## GAM/WRTDS COMPARISONS AND OBSERVATIONS

## SARA STOUDT

## 1. Like Tables 3 & 4 in Beck and Murphy EMA

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	0.21	0.13	1.07	-3.83
annual1	0.10	0.06	-4.77	2.95
annual2	0.23	0.06	-4.41	3.05
annual3	0.28	0.28	-7.51	7.15
annual4	0.37	0.28	-4.77	2.95
annual5	0.08	0.02	-4.77	2.95
seasonal1	0.30	0.30	4.40	-5.09
seasonal2	-0.15	-0.15	4.05	-3.09
seasonal3	0.29	0.29	2.64	-3.31
seasonal4	0.39	0.39	2.67	-3.22
flow1	0.44	0.43	2.64	-3.31
flow 2	0.59	0.44	3.36	-3.49
flow3	0.35	0.21	2.67	-3.22
flow4	-0.53	-0.53	2.64	-3.31

Table 1. C10 din  $_{1}$ 

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	-3.10	-3.36	0.84	1.45
annual1	-2.22	-2.24	0.50	0.45
annual2	-2.59	-2.77	0.52	0.58
annual3	-3.01	-3.23	0.97	0.95
annual4	-3.47	-3.75	0.50	0.45
annual5	-3.94	-4.42	0.50	0.45
seasonal1	-2.34	-2.34	0.02	0.36
seasonal2	-3.65	-3.65	0.50	0.81
seasonal3	-3.69	-3.69	0.67	1.15
seasonal4	-2.71	-2.71	1.04	1.36
flow1	-3.37	-3.67	0.67	1.15
flow2	-3.05	-3.35	-0.40	0.18
flow3	-2.91	-3.20	1.04	1.36
flow 4	-3.07	-3.22	0.67	1.15

Table 2. C10 nh

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	0.14	0.06	-6.54	-1.86
annual1	-0.04	-0.08	18.95	0.88
annual2	0.15	-0.03	18.95	0.88
annual3	0.21	0.22	27.56	1.53
annual4	0.34	0.24	18.95	0.88
annual5	0.06	-0.01	18.95	0.88
seasonal1	0.19	0.19	-17.14	-2.05
seasonal2	-0.20	-0.20	-17.32	-1.49
seasonal3	0.27	0.27	-12.66	-1.68
seasonal4	0.30	0.30	-12.66	-1.68
flow1	0.39	0.38	-17.32	-1.49
flow 2	0.54	0.38	-17.32	-1.49
flow3	0.29	0.14	-17.32	-1.49
flow4	-0.65	-0.64	-12.66	-1.68

Table 3. C10 no23

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	$WRTDS_{-pc}$
overall	-1.00	-1.03	-0.71	-0.68
annual1	-1.21	-1.26	0.27	0.48
annual2	-1.14	-1.13	0.42	0.63
annual3	-0.96	-0.94	0.13	0.34
annual4	-0.91	-0.97	0.27	0.48
annual5	-0.84	-0.89	0.27	0.48
seasonal1	-0.98	-0.98	-0.12	0.01
seasonal2	-1.08	-1.08	0.13	0.30
seasonal3	-1.18	-1.18	0.13	0.30
seasonal4	-0.75	-0.75	0.19	0.28
flow1	-0.71	-0.75	0.19	0.28
flow2	-0.88	-0.93	-0.12	0.01
flow3	-1.06	-1.10	0.13	0.30
flow4	-1.34	-1.33	0.13	0.30

Table 4. C3 din

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	-1.61	-1.65	-0.69	-0.66
annual1	-1.96	-1.99	0.39	0.42
annual2	-1.74	-1.78	0.43	0.53
annual3	-1.59	-1.52	0.39	0.35
annual4	-1.43	-1.57	0.39	0.42
annual5	-1.41	-1.48	0.39	0.42
seasonal1	-1.93	-1.93	-0.26	-0.18
seasonal2	-1.64	-1.64	-0.19	-0.17
seasonal3	-1.57	-1.57	-0.19	-0.17
seasonal4	-1.32	-1.32	-0.10	-0.17
flow1	-1.11	-1.16	-0.10	-0.17
flow2	-1.29	-1.44	-0.26	-0.18
flow3	-1.60	-1.67	-0.19	-0.17
flow 4	-2.42	-2.33	-0.19	-0.17

Table 5. C3 nh

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	-1.96	-1.99	-0.21	-0.03
annual1	-1.97	-2.04	-0.11	0.13
annual2	-2.11	-2.07	-0.19	0.04
annual3	-1.97	-2.03	-0.11	0.13
annual4	-2.01	-1.98	-0.11	0.13
annual5	-1.80	-1.86	-0.11	0.13
seasonal1	-1.59	-1.59	0.14	0.32
seasonal2	-2.07	-2.07	0.36	0.59
seasonal3	-2.39	-2.39	0.36	0.59
seasonal4	-1.78	-1.78	0.22	0.48
flow1	-1.95	-1.96	0.22	0.48
flow2	-2.00	-1.99	0.11	0.17
flow3	-2.07	-2.09	0.36	0.59
flow4	-1.82	-1.90	0.38	0.63

Table 6. C3 no23

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	0.31	0.23	1.50	-37.20
annual1	-0.04	-0.08	-2.09	11.63
annual2	0.23	0.08	-3.02	34.90
annual3	0.33	0.33	-2.69	23.98
annual4	0.52	0.44	-3.51	31.67
annual5	0.42	0.34	-2.09	11.63
seasonal1	0.53	0.53	-0.25	1.01
seasonal2	0.04	0.04	-0.25	1.01
seasonal3	0.07	0.07	-0.12	0.39
seasonal4	0.58	0.58	-0.25	1.01
flow1	0.33	0.34	-0.42	4.53
flow2	0.66	0.54	0.55	-14.27
flow3	0.56	0.39	-0.12	0.39
flow4	-0.32		-0.42	4.53

Table 7. P8 din

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	-1.89	-2.00	0.87	0.50
annual1	-2.13	-2.24	0.54	0.07
annual2	-1.73	-1.84	0.99	0.38
annual3	-1.67	-1.70	0.85	0.26
annual4	-1.48	-1.65	0.95	0.35
annual5	-2.26	-2.40	0.54	0.07
seasonal1	-1.25	-1.25	0.79	0.60
seasonal2	-2.33	-2.33	0.79	0.60
seasonal3	-2.59	-2.59	0.74	0.35
seasonal4	-1.37	-1.37	0.79	0.60
flow1	-2.32	-2.28	0.83	0.57
flow2	-1.56	-1.73	0.27	0.10
flow3	-1.40	-1.69	0.74	0.35
flow4	-2.25		0.83	0.57

Table 8. P8 nh

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	0.12	0.05	2.92	-4.48
annual1	-0.22	-0.25	-3.96	1.17
annual2	0.03	-0.13	-4.96	2.38
annual3	0.09	0.10	-3.96	1.17
annual4	0.30	0.23	-5.84	3.46
annual5	0.30	0.23	-3.96	1.17
seasonal1	0.25	0.25	-0.16	-0.55
seasonal2	-0.11	-0.11	0.33	-1.18
seasonal3	-0.03	-0.03	-0.37	-0.13
seasonal4	0.36	0.36	0.33	-1.18
flow1	0.22	0.22	-0.16	-0.55
flow2	0.45	0.36	1.73	-1.73
flow3	0.33	0.18	-0.38	-0.40
flow 4	-0.52		-0.16	-0.55

Table 9. P8 no23

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	-1.02	-1.01	-0.62	0.84
annual1	-1.04	-1.04	-0.73	0.21
annual2	-1.14	-1.04	-0.65	0.21
annual3	-0.89	-0.93	0.07	4.02
annual4				
annual5	-1.00	-1.03	-0.73	0.21
seasonal1	-0.46	-0.46	0.41	4.21
seasonal2	-1.19	-1.19	-0.25	2.14
seasonal3	-1.57	-1.57	0.34	3.96
seasonal4	-0.85	-0.85	0.34	3.96
flow1	-0.87	-0.92	0.41	4.21
flow2	-1.13	-1.07	0.02	3.26
flow3	-1.26	-1.23	0.34	3.96
flow4	-0.81	-0.84	0.02	3.26

Table 10. D19 din

	$GAM_{avg}$	WRTDS_avg	$GAM_{-pc}$	$WRTDS_pc$
overall	-3.12	-3.14	-0.03	0.14
annual1	-3.12	-3.13	-0.08	-0.03
annual2	-3.09	-3.05	0.00	-0.01
annual3	-3.02	-3.06	0.55	0.65
annual4				
annual5	-3.22	-3.26	-0.08	-0.03
seasonal1	-2.35	-2.35	0.60	0.64
seasonal2	-3.48	-3.48	0.22	0.25
seasonal3	-3.84	-3.84	0.56	0.57
seasonal4	-2.81	-2.81	0.56	0.57
flow1	-3.08	-3.12	0.60	0.64
flow2	-3.26	-3.23	0.47	0.44
flow3	-3.38	-3.40	0.56	0.57
flow4	-2.78	-2.81	0.47	0.44

TABLE 11. D19 nh

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	-1.19	-1.18	-0.47	0.58
annual1	-1.21	-1.21	-0.58	0.23
annual2	-1.38	-1.25	-0.58	0.23
annual3	-1.03	-1.08	-0.57	-0.39
annual4				
annual5	-1.13	-1.16	-0.58	0.23
seasonal1	-0.65	-0.65	-0.48	0.17
seasonal2	-1.35	-1.35	0.38	2.31
seasonal3	-1.70	-1.70	0.48	2.71
seasonal4	-1.03	-1.03	0.38	2.31
flow1	-1.03	-1.08	0.24	1.68
flow2	-1.31	-1.24	0.24	1.68
flow3	-1.41	-1.37	0.38	2.31
flow4	-1.00	-1.02	0.38	2.31

Table 12. D19 no23

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	-0.92	-0.92	-0.54	0.22
annual1	-0.96	-0.96	-0.37	0.44
annual2	-1.08	-0.99	-0.16	0.51
annual3	-0.83	-0.85	0.04	1.07
annual4	-0.86	-0.88	-0.51	0.19
annual5	-0.89	-0.93	-0.37	0.44
seasonal1	-0.56	-0.56	0.74	2.27
seasonal2	-1.02	-1.02	0.36	1.51
seasonal3	-1.35	-1.35	0.64	1.96
seasonal4	-0.75	-0.75	0.64	1.96
flow1	-0.78	-0.81	0.74	2.27
flow2	-1.00	-0.96	0.36	1.51
flow3	-1.08	-1.08	0.74	2.27
flow4	-0.83	-0.83	0.36	1.51

Table 13. D26 din

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	$WRTDS_{-pc}$
overall	-2.40	-2.41	-0.36	-0.08
annual1	-2.57	-2.58	-0.06	0.08
annual2	-2.47	-2.42	-0.03	0.11
annual3	-2.32	-2.30	0.03	0.19
annual4	-2.27	-2.34	-0.13	0.04
annual5	-2.40	-2.42	-0.06	0.08
seasonal1	-2.12	-2.12	0.23	0.35
seasonal2	-2.72	-2.72	0.07	0.13
seasonal3	-2.68	-2.68	0.13	0.24
seasonal4	-2.10	-2.10	0.13	0.24
flow1	-2.28	-2.30	0.23	0.35
flow2	-2.39	-2.43	0.07	0.13
flow3	-2.52	-2.52	0.23	0.35
flow4	-2.42	-2.39	0.07	0.13

Table 14. D26 nh

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	-1.20	-1.20	-0.36	0.28
annual1	-1.21	-1.20	-0.34	0.32
annual2	-1.39	-1.29	-0.39	0.15
annual3	-1.13	-1.15	-0.39	0.15
annual4	-1.16	-1.16	-0.18	0.88
annual5	-1.15	-1.20	-0.34	0.32
seasonal1	-0.82	-0.82	0.34	0.93
seasonal2	-1.24	-1.24	0.57	1.60
seasonal3	-1.68	-1.68	0.57	1.60
seasonal4	-1.07	-1.07	0.38	1.40
flow1	-1.06	-1.10	0.34	0.93
flow2	-1.31	-1.25	0.38	1.40
flow3	-1.38	-1.37	0.57	1.60
flow4	-1.06	-1.08	0.57	1.60

Table 15. D26 no23

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	-1.03	-1.04	-0.52	2.49
annual1	-0.97	-0.97	-0.86	0.44
annual2	-1.14	-1.06	0.23	5.13
annual3	-0.92	-0.95	0.23	5.13
annual4	-0.90	-0.94	-0.09	3.33
annual5	-1.17	-1.20	-0.86	0.44
seasonal1	-0.39	-0.39	-0.62	1.21
seasonal2	-1.05	-1.05	-0.38	0.53
seasonal3	-1.80	-1.80	-0.08	2.65
seasonal4	-0.91	-0.91	-0.70	0.40
flow1	-0.99	-1.04	-0.38	0.53
flow2	-1.17	-1.11	0.32	4.17
flow3	-1.30	-1.29	-0.70	0.40
flow4	-0.68	-0.72	-0.38	0.53

Table 16. D28 din

	GAM_avg	WRTDS_avg	GAM_pc	WRTDS_pc
overall	-3.30	-3.34	-0.26	0.21
annual1	-3.19	-3.22	-0.41	-0.09
annual2	-3.30	-3.28	-0.19	0.33
annual3	-3.27	-3.34	-0.19	0.33
annual4	-3.23	-3.32	-0.11	0.08
annual5	-3.44	-3.46	-0.41	-0.09
seasonal1	-2.53	-2.53	-0.12	0.26
seasonal2	-3.56	-3.56	-0.41	-0.02
seasonal3	-4.02	-4.02	-0.12	0.26
seasonal4	-3.09	-3.09	-0.34	-0.13
flow1	-3.42	-3.49	-0.41	-0.02
flow2	-3.46	-3.45	0.21	0.64
flow3	-3.54	-3.55	-0.38	-0.09
flow4	-2.78	-2.87	-0.41	-0.02

Table 17. D28 nh

	GAM_avg	WRTDS_avg	$GAM_{-pc}$	WRTDS_pc
overall	-1.17	-1.18	-0.33	2.69
annual1	-1.11	-1.11	-0.69	0.97
annual2	-1.34	-1.23	-0.42	1.05
annual3	-1.04	-1.08	-0.40	0.29
annual4	-1.01	-1.05	-0.69	0.97
annual5	-1.30	-1.34	-0.69	0.97
seasonal1	-0.51	-0.51	0.61	4.42
seasonal2	-1.21	-1.21	1.04	5.36
seasonal3	-1.91	-1.91	0.61	4.42
seasonal4	-1.06	-1.06	0.71	5.13
flow1	-1.12	-1.17	0.71	5.13
flow2	-1.32	-1.26	0.61	4.42
flow3	-1.44	-1.43	0.71	5.13
flow4	-0.81	-0.86	0.71	5.13

Table 18. D28 no23