

# Model Statistics, Data, and Plots

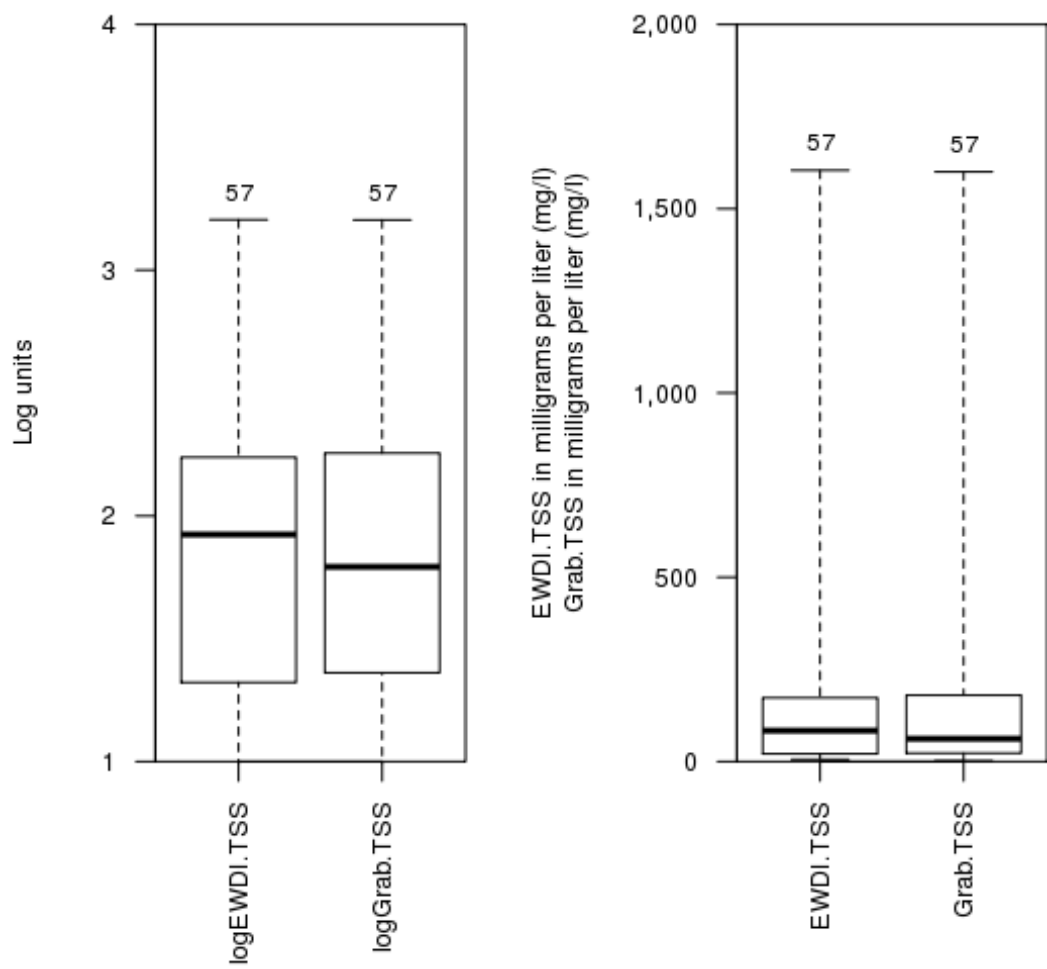
## Model

$\text{logEWDI.TSS} = + 0.86 * \text{logGrab.TSS} + 0.357$

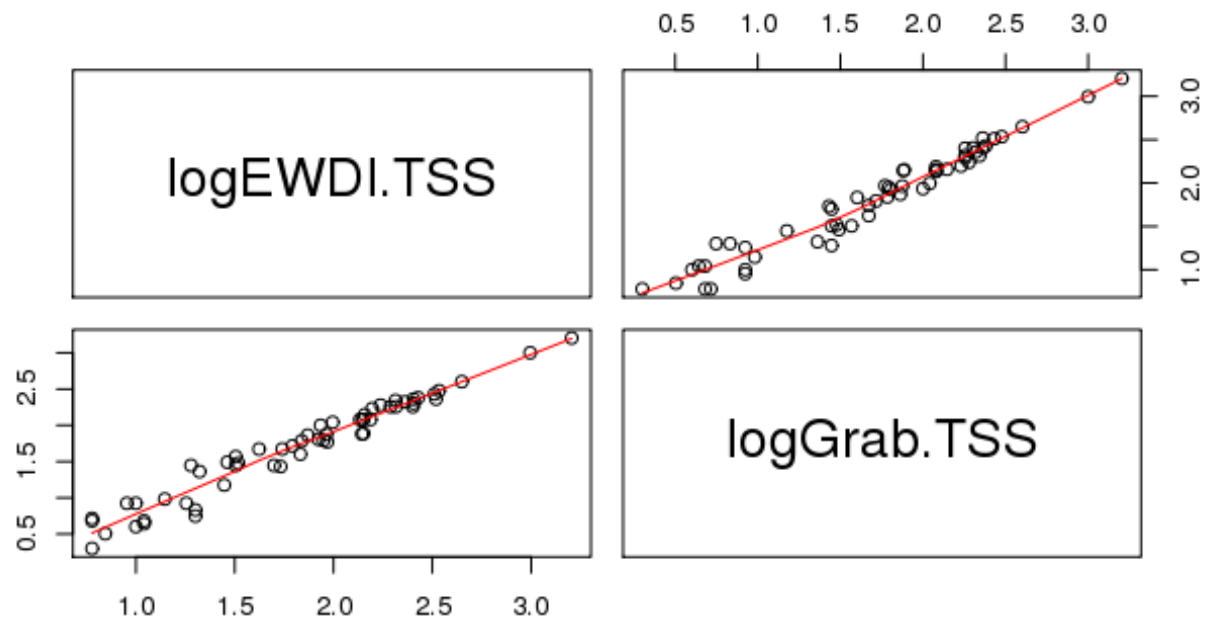
## Variable Summary Statistics

	logEWDI.TSS	EWDI.TSS	logGrab.TSS	Grab.TSS
Minimum	0.778	6	0.301	2
1st Quartile	1.320	21	1.360	23
Median	1.920	84	1.790	62
Mean	1.820	151	1.710	135
3rd Quartile	2.240	173	2.260	180
Maximum	3.210	1600	3.200	1600

## Box Plots



## Exploratory Plots



## Basic Model Statistics

Number of Observations	57
Standard error (RMSE)	0.125
Average Model standard percentage error (MSPE)	29.2
Coefficient of determination ( $R^2$ )	0.955
Adjusted Coefficient of Determination (Adj. $R^2$ )	0.954
Bias Correction Factor (BCF)	1.04

## Explanatory Variables

	Coefficients	Standard Error	t value	Pr(> t )
(Intercept)	0.357	0.0462	7.73	2.38e-10
logGrab.TSS	0.860	0.0253	34.00	1.21e-38

## Correlation Matrix

	Intercept	E.vars
Intercept	1.000	-0.933
E.vars	-0.933	1.000

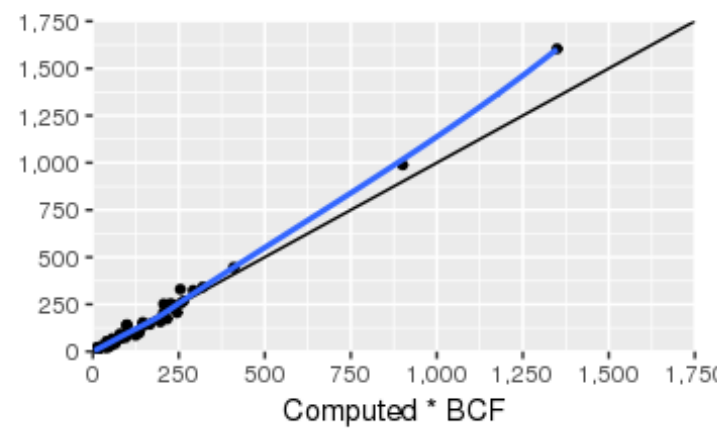
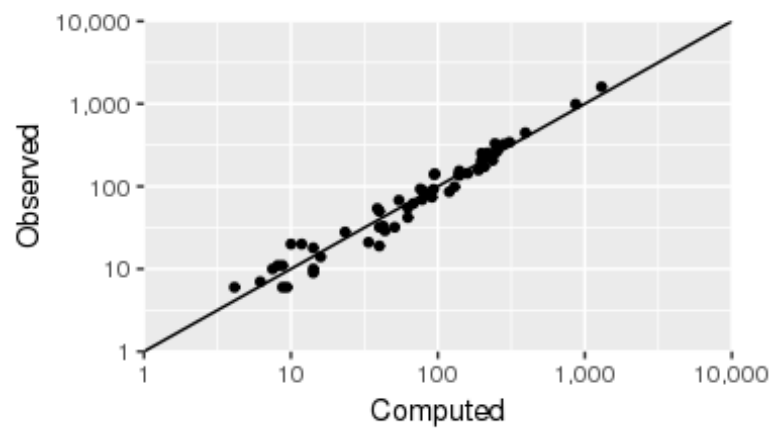
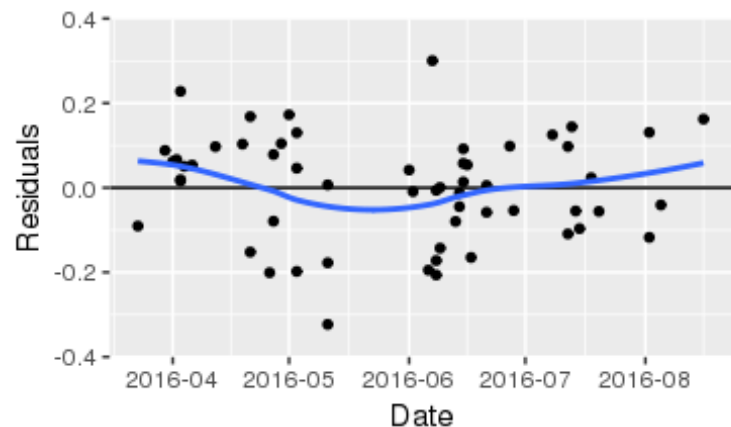
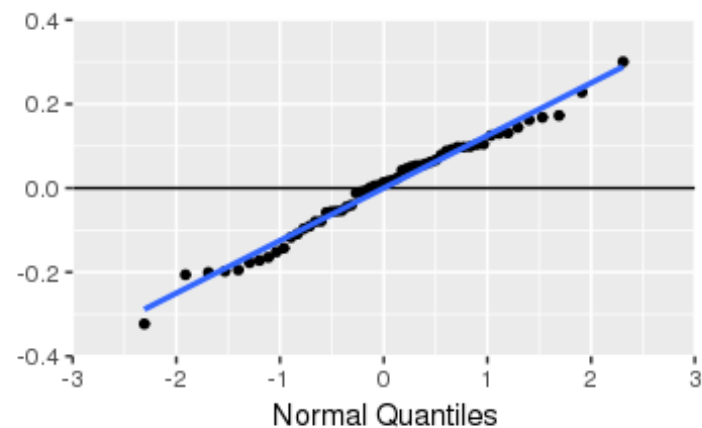
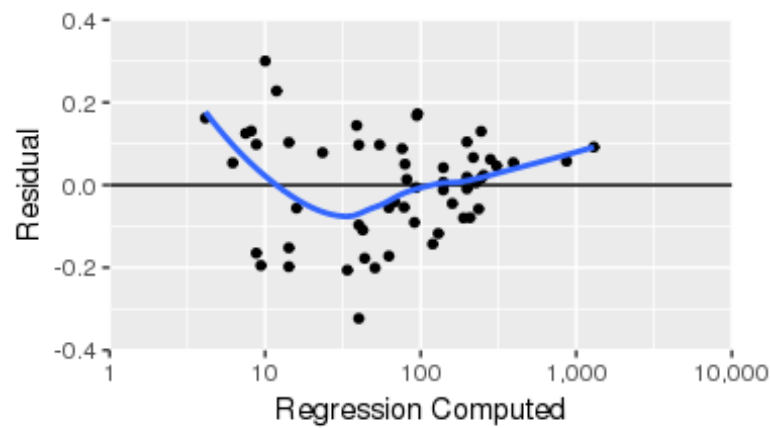
## Outlier Test Criteria

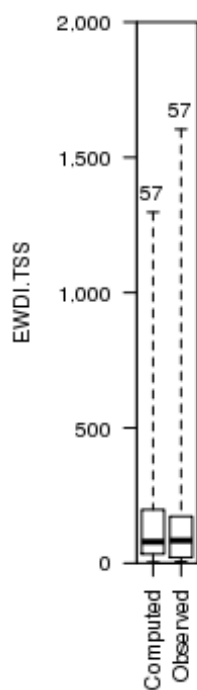
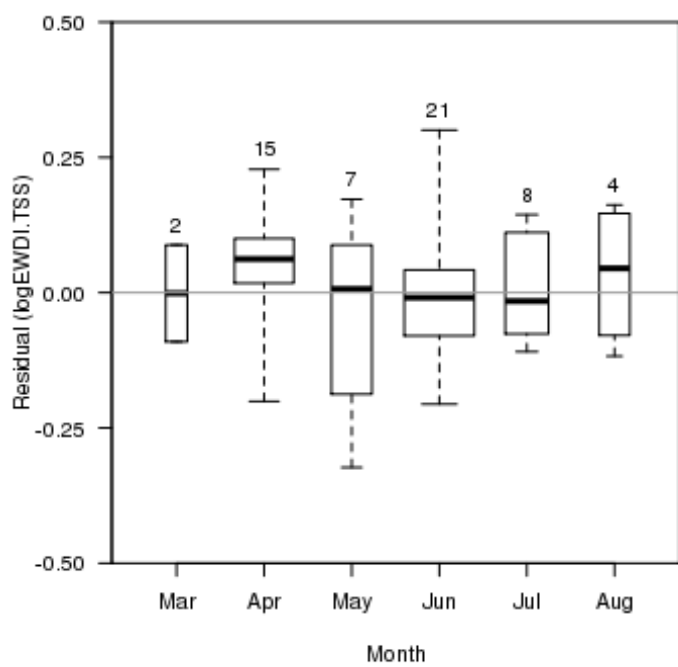
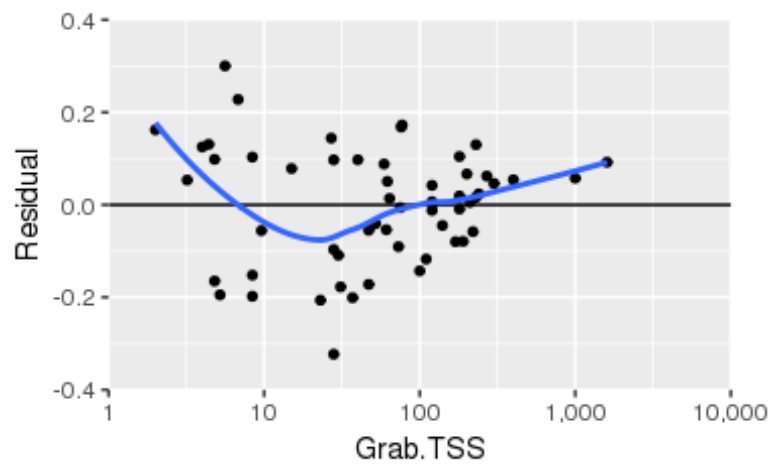
Leverage	Cook's D	DFFITS
0.0526	0.1056	0.2649

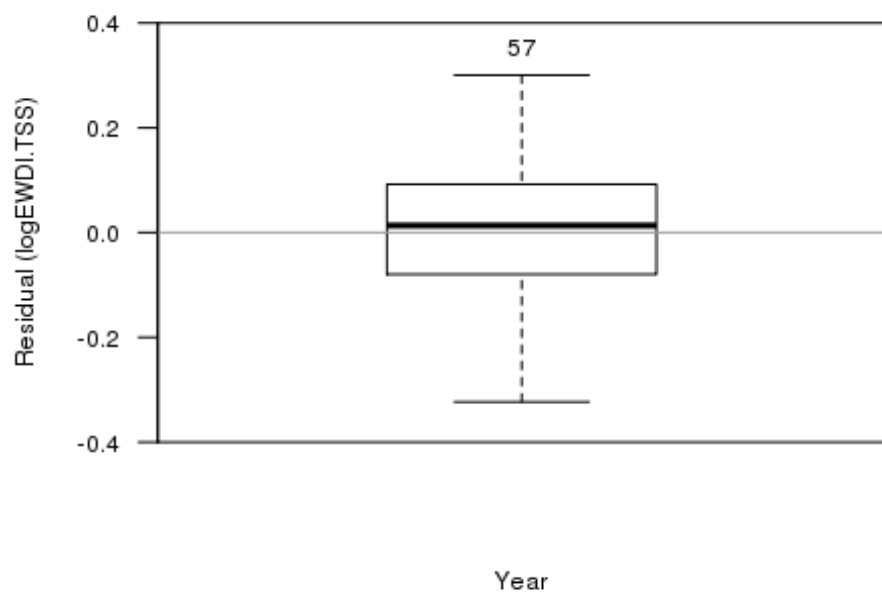
## Flagged Observations

	logEWDI.TSS	Estimate	Residual	Standard	Residual	Studentized	Residual	Leverage	Cook's D	DFFITS
6/7/2016 10:50	1.300	1.000	0.3000		2.470		2.590	0.0548	0.17600	0.624
8/16/2016 9:40	0.778	0.616	0.1620		1.360		1.370	0.0977	0.10100	0.452
4/6/2016 15:35	0.845	0.792	0.0536		0.445		0.442	0.0761	0.00815	0.127
5/3/2016 17:30	0.954	1.150	-0.1980		-1.610		-1.640	0.0424	0.05760	-0.344
8/2/2016 10:35	1.040	0.910	0.1310		1.080		1.080	0.0634	0.03950	0.281
4/3/2016 15:35	1.300	1.070	0.2280		1.870		1.910	0.0485	0.08870	0.431
6/6/2016 13:05	0.778	0.973	-0.1950		-1.600		-1.620	0.0573	0.07800	-0.401
6/17/2016 11:40	0.778	0.943	-0.1650		-1.360		-1.370	0.0602	0.05900	-0.346
6/27/2016 14:05	1.040	0.943	0.0984		0.810		0.808	0.0602	0.02100	0.204
7/8/2016 12:15	1.000	0.875	0.1250		1.030		1.030	0.0670	0.03840	0.277
6/15/2016 17:35	3.000	2.940	0.0577		0.481		0.478	0.0857	0.01090	0.146
5/11/2016 10:05	1.280	1.600	-0.3230		-2.610		-2.760	0.0203	0.07020	-0.396
6/15/2016 9:05	3.210	3.110	0.0921		0.779		0.776	0.1090	0.03710	0.271

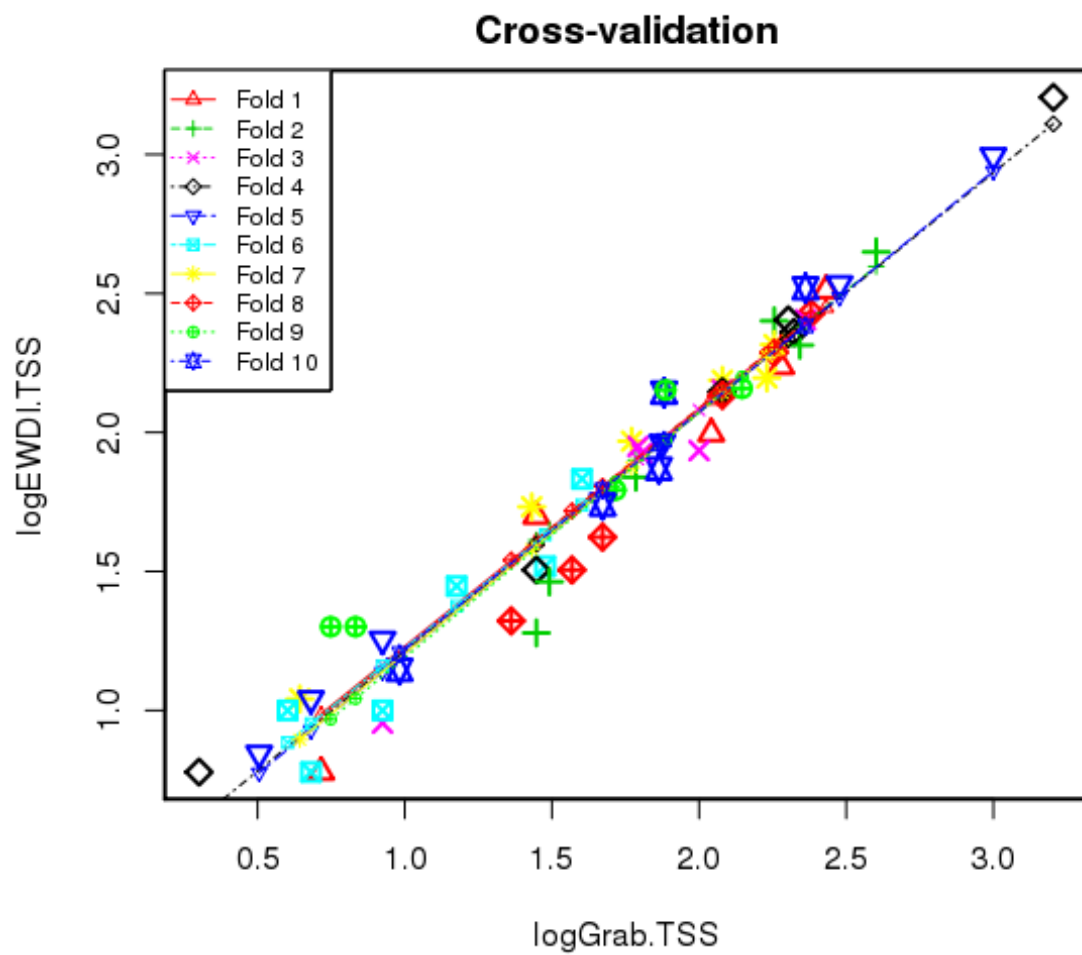
Statistical Plots



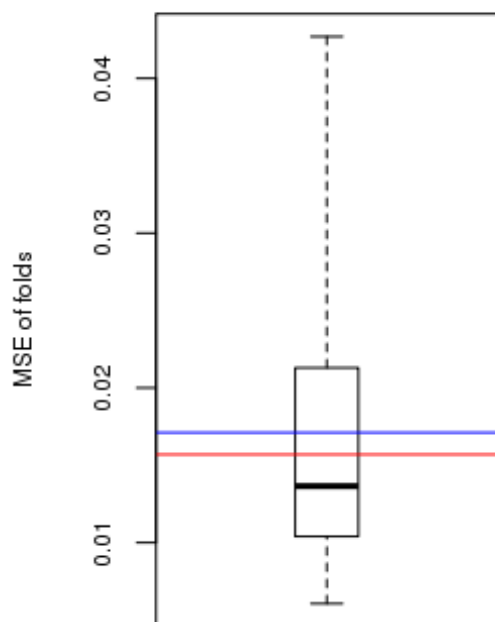




## Cross Validation



Minimum MSE of folds: 0.00606  
 Mean MSE of folds: 0.01710  
 Median MSE of folds: 0.01360  
 Maximum MSE of folds: 0.04270  
 (Mean MSE of folds) / (Model MSE): 1.09000



Red line - Model MSE

Blue line - Mean MSE of folds

## Model-Calibration Data Set

	Date	logEWDI.TSS	logGrab.TSS	EWDI.TSS	Grab.TSS	Computed logEWDI.TSS	Computed EWDI.TSS	Residual	Normal Quantiles	Censored Values
0										
1	2016-03-30	1.97	1.77	93	59	1.88	78.9	0.0882	0.605	--
2	2016-04-19	1.26	0.924	18	8.4	1.15	14.8	0.103	0.895	--
3	2016-04-26	1.51	1.57	32	37	1.71	52.8	-0.201	-1.69	--
4	2016-06-07	1.3	0.748	20	5.6	1	10.4	0.3	2.31	--
5	2016-06-15	1.92	1.81	84	64	1.91	84.7	0.0136	0	--
6	2016-07-12	1.83	1.6	68	40	1.74	56.5	0.0974	0.771	--
7	2016-08-16	0.778	0.301	6	2	0.616	4.3	0.162	1.4	--
8	2016-04-06	0.845	0.505	7	3.2	0.792	6.44	0.0536	0.312	--
9	2016-04-27	1.45	1.18	28	15	1.37	24.3	0.0785	0.553	--
10	2016-05-03	0.954	0.924	9	8.4	1.15	14.8	-0.198	-1.53	--
11	2016-06-08	1.32	1.36	21	23	1.53	35.1	-0.206	-1.91	--

12	2016-07-20	1.15	0.982	14	9.6	1.2	16.6	-0.0558	-0.502	--
13	2016-08-02	1.04	0.643	11	4.4	0.91	8.46	0.131	1.2	--
14	2016-08-05	1.79	1.72	62	52	1.83	70.8	-0.0407	-0.312	--
15	2016-04-03	1.3	0.833	20	6.8	1.07	12.3	0.228	1.91	--
16	2016-04-21	1	0.924	10	8.4	1.15	14.8	-0.152	-1.03	--
17	2016-06-06	0.778	0.716	6	5.2	0.973	9.77	-0.195	-1.4	--
18	2016-06-17	0.778	0.681	6	4.8	0.943	9.12	-0.165	-1.11	--
19	2016-06-27	1.04	0.681	11	4.8	0.943	9.12	0.0984	0.832	--
20	2016-07-08	1	0.602	10	4	0.875	7.8	0.125	1.03	--
21	2016-07-12	1.52	1.48	33	30	1.63	44.1	-0.109	-0.832	--
22	2016-07-15	1.51	1.45	32	28	1.6	41.6	-0.0967	-0.771	--
23	2016-04-04	1.95	1.79	89	62	1.9	82.4	0.0506	0.266	--
24	2016-04-21	2.14	1.88	139	76	1.97	98.2	0.168	1.53	--
25	2016-04-29	2.4	2.26	252	180	2.3	206	0.104	0.963	--
26	2016-05-01	2.15	1.89	142	77	1.98	99.3	0.173	1.69	--
27	2016-06-01	2.19	2.08	154	120	2.15	145	0.042	0.176	--
28	2016-07-18	2.43	2.38	268	240	2.4	264	0.0237	0.132	--
29	2016-04-01	2.51	2.43	324	270	2.45	292	0.0621	0.453	--
30	2016-04-03	2.4	2.36	254	230	2.39	254	0.0163	0.0438	--
31	2016-04-27	2.24	2.28	173	190	2.32	216	-0.0791	-0.605	--
32	2016-05-03	2.53	2.48	342	300	2.49	320	0.0463	0.221	--
33	2016-05-11	2.15	2.08	142	120	2.15	145	0.00682	-0.0438	--
34	2016-06-15	3	3	989	1000	2.94	901	0.0577	0.405	--
35	2016-06-21	2.36	2.32	229	210	2.35	235	0.00531	-0.0878	--
36	2016-04-02	2.4	2.3	254	201	2.34	227	0.0667	0.502	--
37	2016-05-03	2.52	2.36	330	230	2.39	254	0.13	1.11	--
38	2016-06-02	2.29	2.26	194	180	2.3	206	-0.00914	-0.221	--
39	2016-06-09	2.15	2.08	140	120	2.15	145	0.000655	-0.132	--
40	2016-06-14	2.13	2.08	136	120	2.15	145	-0.0119	-0.266	--
41	2016-06-16	2.65	2.6	446	400	2.6	410	0.0541	0.358	--
42	2016-06-21	2.31	2.34	206	220	2.37	245	-0.058	-0.553	--
43	2016-08-02	2	2.04	99	110	2.11	135	-0.117	-0.895	--
44	2016-04-12	1.7	1.45	50	28	1.6	41.6	0.0971	0.714	--
45	2016-05-11	1.46	1.49	29	31	1.64	45.4	-0.177	-1.29	--
46	2016-06-08	1.62	1.67	42	47	1.8	64.9	-0.172	-1.2	--
47	2016-06-13	2.2	2.23	157	170	2.28	196	-0.0797	-0.658	--
48	2016-06-28	1.84	1.79	69	61	1.89	81.2	-0.0539	-0.405	--
49	2016-07-14	1.74	1.67	55	47	1.8	64.9	-0.0549	-0.453	--
50	2016-03-23	1.87	1.86	74	73	1.96	94.8	-0.0906	-0.714	--
51	2016-04-03	2.32	2.26	207	180	2.3	206	0.019	0.0878	--
52	2016-05-11	1.28	1.45	19	28	1.6	41.6	-0.323	-2.31	--
53	2016-06-08	1.96	1.88	92	75	1.97	97	-0.00611	-0.176	--
54	2016-06-09	1.93	2	86	100	2.08	124	-0.143	-0.963	--
55	2016-06-14	2.16	2.15	144	140	2.2	166	-0.0447	-0.358	--
56	2016-06-15	3.21	3.2	1600	1600	3.11	1350	0.0921	0.658	--
57	2016-07-13	1.73	1.43	54	27	1.59	40.3	0.144	1.29	--

## Definitions

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

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

App Version 1.0