02070000 vs. OD3_8850_8931

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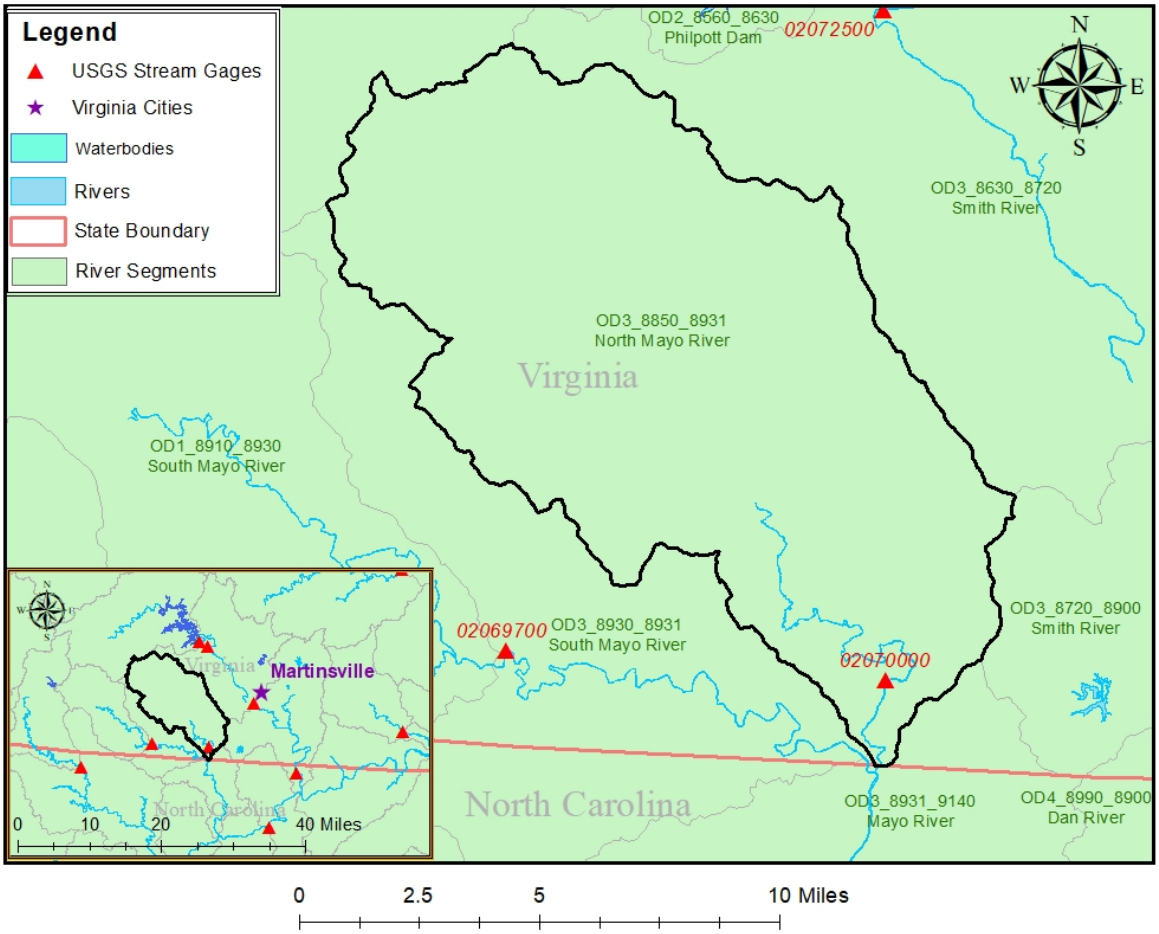

This river segment follows part of the flow of the North Mayo River, a tributary of the Dan River. The gage is located in Henry County, VA (Lat 3634'05", Long 7959'15") approximately 10 miles southwest of Martinsville, VA. Drainage area is 108 sq. miles. This gage started taking data in 1928 and is still 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 -4.41%, with 57.9% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	61	30.4	50.2
Feb. Low Flow	71	42.2	40.6
Mar. Low Flow	80	66.2	17.2
Apr. Low Flow	85	70.8	16.7
May Low Flow	97	117	-20.6
Jun. Low Flow	97	117	-20.6
Jul. Low Flow	94.4	85.7	9.22
Aug. Low Flow	83.2	65.8	20.9
Sep. Low Flow	73.5	53.4	27.3
Oct. Low Flow	71	39.2	44.8
Nov. Low Flow	63	34.6	45.1
Dec. Low Flow	54	34.4	36.3

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	136	142	-4.41
Jan. Mean Flow	149	174	-16.8
Feb. Mean Flow	153	201	-31.4
Mar. Mean Flow	199	257	-29.1
Apr. Mean Flow	167	199	-19.2
May Mean Flow	134	139	-3.73
Jun. Mean Flow	140	127	9.29
Jul. Mean Flow	126	79.4	37
Aug. Mean Flow	112	88.9	20.6
Sep. Mean Flow	123	114	7.32
Oct. Mean Flow	99.4	91.4	8.05
Nov. Mean Flow	116	108	6.9
Dec. Mean Flow	120	134	-11.7

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	148	99.6	32.7
Feb. High Flow	267	332	-24.3
Mar. High Flow	299	283	5.35
Apr. High Flow	520	478	8.08
May High Flow	412	369	10.4
Jun. High Flow	730	960	-31.5
Jul. High Flow	284	379	-33.5
Aug. High Flow	339	287	15.3
Sep. High Flow	336	161	52.1
Oct. High Flow	245	102	58.4
Nov. High Flow	222	79.6	64.1
Dec. High Flow	211	97	54

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	5.92	7.2	-21.6
Med. 1 Day Min	44	22	50
Min. 3 Day Min	5.97	7.39	-23.8
Med. 3 Day Min	45	22.9	49.1
Min. 7 Day Min	6.39	7.72	-20.8
Med. 7 Day Min	47.1	24.4	48.2
Min. 30 Day Min	11.7	9.68	17.3
Med. 30 Day Min	57.6	31.1	46
Min. 90 Day Min	16.9	20.1	-18.9
Med. 90 Day Min	74.2	46	38
7Q10	22.3	12.3	44.8
Year of 90-Day Min. Flow	2002	2002	0
Drought Year Mean	43.5	46.5	-6.9
Mean Baseflow	86.5	84.5	2.31

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	7460	4130	44.6
Med. 1 Day Max	2070	2070	0
Max. 3 Day Max	3390	2280	32.7
Med. 3 Day Max	1180	1190	-0.85
Max. 7 Day Max	1600	1210	24.4
Med. 7 Day Max	684	817	-19.4
Max. 30 Day Max	539	648	-20.2
Med. 30 Day Max	330	363	-10
Max. 90 Day Max	379	456	-20.3
Med. 90 Day Max	214	253	-18.2

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	19.8	15.1	23.7
5% Non-Exceedance	39	23.8	39
50% Non-Exceedance	97	91.5	5.67
95% Non-Exceedance	308	375	-21.8
99% Non-Exceedance	925	995	-7.57
Sept. 10% Non-Exceedance	26.9	42.9	-59.5

Fig. 1: Hydrograph

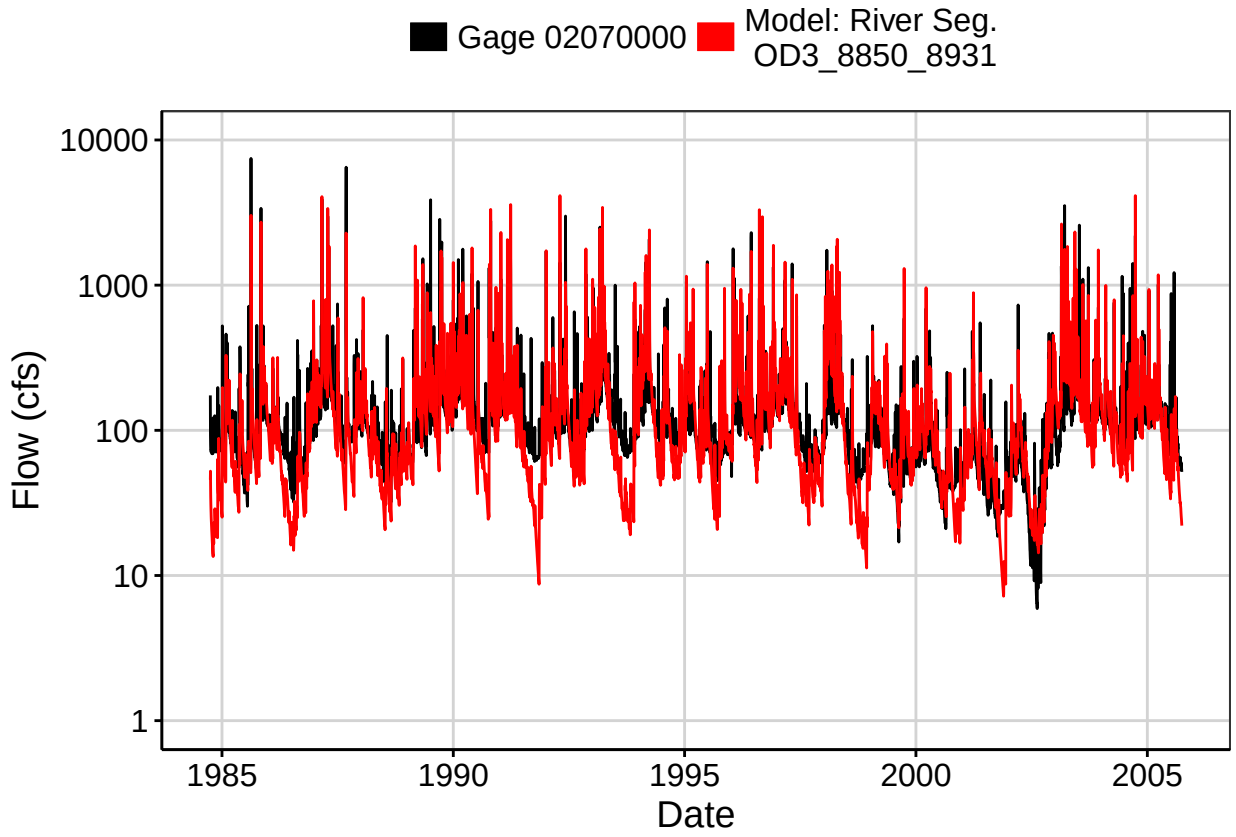

Fig. 2: Zoomed Hydrograph

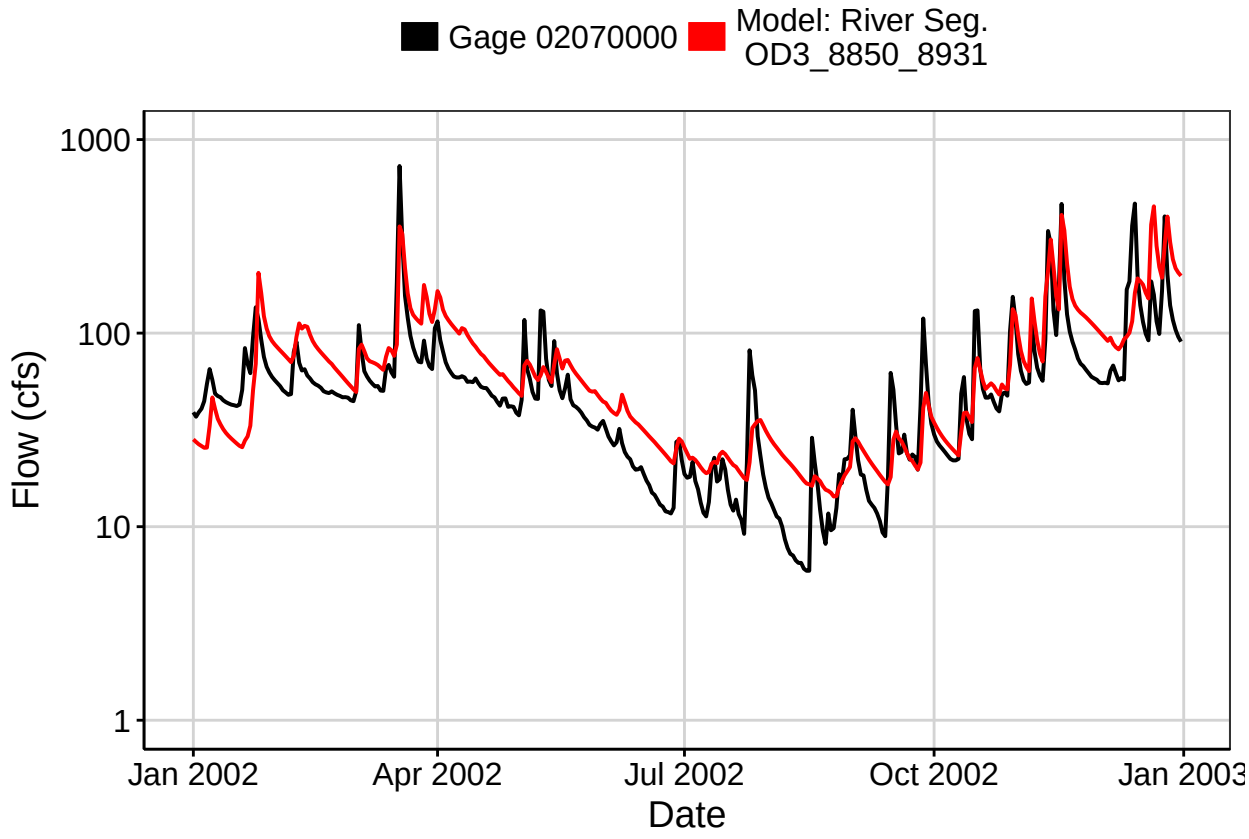

Fig. 3: Flow Exceedance

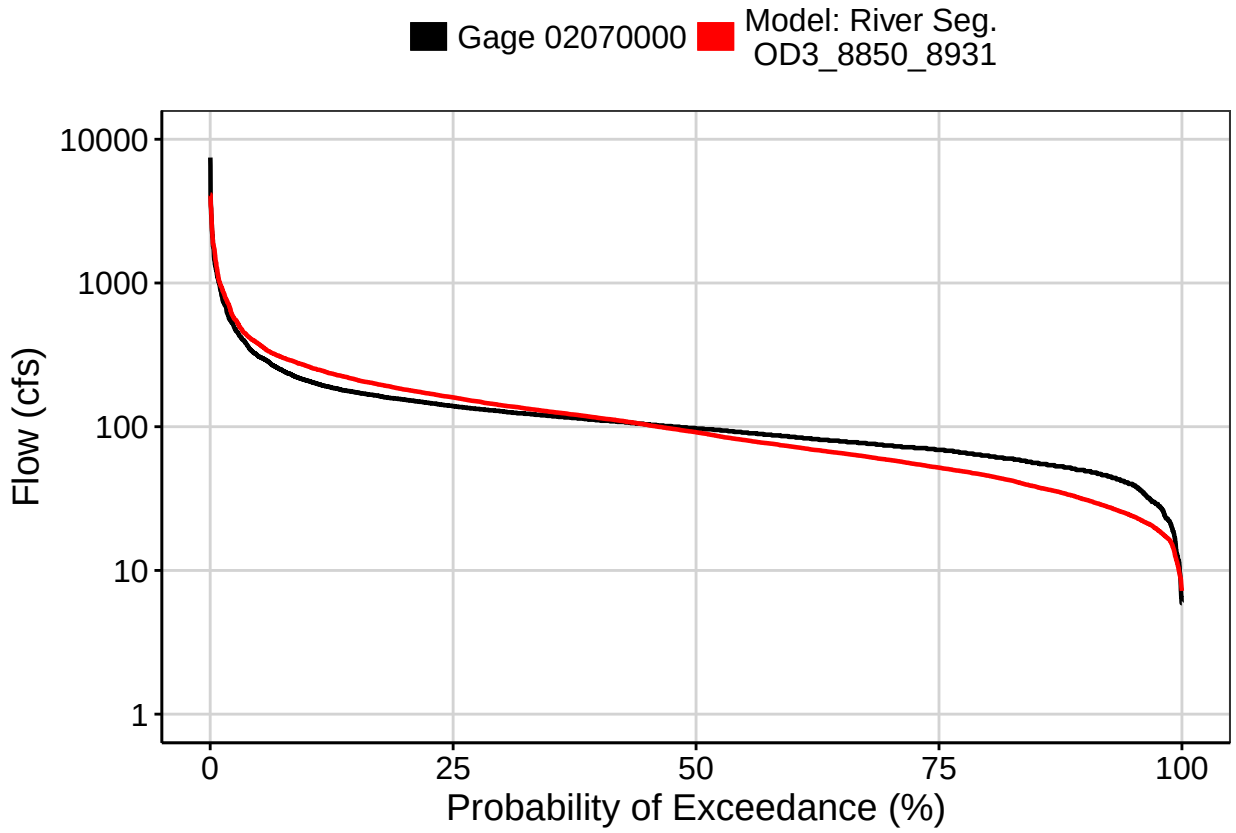

Fig. 4: Baseflow

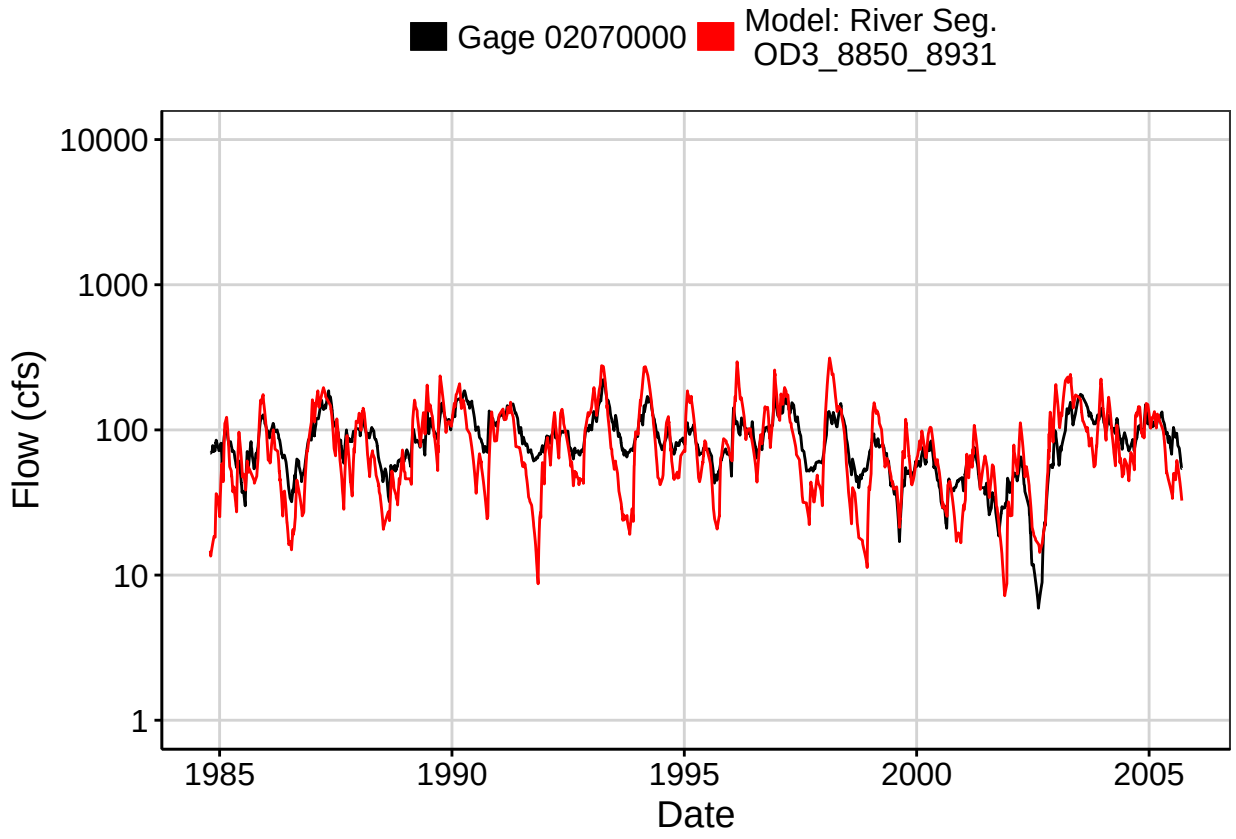

Fig. 5: Combined Baseflow

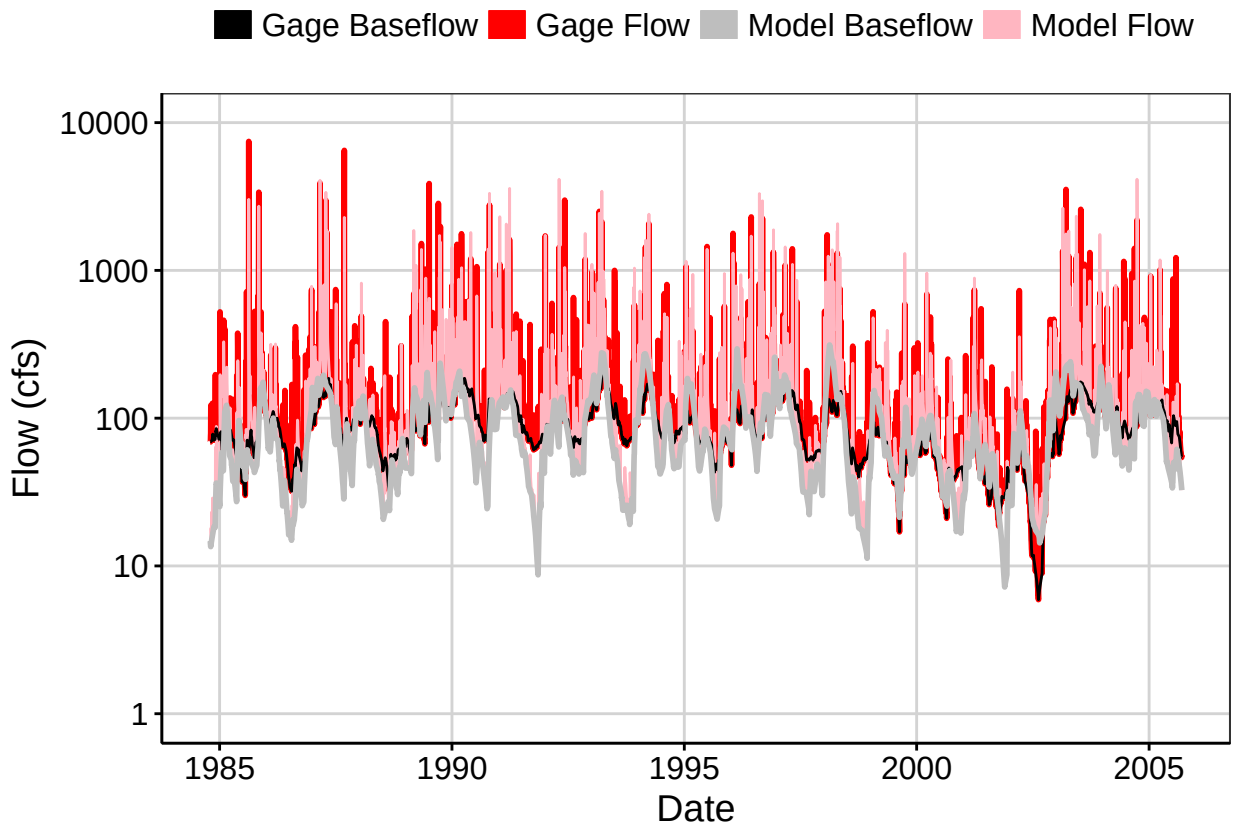

Fig. 6: Largest Error Segment

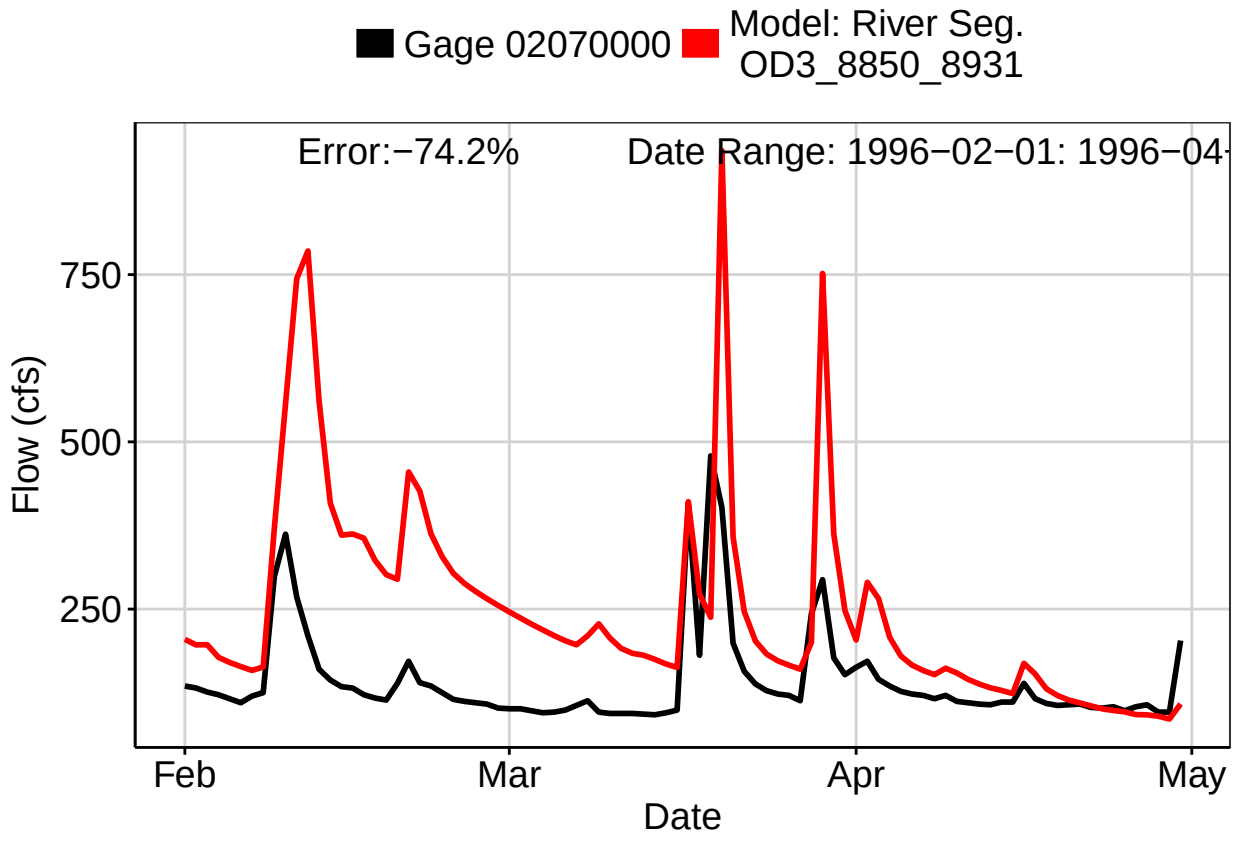

Fig. 7: Second Largest Error Segment

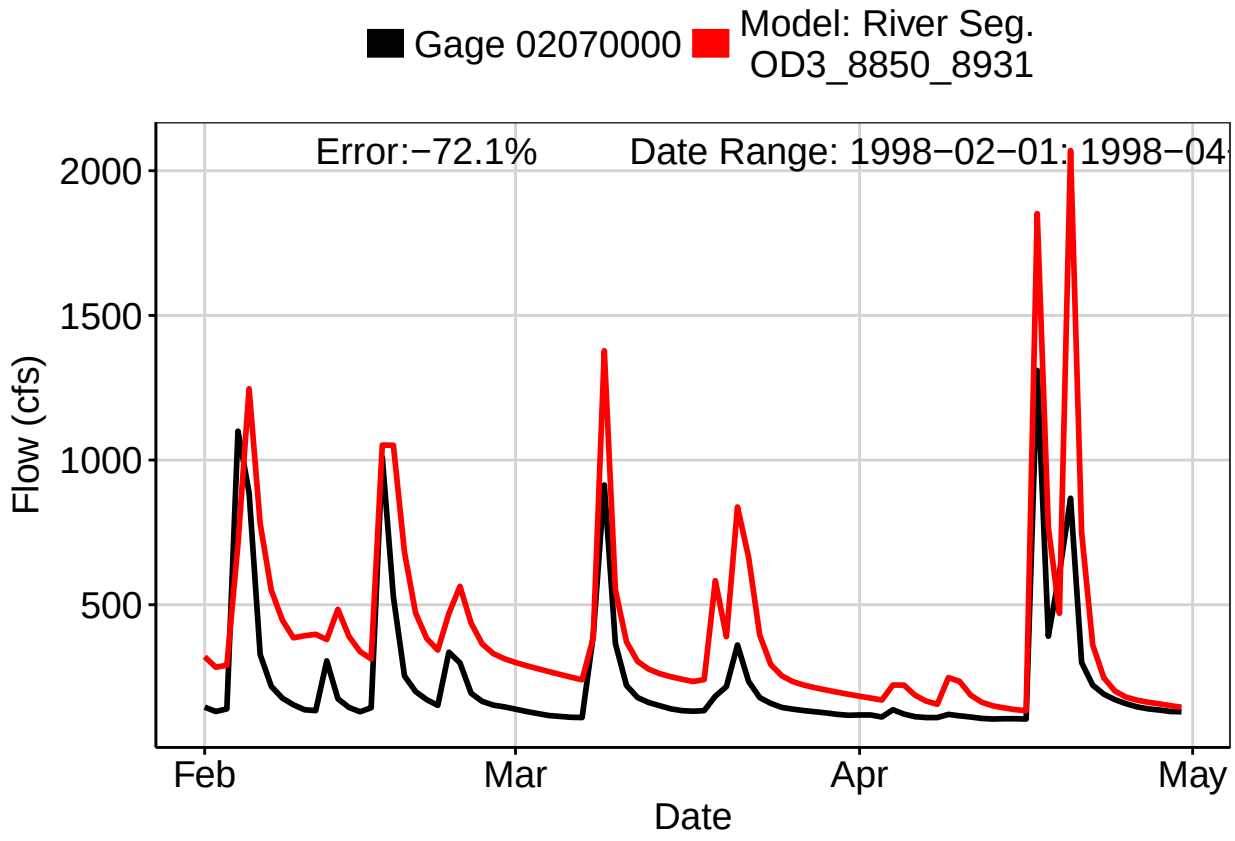

Fig. 8: Third Largest Error Segment

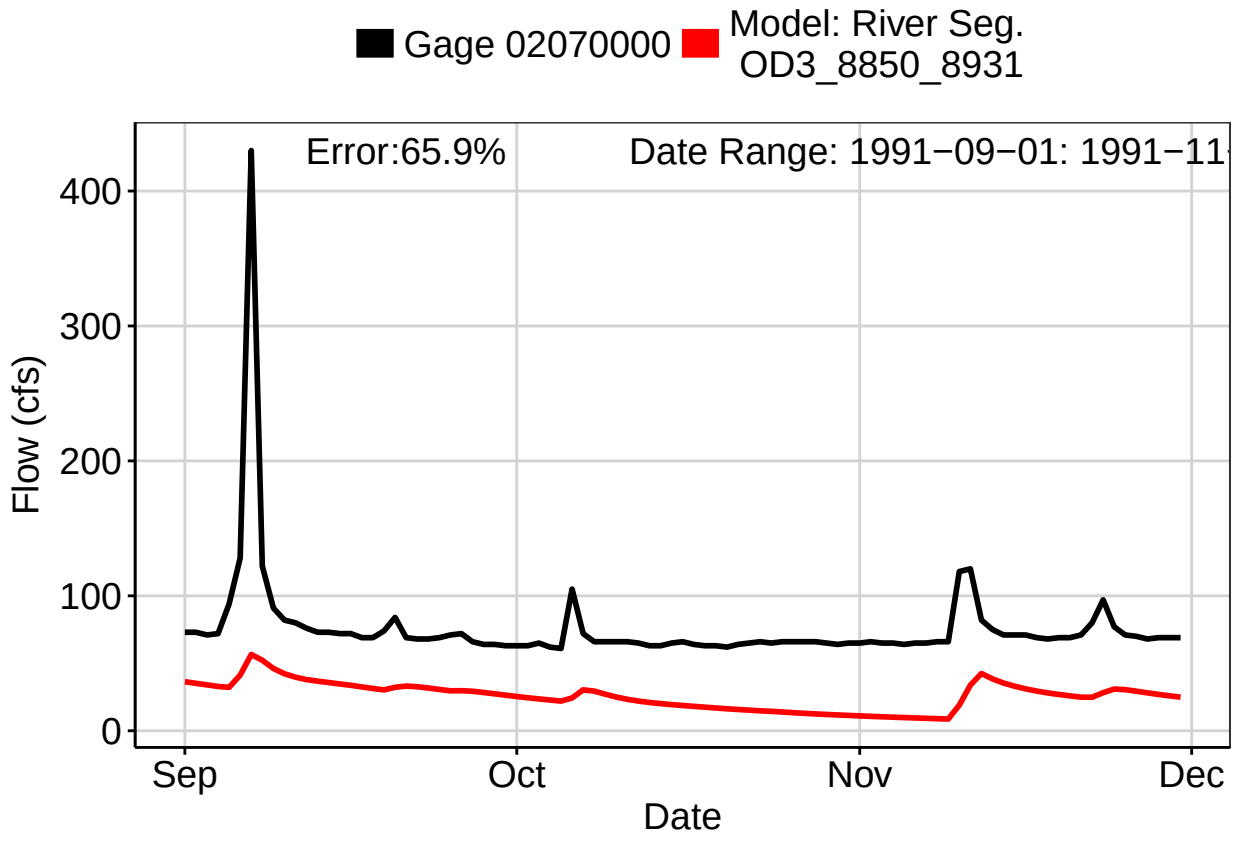

Fig. 9: Residuals Plot