02060500 vs. OR4_8120_7890

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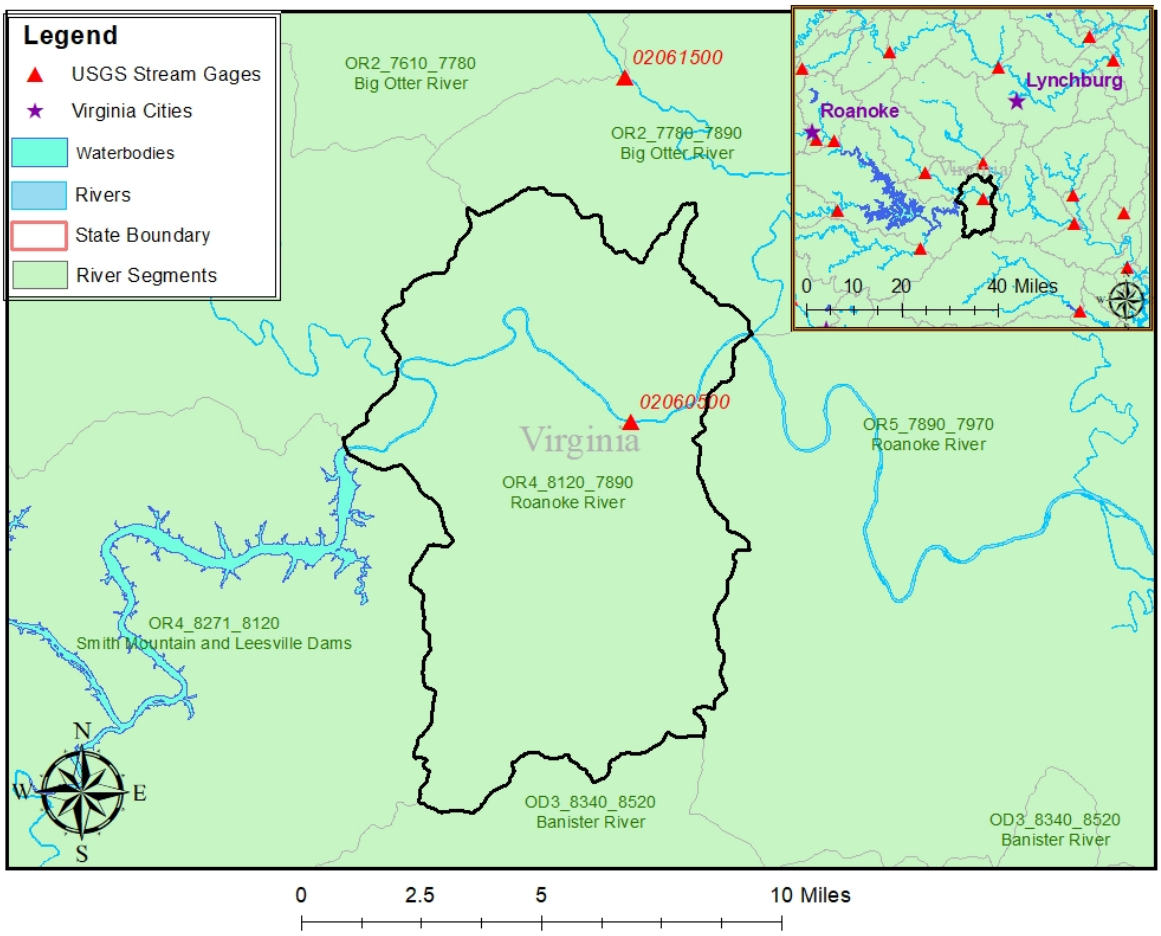

This river segment follows part of the flow of the Roanoke River. The gage is located in Pittsylvania County, VA (Lat 3706'16", Long 7917'44") approximately 23 miles south of Lynchburg, VA. Drainage area is 1782 sq. miles. This gage started taking data in 1930 and is still taking data. This area is regulated by the Smith Mount and Leesville power plants. The average daily discharge error between the model and gage data for the 20 year timespan was -6.15%, 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	719	451	37.3
Feb. Low Flow	796	505	36.6
Mar. Low Flow	786	902	-14.8
Apr. Low Flow	826	1090	-32
May Low Flow	921	1590	-72.6
Jun. Low Flow	852	1500	-76.1
Jul. Low Flow	889	962	-8.21
Aug. Low Flow	1020	777	23.8
Sep. Low Flow	820	737	10.1
Oct. Low Flow	746	522	30
Nov. Low Flow	782	490	37.3
Dec. Low Flow	759	468	38.3

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	1790	1900	-6.15
Jan. Mean Flow	2010	2380	-18.4
Feb. Mean Flow	2350	2850	-21.3
Mar. Mean Flow	2730	3430	-25.6
Apr. Mean Flow	2670	2860	-7.12
May Mean Flow	2000	1970	1.5
Jun. Mean Flow	1670	1670	0
Jul. Mean Flow	1260	1040	17.5
Aug. Mean Flow	1190	911	23.4
Sep. Mean Flow	1560	1510	3.21
Oct. Mean Flow	1210	1160	4.13
Nov. Mean Flow	1400	1450	-3.57
Dec. Mean Flow	1490	1660	-11.4

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	1060	700	34
Feb. High Flow	1550	2900	-87.1
Mar. High Flow	2480	3060	-23.4
Apr. High Flow	5660	5550	1.94
May High Flow	5590	4560	18.4
Jun. High Flow	8290	9570	-15.4
Jul. High Flow	5700	7130	-25.1
Aug. High Flow	3580	3940	-10.1
Sep. High Flow	2470	2100	15
Oct. High Flow	2570	1460	43.2
Nov. High Flow	2210	915	58.6
Dec. High Flow	1230	760	38.2

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	142	83.6	41.1
Med. 1 Day Min	513	274	46.6
Min. 3 Day Min	186	84.1	54.8
Med. 3 Day Min	570	284	50.2
Min. 7 Day Min	411	85.3	79.2
Med. 7 Day Min	693	309	55.4
Min. 30 Day Min	420	97.9	76.7
Med. 30 Day Min	751	360	52.1
Min. 90 Day Min	449	142	68.4
Med. 90 Day Min	863	561	35
7Q10	482	105	78.2
Year of 90-Day Min. Flow	2002	2002	0
Drought Year Mean	583	430	26.2
Mean Baseflow	930	1090	-17.2

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	46700	81600	-74.7
Med. 1 Day Max	16800	25700	-53
Max. 3 Day Max	32300	40400	-25.1
Med. 3 Day Max	15300	19300	-26.1
Max. 7 Day Max	21400	22000	-2.8
Med. 7 Day Max	9860	11100	-12.6
Max. 30 Day Max	11100	11300	-1.8
Med. 30 Day Max	4180	4780	-14.4
Max. 90 Day Max	6320	7060	-11.7
Med. 90 Day Max	3020	3440	-13.9

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	246	114	53.7
5% Non-Exceedance	464	280	39.7
50% Non-Exceedance	1030	1060	-2.91
95% Non-Exceedance	5260	5520	-4.94
99% Non-Exceedance	13000	14200	-9.23
Sept. 10% Non-Exceedance	302	518	-71.5

Fig. 1: Hydrograph

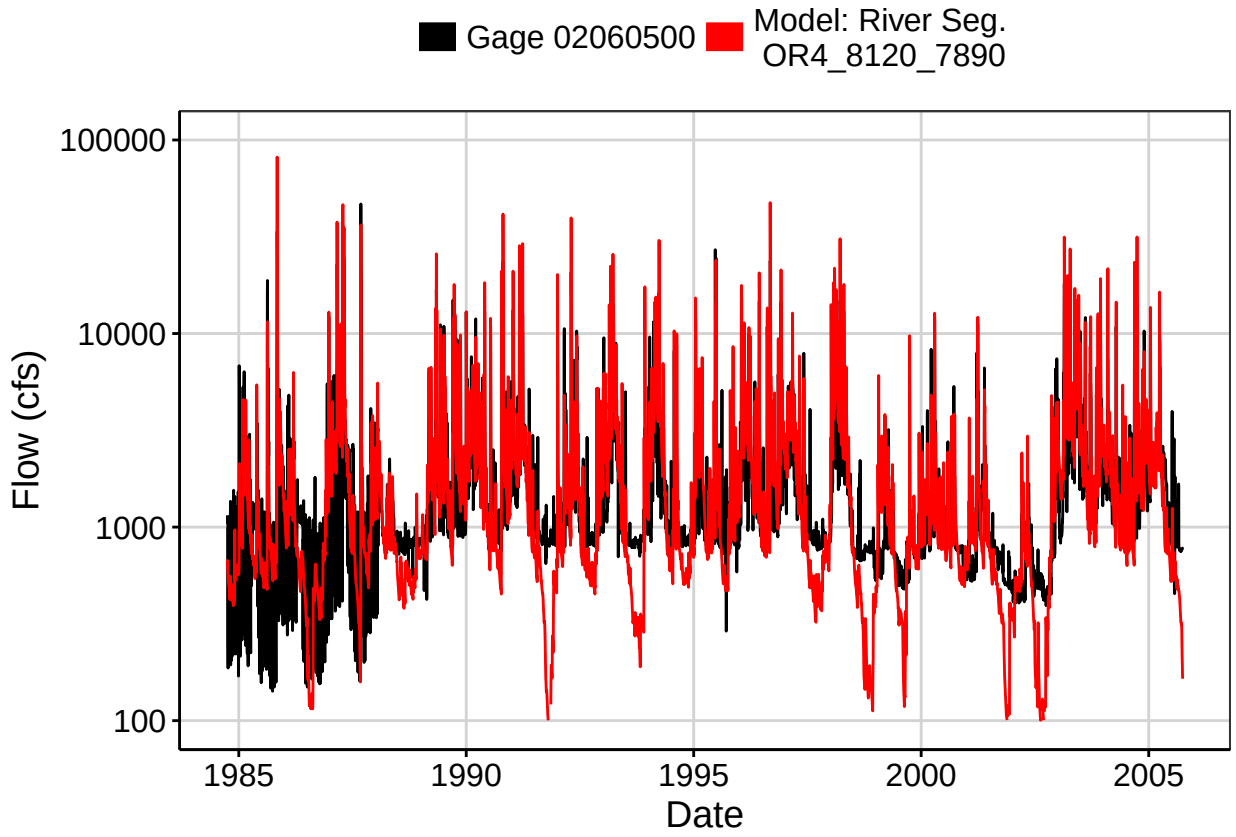

Fig. 2: Zoomed Hydrograph

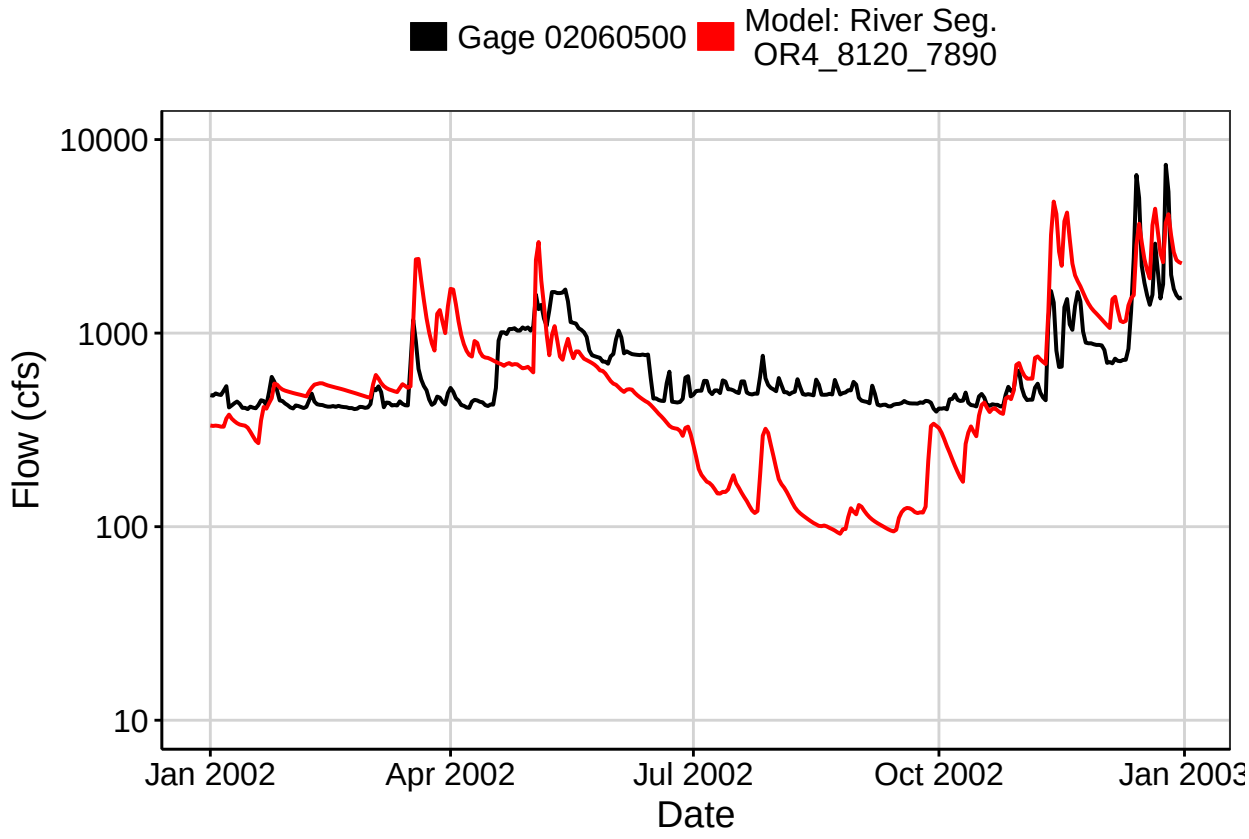

Fig. 3: Flow Exceedance

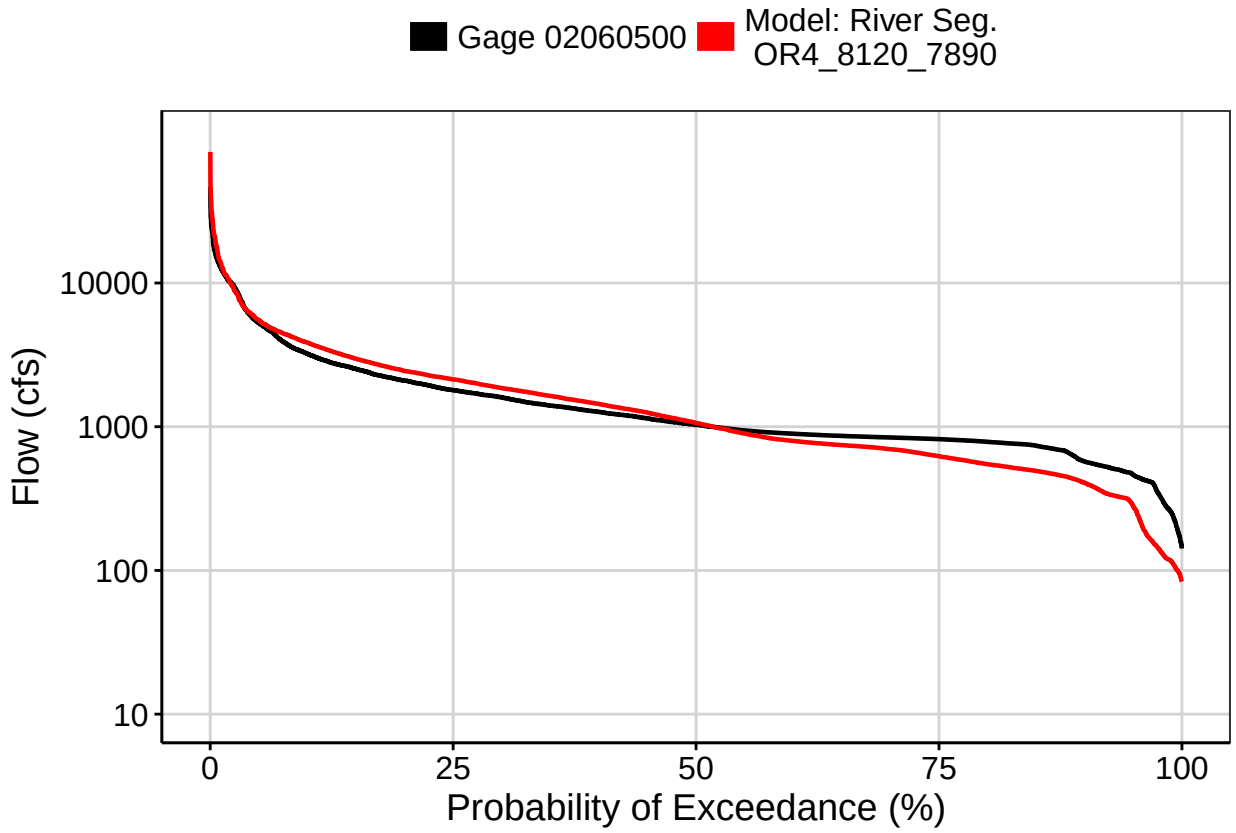

Fig. 4: Baseflow

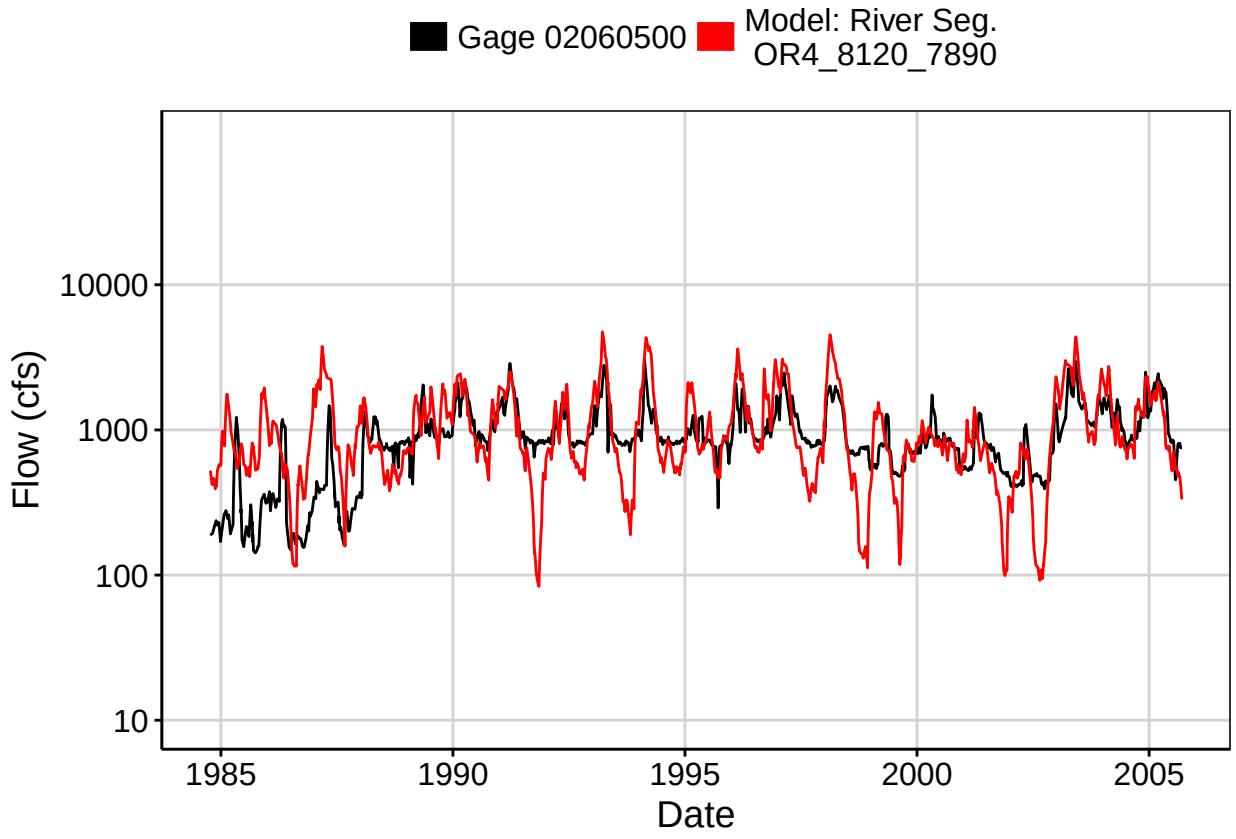

Fig. 5: Combined Baseflow

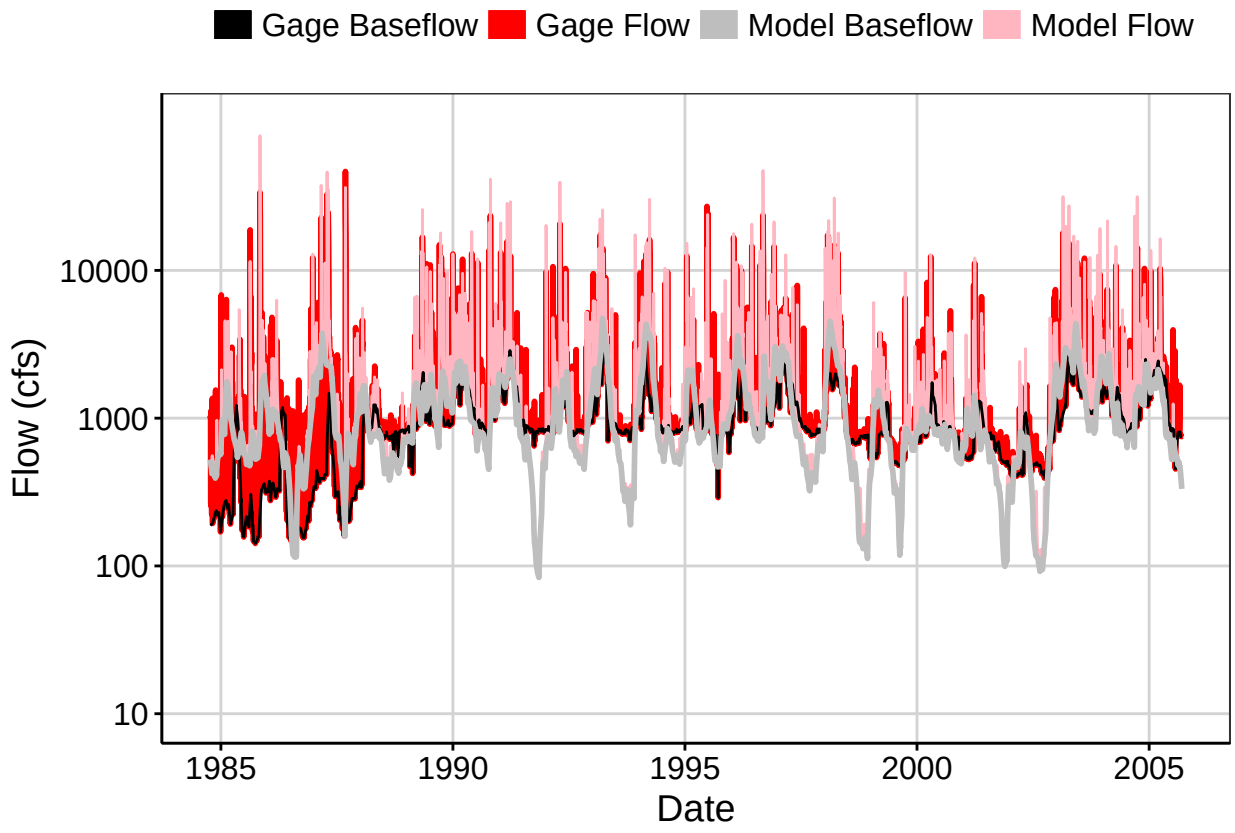

Fig. 6: Largest Error Segment

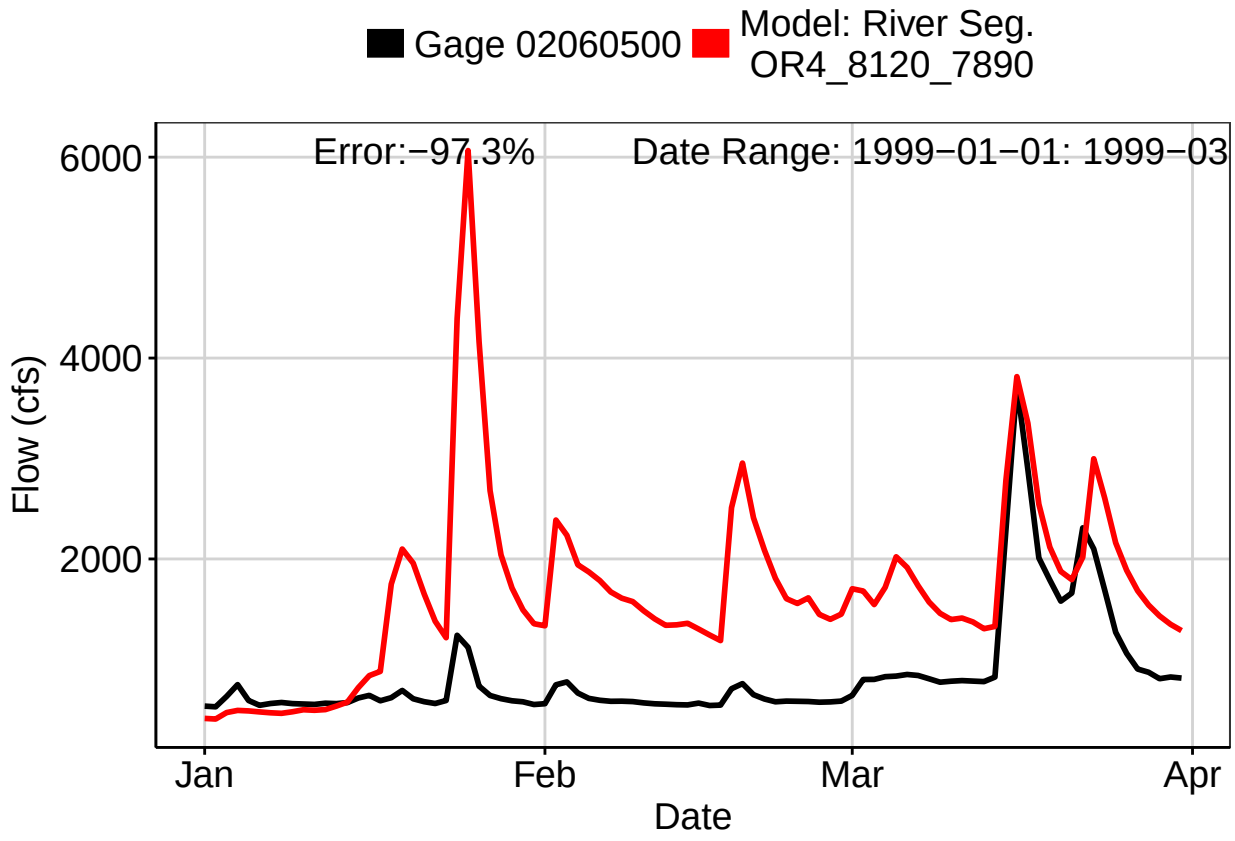

Fig. 7: Second Largest Error Segment

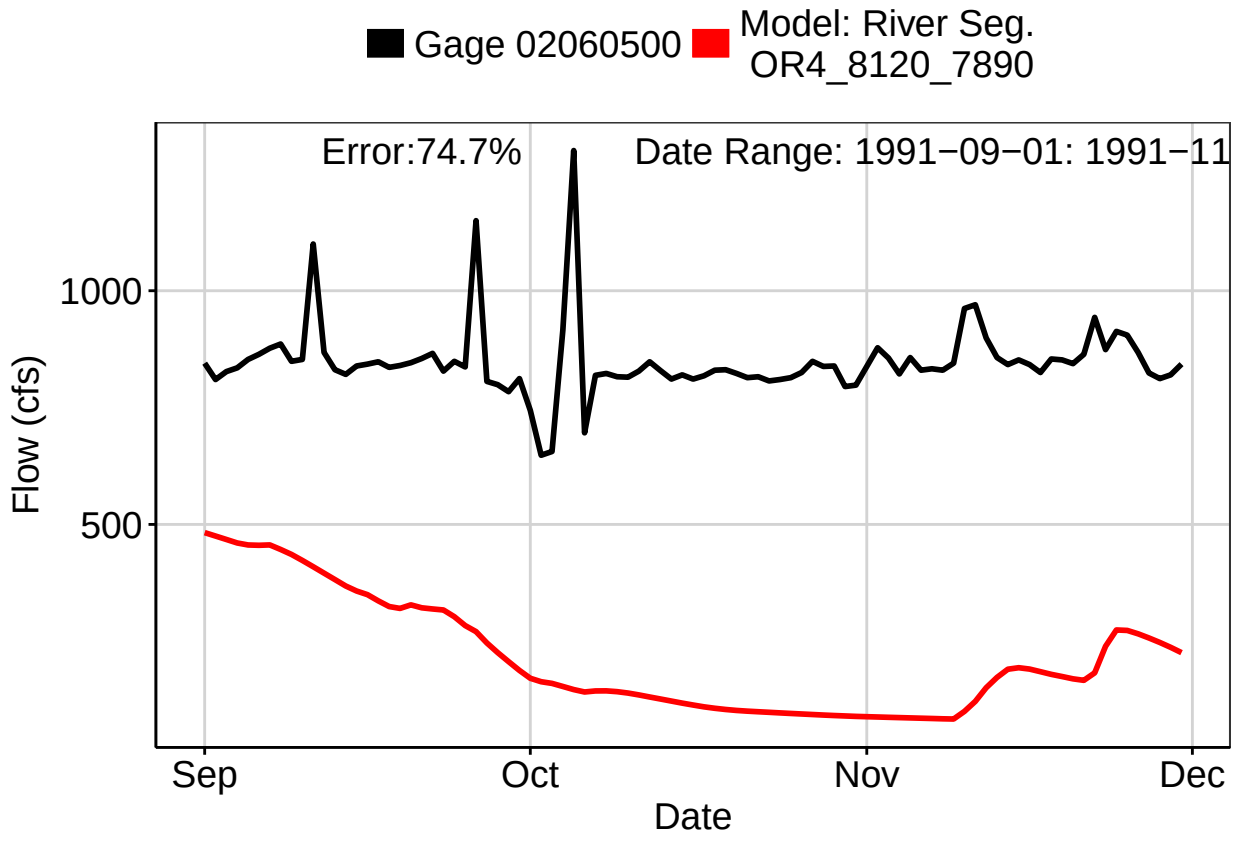

Fig. 8: Third Largest Error Segment

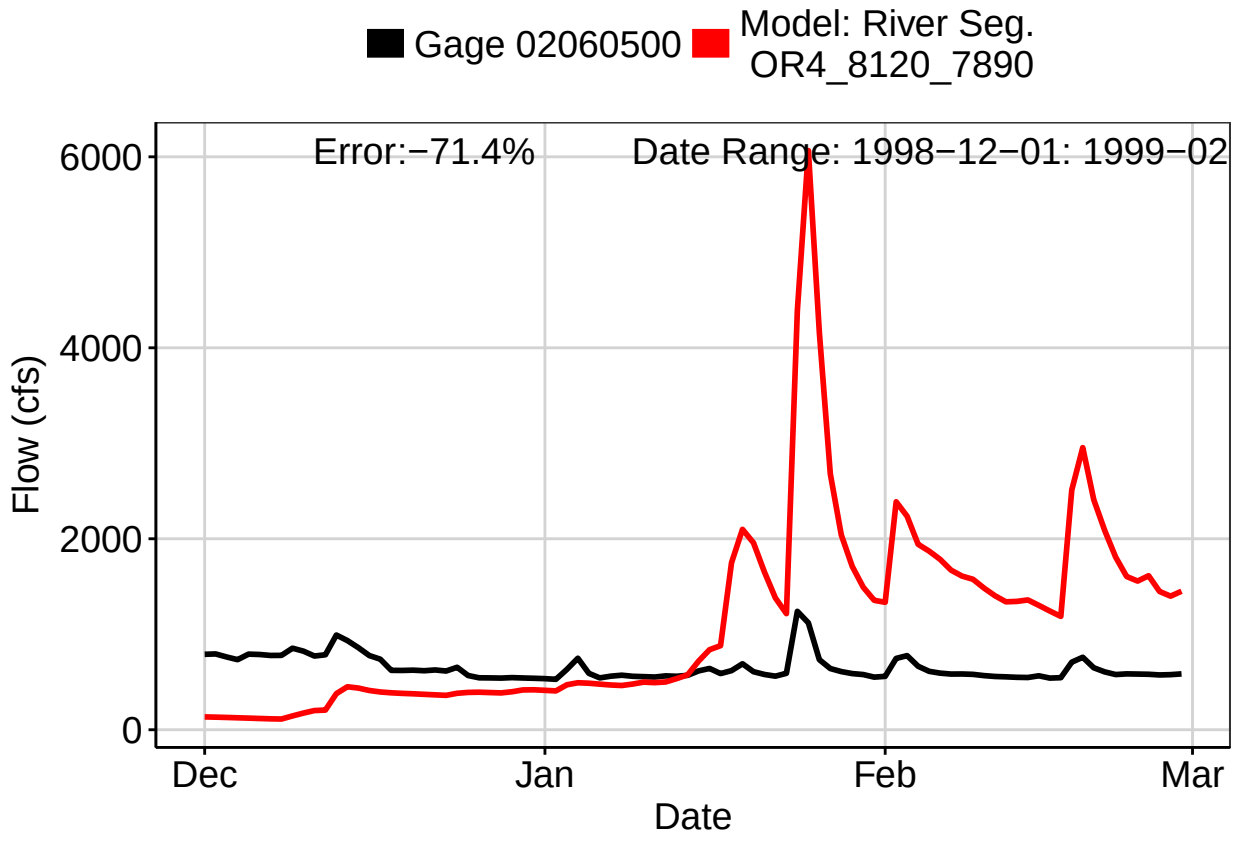

Fig. 9: Residuals Plot