02058400 vs. OR2_8460_8271

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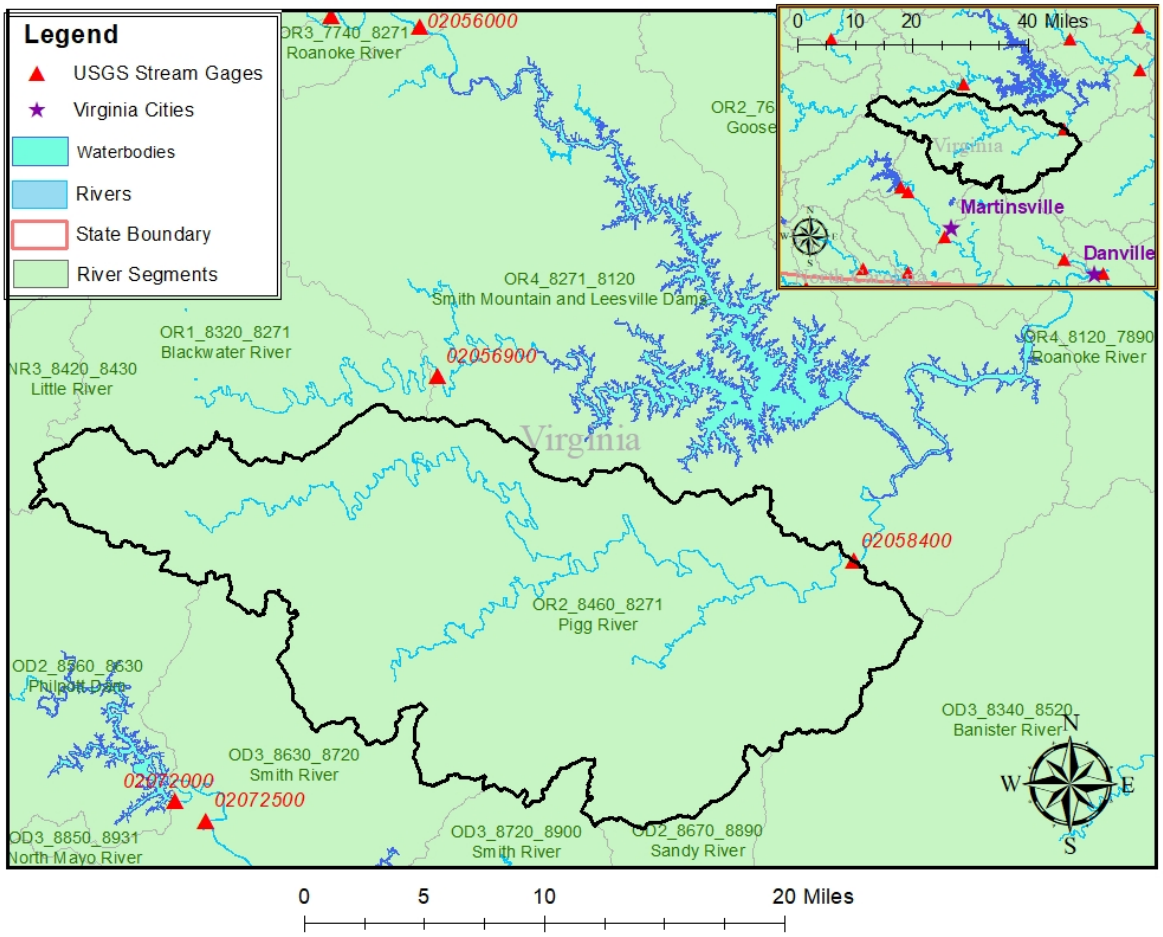
July 11, 2018



This river segment follows part of the flow of the Pigg River, a tributary of the Roanoke River. The gage is located in Pittsylvania County, VA (Lat 3656'45", Long 7931'30") approximately 26 miles northeast of Martinsville, VA. Drainage area is 351 sq. miles. This gage started taking data in 1963 and is still taking data. There is a small amount of diurnal fluctuation that has been recorded but the source is unknown. The average daily discharge error between the model and gage data for the 20 year timespan was 1.26%, with 42.9% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	152	71.7	52.8
Feb. Low Flow	189	99.4	47.4
Mar. Low Flow	201	179	10.9
Apr. Low Flow	215	228	-6.05
May Low Flow	282	322	-14.2
Jun. Low Flow	319	338	-5.96
Jul. Low Flow	304	225	26
Aug. Low Flow	237	174	26.6
Sep. Low Flow	185	153	17.3
Oct. Low Flow	167	106	36.5
Nov. Low Flow	136	96.1	29.3
Dec. Low Flow	122	79.7	34.7

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	396	391	1.26
Jan. Mean Flow	468	479	-2.35
Feb. Mean Flow	474	572	-20.7
Mar. Mean Flow	597	739	-23.8
Apr. Mean Flow	546	586	-7.33
May Mean Flow	388	383	1.29
Jun. Mean Flow	353	331	6.23
Jul. Mean Flow	286	218	23.8
Aug. Mean Flow	255	194	23.9
Sep. Mean Flow	413	320	22.5
Oct. Mean Flow	285	241	15.4
Nov. Mean Flow	341	300	12
Dec. Mean Flow	357	346	3.08

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	444	229	48.4
Feb. High Flow	822	924	-12.4
Mar. High Flow	879	792	9.9
Apr. High Flow	1190	1090	8.4
May High Flow	1710	888	48.1
Jun. High Flow	2190	2140	2.28
Jul. High Flow	1330	1410	-6.02
Aug. High Flow	755	674	10.7
Sep. High Flow	502	403	19.7
Oct. High Flow	620	276	55.5
Nov. High Flow	450	210	53.3
Dec. High Flow	679	240	64.7

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	17.5	12.9	26.3
Med. 1 Day Min	105	49.8	52.6
Min. 3 Day Min	17.9	13.1	26.8
Med. 3 Day Min	115	51.5	55.2
Min. 7 Day Min	19.3	13.9	28
Med. 7 Day Min	124	54.8	55.8
Min. 30 Day Min	32.6	20.6	36.8
Med. 30 Day Min	142	70.7	50.2
Min. 90 Day Min	56.2	42.8	23.8
Med. 90 Day Min	205	113	44.9
7Q10	51.5	22.6	56.1
Year of 90-Day Min. Flow	2002	1999	100
Drought Year Mean	133	107	19.5
Mean Baseflow	235	232	1.28

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	34900	13100	62.5
Med. 1 Day Max	6360	5200	18.2
Max. 3 Day Max	15100	8690	42.5
Med. 3 Day Max	3670	3920	-6.81
Max. 7 Day Max	6930	4800	30.7
Med. 7 Day Max	1870	2080	-11.2
Max. 30 Day Max	2300	2320	-0.87
Med. 30 Day Max	887	965	-8.79
Max. 90 Day Max	1340	1420	-5.97
Med. 90 Day Max	561	691	-23.2

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	56.4	27.2	51.8
5% Non-Exceedance	103	49.8	51.7
50% Non-Exceedance	268	235	12.3
95% Non-Exceedance	892	1090	-22.2
99% Non-Exceedance	2940	3220	-9.52
Sept. 10% Non-Exceedance	50.1	92.4	-84.4

Fig. 1: Hydrograph

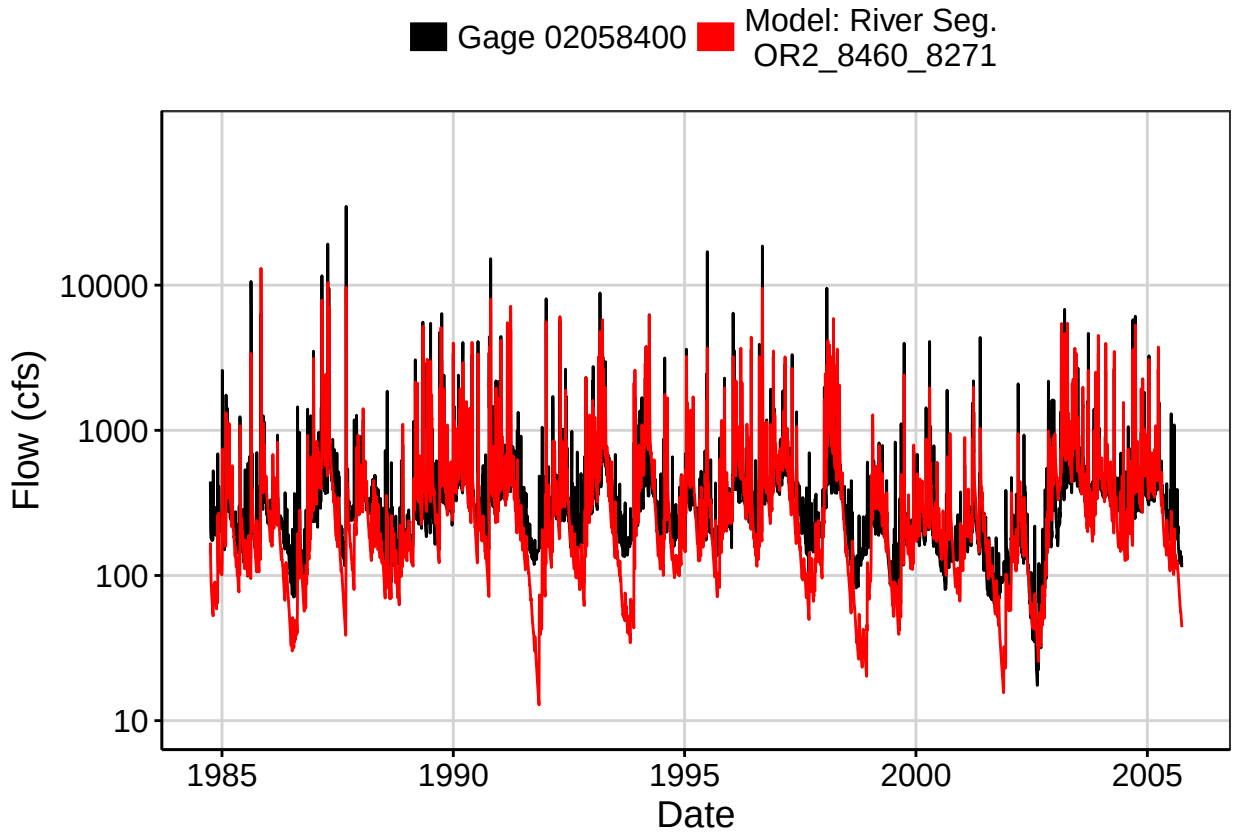


Fig. 2: Zoomed Hydrograph

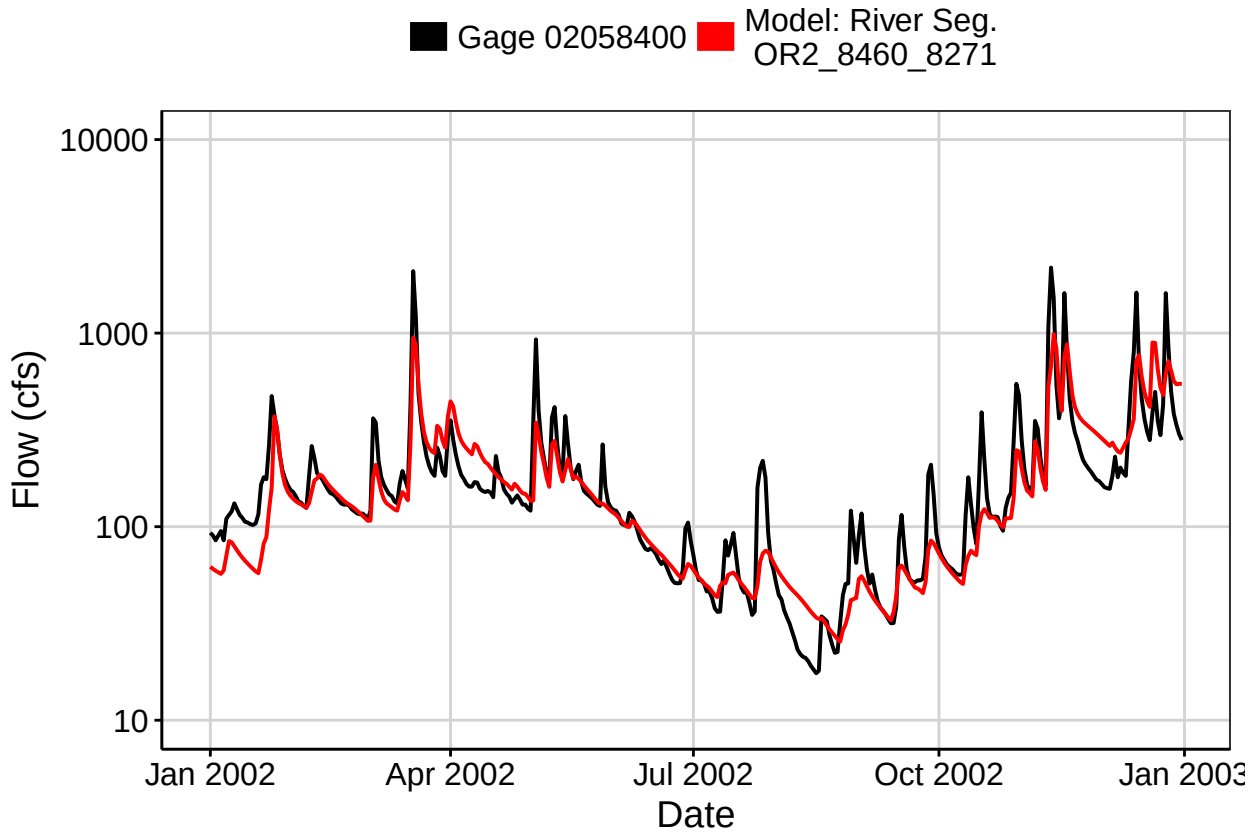


Fig. 3: Flow Exceedance

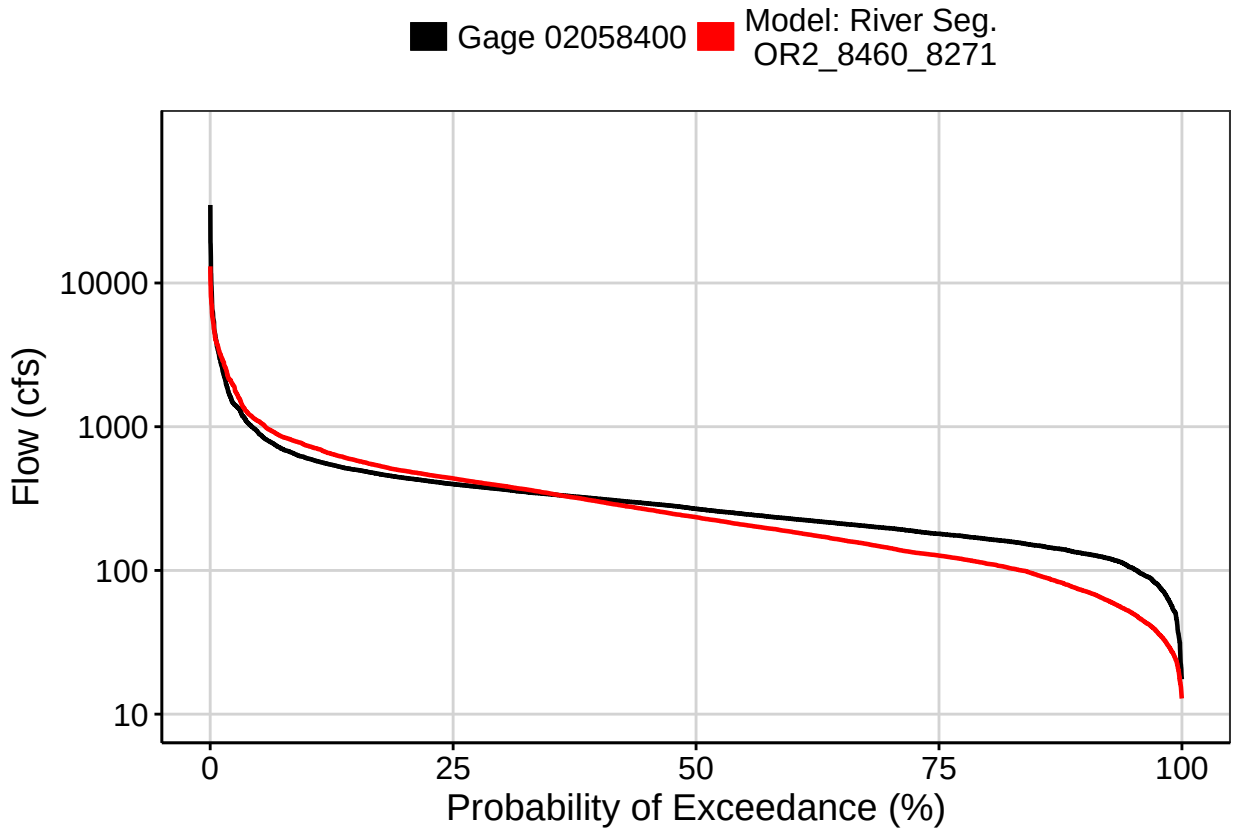


Fig. 4: Baseflow

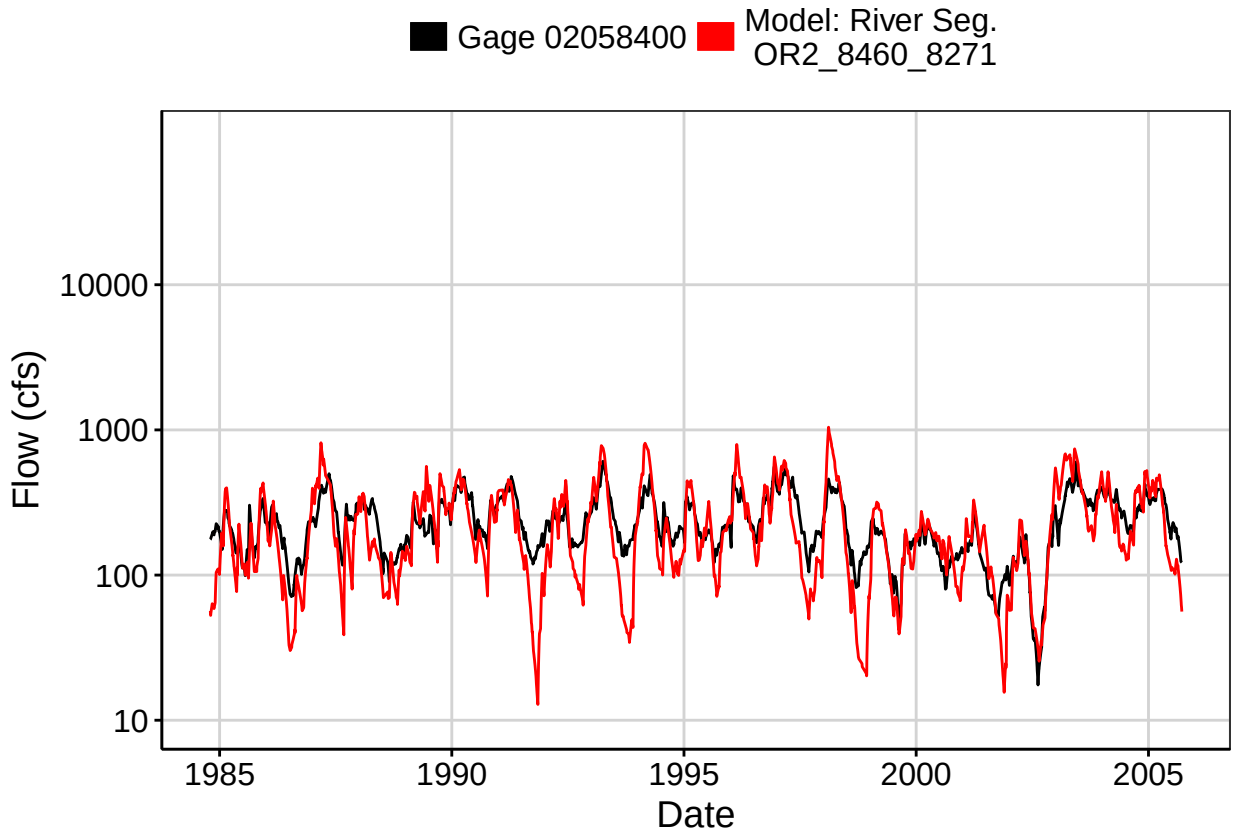


Fig. 5: Combined Baseflow

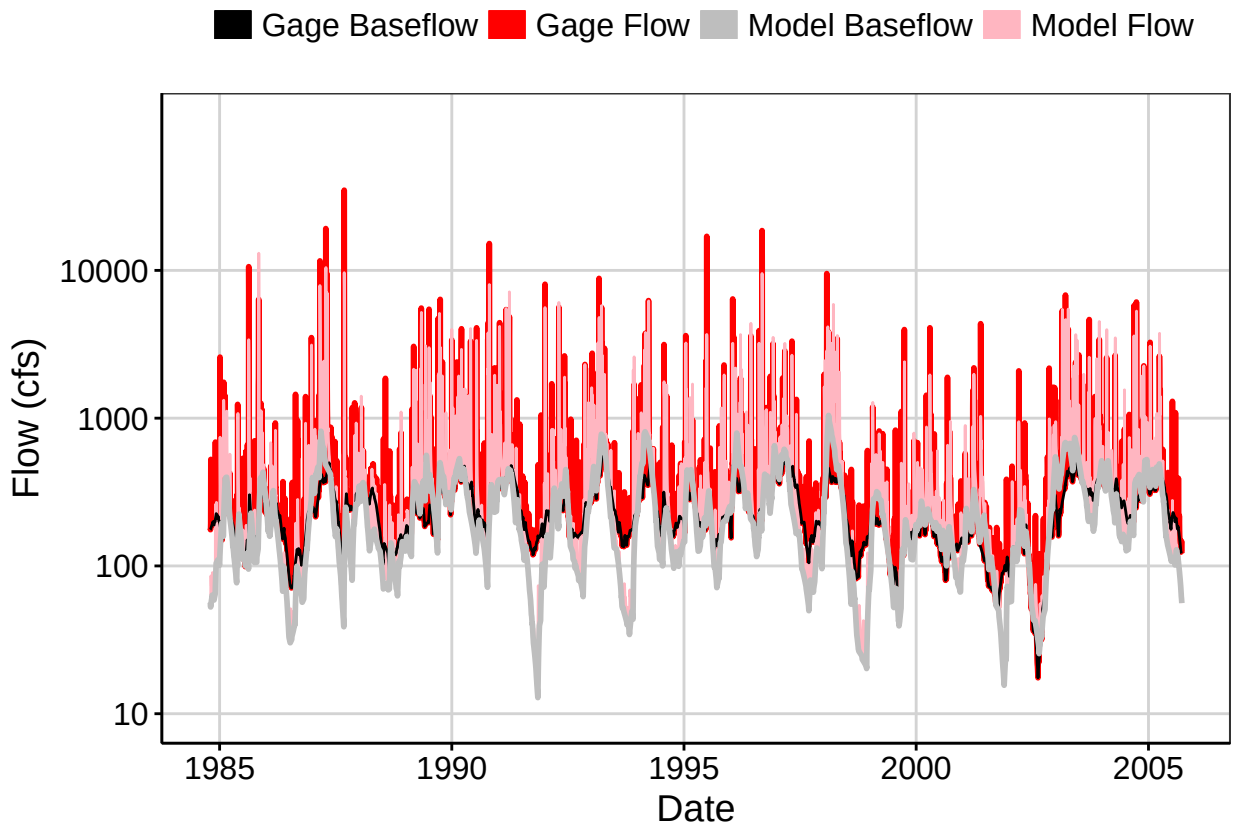


Fig. 6: Largest Error Segment

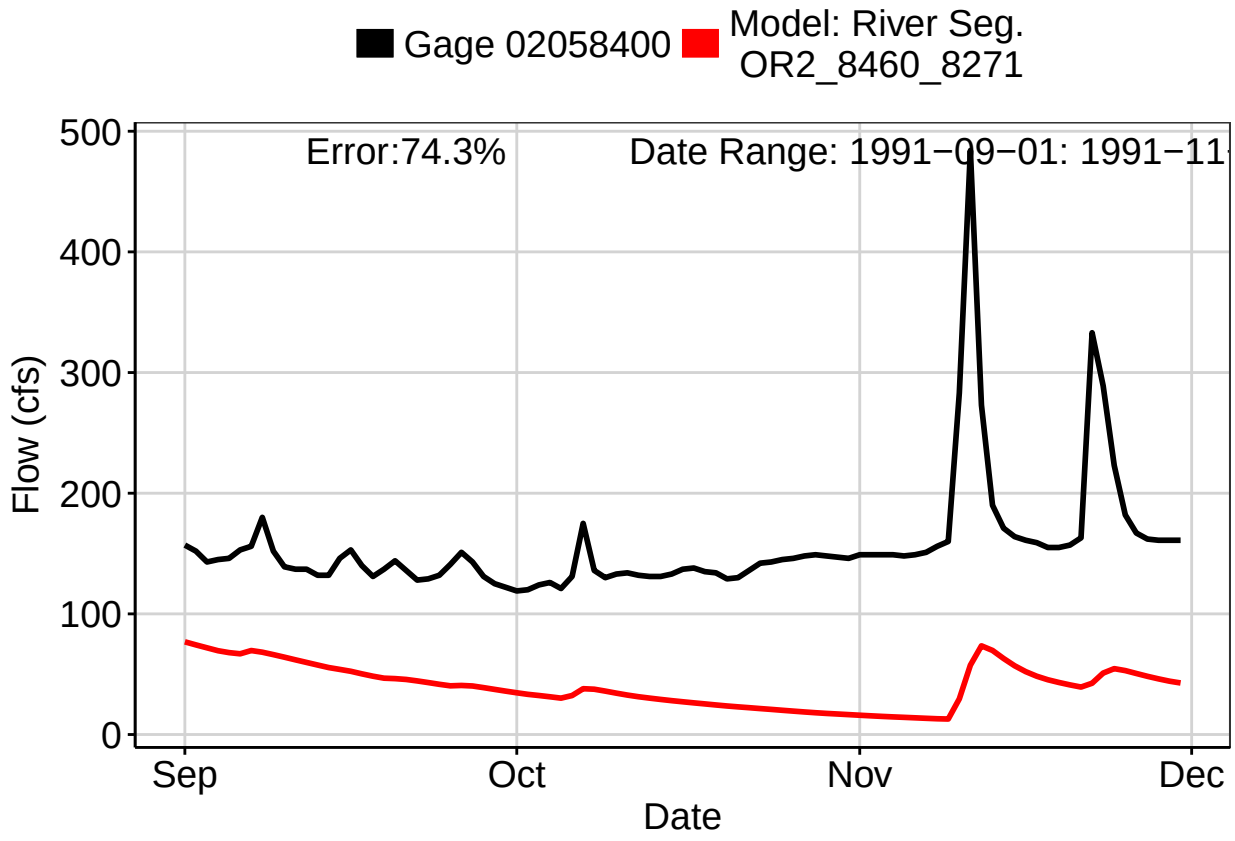


Fig. 7: Second Largest Error Segment

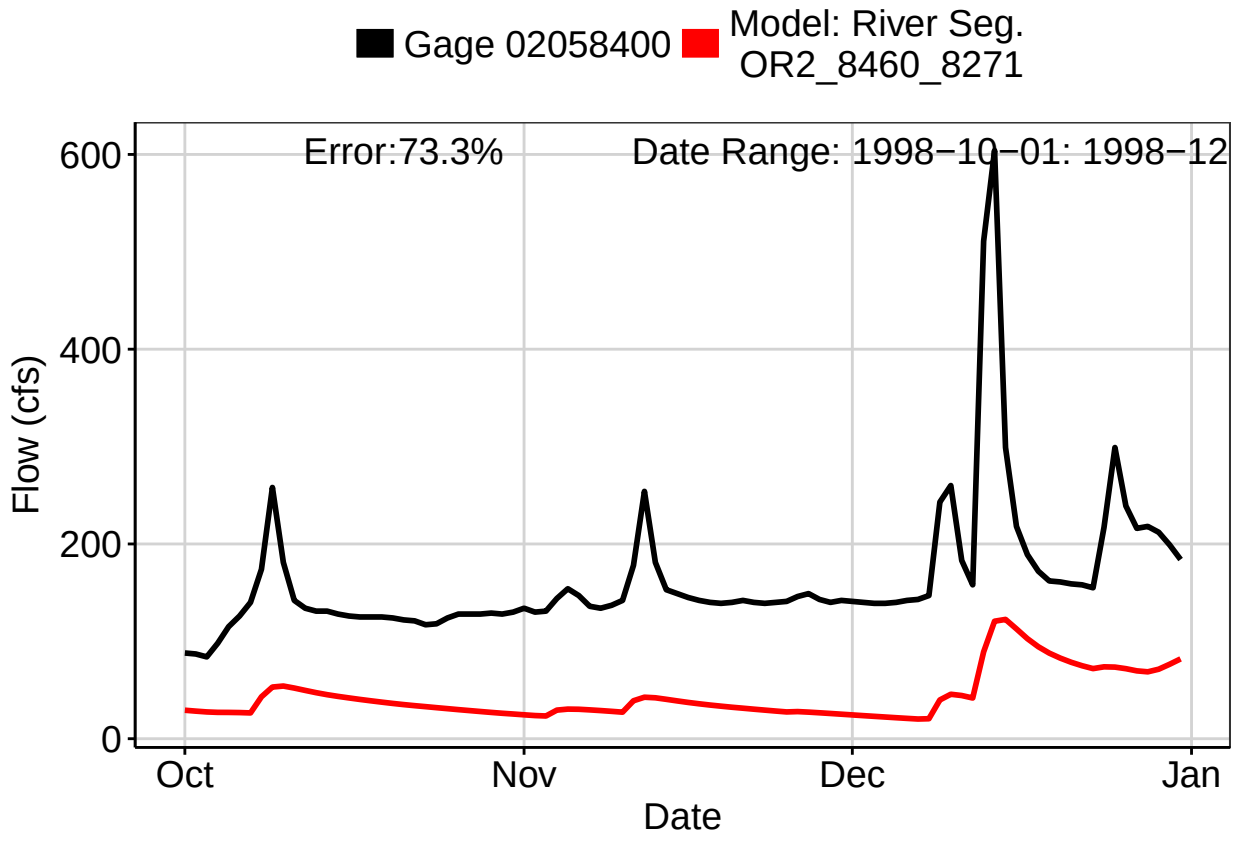


Fig. 8: Third Largest Error Segment

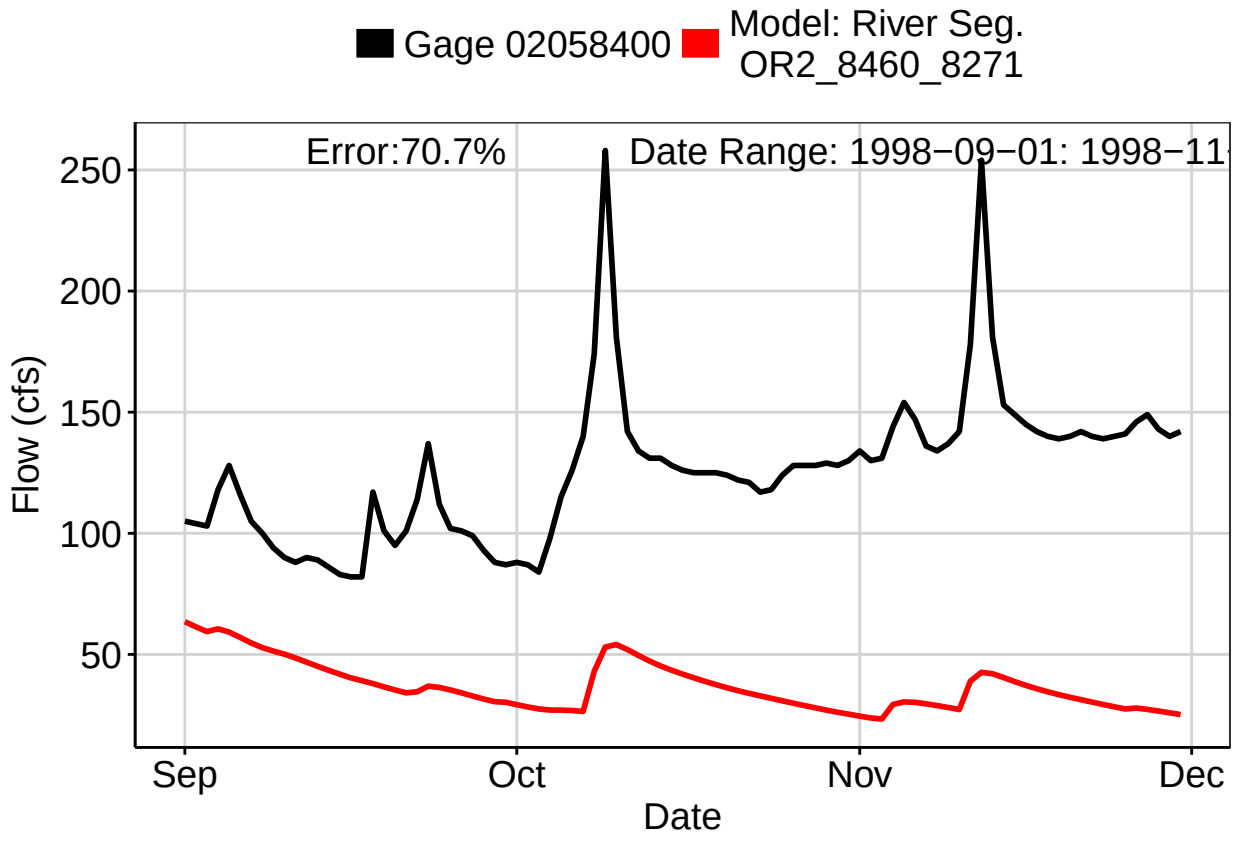


Fig. 9: Residuals Plot