03161000 vs. NR3_9310_9240

Daniel Hildebrand, Hailey Alspaugh, and Kelsey Reitz

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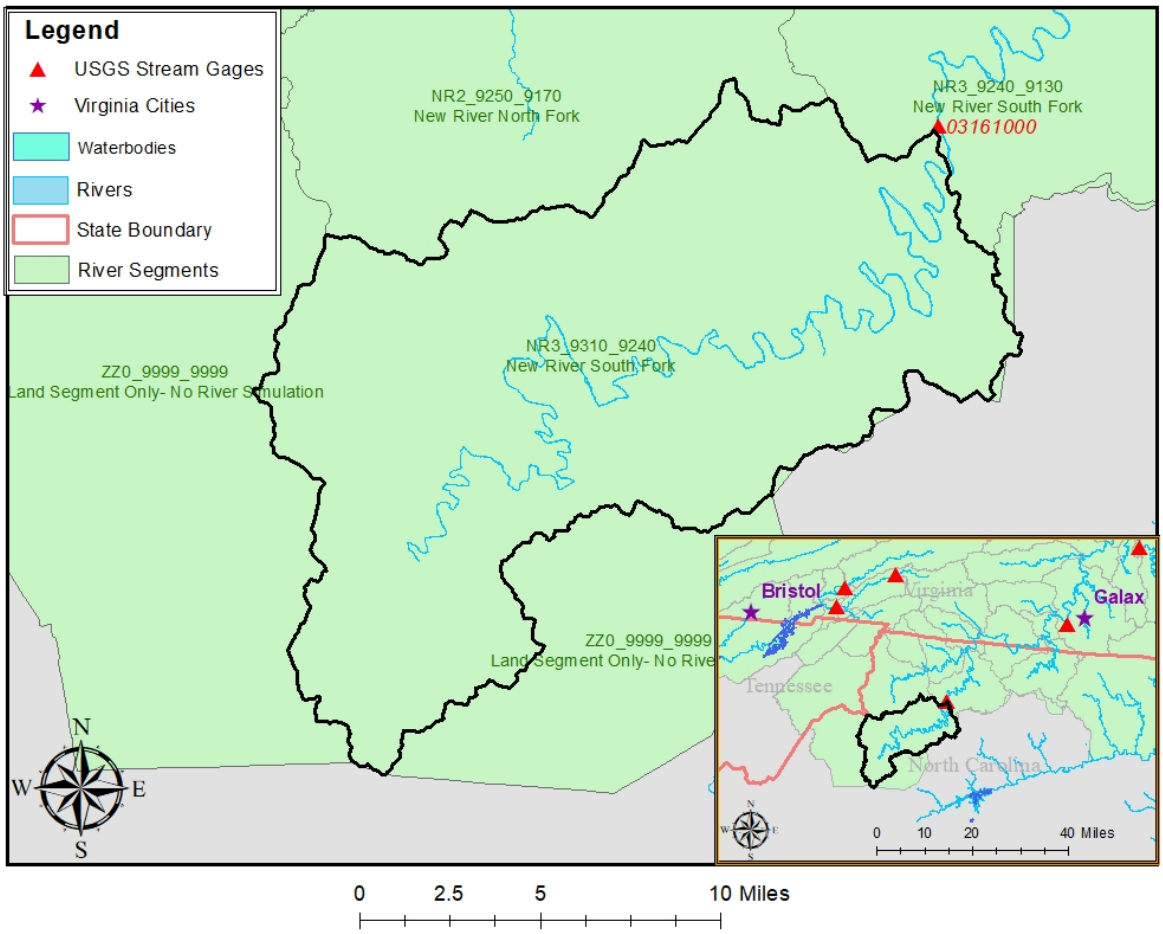

This river segment follows part of the flow of the South Fork of the New River. The gage is located in Ashe County, NC (Lat 3623'36", Long 8124'25") approximately 33 miles southwest of Galax, VA. Drainage area is 205 sq. miles. This gage started taking data in 1924 and is still taking data. There are 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 -0.96%, with 22.5% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	163	140	14.1
Feb. Low Flow	187	156	16.6
Mar. Low Flow	226	223	1.33
Apr. Low Flow	255	218	14.5
May Low Flow	270	294	-8.89
Jun. Low Flow	356	347	2.53
Jul. Low Flow	345	302	12.5
Aug. Low Flow	284	258	9.15
Sep. Low Flow	271	220	18.8
Oct. Low Flow	204	189	7.35
Nov. Low Flow	173	171	1.16
Dec. Low Flow	157	143	8.92

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	418	422	-0.96
Jan. Mean Flow	474	502	-5.91
Feb. Mean Flow	480	570	-18.8
Mar. Mean Flow	565	637	-12.7
Apr. Mean Flow	547	560	-2.38
May Mean Flow	430	428	0.46
Jun. Mean Flow	405	394	2.72
Jul. Mean Flow	338	295	12.7
Aug. Mean Flow	337	310	8.01
Sep. Mean Flow	344	343	0.29
Oct. Mean Flow	313	317	-1.28
Nov. Mean Flow	401	371	7.48
Dec. Mean Flow	388	350	9.79

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	477	415	13
Feb. High Flow	1010	727	28
Mar. High Flow	954	636	33.3
Apr. High Flow	936	1210	-29.3
May High Flow	995	1110	-11.6
Jun. High Flow	1280	1750	-36.7
Jul. High Flow	1020	1140	-11.8
Aug. High Flow	659	911	-38.2
Sep. High Flow	645	484	25
Oct. High Flow	660	465	29.5
Nov. High Flow	601	413	31.3
Dec. High Flow	556	510	8.27

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	74.7	60	19.7
Med. 1 Day Min	142	111	21.8
Min. 3 Day Min	76.5	61	20.3
Med. 3 Day Min	144	112	22.2
Min. 7 Day Min	83.3	63.3	24
Med. 7 Day Min	154	116	24.7
Min. 30 Day Min	101	73.8	26.9
Med. 30 Day Min	174	148	14.9
Min. 90 Day Min	137	128	6.57
Med. 90 Day Min	233	216	7.3
7Q10	102	83.7	17.9
Year of 90-Day Min. Flow	2002	2001	100
Drought Year Mean	215	232	-7.91
Mean Baseflow	291	271	6.87

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	15400	11100	27.9
Med. 1 Day Max	3330	5200	-56.2
Max. 3 Day Max	7700	8060	-4.68
Med. 3 Day Max	2260	3410	-50.9
Max. 7 Day Max	4080	4330	-6.13
Med. 7 Day Max	1710	1990	-16.4
Max. 30 Day Max	1560	1800	-15.4
Med. 30 Day Max	890	928	-4.27
Max. 90 Day Max	1000	1350	-35
Med. 90 Day Max	683	698	-2.2

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	108	96	11.1
5% Non-Exceedance	138	126	8.7
50% Non-Exceedance	329	299	9.12
95% Non-Exceedance	908	1080	-18.9
99% Non-Exceedance	1860	2420	-30.1
Sept. 10% Non-Exceedance	135	138	-2.22

Fig. 1: Hydrograph

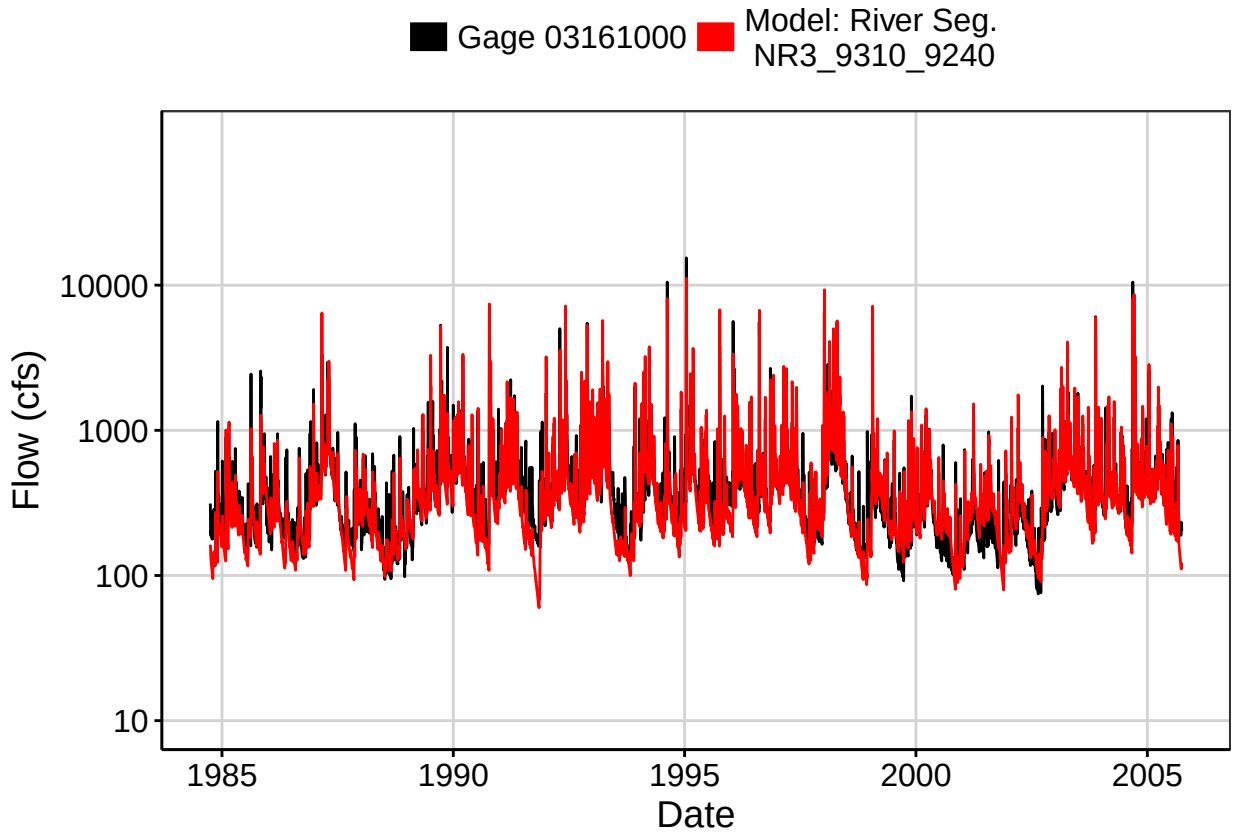

Fig. 2: Zoomed Hydrograph

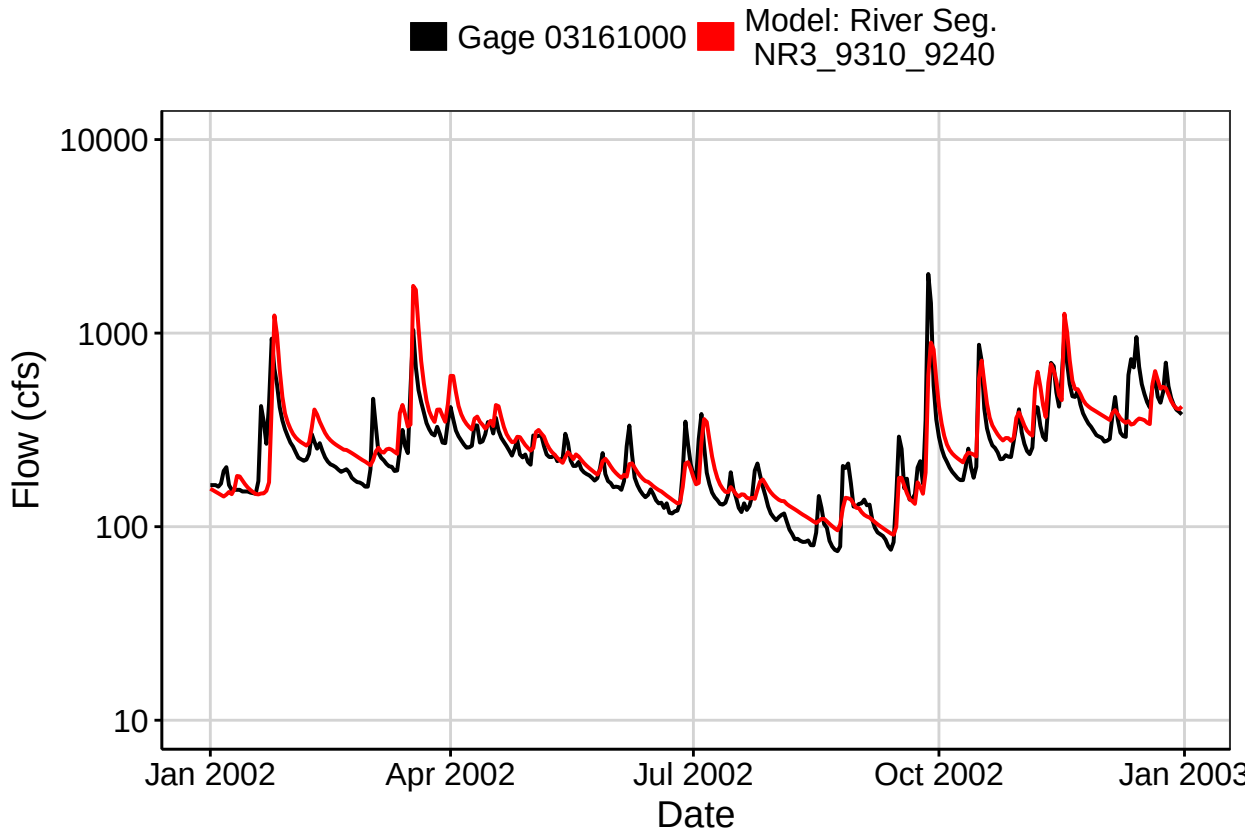

Fig. 3: Flow Exceedance

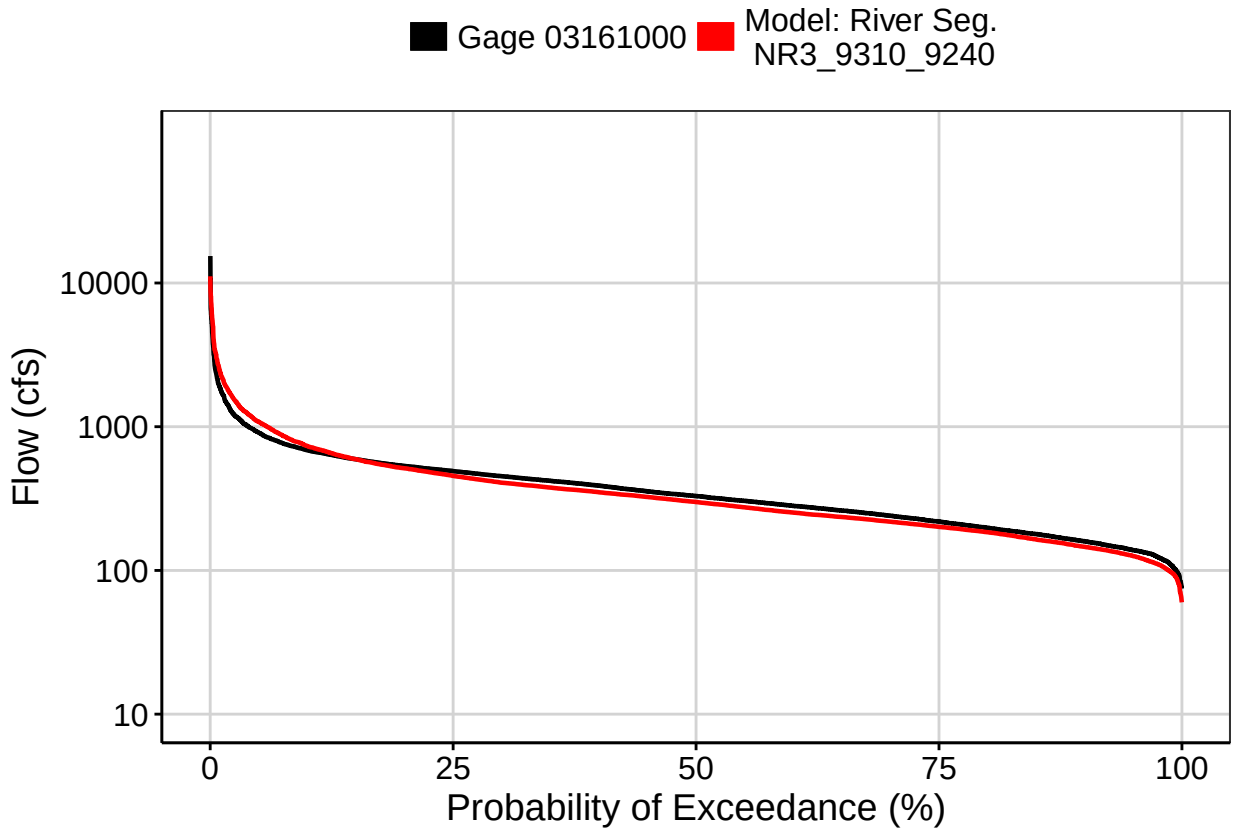

Fig. 4: Baseflow

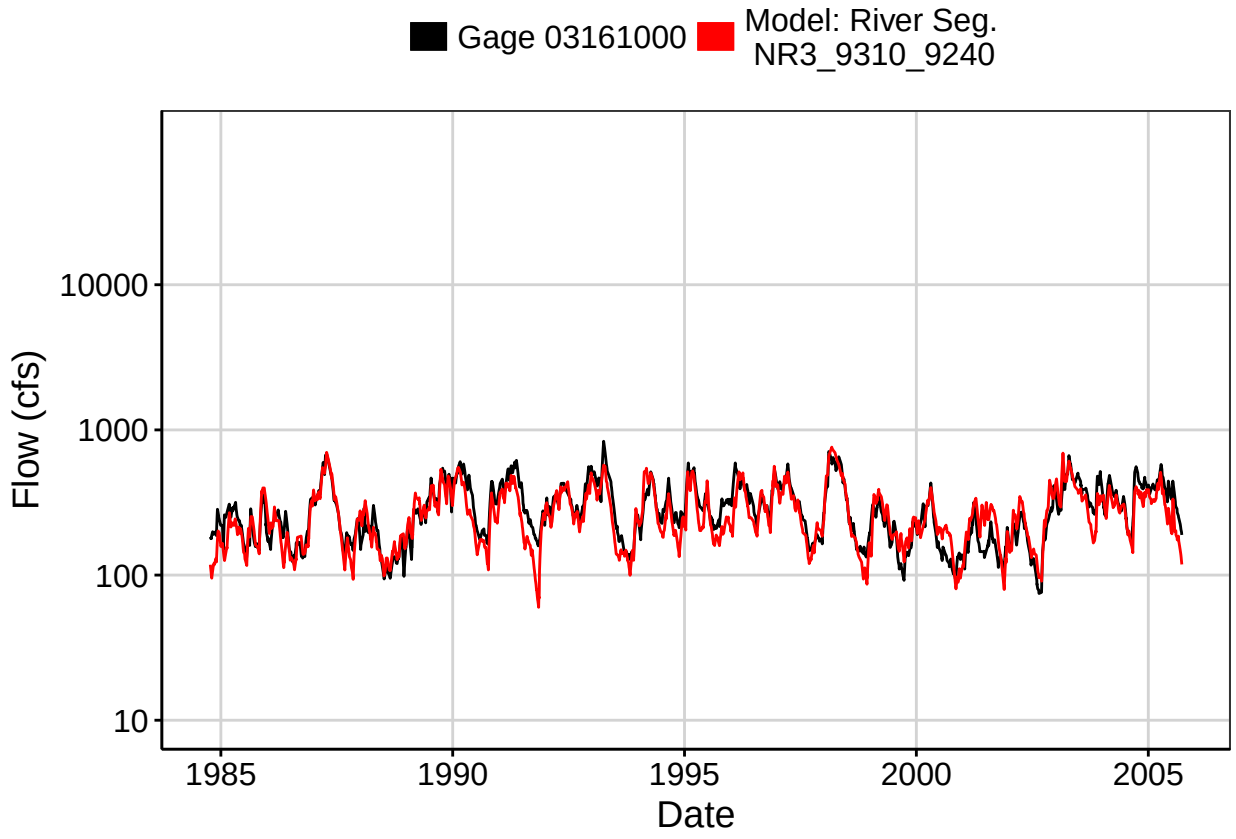

Fig. 5: Combined Baseflow

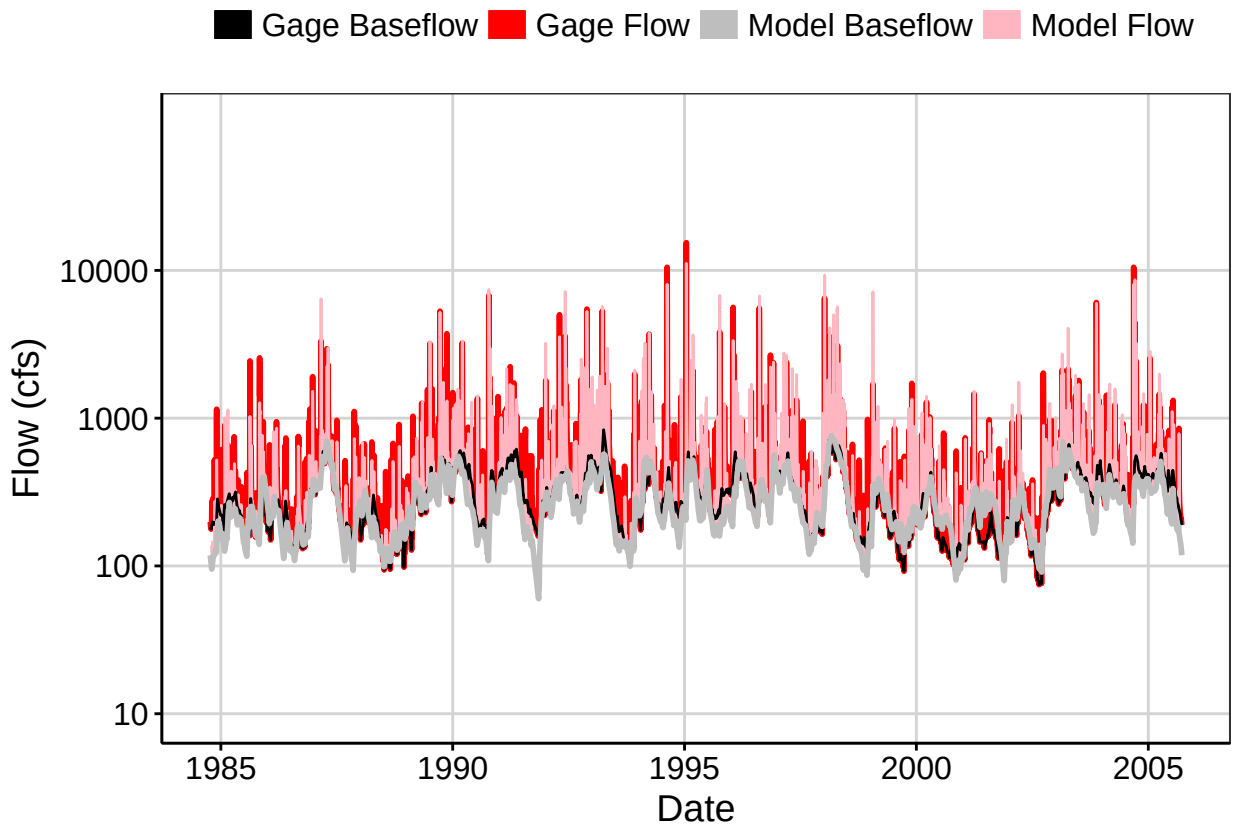

Fig. 6: Largest Error Segment

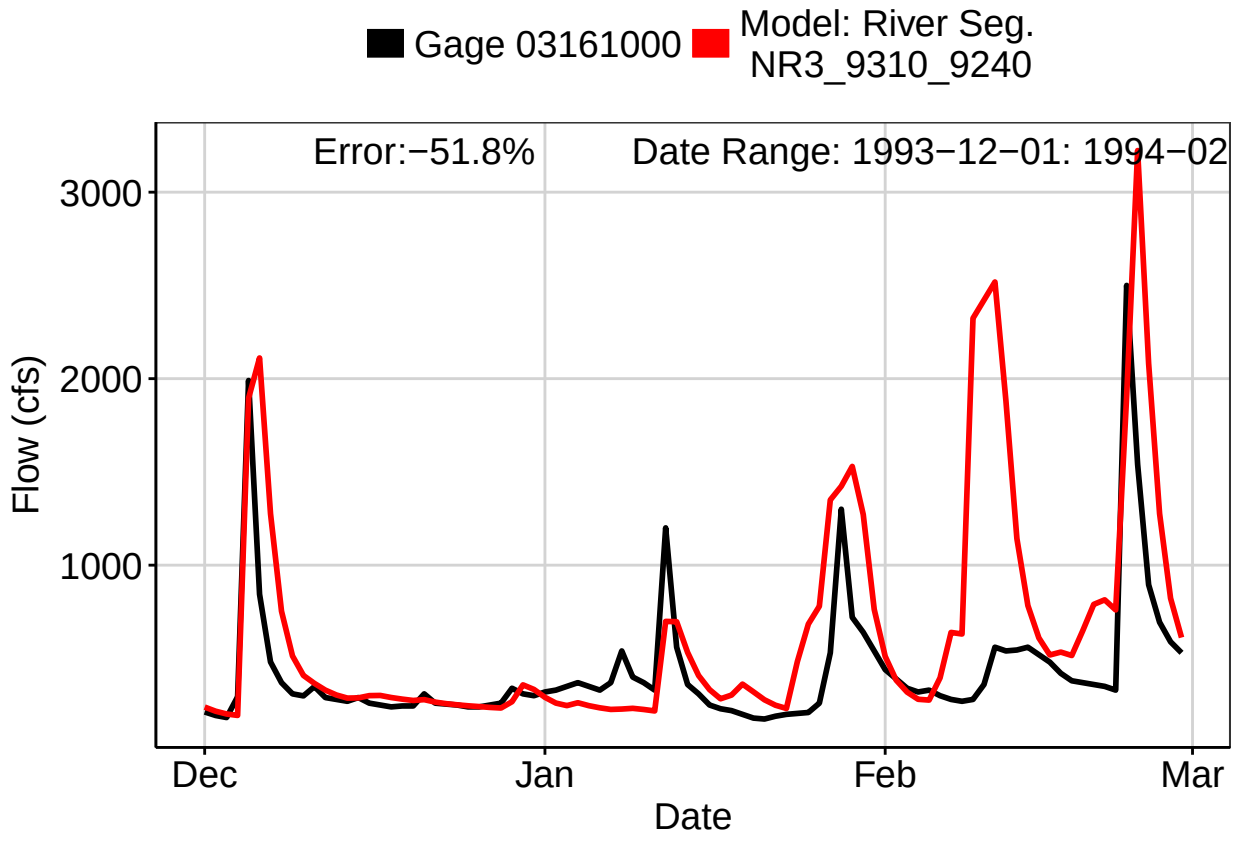

Fig. 7: Second Largest Error Segment

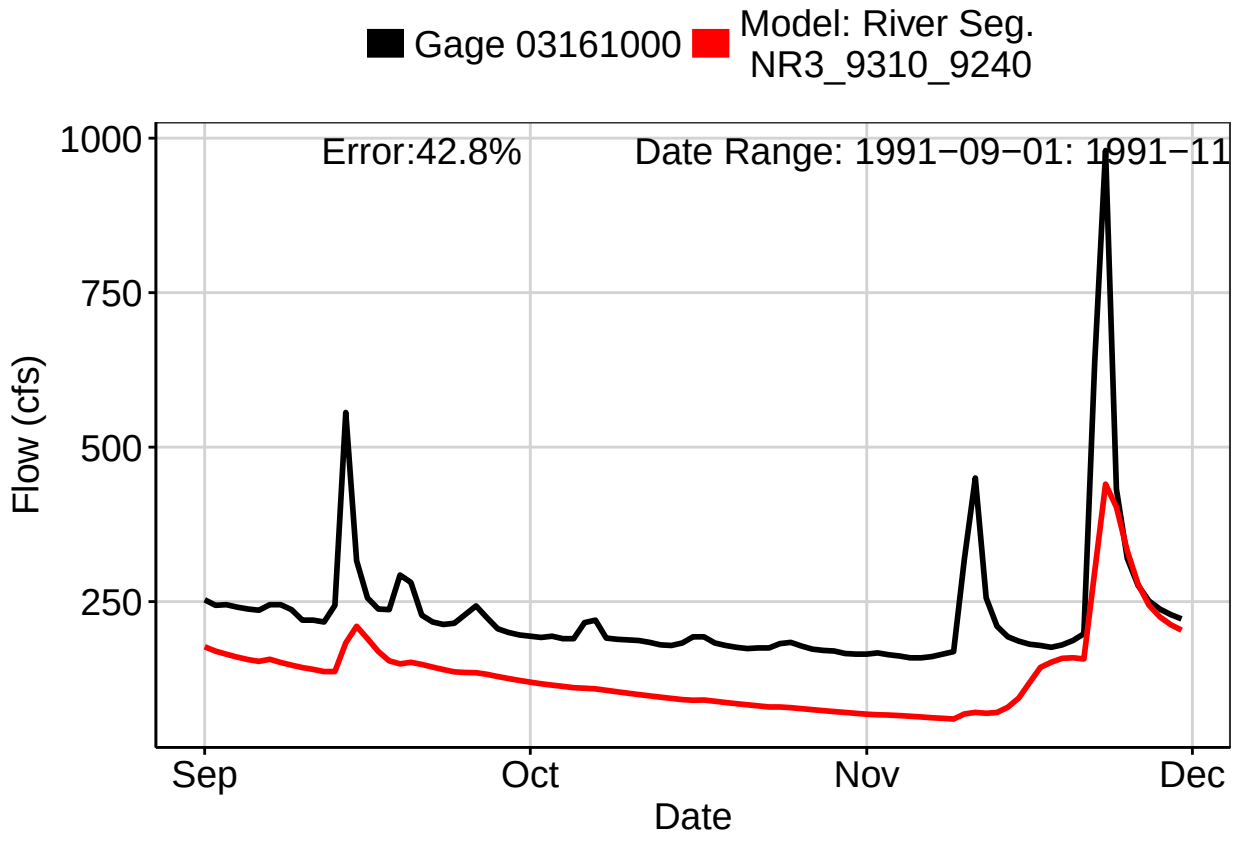

Fig. 8: Third Largest Error Segment

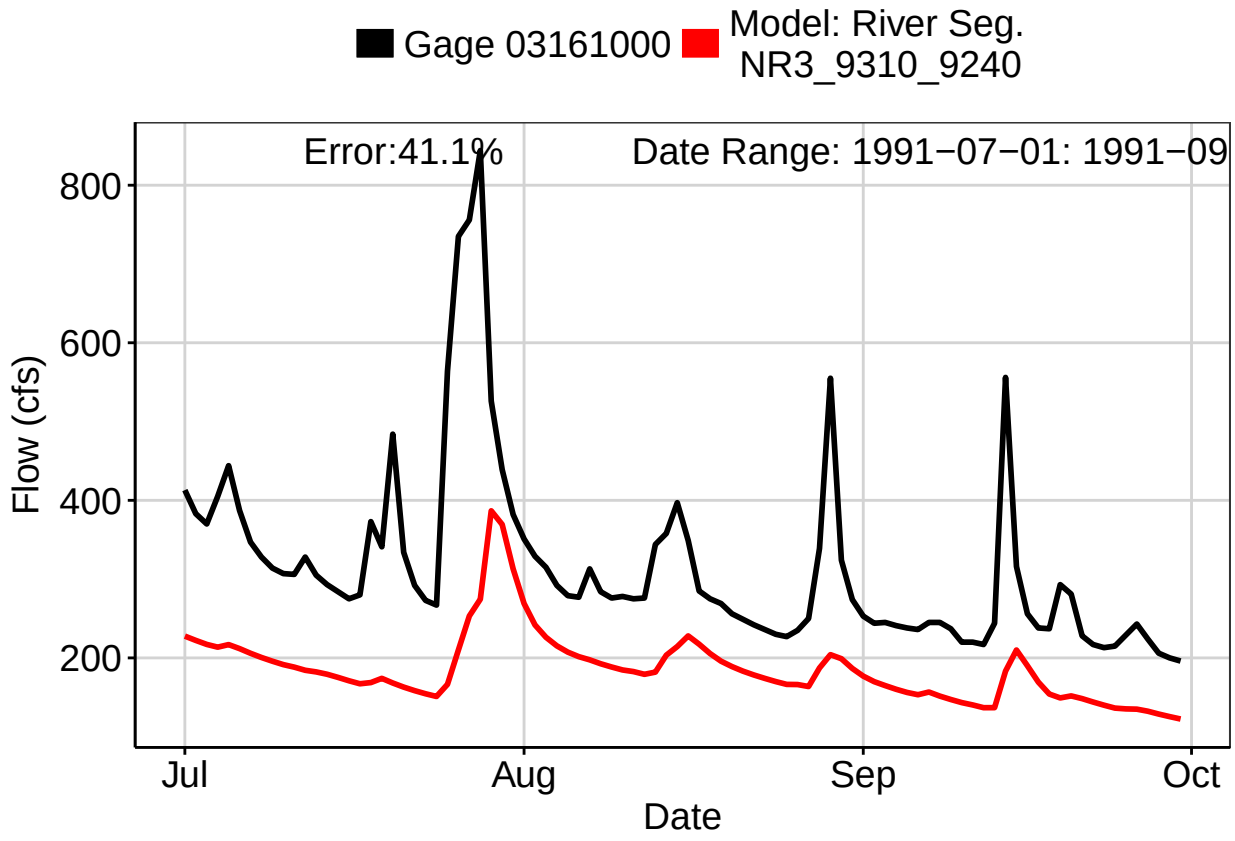

Fig. 9: Residuals Plot