

EROM QA Report For: VPU = 03W 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	Qbar	SEE
MA	218	2.6925	2.6904	15.873	2.6904	15.873	2.6757	15.666	2.6768	15.766		
JAN	219	2.8735	2.9657	30.041	2.9657	30.041	2.8806	20.242	2.8813	20.200		
FEB	219	2.9163	2.9845	22.762	2.9845	22.762	2.9233	15.904	2.9239	16.018		
MAR	220	2.9563	3.0219	24.251	3.0219	24.251	2.9628	18.605	2.9634	18.573		
APR	221	2.8350	2.8780	23.286	2.8780	23.286	2.8253	21.186	2.8260	21.222		
MAY	221	2.6356	2.6567	28.750	2.6567	28.750	2.6265	28.362	2.6275	28.366		
JUN	222	2.4875	2.4107	42.029	2.4107	42.029	2.4365	39.526	2.4381	39.628		
JUL	221	2.4386	2.2495	67.115	2.2495	67.115	2.4161	45.669	2.4180	46.481		
AUG	221	2.3019	2.0403	93.595	2.0403	93.595	2.2940	56.930	2.2966	57.989		
SEP	221	2.2844	1.9751	108.80	1.9751	108.80	2.3158	57.502	2.3186	58.375		
OCT	220	2.3267	1.8808	164.83	1.8808	164.83	2.3213	52.878	2.3246	53.489		
NOV	220	2.5052	2.3212	80.601	2.3212	80.601	2.5044	61.641	2.5066	61.400		
DEC	221	2.6737	2.7431	35.839	2.7431	35.839	2.6764	33.730	2.6774	33.613		

Table 2: Statistics For Sequestered Gages:

Period	N	Gage			Seq. Gages	
		Qbar	Qbar	SEE		
MA	44	2.7440	2.7427	11.154		
JAN	44	2.7177	2.7226	14.337		
FEB	44	2.9756	2.9934	15.475		
MAR	44	3.1097	3.1003	16.802		
APR	45	2.7926	2.7957	24.697		
MAY	45	2.5579	2.5636	21.715		
JUN	45	2.4711	2.4370	42.883		
JUL	45	2.4250	2.4491	40.195		
AUG	45	2.3006	2.3240	53.660		
SEP	45	2.3526	2.3714	41.339		
OCT	44	2.5717	2.5529	46.452		
NOV	44	2.3632	2.3736	46.221		
DEC	45	2.7082	2.6966	34.067		

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	51	2.2045	2.2077	14.462	2.2077	14.462	2.2089	13.733	2.2089	13.733
JAN	51	2.4032	2.4913	27.223	2.4913	27.223	2.4098	17.573	2.4098	17.573
FEB	51	2.4498	2.5111	19.561	2.5111	19.561	2.4536	13.320	2.4536	13.320
MAR	51	2.4959	2.5589	22.062	2.5589	22.062	2.5018	16.413	2.5018	16.413
APR	51	2.3605	2.4133	23.477	2.4133	23.477	2.3689	19.838	2.3689	19.838
MAY	52	2.1637	2.1883	25.263	2.1883	25.263	2.1772	24.111	2.1772	24.111
JUN	52	1.9877	1.9480	34.457	1.9480	34.457	2.0106	31.531	2.0106	31.531
JUL	51	1.9498	1.7887	60.362	1.7887	60.362	1.9821	43.397	1.9821	43.397
AUG	51	1.8105	1.5675	80.969	1.5675	80.969	1.8488	46.299	1.8488	46.299
SEP	51	1.7924	1.4833	124.77	1.4833	124.77	1.8555	75.263	1.8555	75.263
OCT	51	1.7917	1.3424	172.34	1.3424	172.34	1.8415	59.675	1.8415	59.675
NOV	51	2.0219	1.7914	95.221	1.7914	95.221	2.0819	58.525	2.0819	58.525
DEC	51	2.2193	2.2738	38.950	2.2738	38.950	2.2509	34.621	2.2509	34.621

Table 4: Reference Gage Log-Log Regression Statistics:

Period	N	a	b	BCF	R2	SER
MA	51	0.0696	0.9670	1.0101	0.9899	0.0606
JAN	51	-0.069	0.9925	1.0154	0.9850	0.0771
FEB	51	-0.041	0.9920	1.0087	0.9912	0.0587
MAR	51	-0.052	0.9959	1.0136	0.9869	0.0721
APR	51	-0.010	0.9823	1.0194	0.9805	0.0867
MAY	52	0.0644	0.9592	1.0316	0.9693	0.1046
JUN	52	0.1957	0.9200	1.0543	0.9458	0.1346
JUL	51	0.2676	0.9408	1.0774	0.9128	0.1815
AUG	51	0.3391	0.9396	1.0926	0.9039	0.1921
SEP	51	0.4097	0.9334	1.1577	0.8017	0.2924
OCT	51	0.6045	0.8870	1.1221	0.8429	0.2404
NOV	51	0.5966	0.7961	1.1488	0.8355	0.2328
DEC	51	0.1576	0.9067	1.0755	0.9394	0.1459

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