02075045 vs. OD5_8900_8770+OD5_8890_8770

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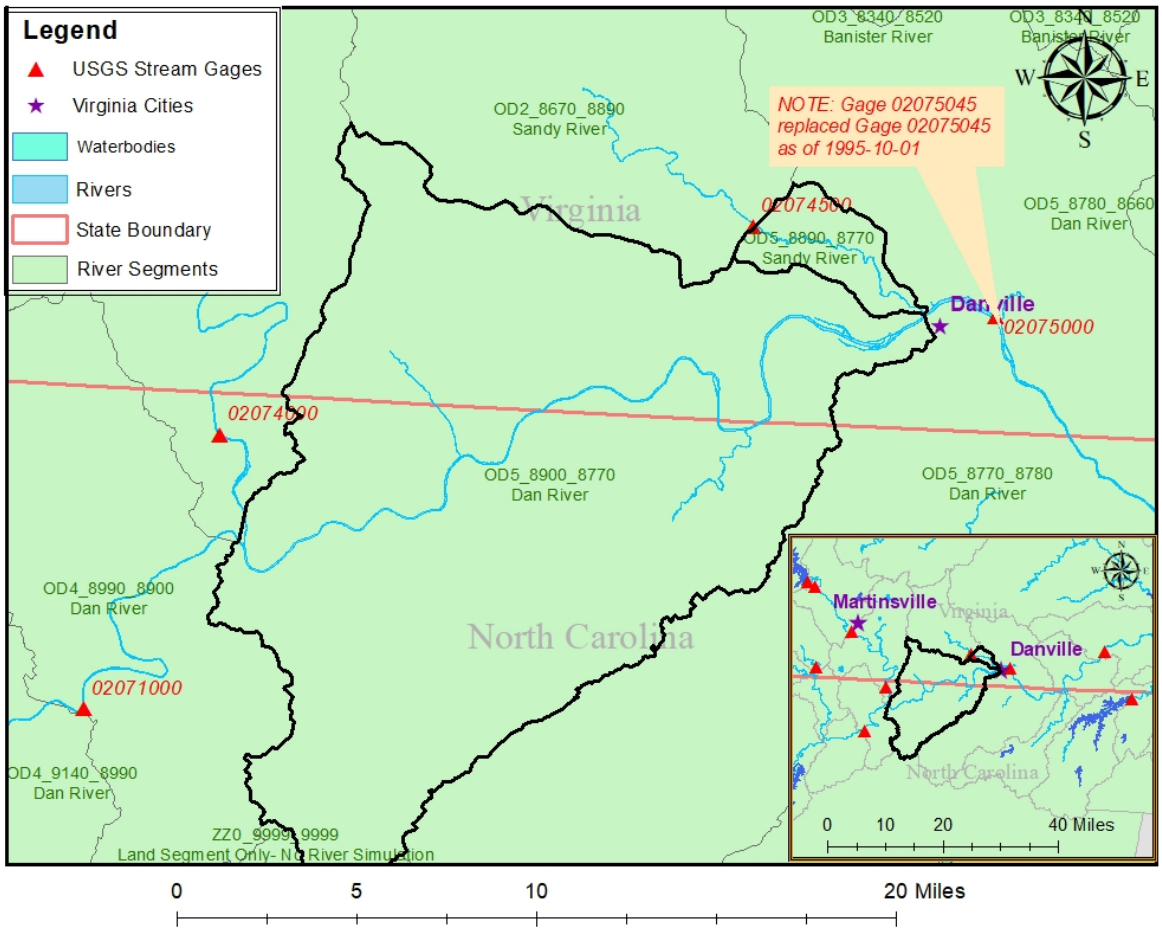

This river segment follows part of the flow of the Dan River. The gage is located in Pittsylvania County, VA (Lat 3633'45", Long 7922'12") approximately 2 miles southeast of Danville, VA. Drainage area is 2116 sq. miles. This gage started taking data in 1995 and is still taking data. There are a number of dams and mills located in Danville that are expected to regulate the flow of this area, especially during low flow conditions. The average daily discharge error between the model and gage data for the 20 year timespan was -6.48%, with 34.3% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	612	482	21.2
Feb. Low Flow	840	841	-0.12
Mar. Low Flow	731	922	-26.1
Apr. Low Flow	1040	1040	0
May Low Flow	1500	1760	-17.3
Jun. Low Flow	1460	1740	-19.2
Jul. Low Flow	1470	1540	-4.76
Aug. Low Flow	1210	1120	7.44
Sep. Low Flow	1100	991	9.91
Oct. Low Flow	653	675	-3.37
Nov. Low Flow	569	662	-16.3
Dec. Low Flow	506	517	-2.17

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	2160	2300	-6.48
Jan. Mean Flow	2480	2350	5.24
Feb. Mean Flow	2710	3470	-28
Mar. Mean Flow	3010	3720	-23.6
Apr. Mean Flow	3010	3360	-11.6
May Mean Flow	2330	2420	-3.86
Jun. Mean Flow	2180	2240	-2.75
Jul. Mean Flow	1430	1140	20.3
Aug. Mean Flow	1610	1500	6.83
Sep. Mean Flow	2370	2430	-2.53
Oct. Mean Flow	1380	1580	-14.5
Nov. Mean Flow	1520	1480	2.63
Dec. Mean Flow	1990	2030	-2.01

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	2270	2230	1.76
Feb. High Flow	3200	3520	-10
Mar. High Flow	4290	2190	49
Apr. High Flow	5360	5190	3.17
May High Flow	6640	5440	18.1
Jun. High Flow	9740	11200	-15
Jul. High Flow	5980	5680	5.02
Aug. High Flow	6740	4350	35.5
Sep. High Flow	4360	2920	33
Oct. High Flow	2540	1310	48.4
Nov. High Flow	2920	1730	40.8
Dec. High Flow	3800	2290	39.7

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	104	199	-91.3
Med. 1 Day Min	360	388	-7.78
Min. 3 Day Min	109	211	-93.6
Med. 3 Day Min	472	408	13.6
Min. 7 Day Min	126	214	-69.8
Med. 7 Day Min	635	459	27.7
Min. 30 Day Min	224	230	-2.68
Med. 30 Day Min	783	611	22
Min. 90 Day Min	336	366	-8.93
Med. 90 Day Min	1110	824	25.8
7Q10	290	257	11.4
Year of 90-Day Min. Flow	2002	2002	0
Drought Year Mean	731	657	10.1
Mean Baseflow	1270	1410	-11

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	41500	64400	-55.2
Med. 1 Day Max	20800	21000	-0.96
Max. 3 Day Max	34500	40000	-15.9
Med. 3 Day Max	14600	13800	5.48
Max. 7 Day Max	24500	24900	-1.63
Med. 7 Day Max	7410	8840	-19.3
Max. 30 Day Max	9250	10700	-15.7
Med. 30 Day Max	3950	4530	-14.7
Max. 90 Day Max	6300	7630	-21.1
Med. 90 Day Max	2860	3370	-17.8

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	221	253	-14.5
5% Non-Exceedance	490	395	19.4
50% Non-Exceedance	1560	1480	5.13
95% Non-Exceedance	5320	6380	-19.9
99% Non-Exceedance	14600	15300	-4.79
Sept. 10% Non-Exceedance	454	453	0.22

Fig. 1: Hydrograph

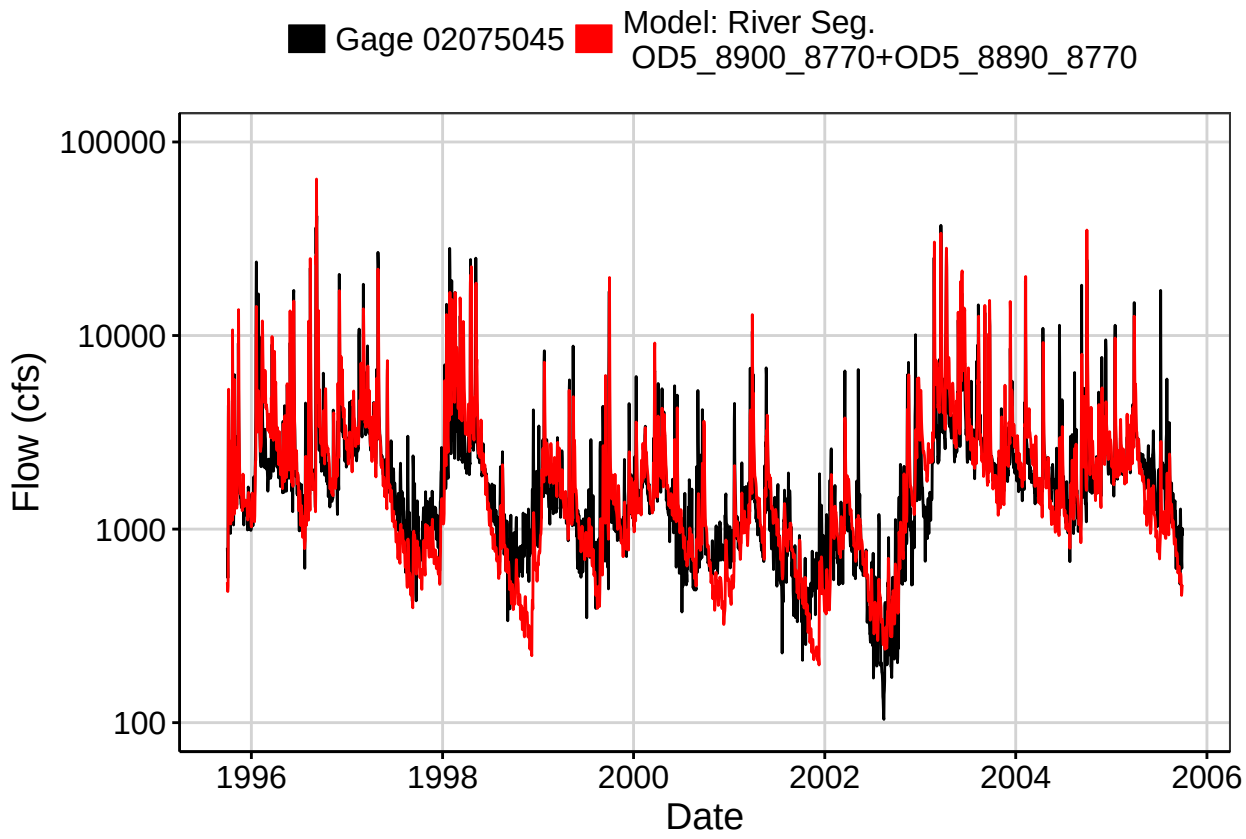

Fig. 2: Zoomed Hydrograph

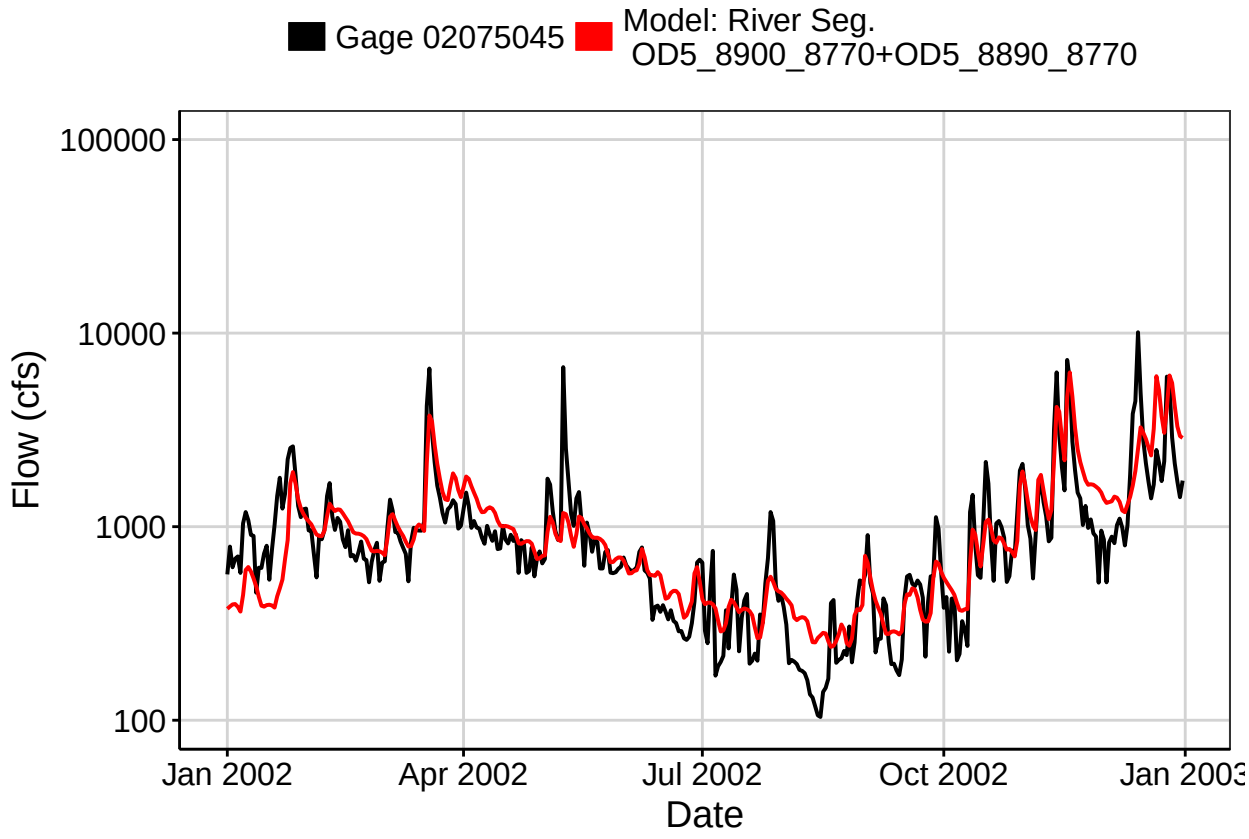

Fig. 3: Flow Exceedance

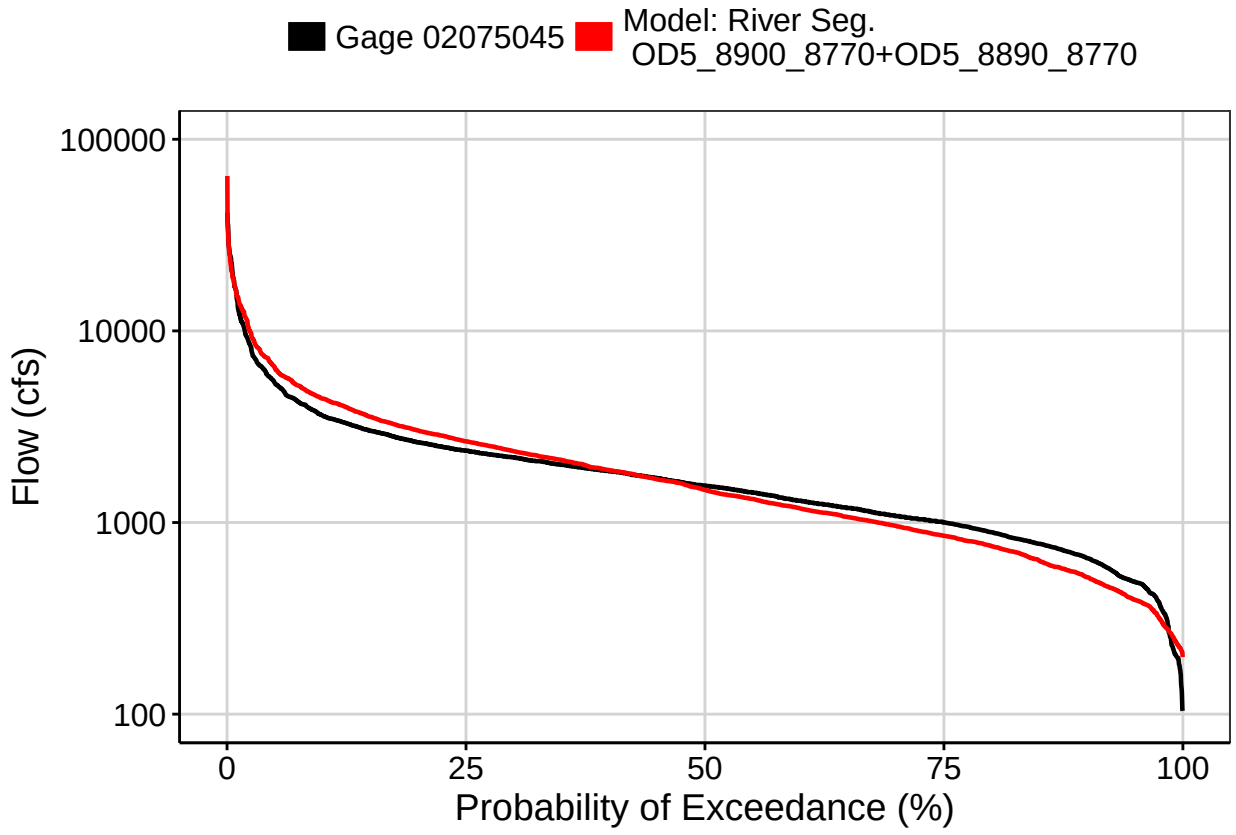

Fig. 4: Baseflow

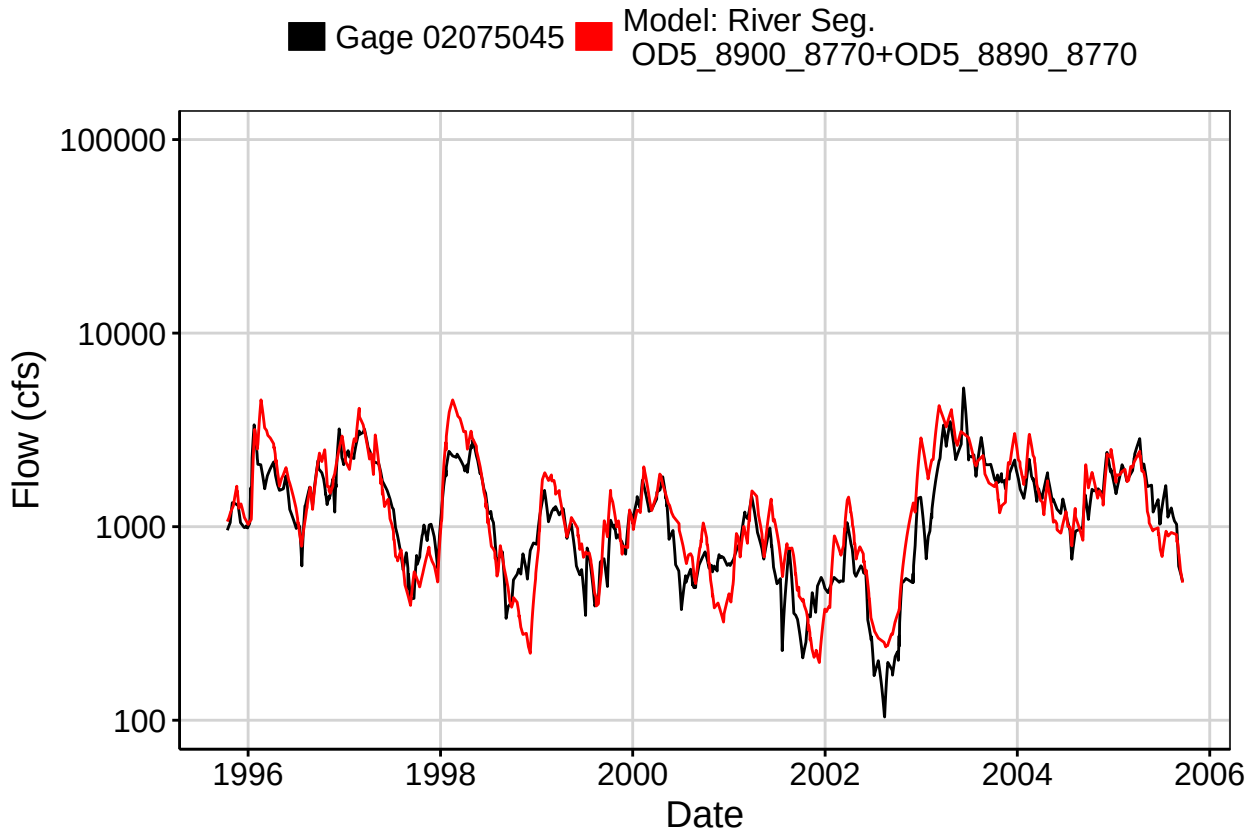

Fig. 5: Combined Baseflow

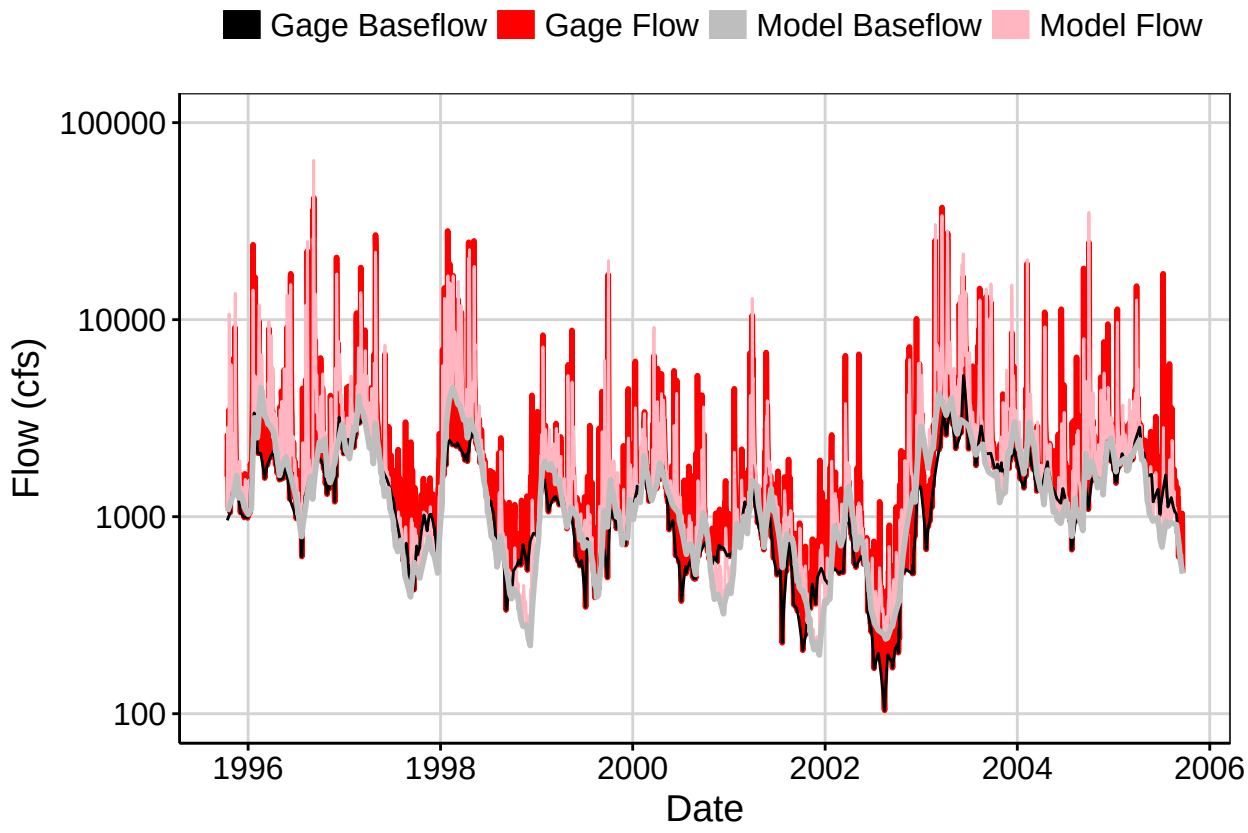

Fig. 6: Largest Error Segment

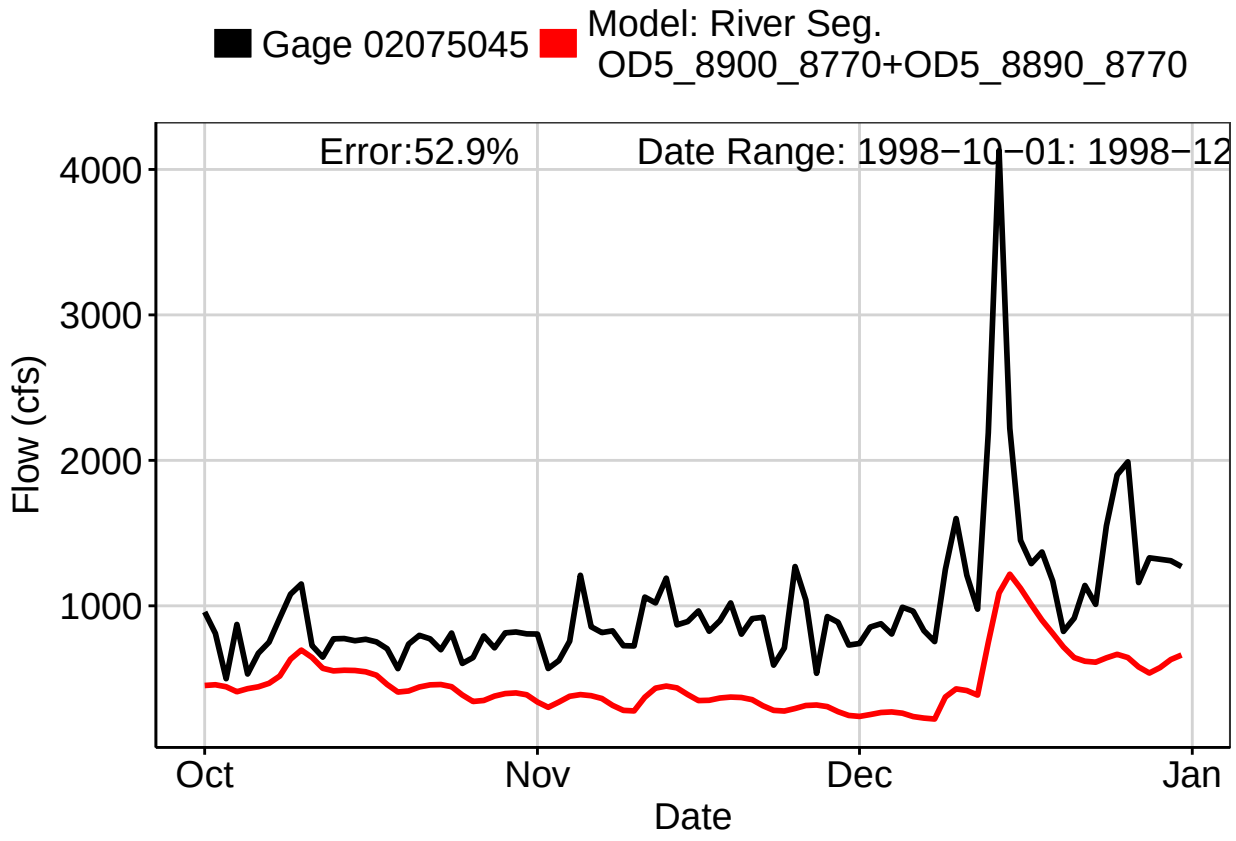

Fig. 7: Second Largest Error Segment

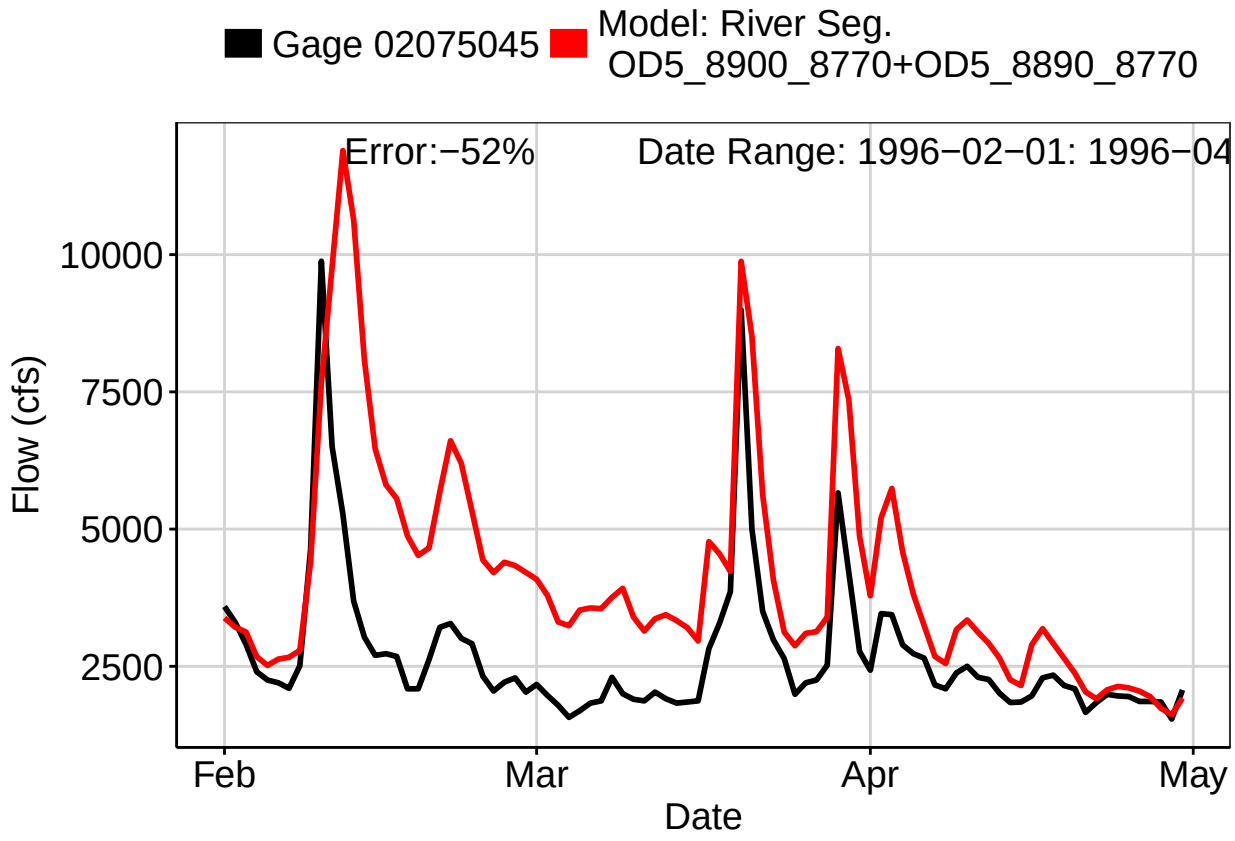

Fig. 8: Third Largest Error Segment

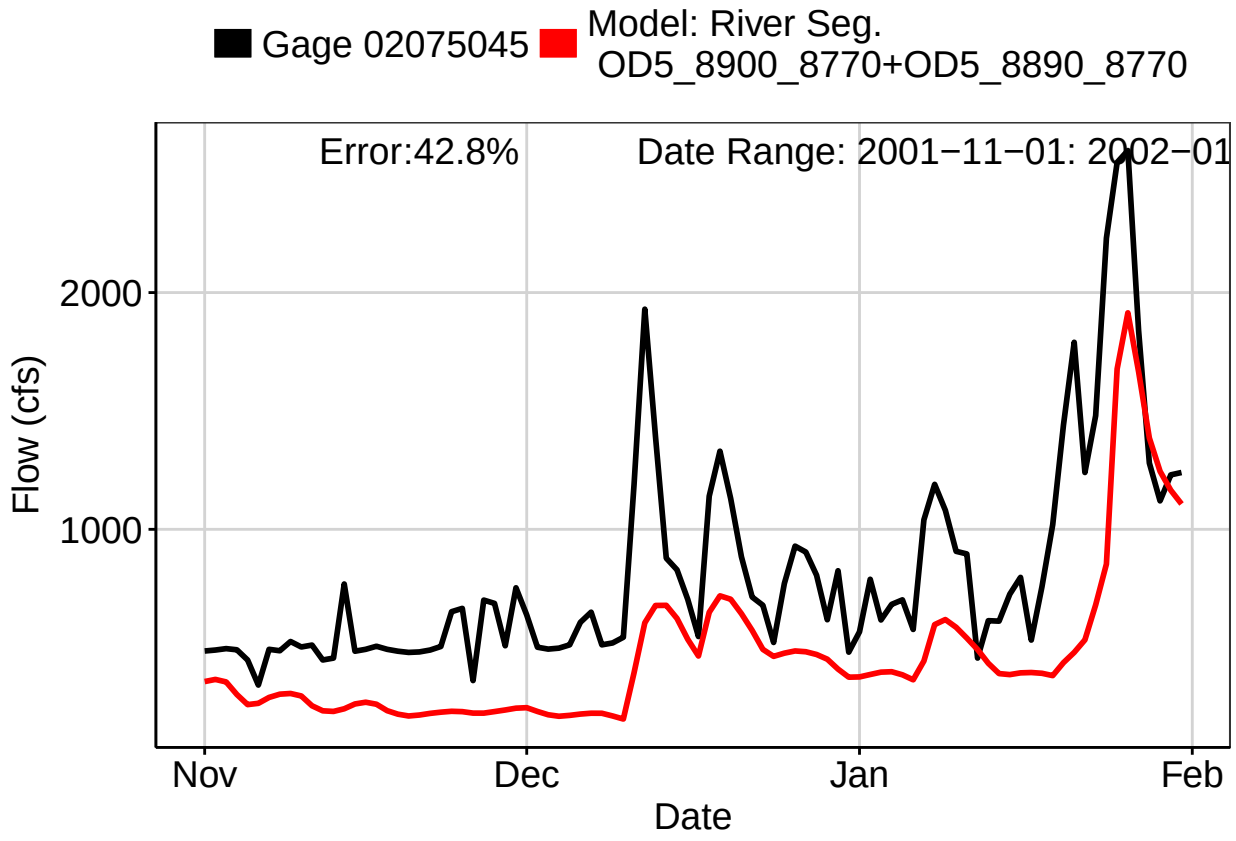

Fig. 9: Residuals Plot