

EROM QA Report For: VPU = 02 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	646	2.1222	2.1082	28.346	2.1082	28.346	2.1484	28.815	2.1467	29.137
JAN	657	2.1734	2.0353	81.245	2.0353	81.245	2.2752	82.289	2.2655	86.304
FEB	657	2.2007	1.9481	149.34	1.9481	149.34	2.3553	138.55	2.3395	153.10
MAR	656	2.3308	2.1925	112.72	2.1925	112.72	2.5090	127.03	2.5011	130.83
APR	656	2.3237	2.3524	36.078	2.3524	36.078	2.3772	37.828	2.3766	38.524
MAY	658	2.1840	2.2572	43.110	2.2572	43.110	2.2009	35.918	2.2006	36.820
JUN	658	2.0201	2.0198	56.729	2.0198	56.729	2.0354	50.209	2.0335	50.861
JUL	659	1.8353	1.7997	65.649	1.7997	65.649	1.7647	59.042	1.7577	63.168
AUG	660	1.7527	1.6164	80.902	1.6164	80.902	1.6927	63.317	1.6848	66.320
SEP	660	1.8317	1.6257	114.42	1.6257	114.42	1.7824	75.019	1.7754	77.345
OCT	658	1.9205	1.7628	109.18	1.7628	109.18	1.9419	75.114	1.9362	76.500
NOV	659	2.0427	2.1076	51.532	2.1076	51.532	2.0939	48.417	2.0900	48.851
DEC	659	2.1454	2.1489	47.185	2.1489	47.185	2.2309	52.505	2.2265	52.945

Table 2: Statistics For Sequestered Gages:

Period	N	Gage Seq. Gages		
		Qbar	Qbar	SEE
MA	130	2.1826	2.2012	24.151
JAN	132	2.0165	2.1938	86.074
FEB	132	2.2212	2.3437	105.83
MAR	132	2.2878	2.4767	117.70
APR	132	2.4591	2.5138	37.252
MAY	132	2.1458	2.1449	31.542
JUN	132	2.0453	2.0451	43.938
JUL	132	1.9402	1.9133	53.598
AUG	132	1.7514	1.7151	67.817
SEP	132	1.9732	1.8800	71.030
OCT	132	1.9217	1.9314	62.181
NOV	132	2.0744	2.1334	44.778
DEC	132	2.1780	2.2413	45.095

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	115	1.9229	1.8850	14.819	1.8850	14.819	1.9258	11.929	1.9258	11.929		
JAN	117	1.9897	1.7973	92.757	1.7973	92.757	2.0698	72.164	2.0698	72.164		
FEB	117	2.0305	1.6938	181.69	1.6938	181.69	2.1706	108.31	2.1706	108.31		
MAR	117	2.1660	1.9332	126.00	1.9332	126.00	2.2995	98.157	2.2995	98.157		
APR	117	2.1413	2.1272	24.510	2.1272	24.510	2.1538	24.430	2.1538	24.430		
MAY	117	1.9845	2.0408	36.770	2.0408	36.770	2.0036	31.343	2.0036	31.343		
JUN	117	1.8112	1.8117	55.060	1.8117	55.060	1.8547	51.341	1.8547	51.341		
JUL	118	1.5563	1.5983	54.537	1.5983	54.537	1.5963	47.175	1.5963	47.175		
AUG	118	1.4753	1.4213	60.450	1.4213	60.450	1.5269	55.040	1.5269	55.040		
SEP	118	1.5660	1.4289	86.142	1.4289	86.142	1.6296	65.188	1.6296	65.188		
OCT	118	1.7085	1.5441	101.78	1.5441	101.78	1.7815	68.090	1.7815	68.090		
NOV	119	1.8430	1.8553	44.055	1.8553	44.055	1.8765	37.903	1.8765	37.903		
DEC	119	1.9463	1.8930	42.764	1.8930	42.764	1.9794	41.377	1.9794	41.377		

Table 4: Reference Gage Log-Log Regression Statistics:

Period	N	a	b	BCF	R2	SER
MA	115	0.0437	0.9969	1.0069	0.9927	0.0523
JAN	117	0.4412	0.8617	1.2038	0.8009	0.2728
FEB	117	0.8048	0.7241	1.3826	0.6596	0.3602
MAR	117	0.6071	0.8065	1.3611	0.7185	0.3346
APR	117	0.0308	0.9920	1.0295	0.9732	0.1051
MAY	117	0.1239	0.9116	1.0451	0.9548	0.1330
JUN	117	0.2381	0.8683	1.1062	0.8888	0.2082
JUL	118	0.2202	0.8359	1.0976	0.8899	0.1934
AUG	118	0.2687	0.8493	1.1280	0.8595	0.2211
SEP	118	0.4599	0.7750	1.1599	0.8209	0.2545
OCT	118	0.5822	0.7306	1.1853	0.8246	0.2623
NOV	119	0.2461	0.8608	1.0807	0.9371	0.1585
DEC	119	0.0859	0.9827	1.0799	0.9238	0.1714

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