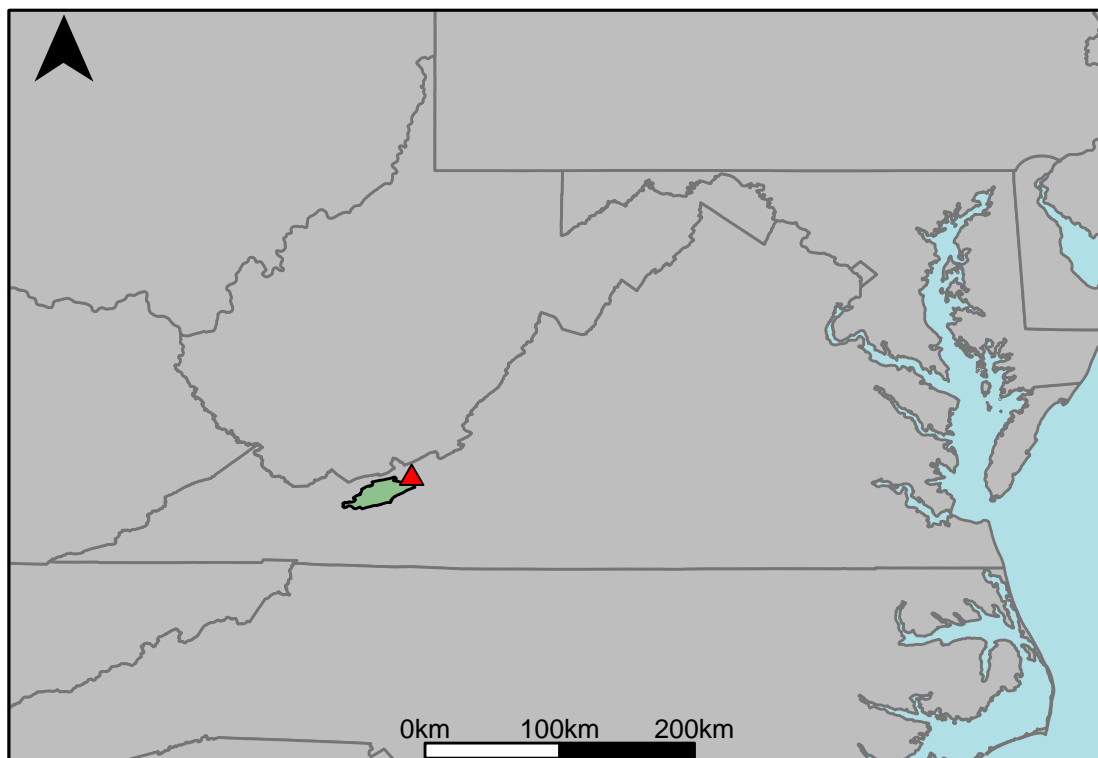


Appendix F.7: USGS Gage 03173000 vs. NR3_8290_8170



This river segment follows part of the flow of the Walker Creek, a tributary of the New River. The gage is located in Giles County, VA (Lat 37°16'05", Long 80°42'35") approximately 12 miles northwest of Radford, VA. Drainage area is 299 sq. miles. This gage started taking data in 1938 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 -9.6%, with 45% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	44	34.1	-22.5
Feb. Low Flow	53	86.5	63.2
Mar. Low Flow	87	134	54
Apr. Low Flow	115	190	65.2
May Low Flow	177	276	55.9
Jun. Low Flow	261	324	24.1
Jul. Low Flow	213	224	5.16
Aug. Low Flow	132	132	0
Sep. Low Flow	91	79.3	-12.9
Oct. Low Flow	58	35.7	-38.4
Nov. Low Flow	51	42.5	-16.7
Dec. Low Flow	43	36.7	-14.7

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	323	354	9.6
Jan. Mean Flow	440	483	9.77
Feb. Mean Flow	557	645	15.8
Mar. Mean Flow	641	656	2.34
Apr. Mean Flow	528	500	-5.3
May Mean Flow	450	409	-9.11
Jun. Mean Flow	276	303	9.78
Jul. Mean Flow	132	172	30.3
Aug. Mean Flow	115	152	32.2
Sep. Mean Flow	137	186	35.8
Oct. Mean Flow	125	186	48.8
Nov. Mean Flow	198	239	20.7
Dec. Mean Flow	296	335	13.2

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	94	134	42.6
Feb. High Flow	352	374	6.25
Mar. High Flow	1070	574	-46.4
Apr. High Flow	1430	1530	6.99
May High Flow	1350	1290	-4.44
Jun. High Flow	2100	1560	-25.7
Jul. High Flow	1150	1070	-6.96
Aug. High Flow	1310	968	-26.1
Sep. High Flow	426	682	60.1
Oct. High Flow	175	244	39.4
Nov. High Flow	143	177	23.8
Dec. High Flow	126	178	41.3

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	25	1.57	-93.7
Med. 1 Day Min	40	10.7	-73.2
Min. 3 Day Min	27.1	1.72	-93.7
Med. 3 Day Min	40.7	11.2	-72.5
Min. 7 Day Min	28.5	2.15	-92.5
Med. 7 Day Min	41.3	12.7	-69.2
Min. 30 Day Min	33.5	6.82	-79.6
Med. 30 Day Min	47.7	29.8	-37.5
Min. 90 Day Min	39.3	23.1	-41.2
Med. 90 Day Min	71.1	73	2.67
7Q10	31.4	4.87	-84.5
Year of 90-Day Min. Flow	1988	1988	0
Drought Year Mean	135	117	-13.3
Mean Baseflow	156	194	24.4

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	14100	7840	-44.4
Med. 1 Day Max	4560	4000	-12.3
Max. 3 Day Max	6450	4920	-23.7
Med. 3 Day Max	3130	2610	-16.6
Max. 7 Day Max	3960	2810	-29
Med. 7 Day Max	1920	1860	-3.12
Max. 30 Day Max	1890	1720	-8.99
Med. 30 Day Max	903	877	-2.88
Max. 90 Day Max	1210	1180	-2.48
Med. 90 Day Max	653	647	-0.92

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	34	9.47	-72.1
5% Non-Exceedance	42	22.8	-45.7
50% Non-Exceedance	154	217	40.9
95% Non-Exceedance	1070	1100	2.8
99% Non-Exceedance	2430	2460	1.23
Sept. 10% Non-Exceedance	17.9	38	112

Fig. 1: Hydrograph

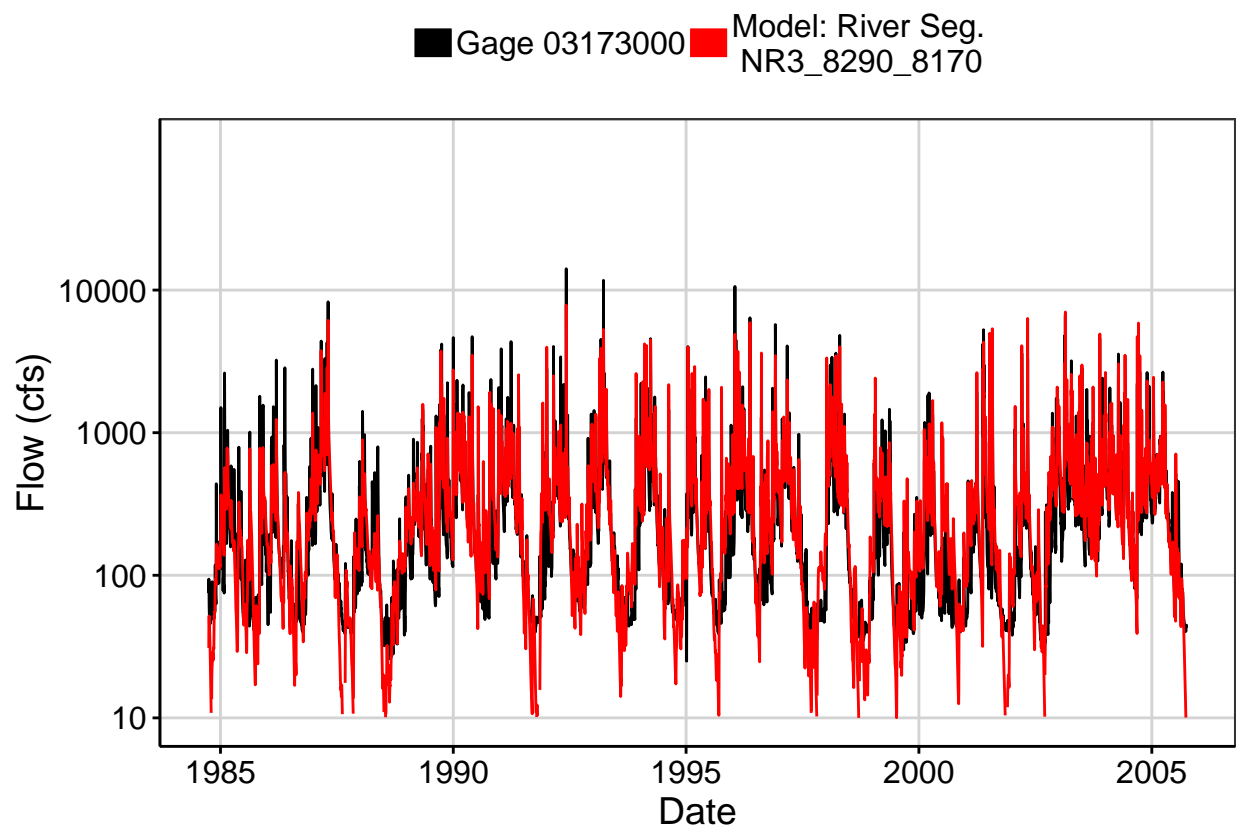


Fig. 2: Zoomed Hydrograph

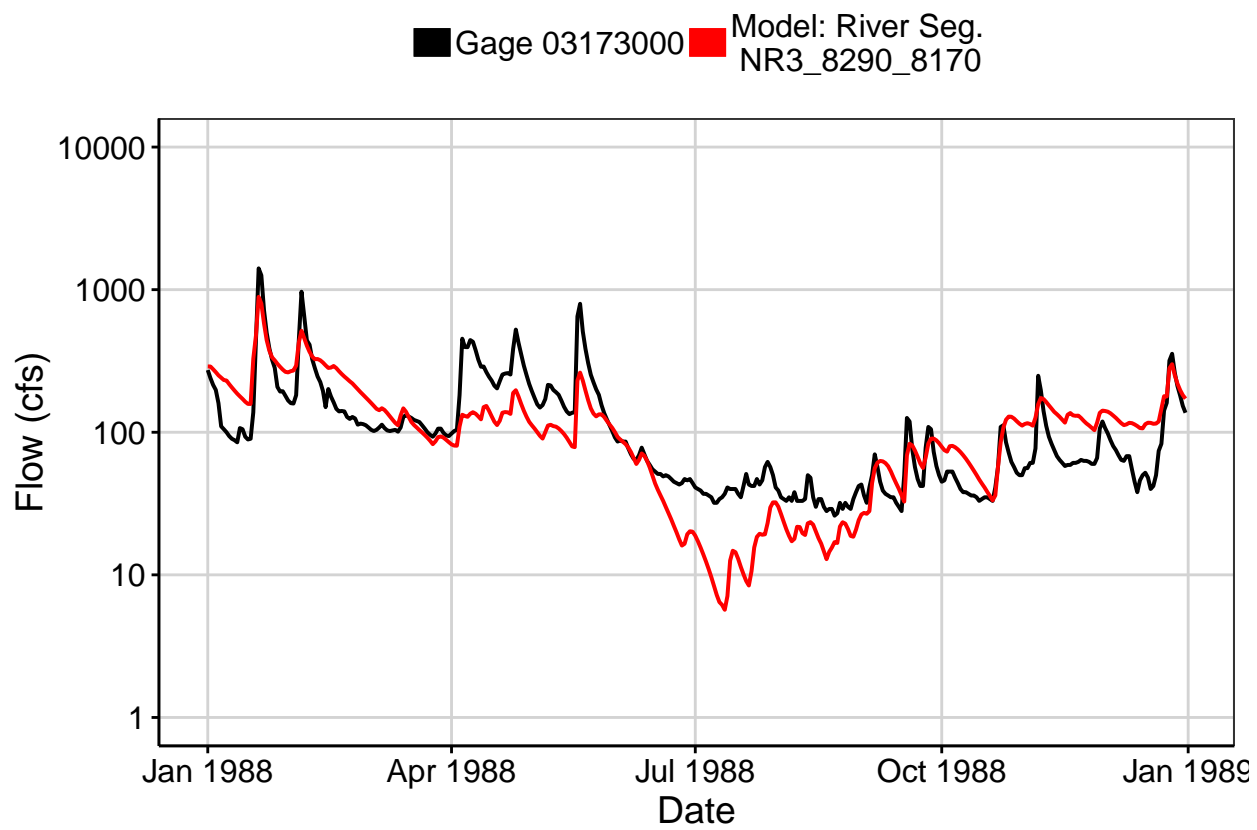


Fig. 3: Flow Exceedance

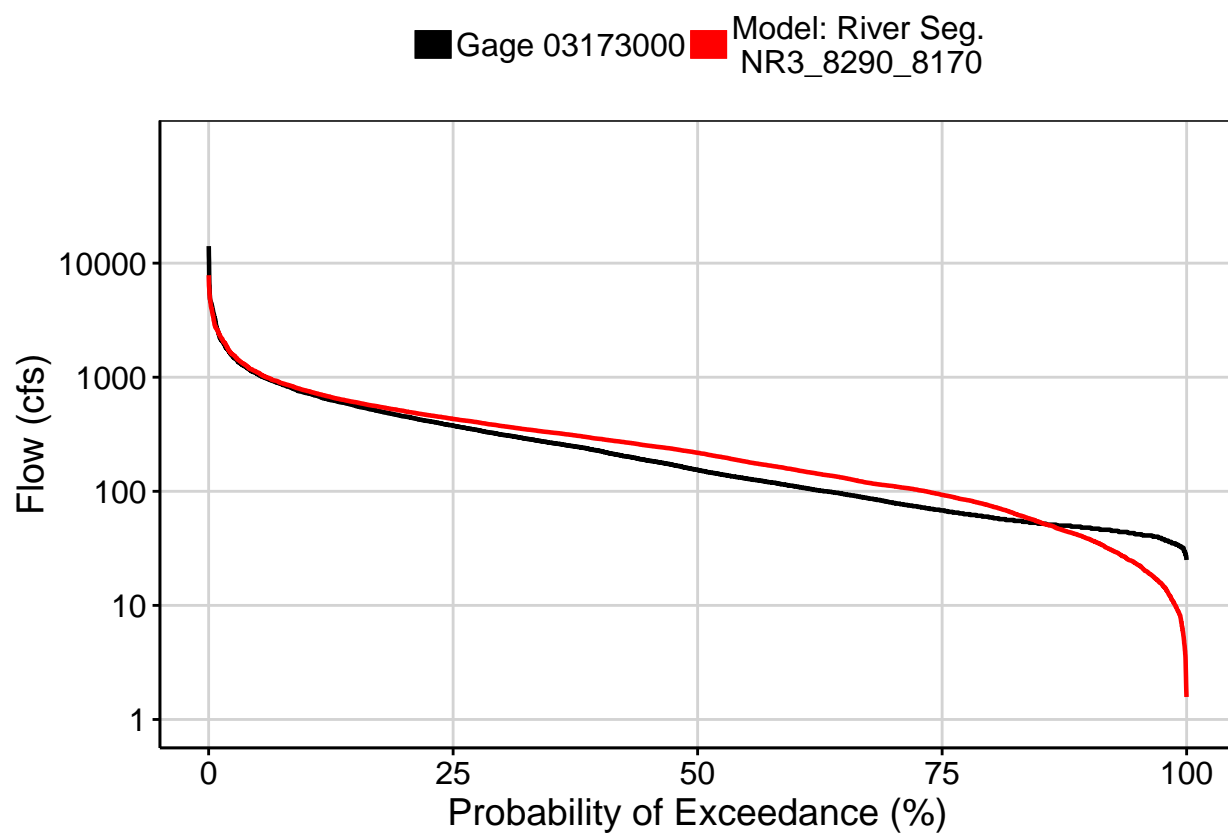


Fig. 4: Baseflow

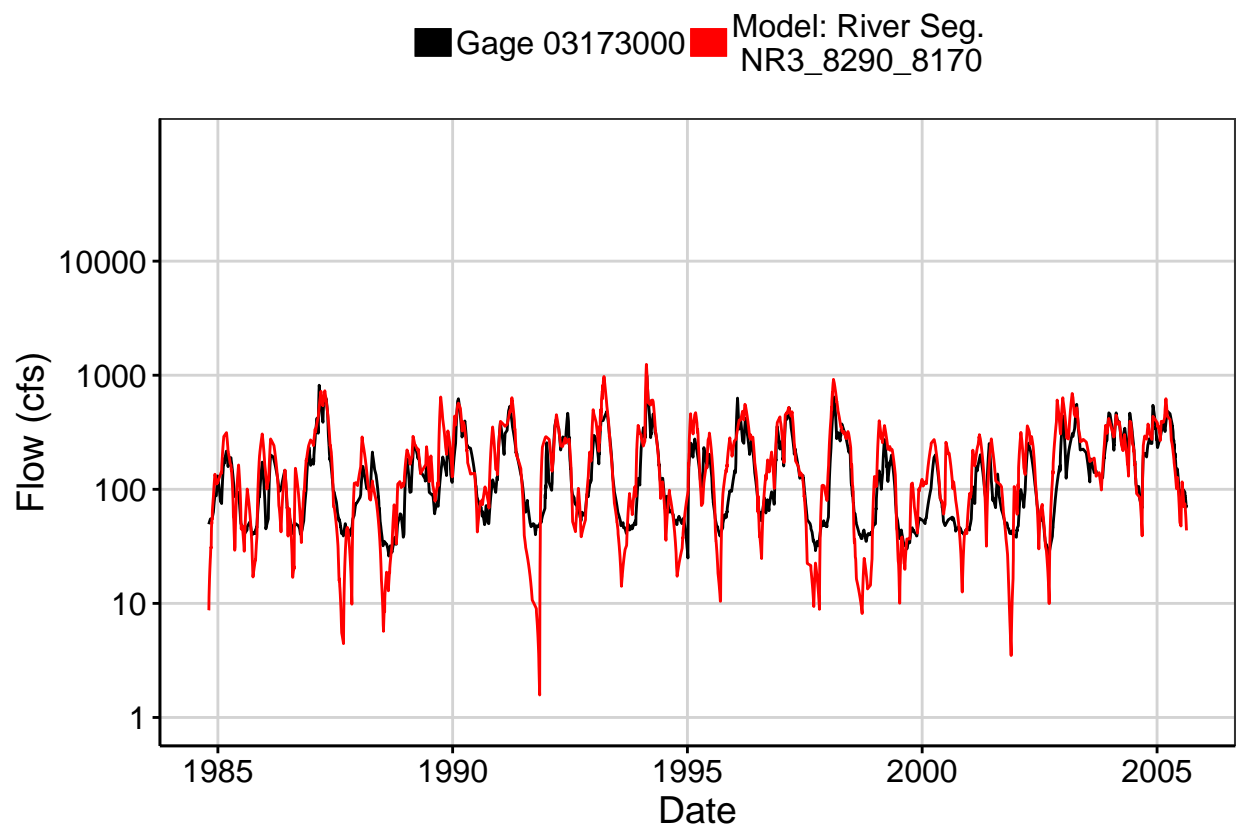


Fig. 5: Combined Baseflow

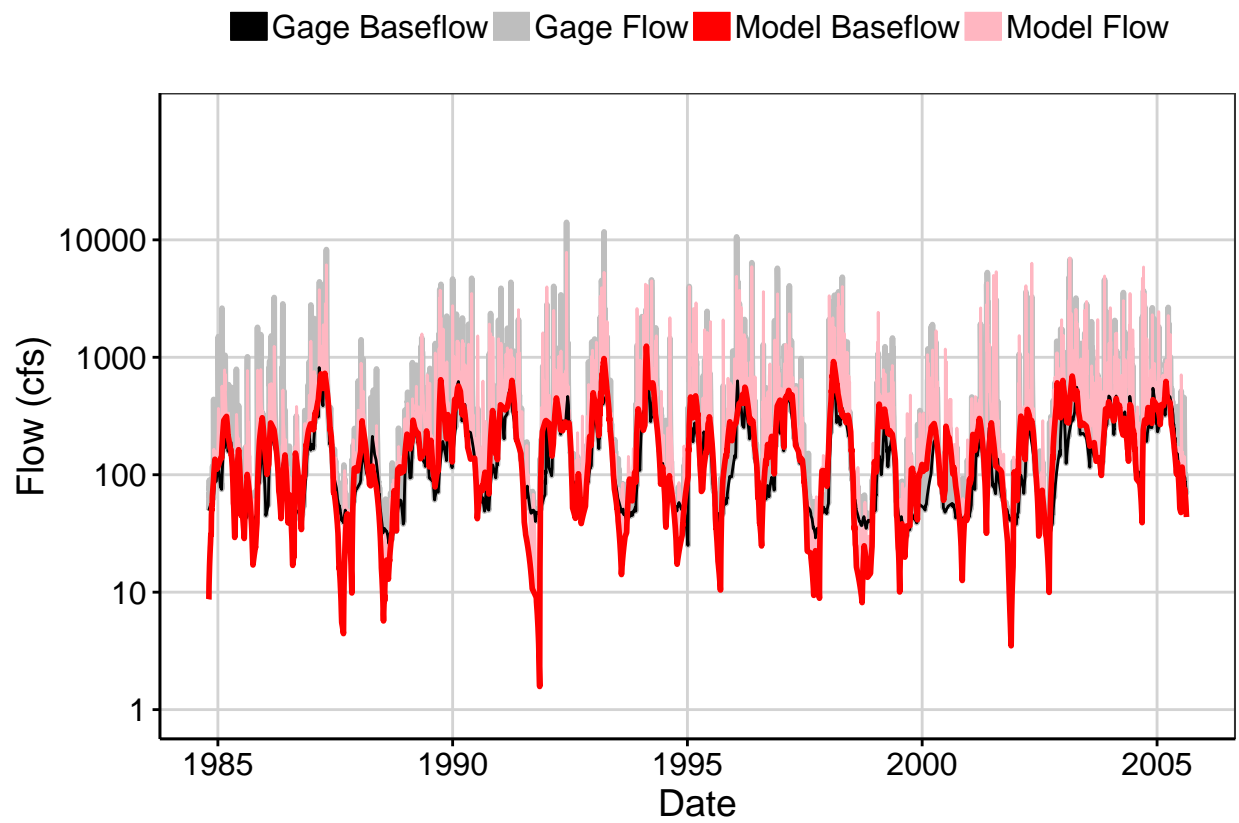


Fig. 6: Largest Error Segment

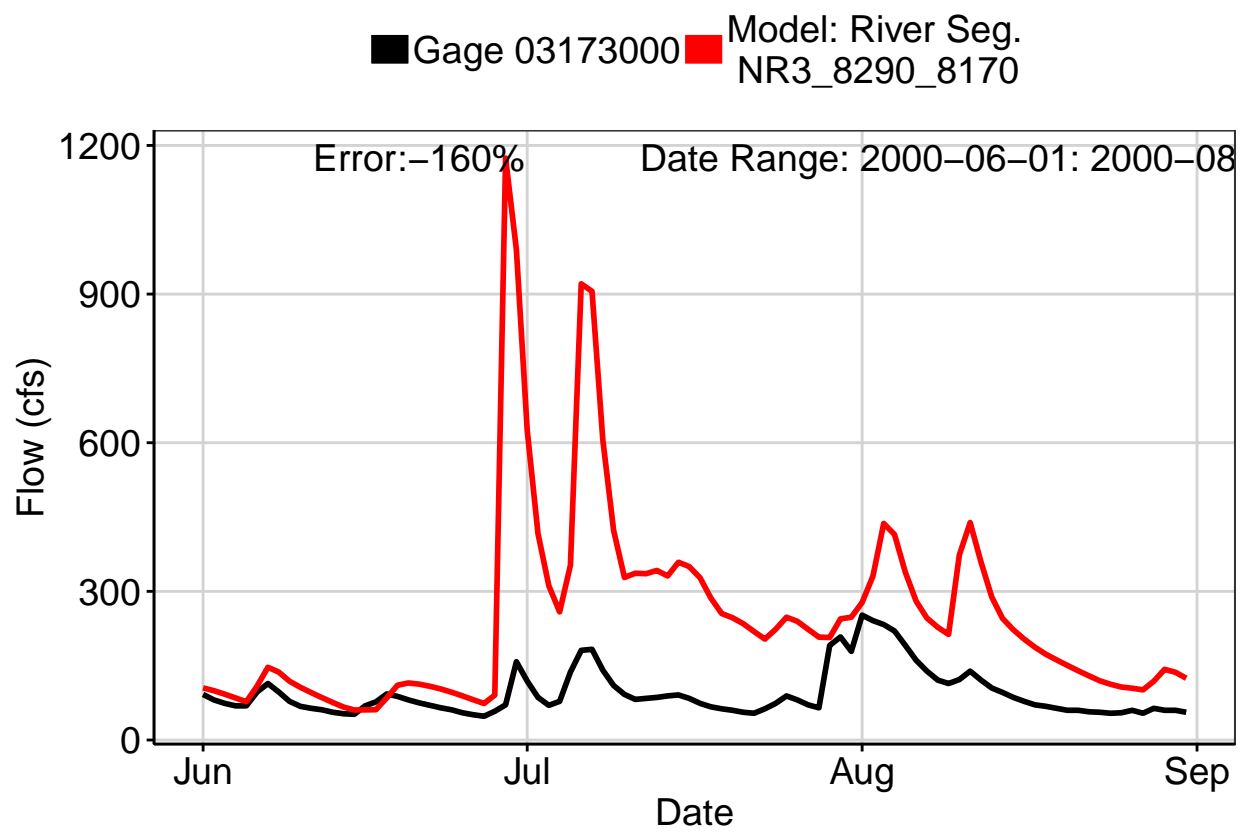


Fig. 7: Second Largest Error Segment

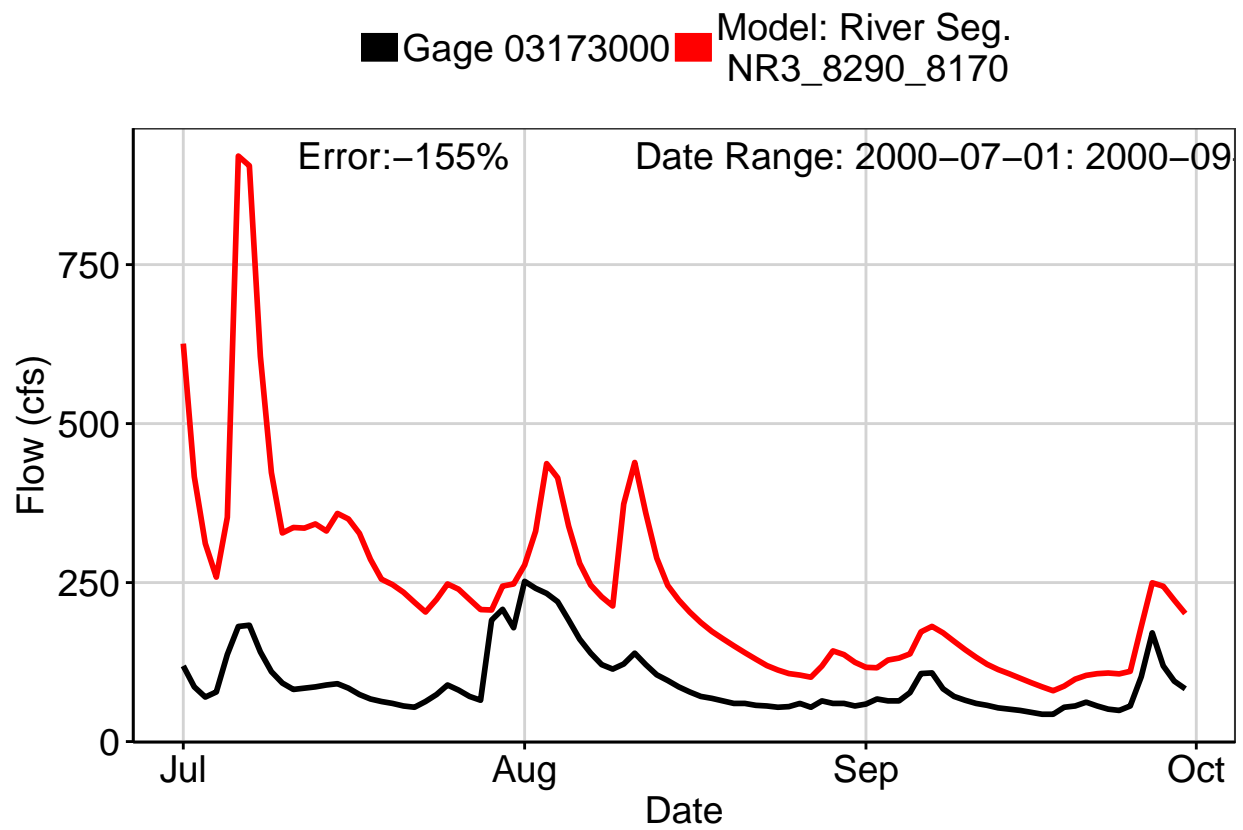


Fig. 8: Third Largest Error Segment

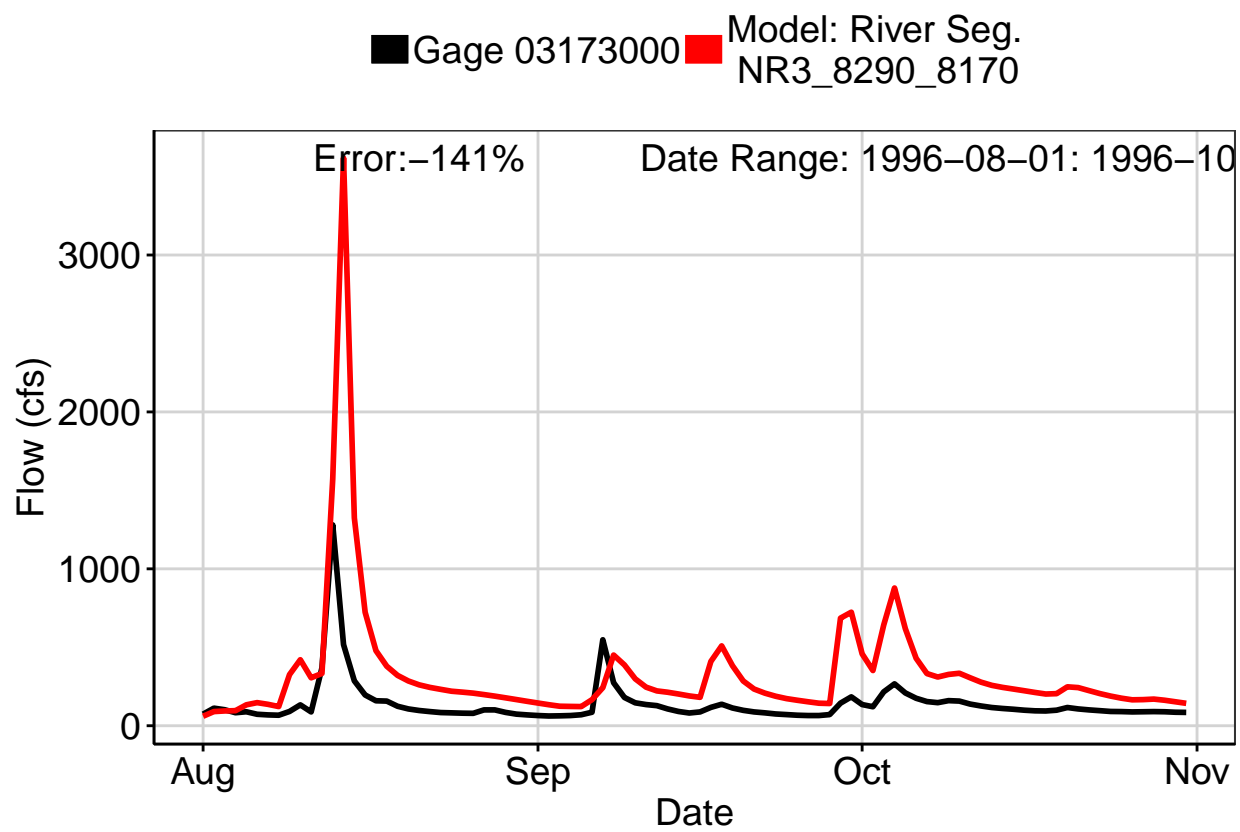


Fig. 9: Residuals Plot

