

EROM QA Report For: VPU = 03S Runid = 0001
 ETFRAC1 = 0.3 ETFRAC2 = 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	Qbar	SEE
MA	162	2.1007	1.9950	61.401	1.9950	61.401	2.0670	49.445	2.0670	49.445		
JAN	168	2.1064	2.0631	85.377	2.0631	85.377	2.0677	66.839	2.0677	66.839		
FEB	170	2.1744	2.1449	65.632	2.1449	65.632	2.2165	59.732	2.2165	59.732		
MAR	172	2.2085	2.1716	67.913	2.1716	67.913	2.2454	57.423	2.2454	57.423		
APR	173	2.0424	1.9128	70.616	1.9128	70.616	2.0339	56.276	2.0339	56.276		
MAY	171	1.7411	1.8021	80.828	1.8021	80.828	1.7155	78.787	1.7155	78.787		
JUN	173	1.8991	1.8280	94.734	1.8280	94.734	1.9279	84.925	1.9279	84.925		
JUL	173	2.0408	1.7801	110.99	1.7801	110.99	2.0275	71.436	2.0275	71.436		
AUG	173	2.1542	1.8614	113.69	1.8614	113.69	2.1579	63.618	2.1579	63.618		
SEP	173	2.1862	2.0088	97.514	2.0088	97.514	2.2447	80.431	2.2447	80.431		
OCT	174	2.0444	1.7635	122.61	1.7635	122.61	2.1061	82.158	2.1061	82.158		
NOV	173	1.8430	1.6750	98.911	1.6750	98.911	1.8183	88.837	1.8183	88.837		
DEC	175	1.9432	1.7481	100.32	1.7481	100.32	1.8960	79.516	1.8960	79.516		

Table 2: Statistics For Sequestered Gages:

Period	N	Gage			Seq. Gages	
		Qbar	Qbar	SEE		
MA	33	2.1807	2.1137	47.037		
JAN	34	2.1890	2.1589	50.118		
FEB	34	2.3263	2.3630	59.281		
MAR	35	2.1993	2.2645	50.249		
APR	35	1.9568	1.9544	41.497		
MAY	35	1.7420	1.6950	89.559		
JUN	35	1.9547	1.9735	62.155		
JUL	35	2.0700	2.0794	59.864		
AUG	35	2.2849	2.2176	65.585		
SEP	35	2.1262	2.1519	66.382		
OCT	35	2.0676	2.1605	55.398		
NOV	35	1.8846	1.8750	66.784		
DEC	35	1.8113	1.8109	72.370		

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	35	1.9642	1.9085	38.700	1.9085	38.700	1.9882	34.200	1.9882	34.200
JAN	36	2.0003	2.0539	80.208	2.0539	80.208	2.0618	58.534	2.0618	58.534
FEB	36	2.1263	2.0986	56.136	2.0986	56.136	2.1776	49.933	2.1776	49.933
MAR	36	2.1488	2.1368	62.856	2.1368	62.856	2.2165	58.337	2.2165	58.337
APR	37	1.9363	1.8515	50.055	1.8515	50.055	1.9771	44.911	1.9771	44.911
MAY	37	1.5554	1.6961	61.566	1.6961	61.566	1.6095	51.100	1.6095	51.100
JUN	37	1.7281	1.6908	67.906	1.6908	67.906	1.8045	68.331	1.8045	68.331
JUL	37	1.8471	1.6473	76.099	1.6473	76.099	1.9005	54.133	1.9005	54.133
AUG	37	1.9973	1.7295	87.855	1.7295	87.855	2.0344	46.082	2.0344	46.082
SEP	37	1.9738	1.7936	77.379	1.7936	77.379	2.0360	60.941	2.0360	60.941
OCT	37	1.8716	1.5763	103.01	1.5763	103.01	1.9246	56.192	1.9246	56.192
NOV	37	1.6252	1.5264	71.344	1.5264	71.344	1.6927	64.108	1.6927	64.108
DEC	37	1.8051	1.7251	81.264	1.7251	81.264	1.8797	64.534	1.8797	64.534

Table 4: Reference Gage Log-Log Regression Statistics:

Period	N	a	b	BCF	R2	SER
MA	35	0.2189	0.9145	1.0571	0.9424	0.1470
JAN	36	0.4849	0.7377	1.1527	0.8559	0.2350
FEB	36	0.3395	0.8514	1.1257	0.9055	0.2046
MAR	36	0.3404	0.8462	1.1690	0.8772	0.2321
APR	37	0.2011	0.9372	1.0993	0.9305	0.1876
MAY	37	-0.134	0.9956	1.1356	0.9098	0.2111
JUN	37	0.2017	0.9025	1.1948	0.8162	0.2670
JUL	37	0.2640	0.9612	1.1319	0.8786	0.2206
AUG	37	0.3697	0.9415	1.0895	0.9077	0.1926
SEP	37	0.2330	0.9706	1.1554	0.8656	0.2439
OCT	37	0.3408	0.9717	1.1310	0.8623	0.2286
NOV	37	0.3297	0.8488	1.1695	0.7959	0.2538
DEC	37	0.5099	0.7509	1.1886	0.8160	0.2528

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