

Model Statistics, Data, and Plots

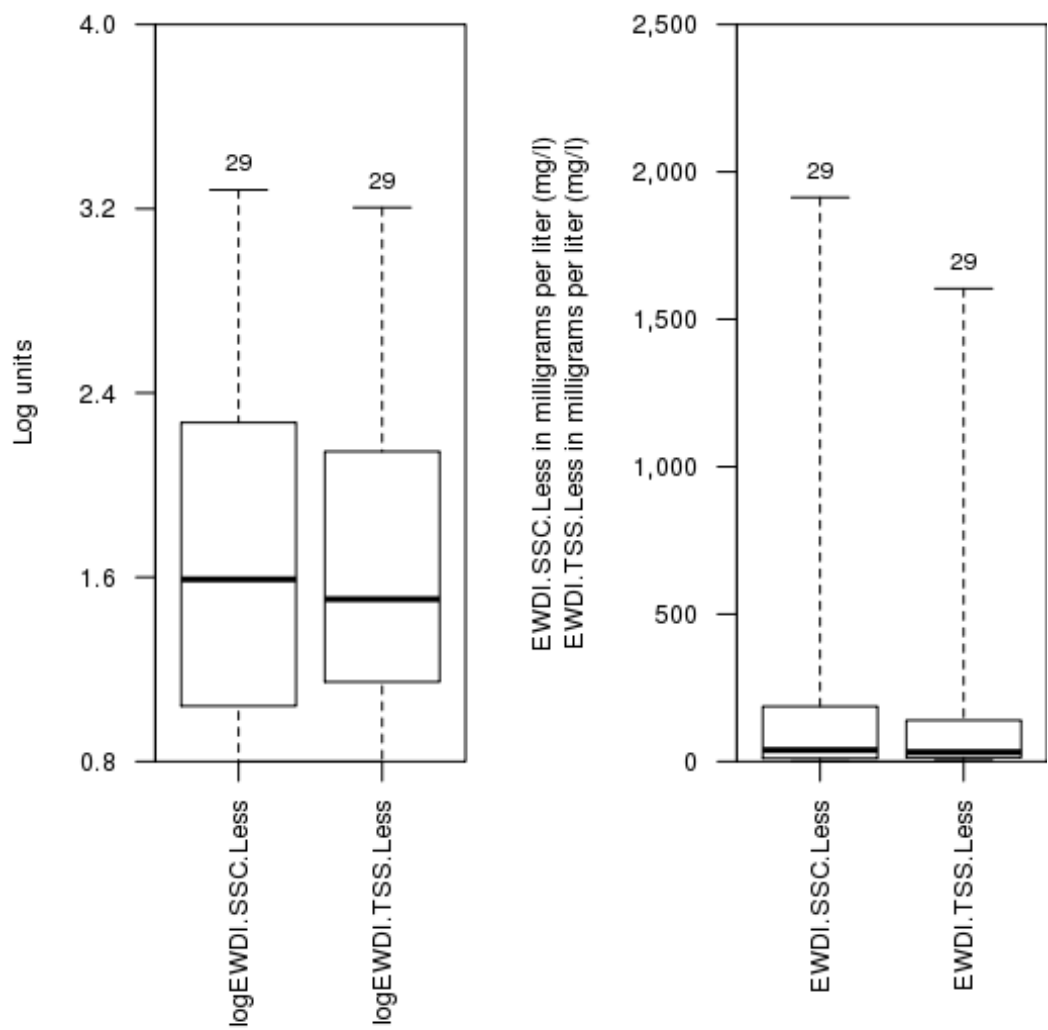
Model

$$\text{logEWDI.SSC.Less} = + 1.12 * \text{logEWDI.TSS.Less} - 0.216$$

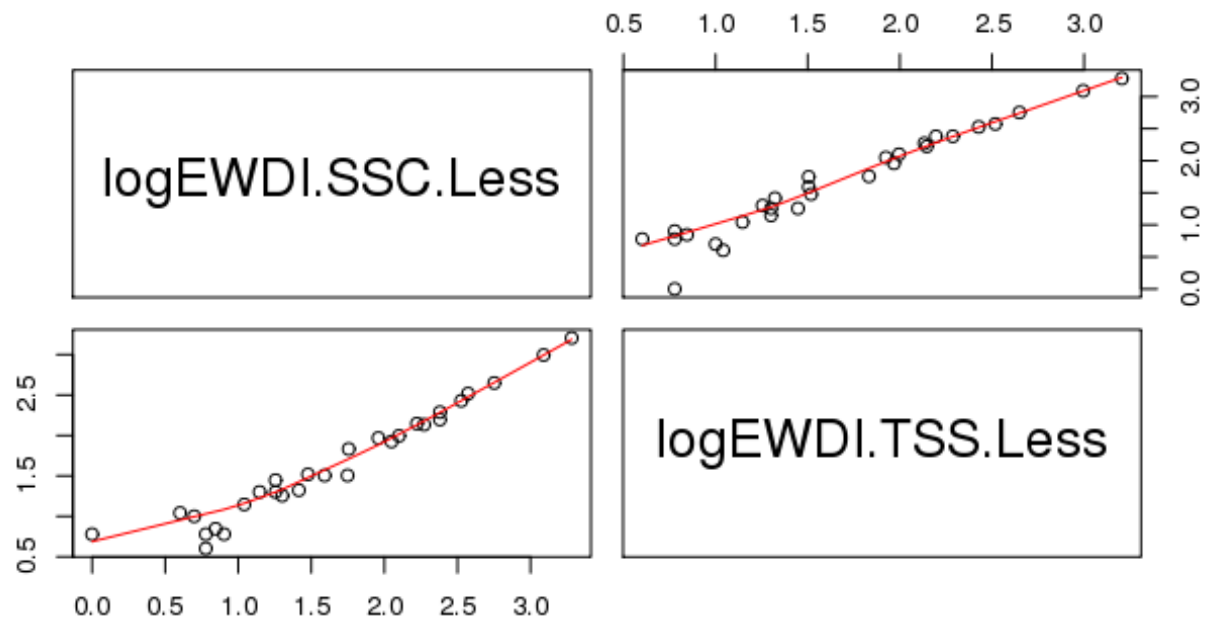
Variable Summary Statistics

| | logEWDI.SSC.Less | EWDI.SSC.Less | logEWDI.TSS.Less | EWDI.TSS.Less |
|--------------|------------------|---------------|------------------|---------------|
| Minimum | 0.00 | 1 | 0.602 | 4 |
| 1st Quartile | 1.04 | 11 | 1.150 | 14 |
| Median | 1.59 | 39 | 1.510 | 32 |
| Mean | 1.66 | 204 | 1.670 | 168 |
| 3rd Quartile | 2.27 | 187 | 2.150 | 140 |
| Maximum | 3.28 | 1910 | 3.210 | 1600 |

Box Plots



Exploratory Plots



Basic Model Statistics

| | |
|---|-------|
| Number of Observations | 29 |
| Standard error (RMSE) | 0.194 |
| Average Model standard percentage error (MSPE) | 46.1 |
| Coefficient of determination (R^2) | 0.945 |
| Adjusted Coefficient of Determination (Adj. R^2) | 0.943 |
| Bias Correction Factor (BCF) | 1.08 |

Explanatory Variables

| | Coefficients | Standard Error | t value | Pr(> t) |
|------------------|--------------|----------------|---------|----------|
| (Intercept) | -0.216 | 0.0942 | -2.29 | 3.01e-02 |
| logEWDI.TSS.Less | 1.120 | 0.0522 | 21.60 | 1.51e-18 |

Correlation Matrix

| | Intercept | E.vars |
|-----------|-----------|--------|
| Intercept | 1.000 | -0.924 |
| E.vars | -0.924 | 1.000 |

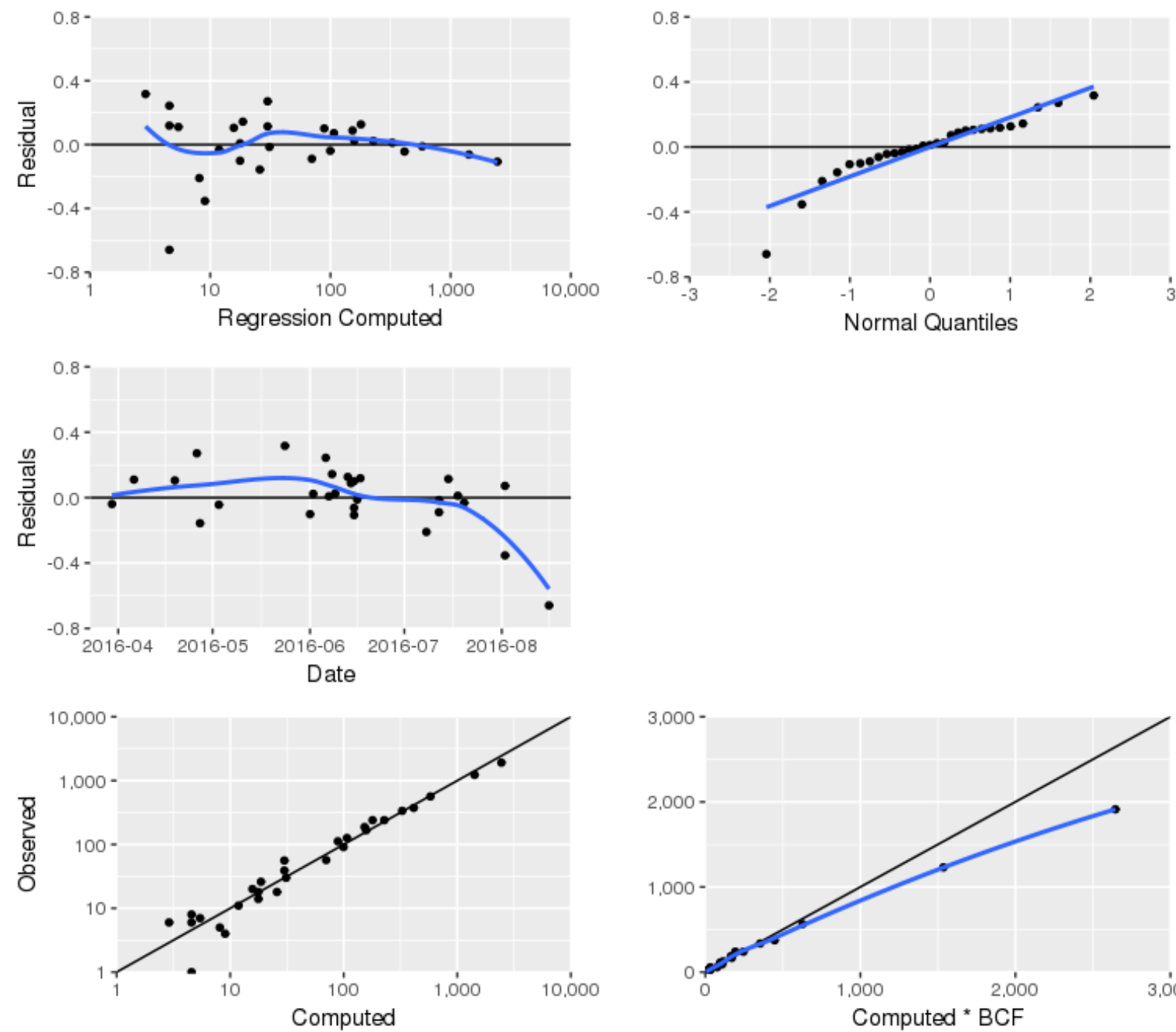
Outlier Test Criteria

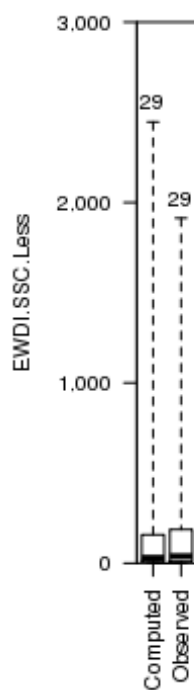
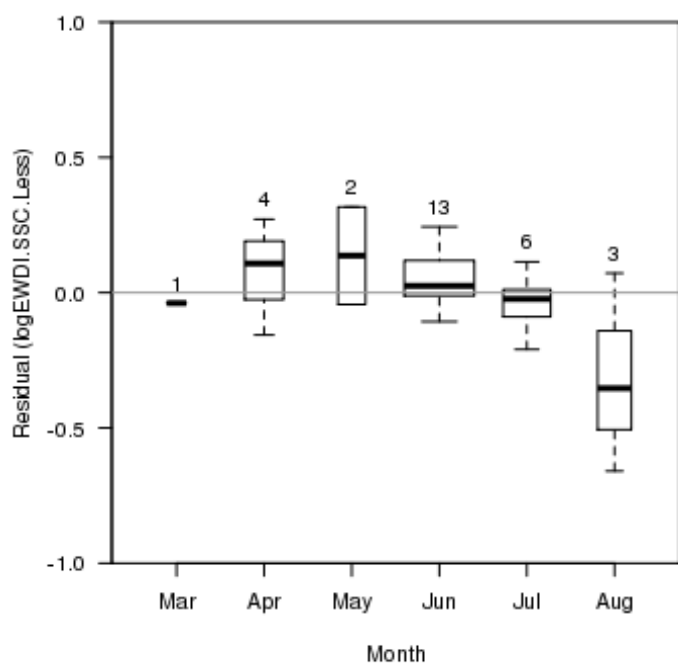
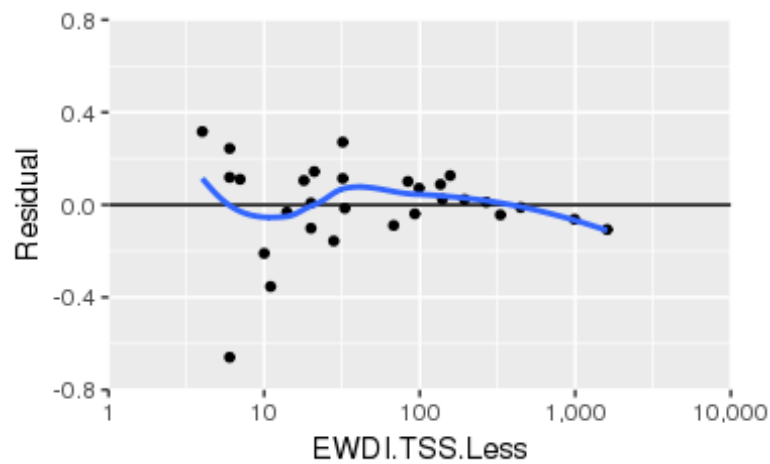
| Leverage | Cook's D | DFFITS |
|----------|----------|--------|
| 0.103 | 0.106 | 0.371 |

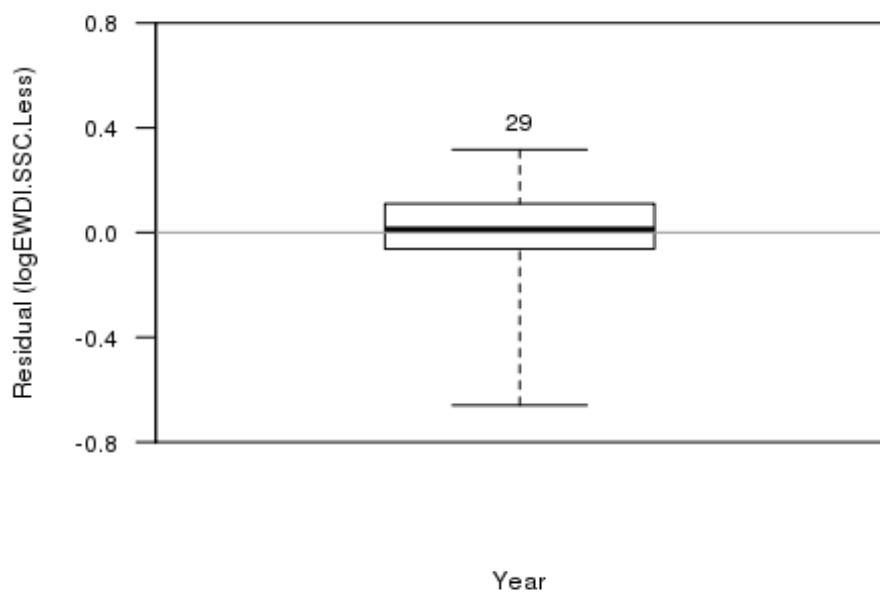
Flagged Observations

| | logEWDI.SSC.Less | Estimate | Residual | Standard | Residual | Studentized | Residual | Leverage | Cook's D | DFFITS |
|-----------------|------------------|----------|----------|----------|----------|-------------|----------|----------|----------|---------|
| 6/15/2016 17:35 | 3.090 | 3.150 | -0.0625 | | -0.3530 | | -0.3470 | 0.1620 | 0.012100 | -0.1530 |
| 6/16/2016 13:45 | 2.750 | 2.760 | -0.0115 | | -0.0626 | | -0.0614 | 0.1040 | 0.000228 | -0.0209 |
| 6/15/2016 9:05 | 3.280 | 3.390 | -0.1070 | | -0.6190 | | -0.6120 | 0.2060 | 0.049700 | -0.3120 |
| 5/24/2016 12:15 | 0.778 | 0.461 | 0.3170 | | 1.7400 | | 1.8100 | 0.1170 | 0.201000 | 0.6610 |
| 6/6/2016 13:05 | 0.903 | 0.659 | 0.2440 | | 1.3200 | | 1.3400 | 0.0921 | 0.088600 | 0.4270 |
| 8/2/2016 10:35 | 0.602 | 0.955 | -0.3530 | | -1.8900 | | -1.9900 | 0.0631 | 0.120000 | -0.5160 |
| 8/16/2016 9:40 | 0.000 | 0.659 | -0.6590 | | -3.5800 | | -4.8400 | 0.0921 | 0.649000 | -1.5400 |

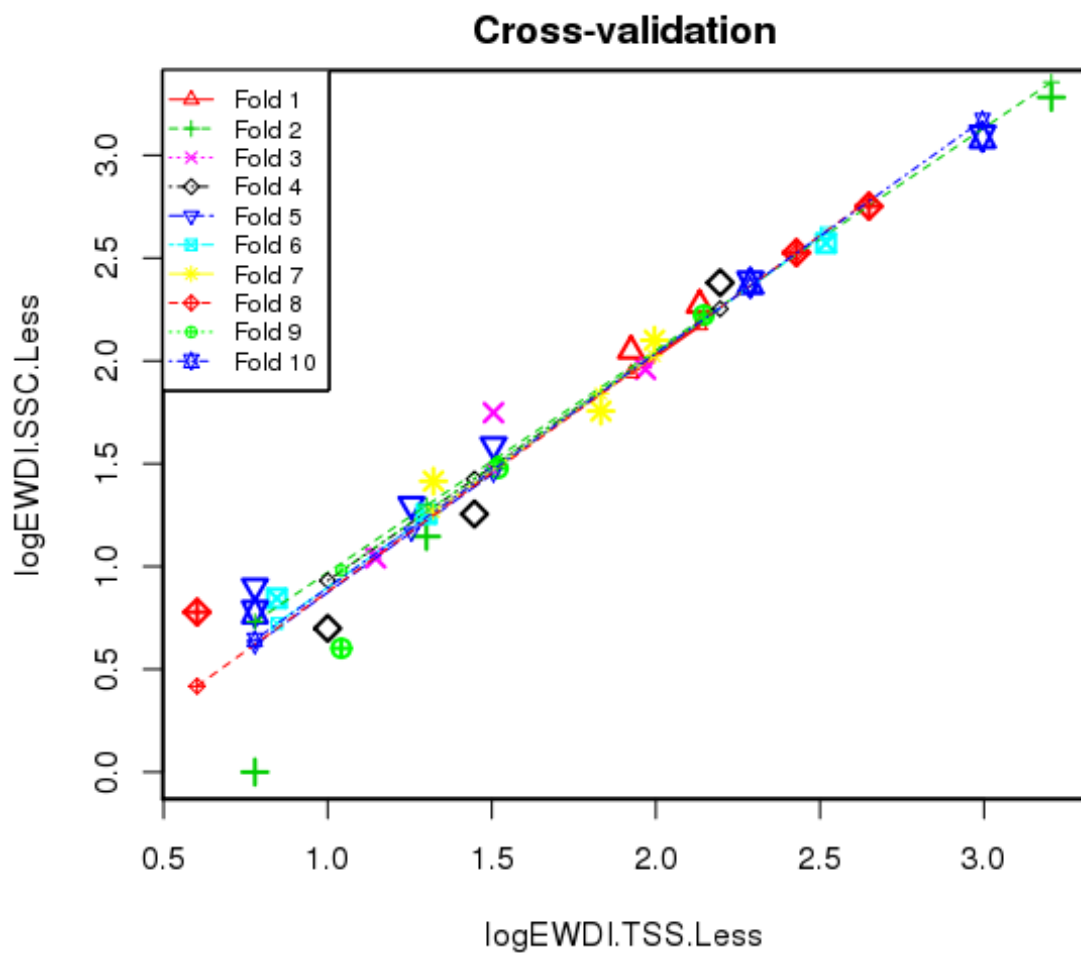
Statistical Plots



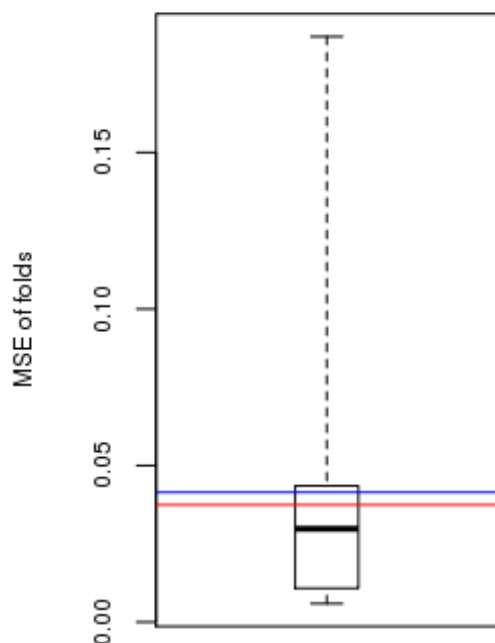




Cross Validation



Minimum MSE of folds: 0.00588
 Mean MSE of folds: 0.04140
 Median MSE of folds: 0.02980
 Maximum MSE of folds: 0.18700
 (Mean MSE of folds) / (Model MSE): 1.11000



Red line - Model MSE

Blue line - Mean MSE of folds

Model-Calibration Data Set

| 0 | Date | logEWDI.SSC.Less | logEWDI.TSS.Less | EWDI.SSC.Less | EWDI.TSS.Less | Computed logEWDI.SSC.Less | Computed EWDI.SSC.Less | Residual | Normal Quantiles | Censored Values |
|----|------------|------------------|------------------|---------------|---------------|------------------------------|---------------------------|----------|---------------------|--------------------|
| 1 | 2016-04-27 | 1.26 | 1.45 | 18 | 28 | 1.41 | 27.9 | -0.156 | -1.16 | -- |
| 2 | 2016-07-18 | 2.53 | 2.43 | 336 | 268 | 2.51 | 354 | 0.0116 | 0 | -- |
| 3 | 2016-06-15 | 3.09 | 3 | 1230 | 989 | 3.15 | 1540 | -0.0625 | -0.643 | -- |
| 4 | 2016-06-02 | 2.38 | 2.29 | 240 | 194 | 2.36 | 246 | 0.0232 | 0.0859 | -- |
| 5 | 2016-05-03 | 2.57 | 2.52 | 374 | 330 | 2.62 | 447 | -0.0435 | -0.54 | -- |
| 6 | 2016-06-16 | 2.75 | 2.65 | 565 | 446 | 2.76 | 627 | -0.0115 | -0.173 | -- |
| 7 | 2016-06-14 | 2.27 | 2.13 | 187 | 136 | 2.18 | 165 | 0.0883 | 0.35 | -- |
| 8 | 2016-06-13 | 2.38 | 2.2 | 240 | 157 | 2.25 | 194 | 0.127 | 1 | -- |
| 9 | 2016-07-15 | 1.59 | 1.51 | 39 | 32 | 1.48 | 32.4 | 0.114 | 0.752 | -- |
| 10 | 2016-04-06 | 0.845 | 0.845 | 7 | 7 | 0.735 | 5.87 | 0.11 | 0.643 | -- |
| 11 | 2016-06-17 | 0.778 | 0.778 | 6 | 6 | 0.659 | 4.93 | 0.119 | 0.871 | -- |
| 12 | 2016-06-09 | 2.22 | 2.15 | 167 | 140 | 2.2 | 170 | 0.025 | 0.173 | -- |
| 13 | 2016-08-02 | 2.1 | 2 | 126 | 99 | 2.03 | 115 | 0.0719 | 0.26 | -- |
| 14 | 2016-06-01 | 1.15 | 1.3 | 14 | 20 | 1.25 | 19.1 | -0.101 | -0.871 | -- |
| 15 | 2016-06-15 | 3.28 | 3.21 | 1910 | 1600 | 3.39 | 2640 | -0.107 | -1 | -- |

| | | | | | | | | | | |
|----|------------|-------|-------|-----|----|-------|------|---------|---------|----|
| 16 | 2016-03-30 | 1.96 | 1.97 | 91 | 93 | 2 | 108 | -0.0389 | -0.443 | -- |
| 17 | 2016-06-08 | 1.41 | 1.32 | 26 | 21 | 1.27 | 20.2 | 0.144 | 1.16 | -- |
| 18 | 2016-04-26 | 1.75 | 1.51 | 56 | 32 | 1.48 | 32.4 | 0.271 | 1.6 | -- |
| 19 | 2016-06-15 | 2.05 | 1.92 | 112 | 84 | 1.95 | 95.9 | 0.101 | 0.443 | -- |
| 20 | 2016-04-19 | 1.3 | 1.26 | 20 | 18 | 1.2 | 17 | 0.105 | 0.54 | -- |
| 21 | 2016-05-24 | 0.778 | 0.602 | 6 | 4 | 0.461 | 3.13 | 0.317 | 2.04 | -- |
| 22 | 2016-06-06 | 0.903 | 0.778 | 8 | 6 | 0.659 | 4.93 | 0.244 | 1.35 | -- |
| 23 | 2016-07-12 | 1.48 | 1.52 | 30 | 33 | 1.49 | 33.6 | -0.0148 | -0.26 | -- |
| 24 | 2016-07-08 | 0.699 | 1 | 5 | 10 | 0.909 | 8.76 | -0.21 | -1.35 | -- |
| 25 | 2016-07-12 | 1.76 | 1.83 | 57 | 68 | 1.85 | 75.7 | -0.0891 | -0.752 | -- |
| 26 | 2016-07-20 | 1.04 | 1.15 | 11 | 14 | 1.07 | 12.8 | -0.0318 | -0.35 | -- |
| 27 | 2016-08-02 | 0.602 | 1.04 | 4 | 11 | 0.955 | 9.76 | -0.353 | -1.6 | -- |
| 28 | 2016-06-07 | 1.26 | 1.3 | 18 | 20 | 1.25 | 19.1 | 0.00789 | -0.0859 | -- |
| 29 | 2016-08-16 | 0 | 0.778 | 1 | 6 | 0.659 | 4.93 | -0.659 | -2.04 | -- |

Definitions

EWDI.SSC.Less: Suspended sediment concentration (SSC) in mg/l (80154)

EWDI.TSS.Less: Total suspended solids in mg/l (00530)

App Version 1.0