

EROM QA Report For: VPU = 03N Runid = 0001  
 ETFRACT1 = 0.3 ETFRACT2 = 0.5  
 Gage Sequestration Proportion = 0.2  
 See Page 3 for a brief explanation of the values in the tables.

N = Number of Gages  
 Qbar = Log10 Mean Flow (cfs)  
 SEE = Standard Error of the Estimate in percent;  
 2/3 of the Flow Estimates will have errors that are within one SEE

Table 1: Statistics For All Gages:

Period	N	Gage Runoff			Excess ET		RefGage Reg		PlusFlowAR	
		Qbar	Qbar	SEE	Qbar	SEE	Qbar	SEE	Qbar	SEE
MA	270	2.2699	2.2449	29.400	2.2449	29.400	2.2409	28.171	2.2409	28.171
JAN	285	2.4040	2.5069	35.952	2.5069	35.952	2.3989	24.729	2.3989	24.729
FEB	285	2.4356	2.5215	32.482	2.5215	32.482	2.4415	24.040	2.4415	24.040
MAR	285	2.4767	2.5516	29.863	2.5516	29.863	2.4752	22.888	2.4752	22.888
APR	284	2.3478	2.3659	29.162	2.3659	29.162	2.3319	28.548	2.3319	28.548
MAY	285	2.1880	2.1663	37.396	2.1663	37.396	2.1404	37.710	2.1404	37.710
JUN	285	2.0881	1.9538	53.542	1.9538	53.542	2.0517	41.909	2.0517	41.909
JUL	287	2.0101	1.7978	74.470	1.7978	74.470	1.9759	48.055	1.9759	48.055
AUG	287	2.0219	1.6648	121.01	1.6648	121.01	2.0131	51.721	2.0131	51.721
SEP	288	2.0580	1.6133	171.46	1.6133	171.46	2.0132	63.602	2.0132	63.602
OCT	287	2.0691	1.5759	207.06	1.5759	207.06	1.9952	66.734	1.9952	66.734
NOV	287	2.0958	1.8909	119.77	1.8909	119.77	2.0233	82.823	2.0233	82.823
DEC	287	2.2024	2.2674	59.453	2.2674	59.453	2.1850	53.620	2.1850	53.620

Table 2: Statistics For Sequestered Gages:

Period	N	Gage Seq. Gages		
		Qbar	Qbar	SEE
MA	54	2.3271	2.2934	32.027
JAN	57	2.4405	2.4467	18.094
FEB	57	2.4537	2.4557	30.303
MAR	57	2.4578	2.4696	14.997
APR	57	2.4384	2.4440	19.210
MAY	57	2.2037	2.1419	53.163
JUN	57	2.0800	2.0651	27.742
JUL	58	1.7806	1.7335	64.577
AUG	58	2.0144	2.0075	63.503
SEP	58	1.9729	1.9639	43.733
OCT	58	2.1026	2.0899	48.462
NOV	58	2.2083	2.1642	55.397
DEC	58	2.1193	2.1010	52.436

Table 3: Statistics For Reference Gages:

Period	N	Gage Runoff			Excess ET		RefGage Reg		PlusFlowAR	
		Qbar	Qbar	SEE	Qbar	SEE	Qbar	SEE	Qbar	SEE
MA	59	2.0098	2.0082	13.635	2.0082	13.635	2.0135	13.016	2.0135	13.016
JAN	60	2.1698	2.2766	29.305	2.2766	29.305	2.1745	14.676	2.1745	14.676
FEB	60	2.2088	2.2876	24.217	2.2876	24.217	2.2139	15.383	2.2139	15.383
MAR	60	2.2467	2.3181	20.556	2.3181	20.556	2.2495	11.523	2.2495	11.523
APR	60	2.1171	2.1512	17.618	2.1512	17.618	2.1221	15.566	2.1221	15.566
MAY	60	1.9347	1.9626	22.819	1.9626	22.819	1.9445	21.563	1.9445	21.563
JUN	60	1.8318	1.7451	33.234	1.7451	33.234	1.8465	26.097	1.8465	26.097
JUL	60	1.7347	1.5812	54.831	1.5812	54.831	1.7656	39.098	1.7656	39.098
AUG	60	1.7554	1.4476	99.167	1.4476	99.167	1.7935	45.635	1.7935	45.635
SEP	60	1.8054	1.4217	130.20	1.4217	130.20	1.8473	47.058	1.8473	47.058
OCT	61	1.7977	1.3876	156.37	1.3876	156.37	1.8473	55.377	1.8473	55.377
NOV	61	1.8226	1.7241	78.297	1.7241	78.297	1.8972	64.007	1.8972	64.007
DEC	61	1.9276	2.0283	47.776	2.0283	47.776	1.9667	39.868	1.9667	39.868

Table 4: Reference Gage Log-Log Regression Statistics:

Period	N	a	b	BCF	R2	SER
MA	59	0.0796	0.9611	1.0086	0.9840	0.0573
JAN	60	-0.048	0.9741	1.0108	0.9795	0.0643
FEB	60	-0.017	0.9729	1.0119	0.9773	0.0674
MAR	60	0.0047	0.9670	1.0064	0.9870	0.0506
APR	60	0.0147	0.9772	1.0115	0.9781	0.0682
MAY	60	0.0456	0.9624	1.0229	0.9613	0.0940
JUN	60	0.1124	0.9853	1.0347	0.9469	0.1129
JUL	60	0.1944	0.9744	1.0744	0.8867	0.1645
AUG	60	0.2837	1.0174	1.0929	0.8694	0.1901
SEP	60	0.5577	0.8787	1.1020	0.8504	0.1935
OCT	61	0.6952	0.7962	1.1249	0.8350	0.2266
NOV	61	0.5002	0.7667	1.1914	0.7817	0.2519
DEC	61	0.0737	0.9136	1.0959	0.8992	0.1666

N = Number of Reference Gages

a , b = regression coefficients; BCF = Bias Correction

R2 = R-Squared of the regression; SER = Standard Error of the Regression

#### Summary of contents of the QA Report:

Two statistics are used for measuring how well the different flow estimates performed in relation to the gage flows:

1. The log10 mean gage flow as compared to the log10 mean flow estimates at the gages.
2. The Standard Error of the Estimate (SEE) in percent; 2/3 of the flow estimates will be within one SEE.

Six flow values are calculated in EROM:

- A - Cumulative runoff based on the runoff grids
- B - The application of Excess ET to the cumulative runoff
- C - The flow adjustments from the Reference Gage Regression
- D - The application of the PlusFlowAR additions and removals
- E - Gage adjustment, in which the flows at the gage and a distance upstream are adjusted to match the actual gage flow. Statistics for this flow are not presented because all gages are adjusted, therefore the statistics would perfectly match the gage values.
- F - The gage adjustment statistics with a randomly selected proportion of the gages removed (typically 0.2); this process is referred to as Gage Sequestering. The Gage Sequestering provides a method to estimate the accuracy of the flows after the gage adjustment.

There are four tables in the EROM QA Report:

Table 1 reports statistics for all gages for flows A, B, C, and D described above.

Table 2 reports the statistics for only the sequestered gages from the sixth flow estimate

Table 3 reports the statistics for the Reference gages.

Table 4 presents the statistics used in the Reference Gage Regression step;  
these values are the log-log regression coefficients  
and the associated R2 and Standard Error of the Regression.

The tables report values for Mean Annual (MA) and each month that has been run.

See the NHDPlus User Guide for more information