variance

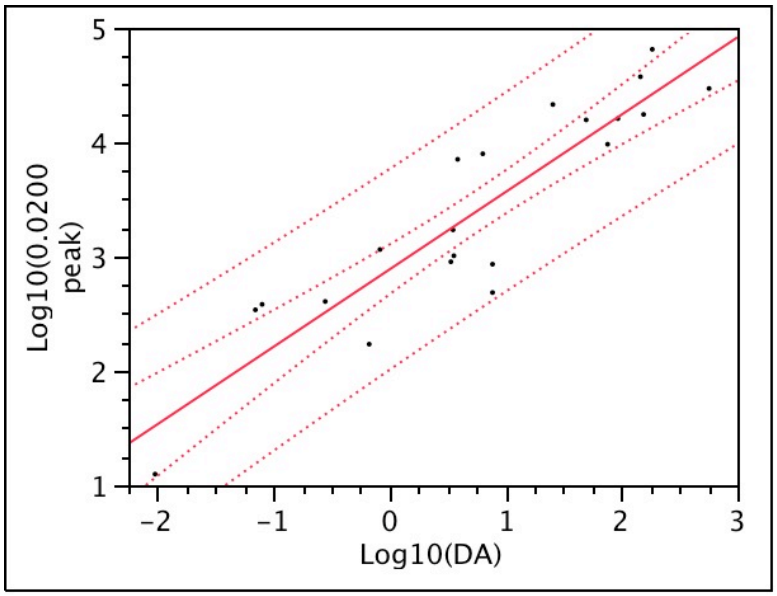
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	15.812578	15.8126	123.2567
Error	19	2.437506	0.1283	**Prob > F**
C. Total	20	18.250083		<.0001*

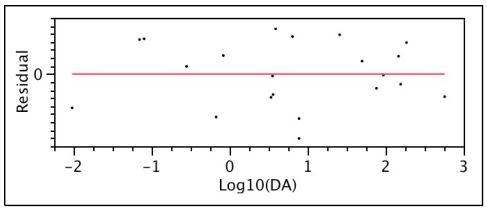
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.7548122	0.091702	30.04	<.0001*
Log10(DA)	0.6960071	0.062691	11.10	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.0200 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0200 peak) = 2.8862616 + 0.6769811*Log10(DA)

Summary of Fit

RSquare	0.826491
RSquare Adj	0.817359
Root Mean Square Error	0.406564
Mean of Response	3.404177
Observations (or Sum Wgts)	21

Analysis of Variance

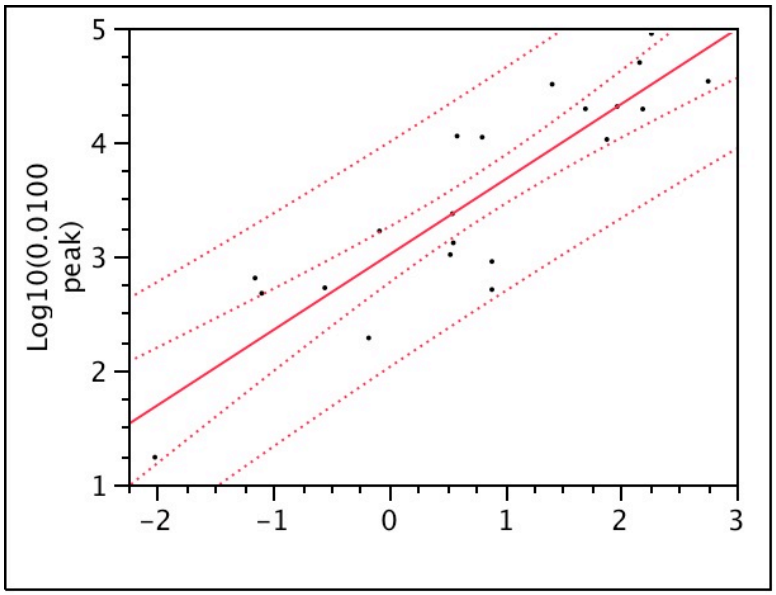
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	14.959891	14.9599	90.5046
Error	19	3.140591	0.1653	**Prob > F**
C. Total	20	18.100482		<.0001*

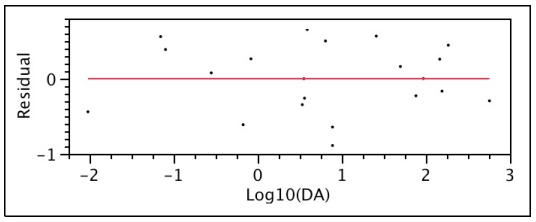
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.8862616	0.104091	27.73	<.0001*
Log10(DA)	0.6769811	0.071161	9.51	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.0100 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0100 peak) = 3.0096878 + 0.659324*Log10(DA)

Summary of Fit

RSquare	0.781907
RSquare Adj	0.770429
Root Mean Square Error	0.456407
Mean of Response	3.514095
Observations (or Sum Wgts)	21

Analysis of Variance

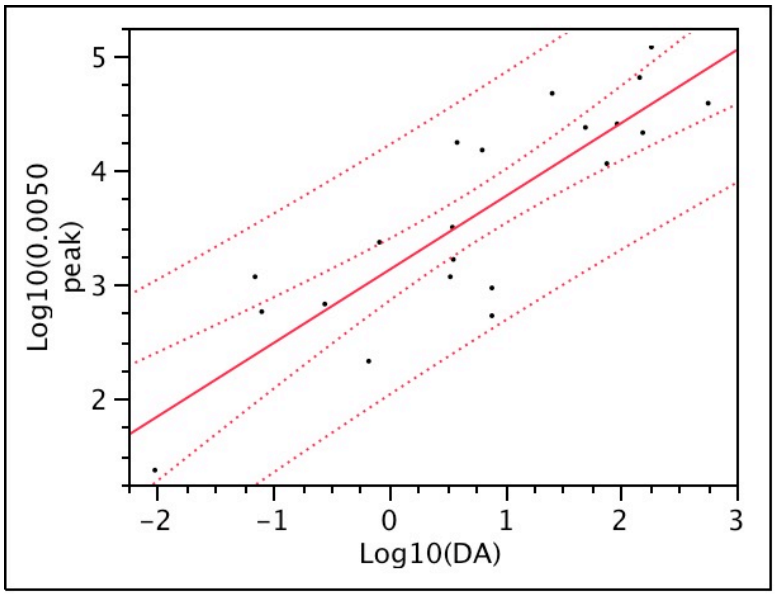
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	14.189696	14.1897	68.1190
Error	19	3.957844	0.2083	**Prob > F**
C. Total	20	18.147540		<.0001*

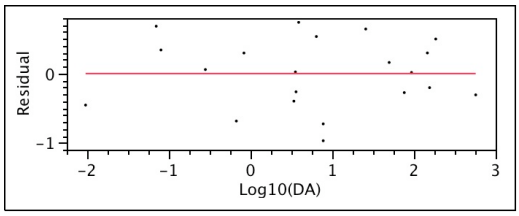
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.0096878	0.116852	25.76	<.0001*
Log10(DA)	0.659324	0.079885	8.25	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.0050 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0050 peak) = 3.1275049 + 0.6423291*Log10(DA)

Summary of Fit

RSquare	0.734184
RSquare Adj	0.720193
Root Mean Square Error	0.506591
Mean of Response	3.618911
Observations (or Sum Wgts)	21

Analysis of Variance

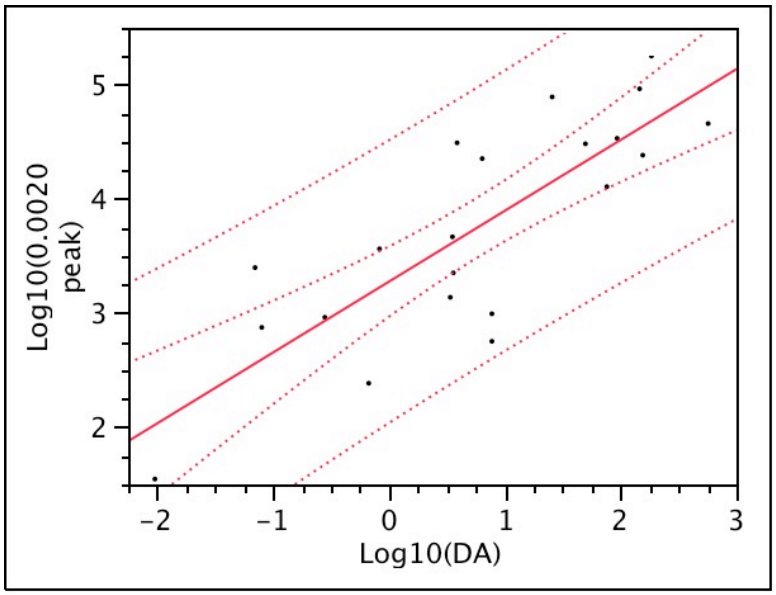
Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	13.467607	13.4676	52.4779
Error	19	4.876045	0.2566	**Prob > F**
C. Total	20	18.343652		<.0001*

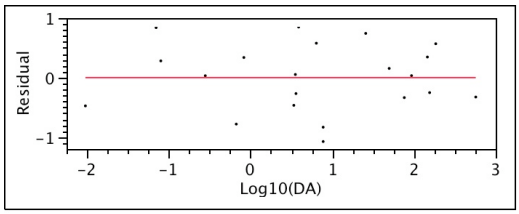
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.1275049	0.1297	24.11	<.0001*
Log10(DA)	0.6423291	0.088669	7.24	<.0001*

Appendix 1. Curves and residual plots for candidate single-parameter regional regression equations for estimating peak flows of streams in Virginia: 1-parameter equations and fit describing Log10 peak flow in cubic feet per second (ft^3/s) estimated as a function of selected basin characteristics for selected Mesozoic Basins peak flow probability classes.

Bivariate Fit of Log10(0.0020 peak) By Log10(DA)





Linear Fit

Linear Fit

Log10(0.0020 peak) = 3.2760638 + 0.6210073*Log10(DA)

Summary of Fit

RSquare	0.668561
RSquare Adj	0.651116
Root Mean Square Error	0.573112
Mean of Response	3.751157
Observations (or Sum Wgts)	21

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	12.588348	12.5883	38.3257
Error	19	6.240685	0.3285	**Prob > F**
C. Total	20	18.829034		<.0001*

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.2760638	0.146732	22.33	<.0001*
Log10(DA)	0.6210073	0.100312	6.19	<.0001*