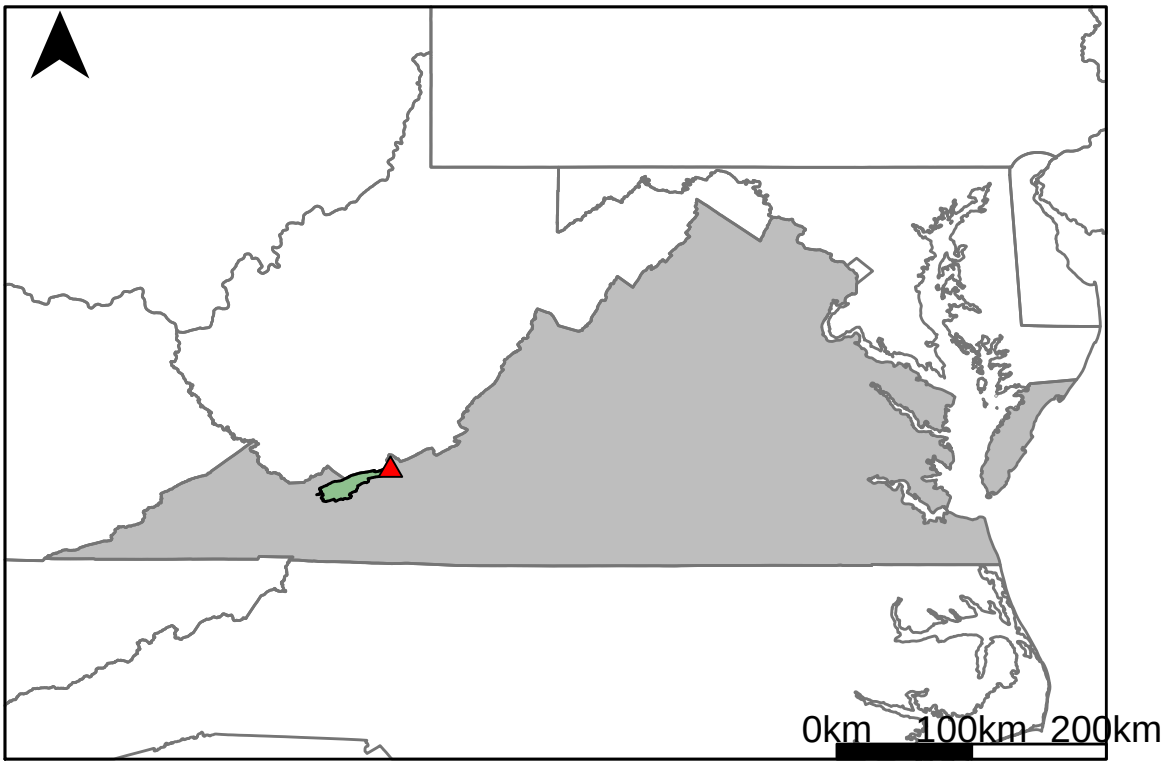
03175500 vs. NR2_8210_8180



This river segment follows part of the flow of the Wolf Creek, a tributary of the New River. The gage is located in Giles County, VA (Lat 3718'20", Long 8051'00") approximately 20 miles northwest of Radford, VA. Drainage area is 223 sq. miles. This gage started taking data in 1908 and is still taking data but there is a gap from 1995-10-01 to 1996-09-30. 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 2.65%, with 46.7% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	32	31.1	2.81
Feb. Low Flow	45	73.8	-64
Mar. Low Flow	88	97.6	-10.9
Apr. Low Flow	118	153	-29.7
May Low Flow	176	199	-13.1
Jun. Low Flow	244	260	-6.56
Jul. Low Flow	192	173	9.9
Aug. Low Flow	116	94.1	18.9
Sep. Low Flow	76.4	42.4	44.5
Oct. Low Flow	52.7	18.6	64.7
Nov. Low Flow	38	25	34.2
Dec. Low Flow	33.5	19.7	41.2

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	302	294	2.65
Jan. Mean Flow	409	419	-2.44
Feb. Mean Flow	545	560	-2.75
Mar. Mean Flow	594	548	7.74
Apr. Mean Flow	501	398	20.6
May Mean Flow	383	322	15.9
Jun. Mean Flow	237	231	2.53
Jul. Mean Flow	132	133	-0.76
Aug. Mean Flow	102	124	-21.6
Sep. Mean Flow	121	149	-23.1
Oct. Mean Flow	113	154	-36.3
Nov. Mean Flow	199	206	-3.52
Dec. Mean Flow	300	301	-0.33

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	106	137	-29.2
Feb. High Flow	296	400	-35.1
Mar. High Flow	1200	522	56.5
Apr. High Flow	1530	1620	-5.88
May High Flow	1380	1250	9.42
Jun. High Flow	1650	1660	-0.61
Jul. High Flow	871	894	-2.64
Aug. High Flow	958	865	9.71
Sep. High Flow	438	517	-18
Oct. High Flow	312	177	43.3
Nov. High Flow	154	193	-25.3
Dec. High Flow	155	145	6.45

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	10	0	100
Med. 1 Day Min	28	2.75	90.2
Min. 3 Day Min	11.3	0.01	99.9
Med. 3 Day Min	29	4.64	84
Min. 7 Day Min	16	0.45	97.2
Med. 7 Day Min	31.5	5.66	82
Min. 30 Day Min	23.1	3.54	84.7
Med. 30 Day Min	38.2	20.8	45.5
Min. 90 Day Min	33.2	14	57.8
Med. 90 Day Min	64	61.8	3.44
7Q10	20.5	0.96	95.3
Year of 90-Day Min. Flow	1988	1988	0
Drought Year Mean	126	294	-133
Mean Baseflow	146	148	-1.37

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	7910	6620	16.3
Med. 1 Day Max	3810	3760	1.31
Max. 3 Day Max	5630	4150	26.3
Med. 3 Day Max	2590	2310	10.8
Max. 7 Day Max	3080	2370	23.1
Med. 7 Day Max	1630	1640	-0.61
Max. 30 Day Max	1770	1480	16.4
Med. 30 Day Max	850	719	15.4
Max. 90 Day Max	1110	989	10.9
Med. 90 Day Max	632	577	8.7

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	24	2.87	88
5% Non-Exceedance	33	11.8	64.2
50% Non-Exceedance	159	175	-10.1
95% Non-Exceedance	969	937	3.3
99% Non-Exceedance	1930	2140	-10.9
Sept. 10% Non-Exceedance	5.95	6.15	-3.36

Fig. 1: Hydrograph

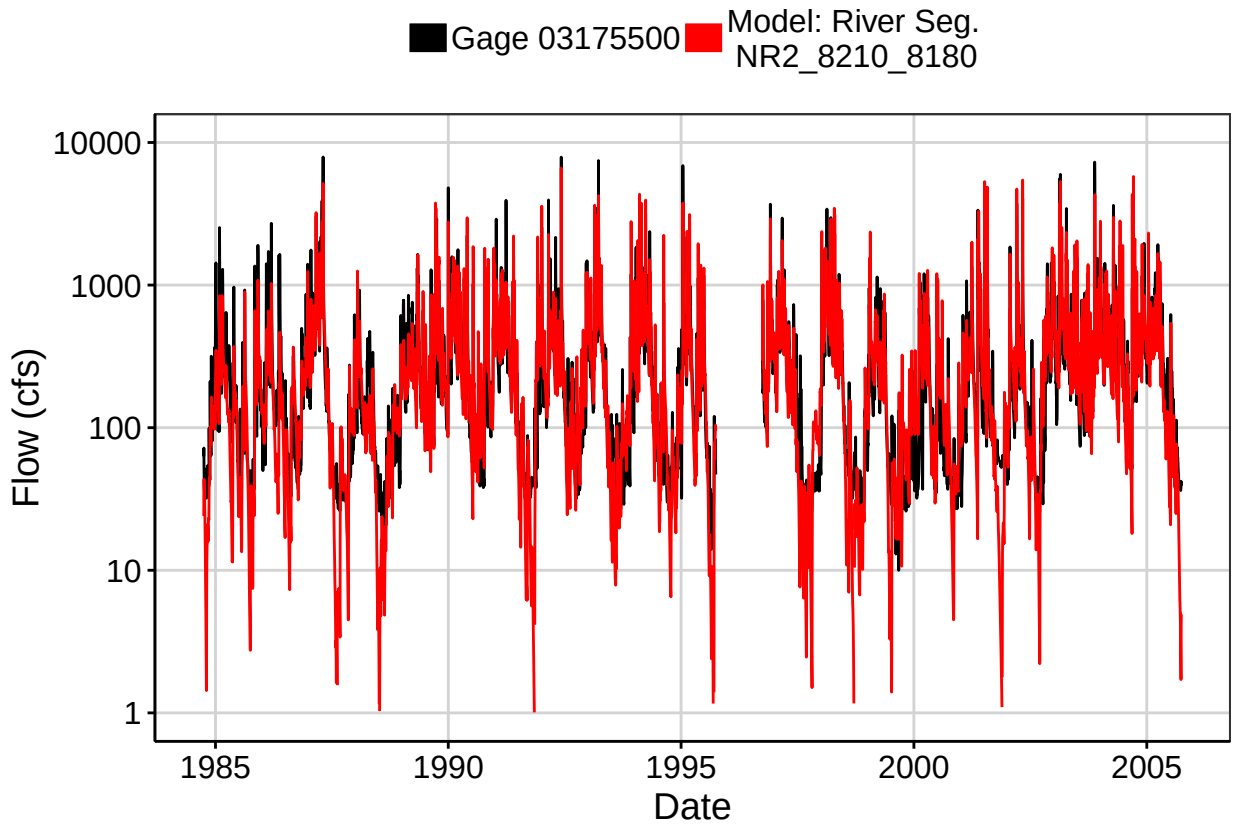


Fig. 2: Zoomed Hydrograph

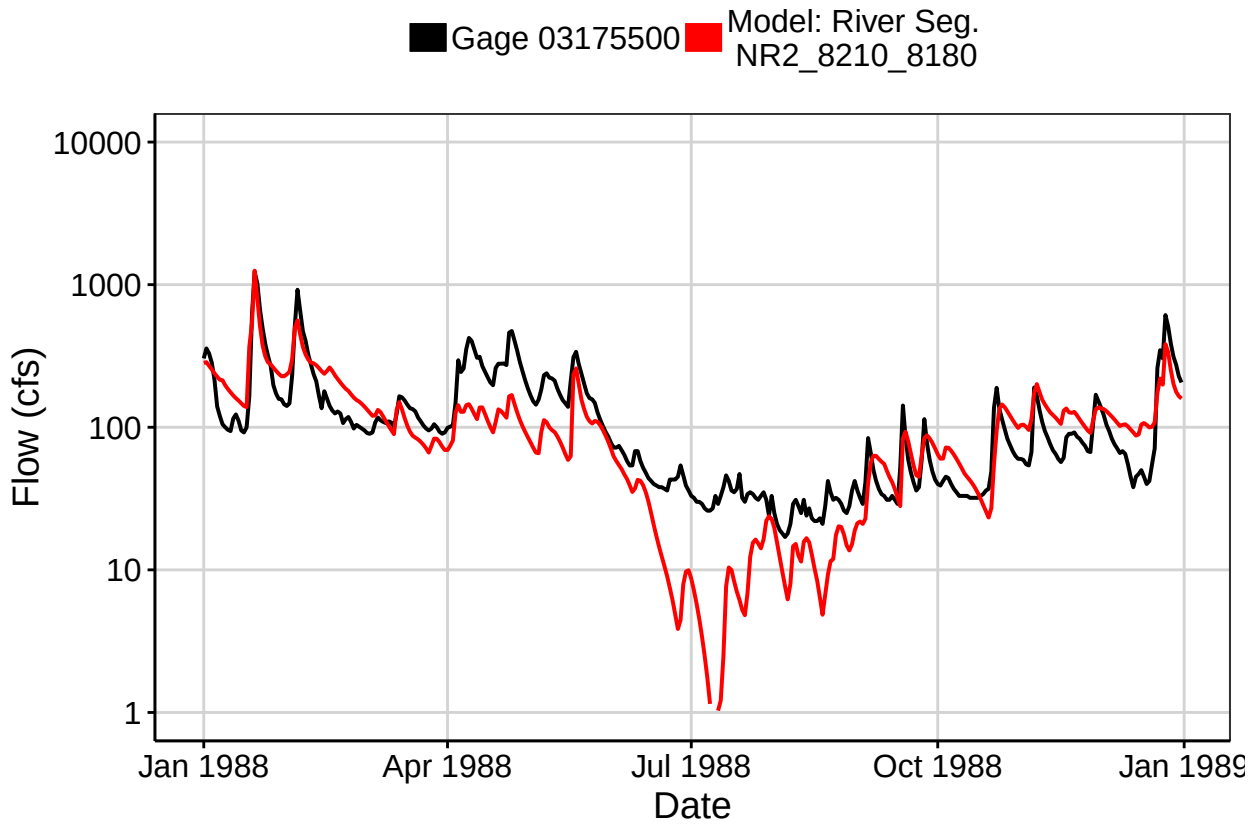


Fig. 3: Flow Exceedance

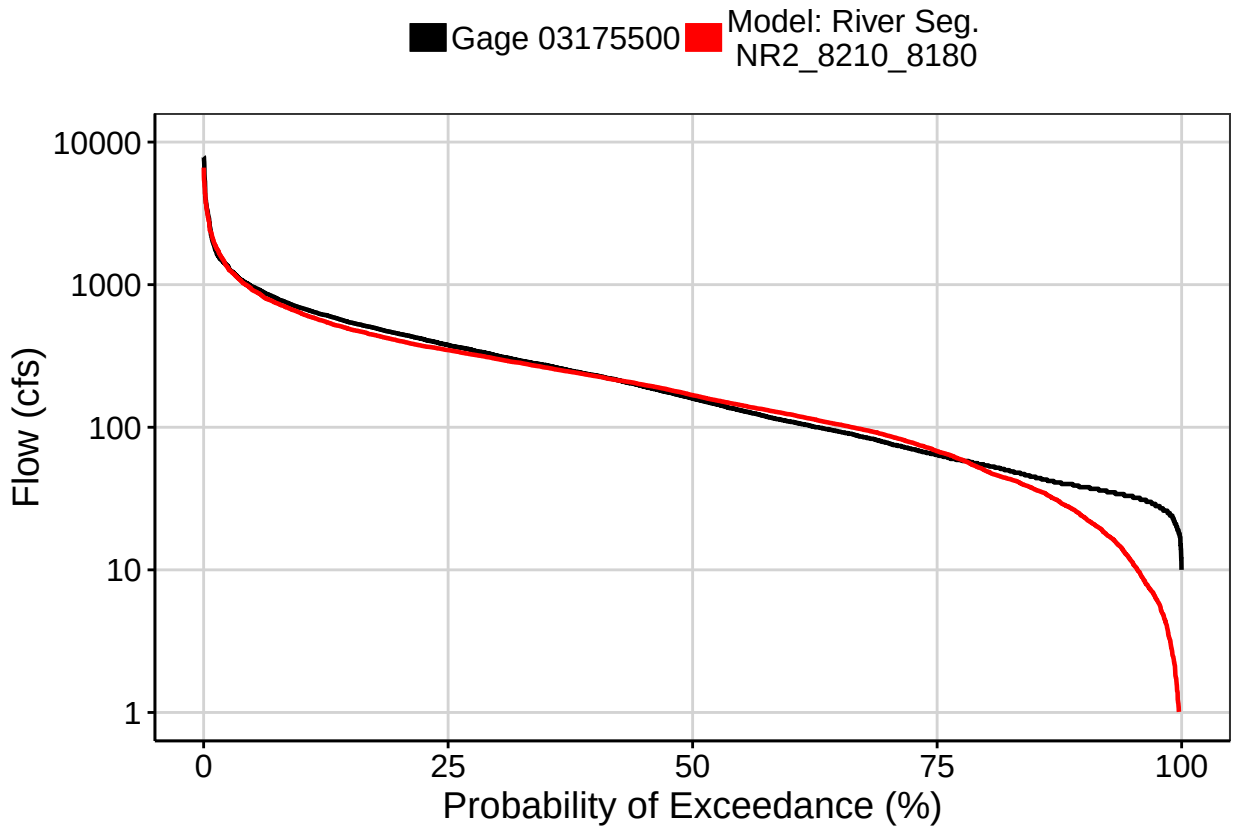


Fig. 4: Baseflow

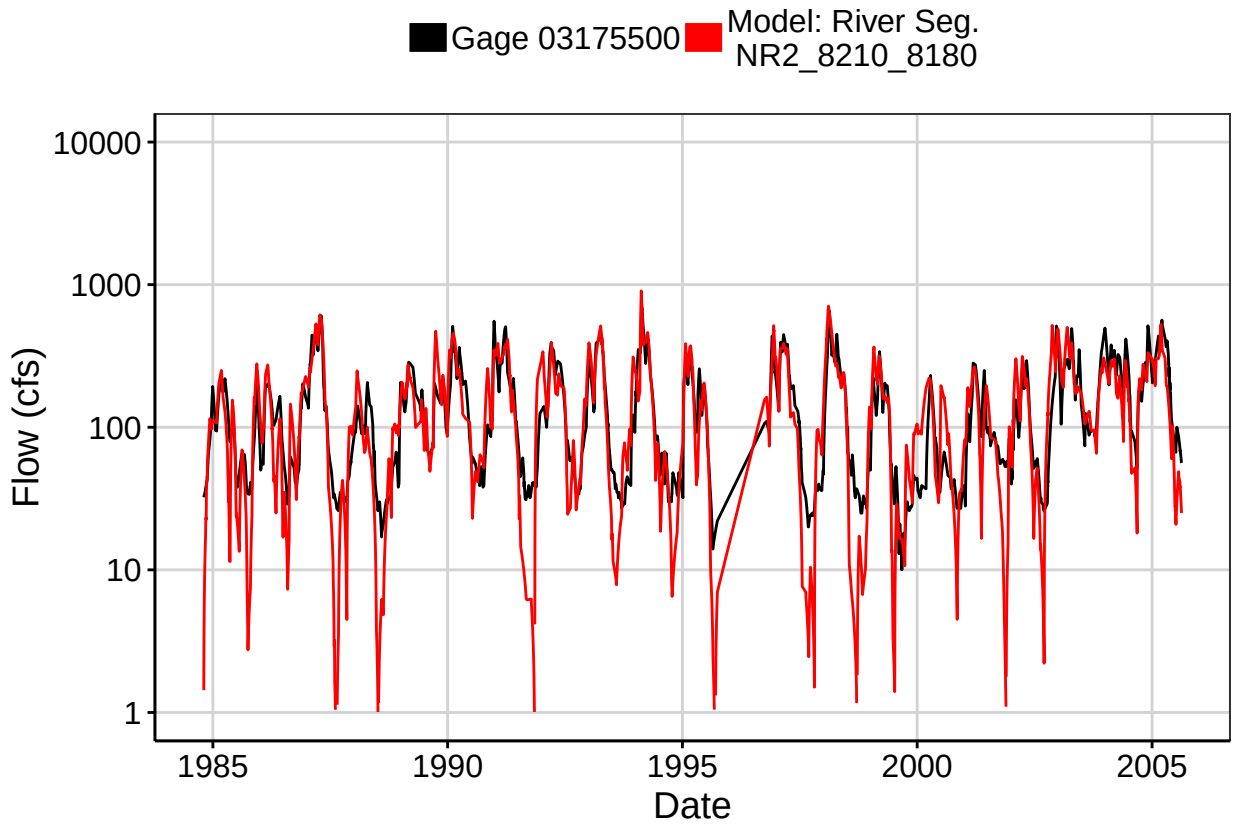


Fig. 5: Combined Baseflow

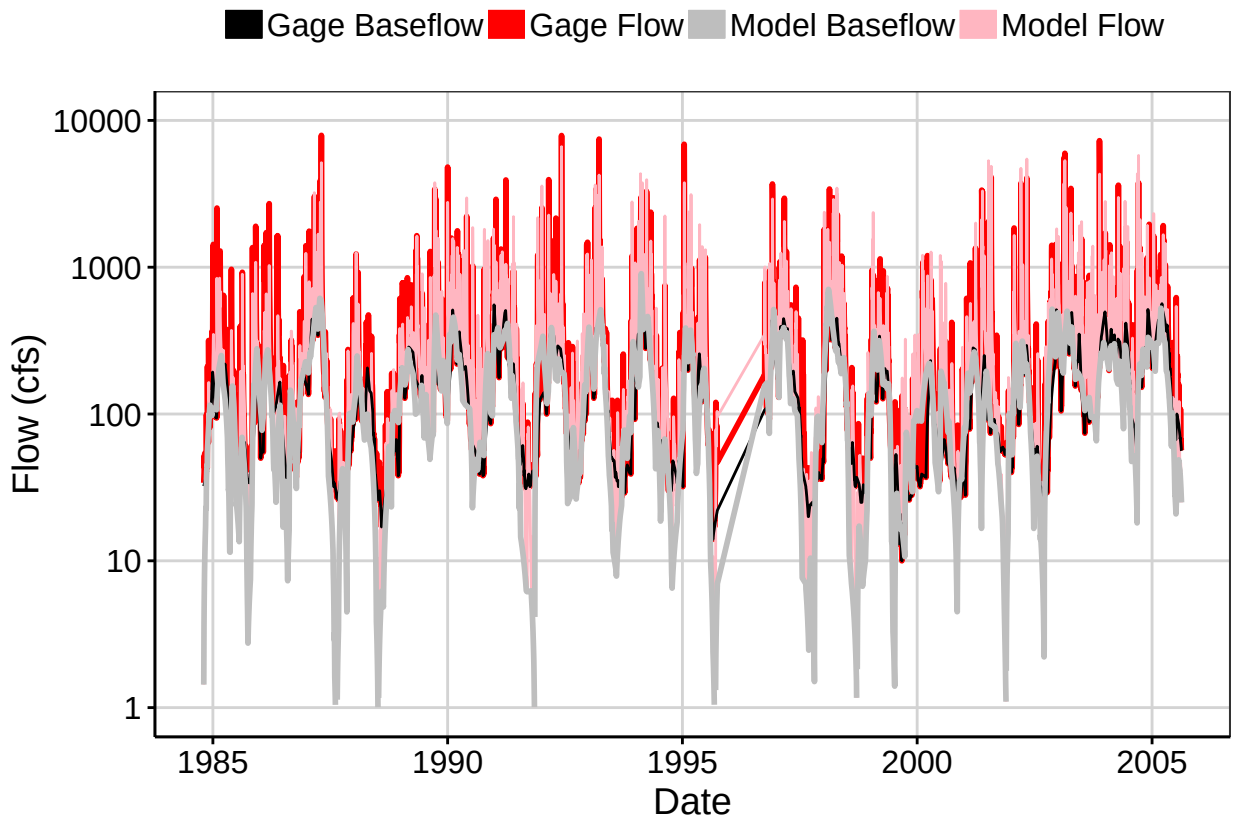


Fig. 6: Largest Error Segment

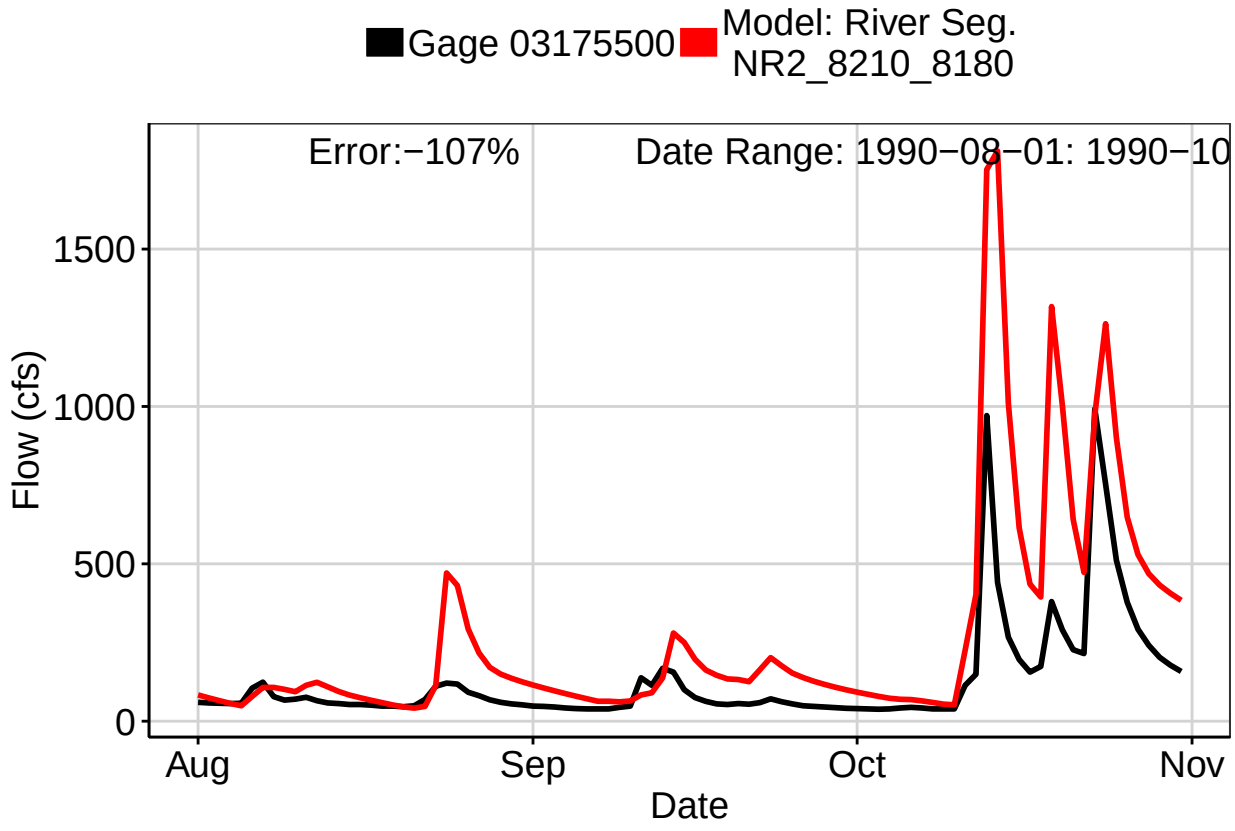


Fig. 7: Second Largest Error Segment

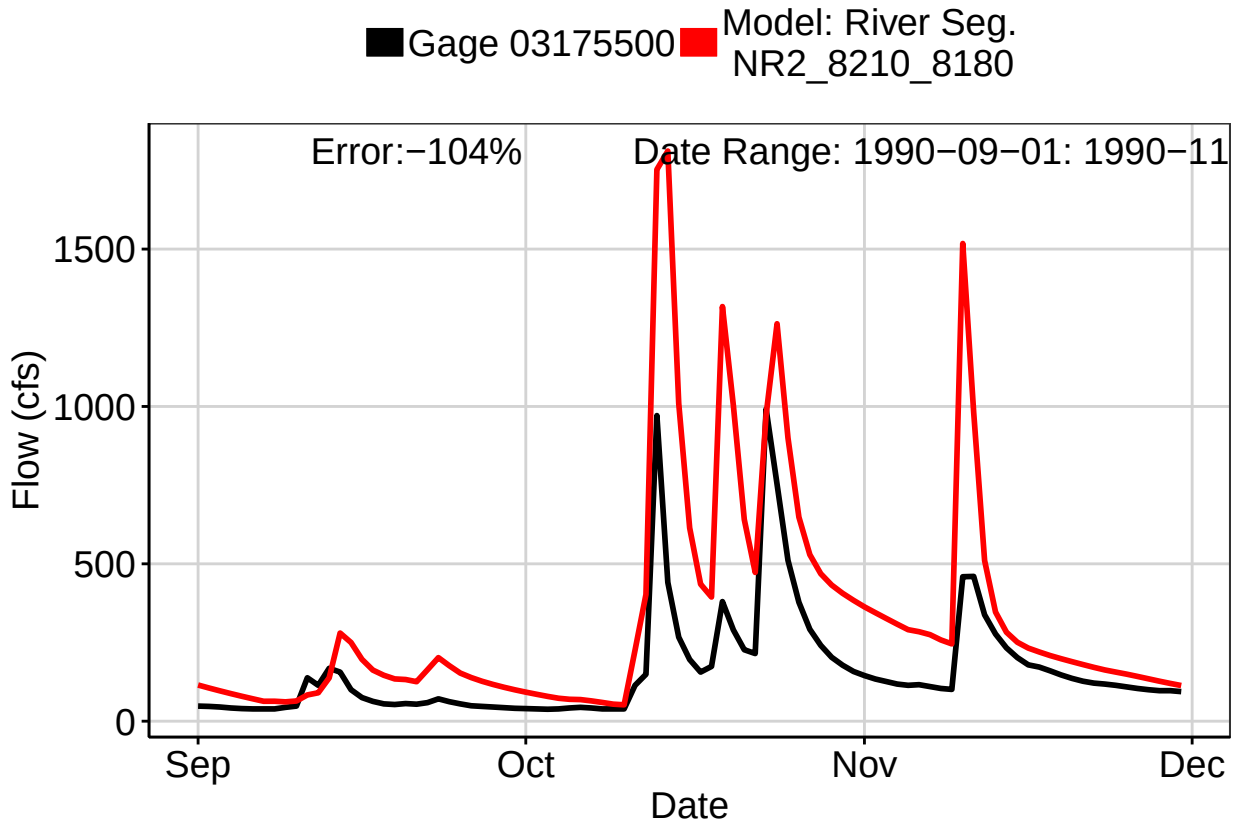


Fig. 8: Third Largest Error Segment

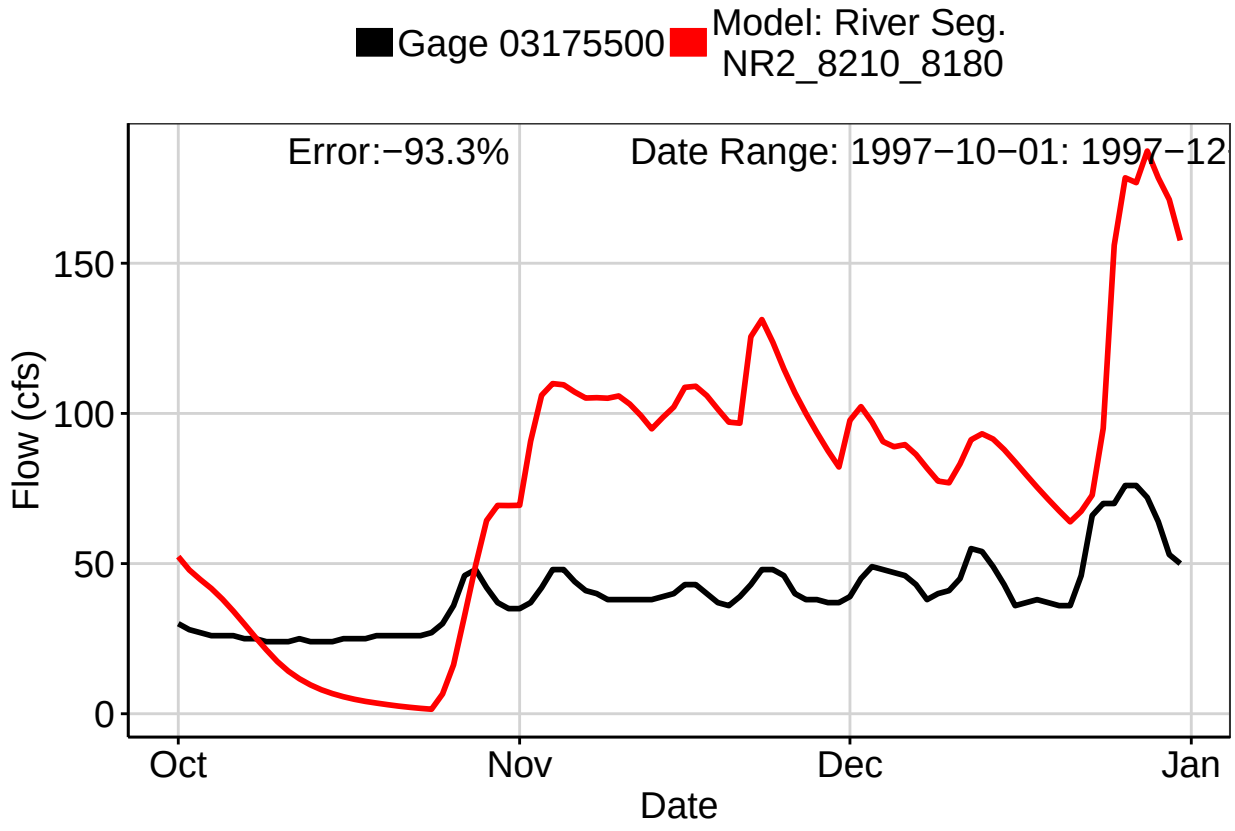


Fig. 9: Residuals Plot