

EROM QA Report For: VPU = 06 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	121	2.6408	2.6582	21.416	2.6582	21.416	2.6360	20.847	2.6360	20.847
JAN	127	2.7814	2.8090	25.041	2.8090	25.041	2.8027	23.773	2.8027	23.773
FEB	127	2.7909	2.8241	26.302	2.8241	26.302	2.8154	24.056	2.8154	24.056
MAR	127	2.8384	2.8772	29.902	2.8772	29.902	2.8775	29.921	2.8775	29.921
APR	127	2.7226	2.7755	32.420	2.7755	32.420	2.7626	32.161	2.7626	32.161
MAY	127	2.6223	2.6778	33.316	2.6778	33.316	2.6419	31.057	2.6419	31.057
JUN	127	2.4617	2.4556	35.139	2.4556	35.139	2.4408	36.217	2.4408	36.217
JUL	128	2.3343	2.2547	50.177	2.2547	50.177	2.2741	48.072	2.2741	48.072
AUG	128	2.2561	2.0974	70.053	2.0974	70.053	2.1676	60.723	2.1676	60.723
SEP	128	2.2449	2.0839	77.896	2.0839	77.896	2.0989	79.646	2.0989	79.646
OCT	124	2.3197	2.1196	107.68	2.1196	107.68	2.1690	97.667	2.1690	97.667
NOV	123	2.5058	2.5714	37.503	2.5714	37.503	2.4502	38.470	2.4502	38.470
DEC	124	2.6754	2.7455	29.786	2.7455	29.786	2.6765	24.600	2.6765	24.600

Table 2: Statistics For Sequestered Gages:

Period	N	Gage Seq. Gages		
		Qbar	Qbar	SEE
MA	25	2.5771	2.5836	13.833
JAN	26	3.0765	3.0744	29.699
FEB	26	2.7736	2.7796	27.734
MAR	26	2.6278	2.6467	12.145
APR	26	2.5409	2.5465	14.426
MAY	26	2.7149	2.7789	27.694
JUN	26	2.5860	2.5980	18.027
JUL	26	2.2891	2.2176	36.856
AUG	26	2.1462	2.0740	77.779
SEP	26	2.3632	2.2739	65.408
OCT	25	2.2133	2.0819	80.048
NOV	25	2.2846	2.2573	44.396
DEC	25	2.5883	2.6015	13.691

Table 3: Statistics For Reference Gages:

Period	N	Gage			Runoff		Excess ET		RefGage Reg		PlusFlowAR	
		Qbar	Qbar	SEE	Qbar	SEE	Qbar	SEE	Qbar	SEE	Qbar	SEE
MA	36	2.1852	2.2077	11.011	2.2077	11.011	2.1872	9.6942	2.1872	9.6942		
JAN	36	2.3598	2.3645	18.799	2.3645	18.799	2.3671	18.704	2.3671	18.704		
FEB	36	2.3793	2.3845	16.753	2.3845	16.753	2.3851	16.591	2.3851	16.591		
MAR	36	2.4453	2.4482	12.321	2.4482	12.321	2.4485	12.325	2.4485	12.325		
APR	36	2.3375	2.3569	12.758	2.3569	12.758	2.3406	11.923	2.3406	11.923		
MAY	36	2.2319	2.2744	19.096	2.2744	19.096	2.2374	16.352	2.2374	16.352		
JUN	36	2.0332	2.0695	23.950	2.0695	23.950	2.0431	22.197	2.0431	22.197		
JUL	36	1.8801	1.8818	24.721	1.8818	24.721	1.8925	24.734	1.8925	24.734		
AUG	36	1.8146	1.7495	28.895	1.7495	28.895	1.8270	24.438	1.8270	24.438		
SEP	36	1.7834	1.7506	42.367	1.7506	42.367	1.8122	37.374	1.8122	37.374		
OCT	36	1.8583	1.7709	72.555	1.7709	72.555	1.9121	52.815	1.9121	52.815		
NOV	36	2.0695	2.1572	34.177	2.1572	34.177	2.0812	23.047	2.0812	23.047		
DEC	36	2.2408	2.3158	24.619	2.3158	24.619	2.2472	17.235	2.2472	17.235		

Table 4: Reference Gage Log-Log Regression Statistics:

Period	N	a	b	BCF	R2	SER
MA	36	-0.014	0.9963	1.0047	0.9926	0.0432
JAN	36	0.0421	0.9801	1.0172	0.9732	0.0826
FEB	36	0.0449	0.9789	1.0135	0.9781	0.0734
MAR	36	-0.002	0.9999	1.0074	0.9879	0.0548
APR	36	-0.038	1.0082	1.0070	0.9888	0.0530
MAY	36	-0.048	1.0026	1.0127	0.9794	0.0724
JUN	36	-0.098	1.0301	1.0231	0.9661	0.0976
JUL	36	-0.045	1.0232	1.0291	0.9599	0.1085
AUG	36	0.1011	0.9795	1.0289	0.9617	0.1072
SEP	36	0.2748	0.8617	1.0689	0.9114	0.1594
OCT	36	0.5493	0.7394	1.1325	0.8433	0.2152
NOV	36	0.1473	0.8909	1.0274	0.9605	0.1011
DEC	36	-0.072	0.9989	1.0147	0.9777	0.0763

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