02044500 vs. MN3_7770_7930

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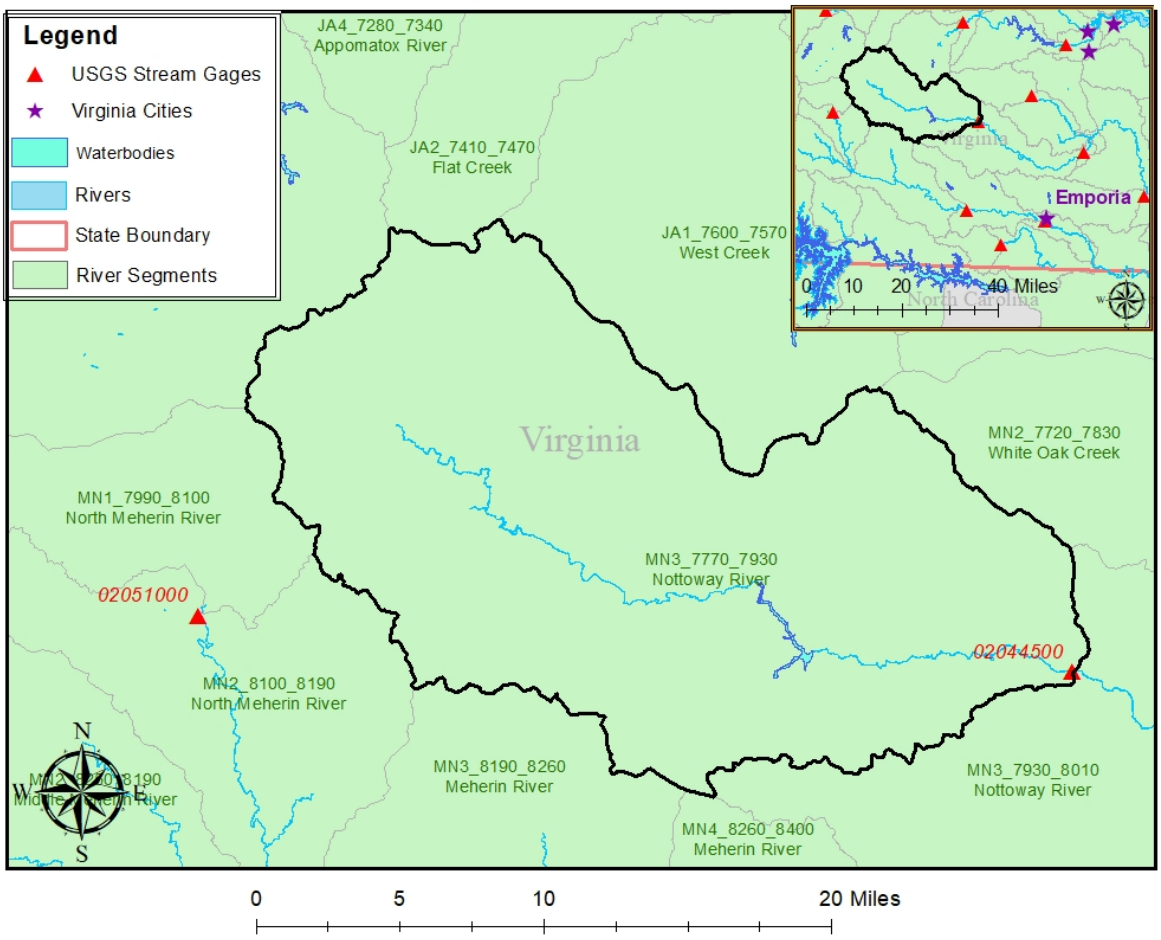

This river segment follows part of the flow of the Nottoway River, a tributary of the Meherrin River. The gage is located in Brunswick County, VA (Lat 3659'00", Long 7748'00") approximately 25 miles northwest of Emporia, VA. Drainage area is 317 sq. miles. This gage started taking data in 1950 and is still taking data. There are no known anthropogenic alterations in this area that would affect the flow conditions. The average daily discharge error between the model and gage data for the 20 year timespan was 4.04%, with 45.4% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	32	14.9	53.4
Feb. Low Flow	93	48.9	47.4
Mar. Low Flow	104	63.3	39.1
Apr. Low Flow	139	114	18
May Low Flow	229	211	7.86
Jun. Low Flow	217	165	24
Jul. Low Flow	208	118	43.3
Aug. Low Flow	137	65.2	52.4
Sep. Low Flow	70	40.6	42
Oct. Low Flow	35	20.1	42.6
Nov. Low Flow	30	23	23.3
Dec. Low Flow	22	20.3	7.73

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	297	285	4.04
Jan. Mean Flow	380	384	-1.05
Feb. Mean Flow	429	489	-14
Mar. Mean Flow	567	619	-9.17
Apr. Mean Flow	451	421	6.65
May Mean Flow	341	255	25.2
Jun. Mean Flow	208	153	26.4
Jul. Mean Flow	134	96.7	27.8
Aug. Mean Flow	151	139	7.95
Sep. Mean Flow	231	252	-9.09
Oct. Mean Flow	131	133	-1.53
Nov. Mean Flow	270	239	11.5
Dec. Mean Flow	286	259	9.44

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	205	154	24.9
Feb. High Flow	747	577	22.8
Mar. High Flow	669	478	28.6
Apr. High Flow	1120	1130	-0.89
May High Flow	1150	1370	-19.1
Jun. High Flow	1780	2520	-41.6
Jul. High Flow	1470	1220	17
Aug. High Flow	830	667	19.6
Sep. High Flow	620	161	74
Oct. High Flow	311	229	26.4
Nov. High Flow	341	196	42.5
Dec. High Flow	189	151	20.1

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	0.58	0	100
Med. 1 Day Min	16	8.65	45.9
Min. 3 Day Min	0.59	0	100
Med. 3 Day Min	16.7	9.13	45.3
Min. 7 Day Min	0.68	0.01	97.9
Med. 7 Day Min	18.1	11.6	35.9
Min. 30 Day Min	2.12	1.8	15.1
Med. 30 Day Min	30.7	26.9	12.4
Min. 90 Day Min	10.8	13.6	-25.9
Med. 90 Day Min	81.5	51.1	37.3
7Q10	4.54	0.74	83.6
Year of 90-Day Min. Flow	2002	2002	0
Drought Year Mean	71.6	75.7	-5.73
Mean Baseflow	139	124	10.8

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	17000	25900	-52.4
Med. 1 Day Max	4940	6150	-24.5
Max. 3 Day Max	12200	10800	11.5
Med. 3 Day Max	3420	3700	-8.19
Max. 7 Day Max	6100	6060	0.66
Med. 7 Day Max	1810	1980	-9.39
Max. 30 Day Max	2150	1670	22.3
Med. 30 Day Max	783	886	-13.2
Max. 90 Day Max	1330	1230	7.52
Med. 90 Day Max	525	524	0.19

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	7.48	3.85	48.5
5% Non-Exceedance	21.9	14	36.1
50% Non-Exceedance	168	135	19.6
95% Non-Exceedance	848	897	-5.78
99% Non-Exceedance	2570	2690	-4.67
Sept. 10% Non-Exceedance	14.1	15.7	-11.3

Fig. 1: Hydrograph

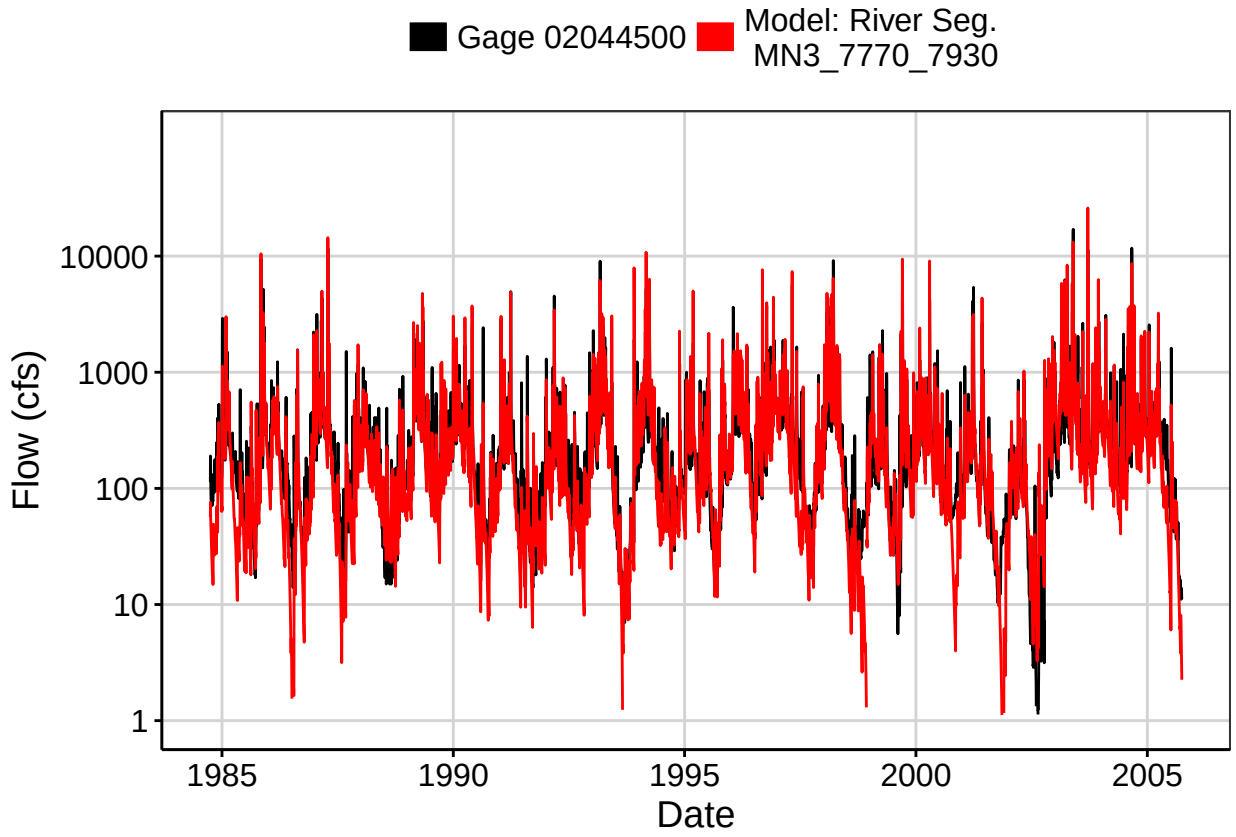

Fig. 2: Zoomed Hydrograph

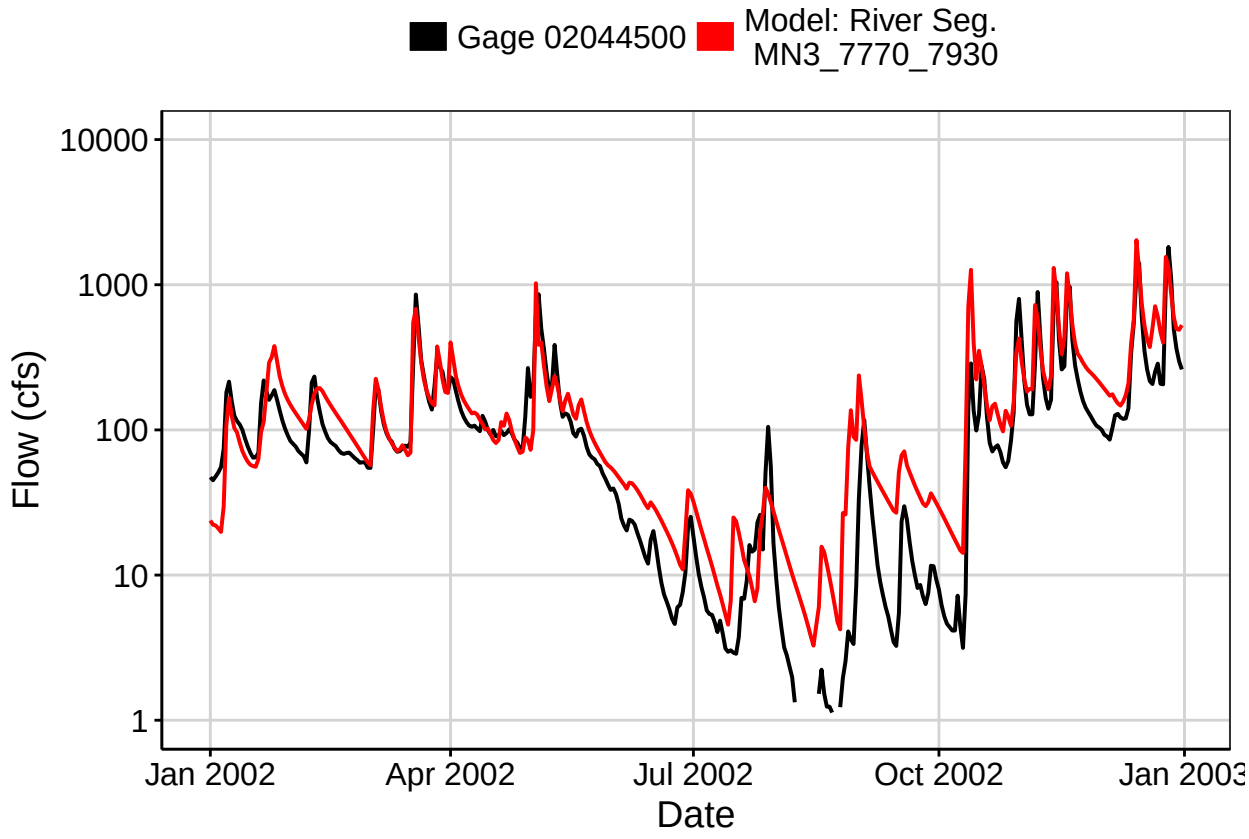

Fig. 3: Flow Exceedance

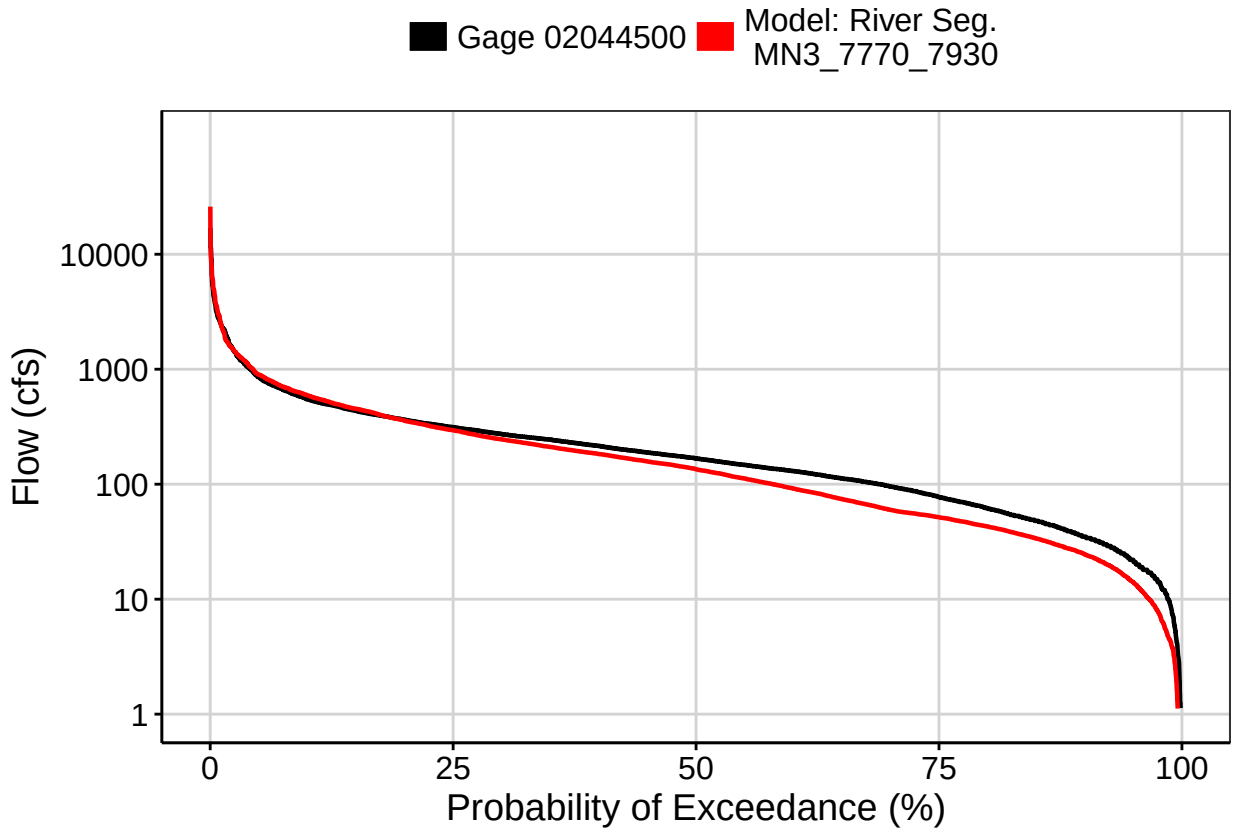

Fig. 4: Baseflow

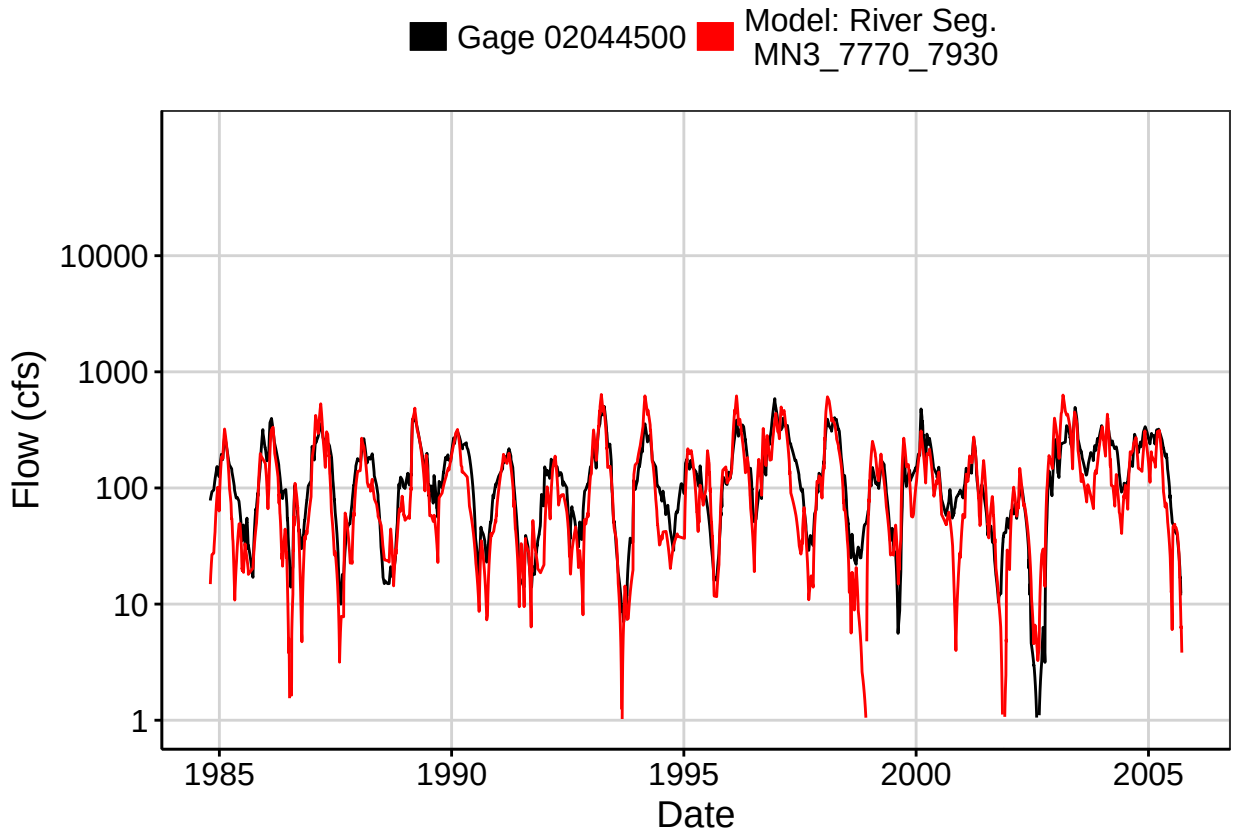

Fig. 5: Combined Baseflow

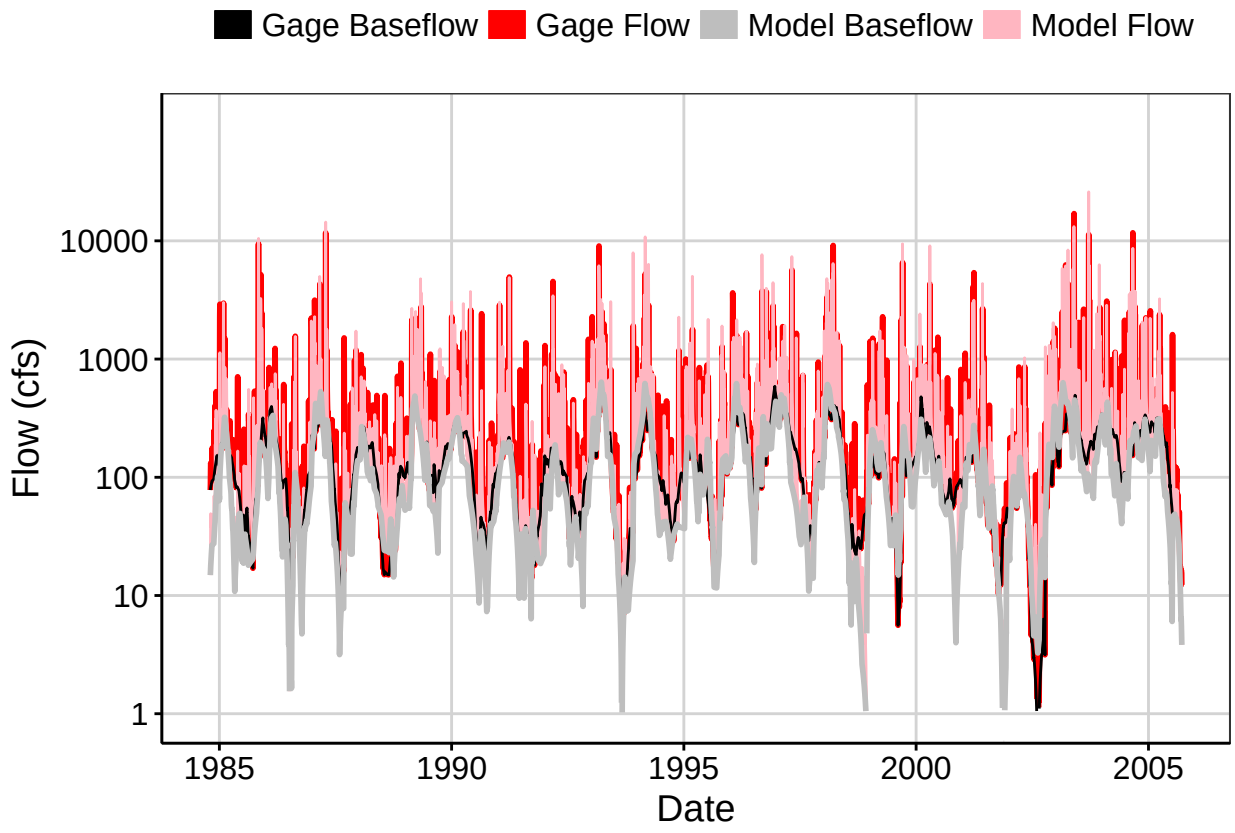

Fig. 6: Largest Error Segment

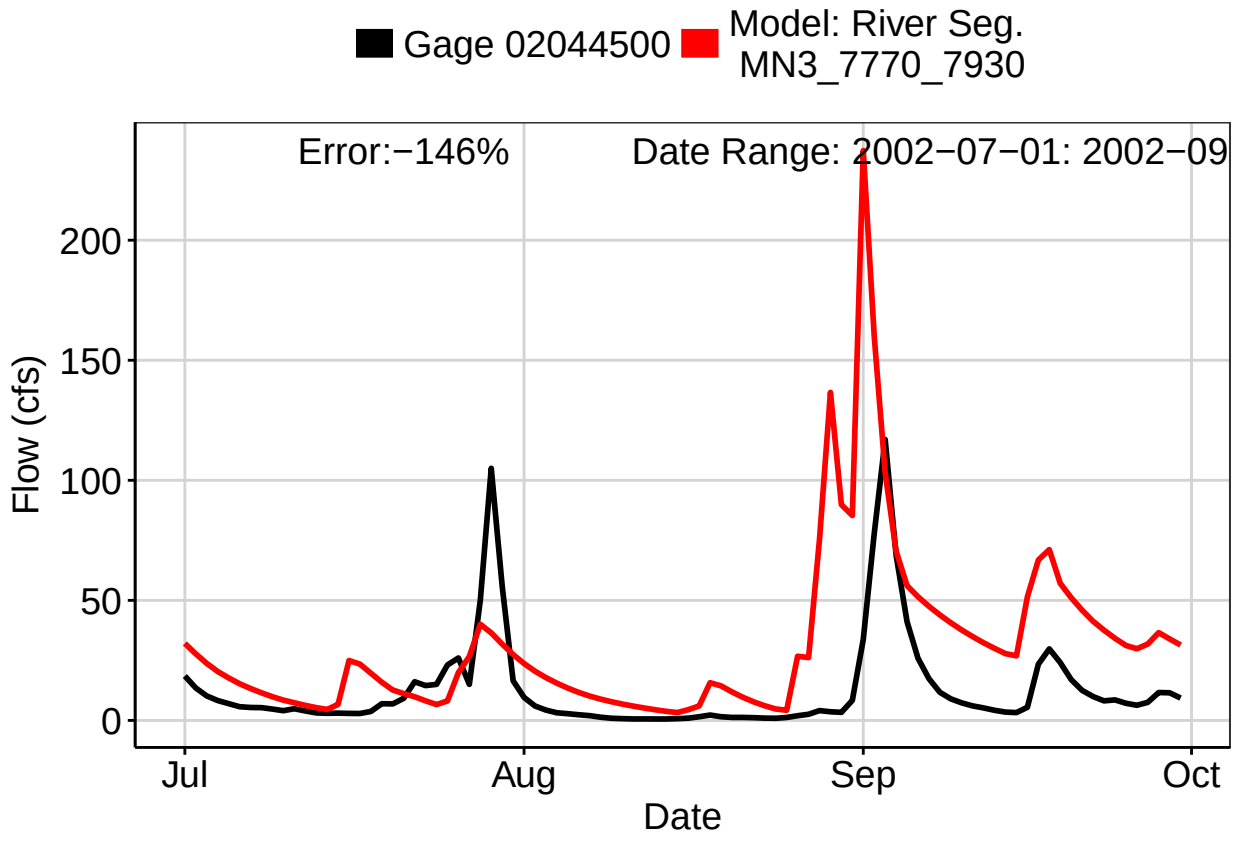

Fig. 7: Second Largest Error Segment

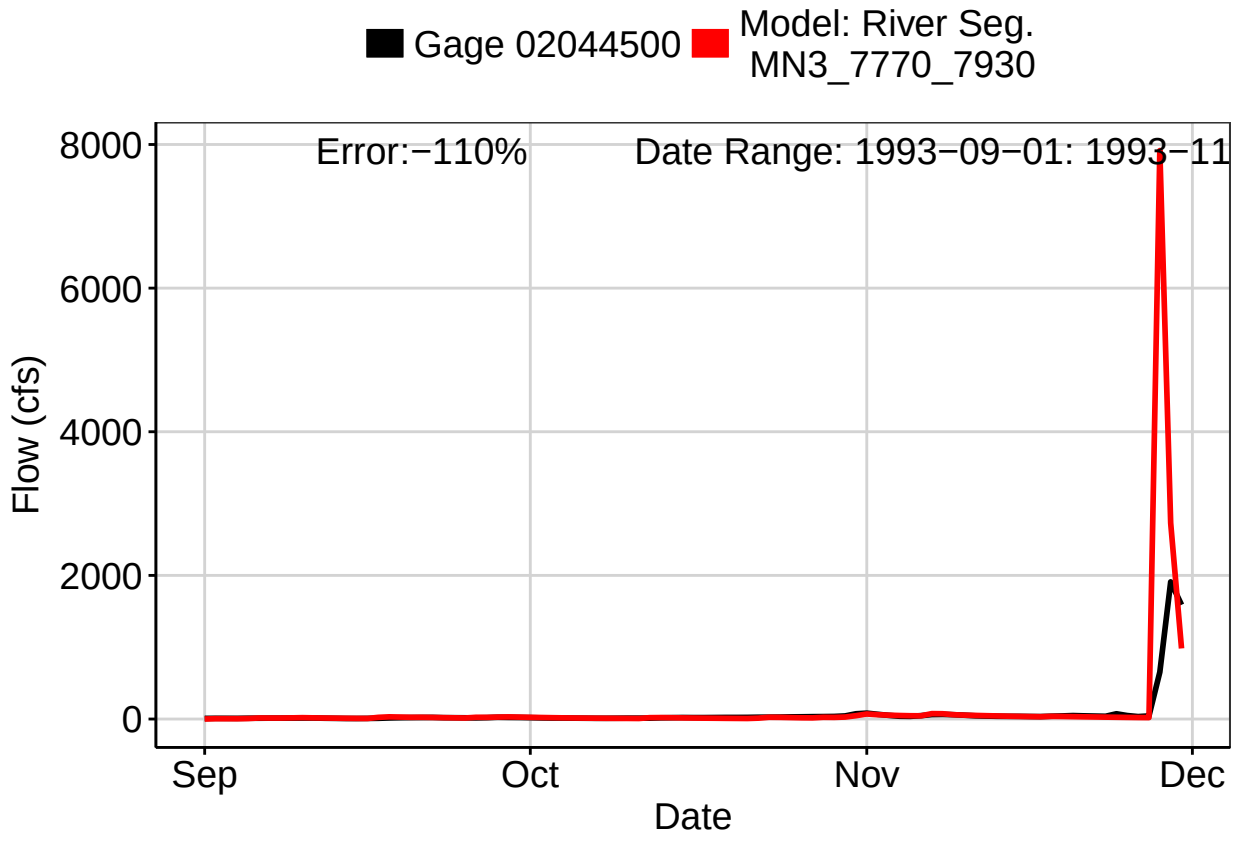

Fig. 8: Third Largest Error Segment

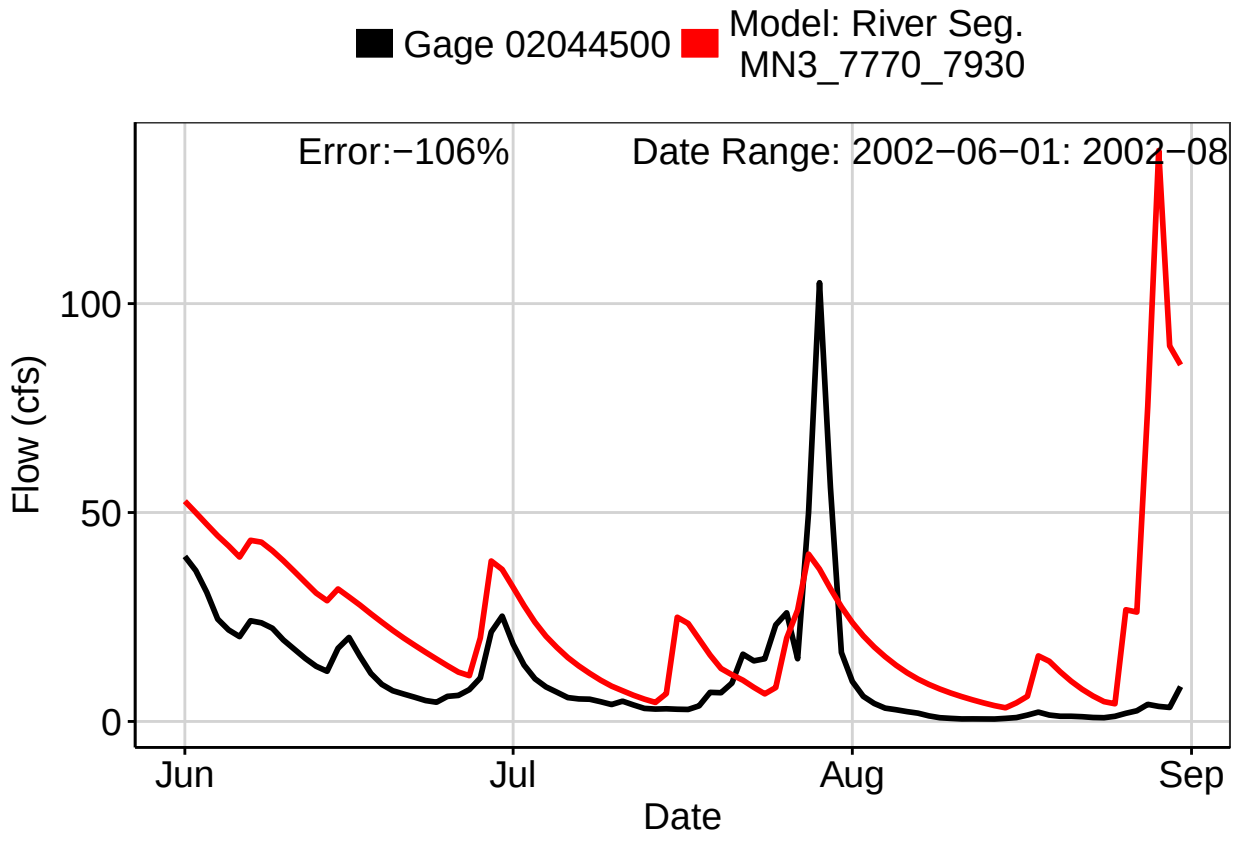

Fig. 9: Residuals Plot