02069700 vs. OD1_8910_8930

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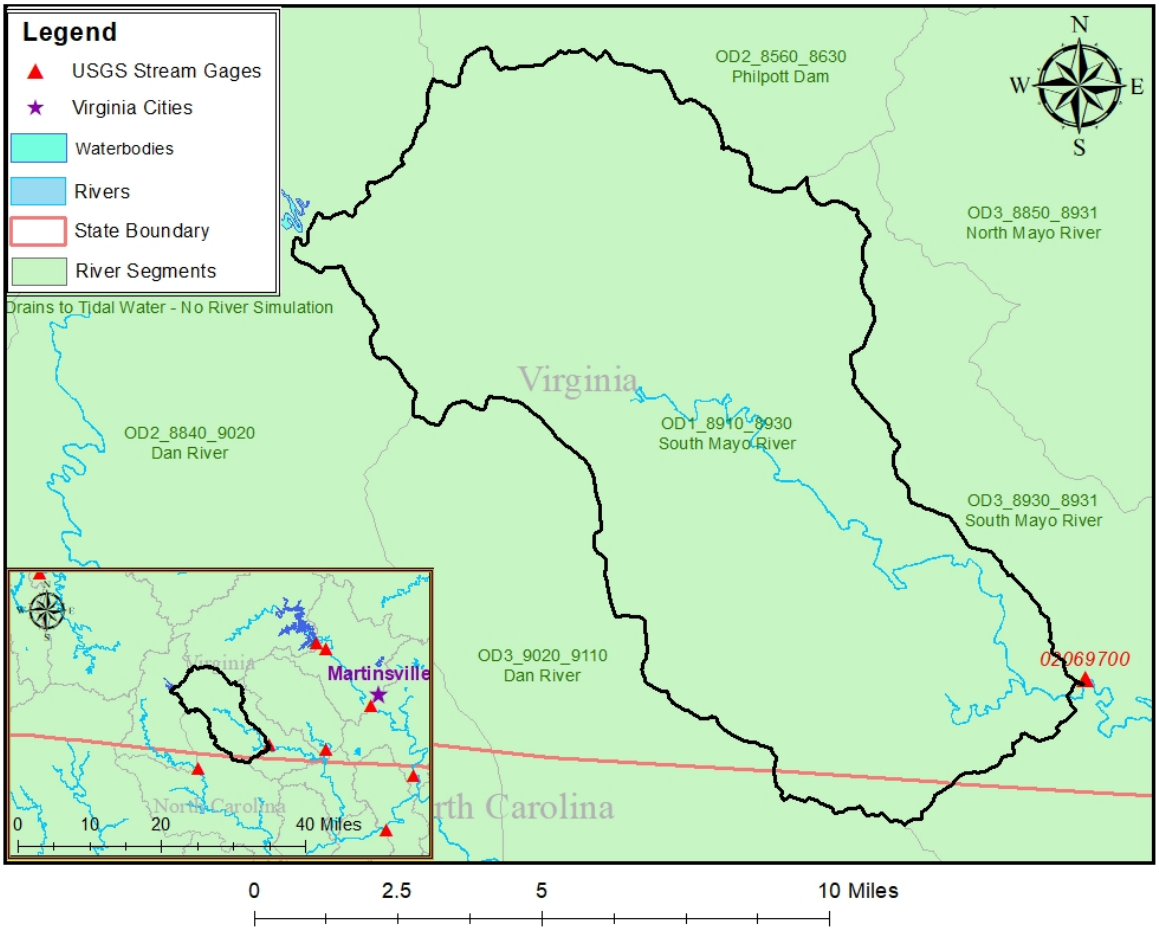

This river segment follows part of the flow of the South Mayo River, a tributary of the Dan River. The gage is located in Patrick County, VA (Lat 3634'15", Long 8007'47") approximately 17 miles southwest of Martinsville, VA. Drainage area is 85.5 sq. miles. This gage started taking data in 1962 and is 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 3.91%, with 45% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	54	33.9	37.2
Feb. Low Flow	60	43.5	27.5
Mar. Low Flow	70	62.1	11.3
Apr. Low Flow	75	79	-5.33
May Low Flow	91	99.7	-9.56
Jun. Low Flow	96	102	-6.25
Jul. Low Flow	94	85.2	9.36
Aug. Low Flow	97	71.4	26.4
Sep. Low Flow	73	59.4	18.6
Oct. Low Flow	67.7	45.1	33.4
Nov. Low Flow	56	42.8	23.6
Dec. Low Flow	50	36.9	26.2

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	128	123	3.91
Jan. Mean Flow	136	145	-6.62
Feb. Mean Flow	143	159	-11.2
Mar. Mean Flow	181	207	-14.4
Apr. Mean Flow	173	170	1.73
May Mean Flow	140	123	12.1
Jun. Mean Flow	135	117	13.3
Jul. Mean Flow	113	79.7	29.5
Aug. Mean Flow	111	90.5	18.5
Sep. Mean Flow	97.8	99.5	-1.74
Oct. Mean Flow	90.2	81	10.2
Nov. Mean Flow	105	96.8	7.81
Dec. Mean Flow	113	113	0

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	159	97.6	38.6
Feb. High Flow	226	225	0.44
Mar. High Flow	237	211	11
Apr. High Flow	328	380	-15.9
May High Flow	334	252	24.6
Jun. High Flow	467	778	-66.6
Jul. High Flow	330	332	-0.61
Aug. High Flow	343	281	18.1
Sep. High Flow	275	160	41.8
Oct. High Flow	178	108	39.3
Nov. High Flow	250	97.5	61
Dec. High Flow	175	111	36.6

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	8.67	11.1	-28
Med. 1 Day Min	39	25.8	33.8
Min. 3 Day Min	9.2	11.4	-23.9
Med. 3 Day Min	40	26.4	34
Min. 7 Day Min	10.1	11.9	-17.8
Med. 7 Day Min	43.7	28.4	35
Min. 30 Day Min	16.6	13.7	17.5
Med. 30 Day Min	50.6	33.7	33.4
Min. 90 Day Min	21.3	23.9	-12.2
Med. 90 Day Min	67.4	46.1	31.6
7Q10	20.6	14.6	29.1
Year of 90-Day Min. Flow	2002	1985	100
Drought Year Mean	44.9	50.6	-12.7
Mean Baseflow	87.1	82.4	5.4

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	6580	3800	42.2
Med. 1 Day Max	1270	1400	-10.2
Max. 3 Day Max	2660	2210	16.9
Med. 3 Day Max	870	958	-10.1
Max. 7 Day Max	1420	1010	28.9
Med. 7 Day Max	516	636	-23.3
Max. 30 Day Max	514	502	2.33
Med. 30 Day Max	264	284	-7.58
Max. 90 Day Max	362	375	-3.59
Med. 90 Day Max	193	203	-5.18

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	23.2	17.1	26.3
5% Non-Exceedance	36	27.4	23.9
50% Non-Exceedance	97	86.4	10.9
95% Non-Exceedance	298	305	-2.35
99% Non-Exceedance	682	739	-8.36
Sept. 10% Non-Exceedance	30.2	36.9	-22.2

Fig. 1: Hydrograph

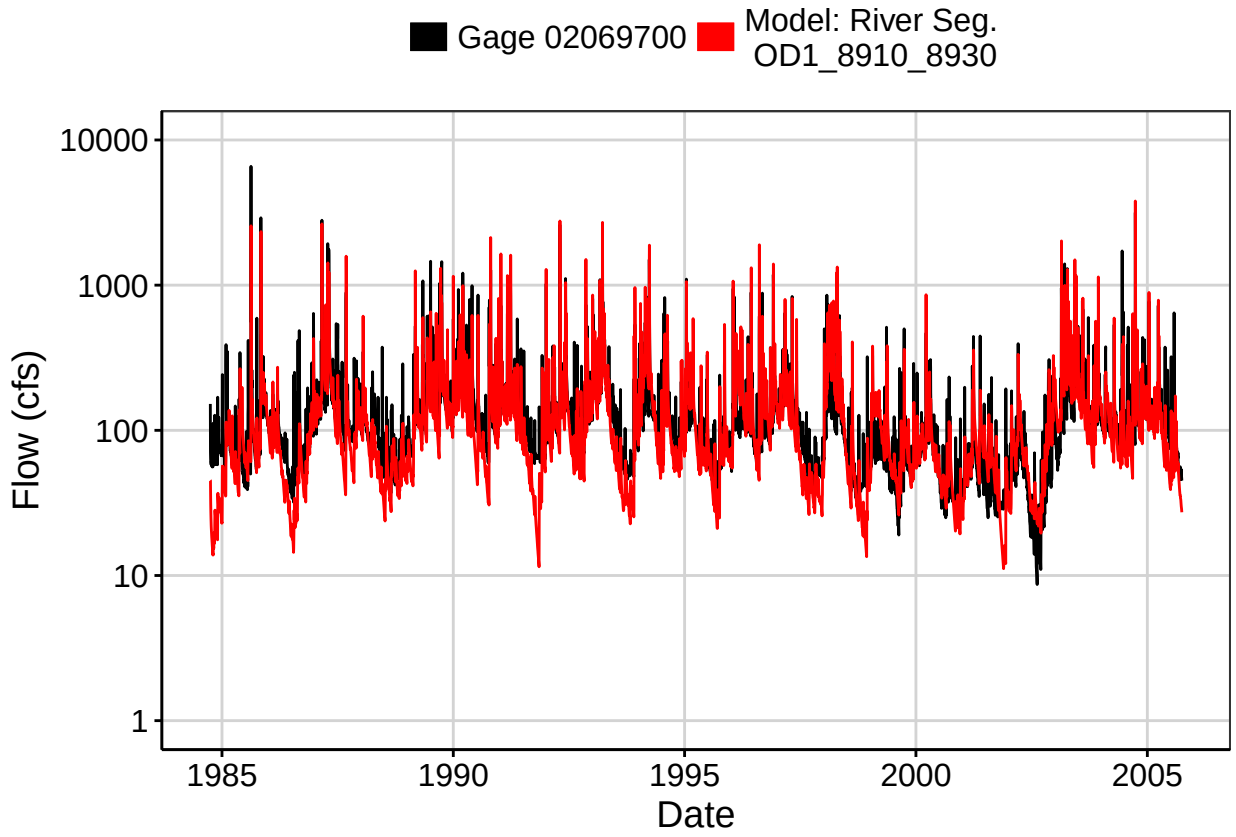

Fig. 2: Zoomed Hydrograph

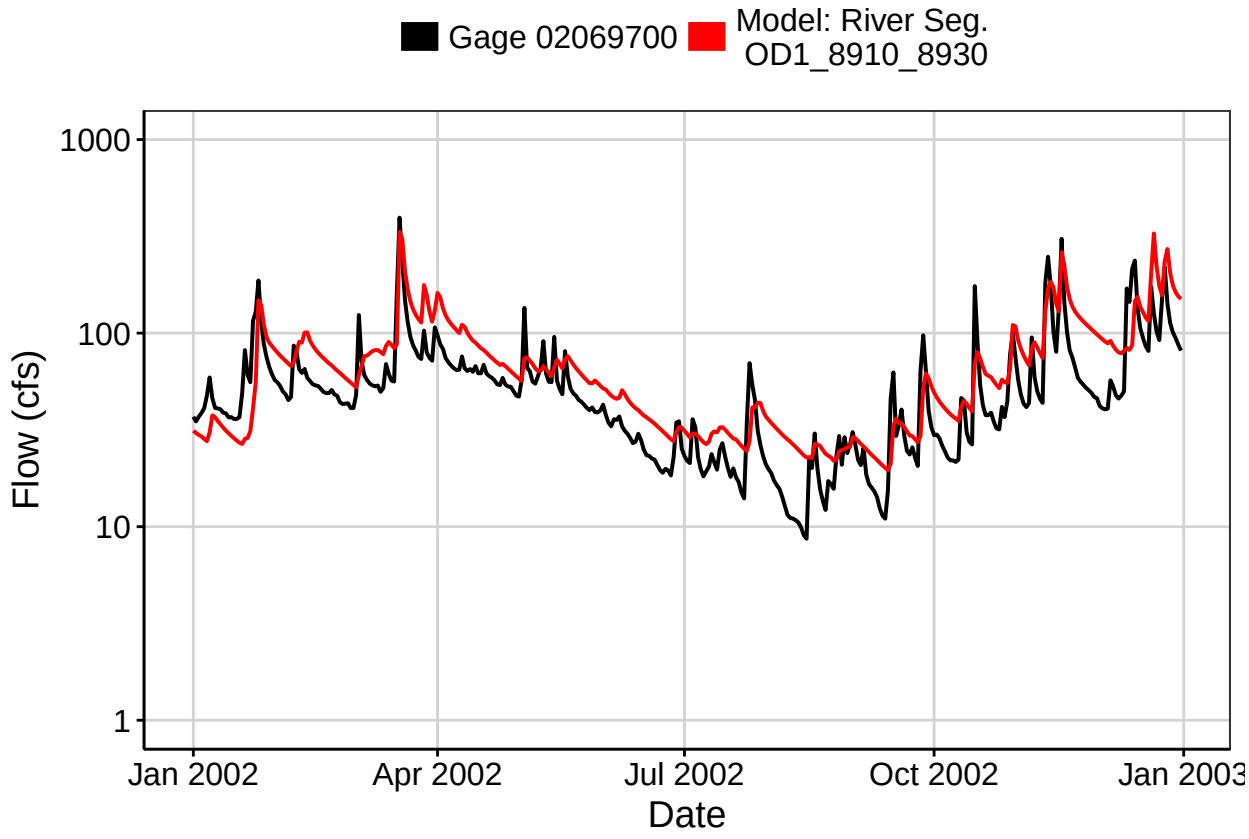

Fig. 3: Flow Exceedance

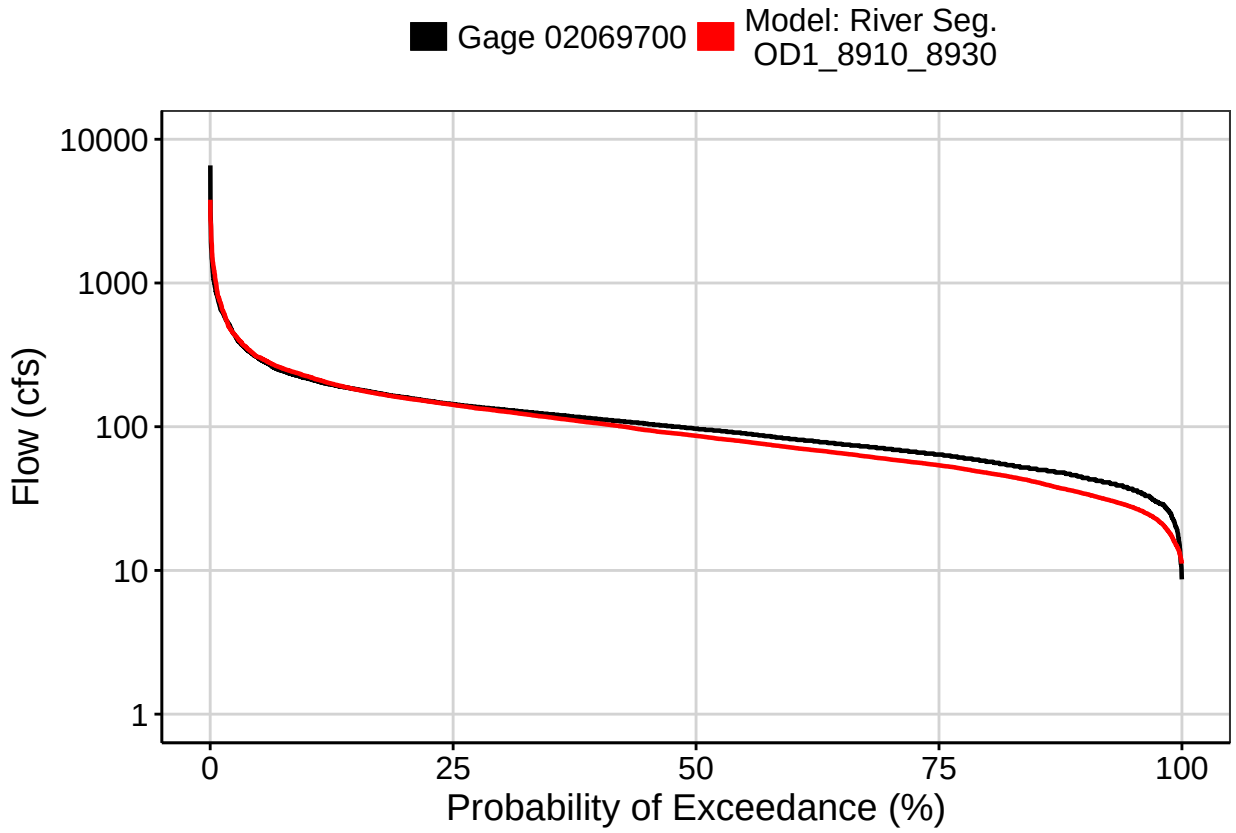

Fig. 4: Baseflow

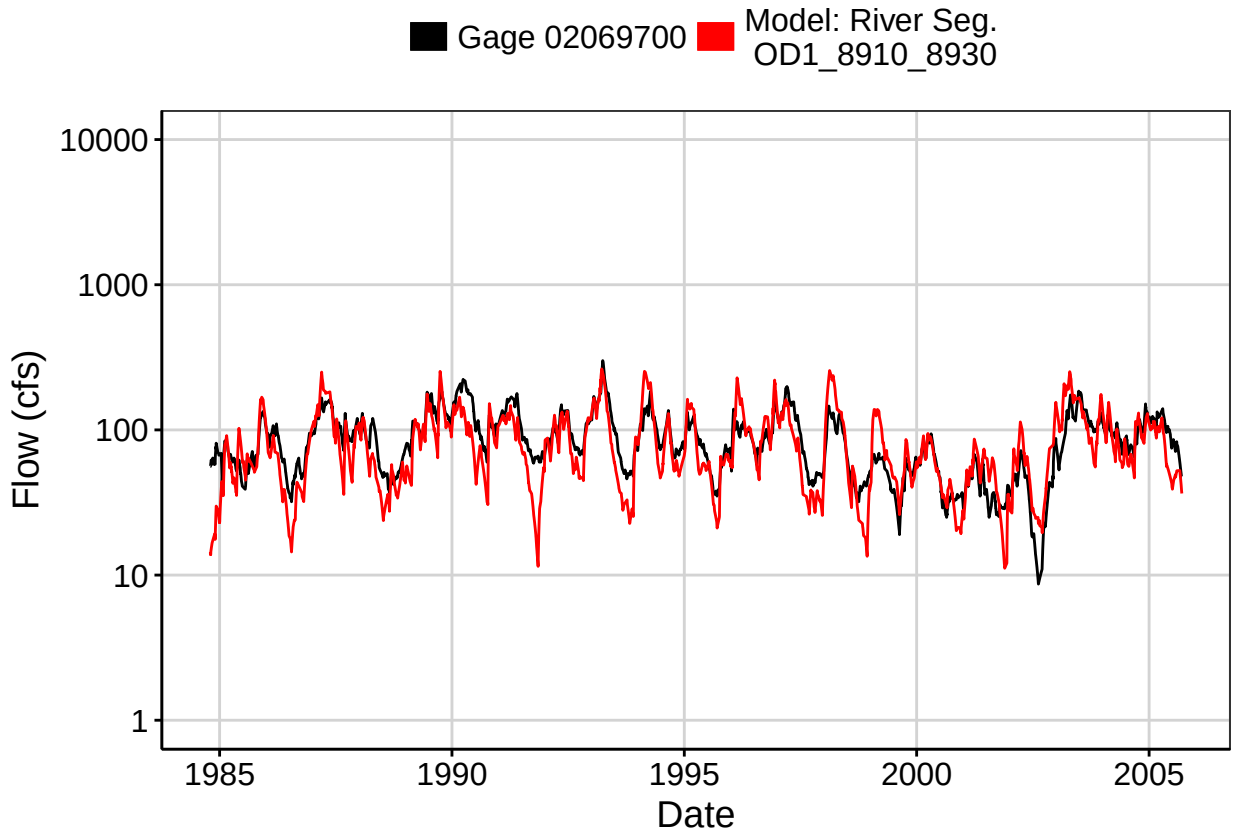

Fig. 5: Combined Baseflow

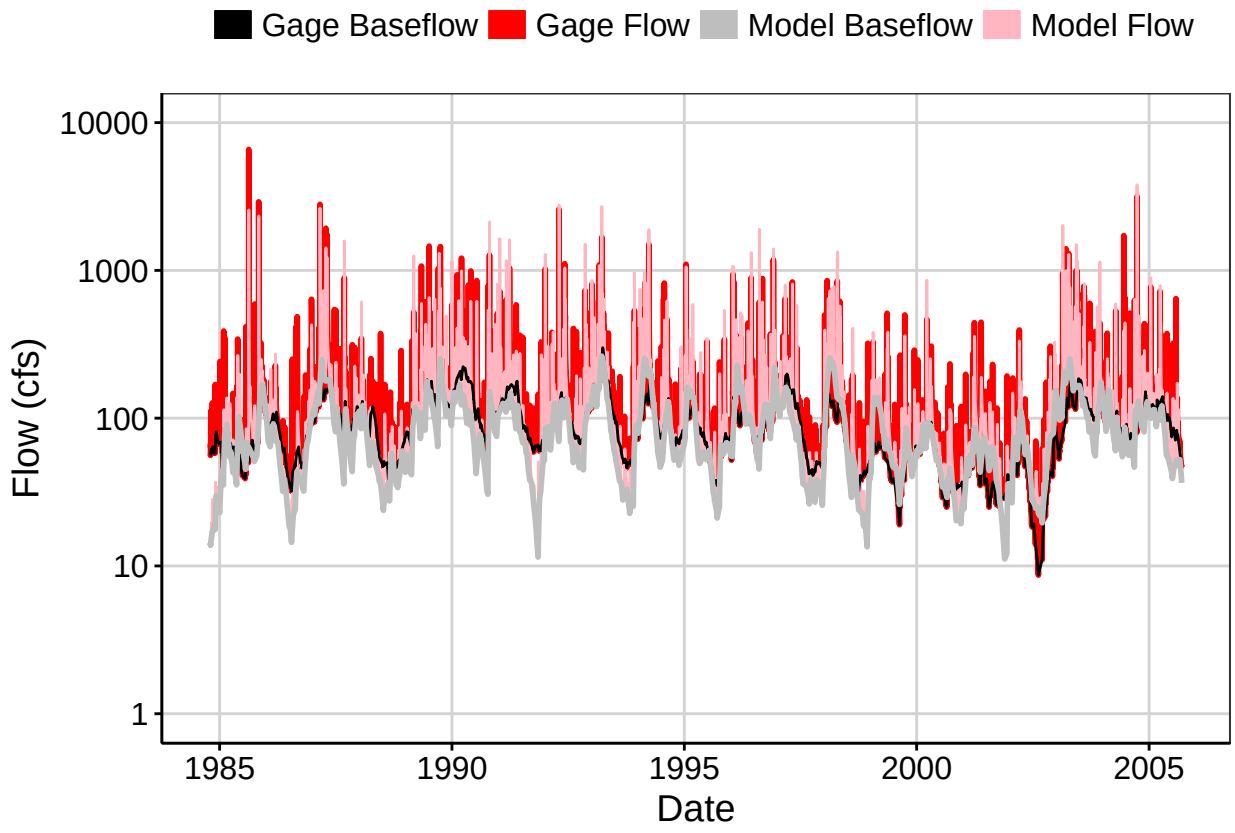

Fig. 6: Largest Error Segment

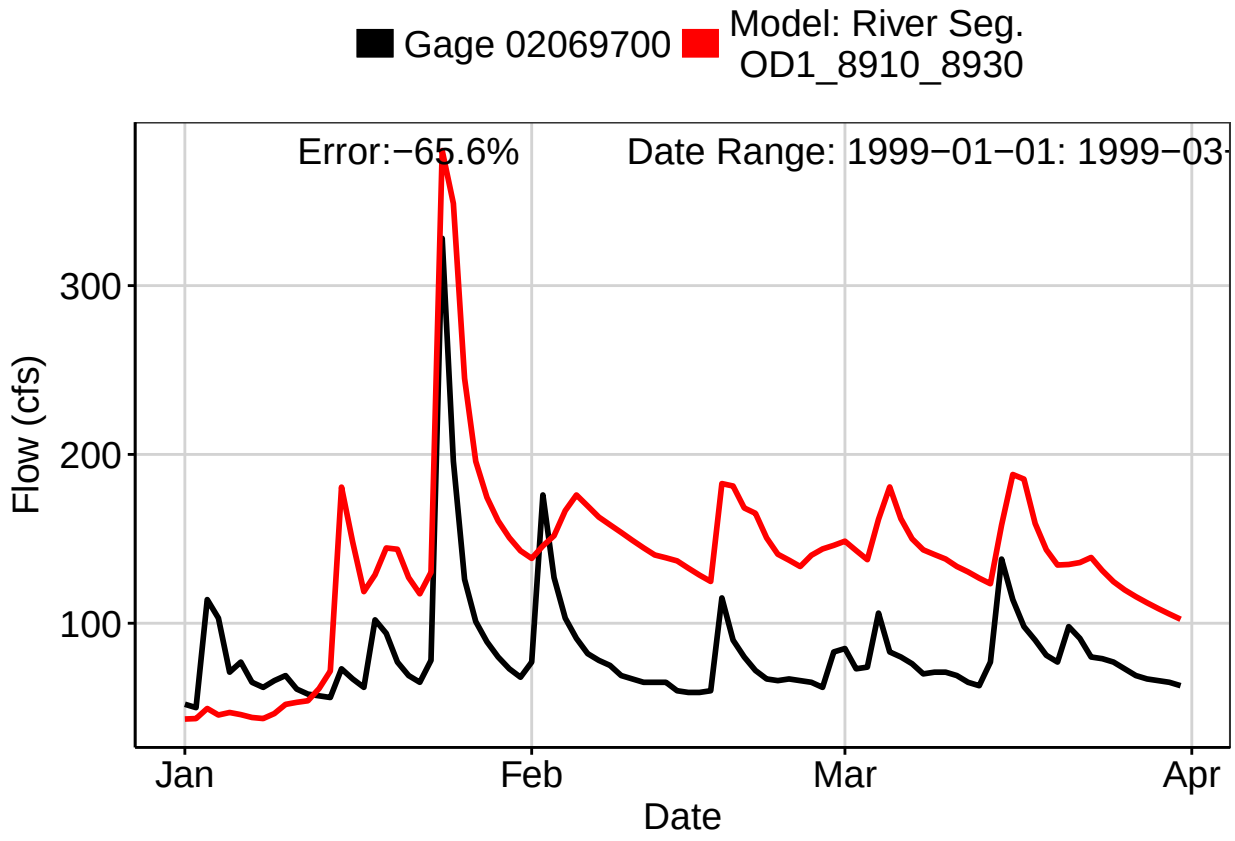

Fig. 7: Second Largest Error Segment

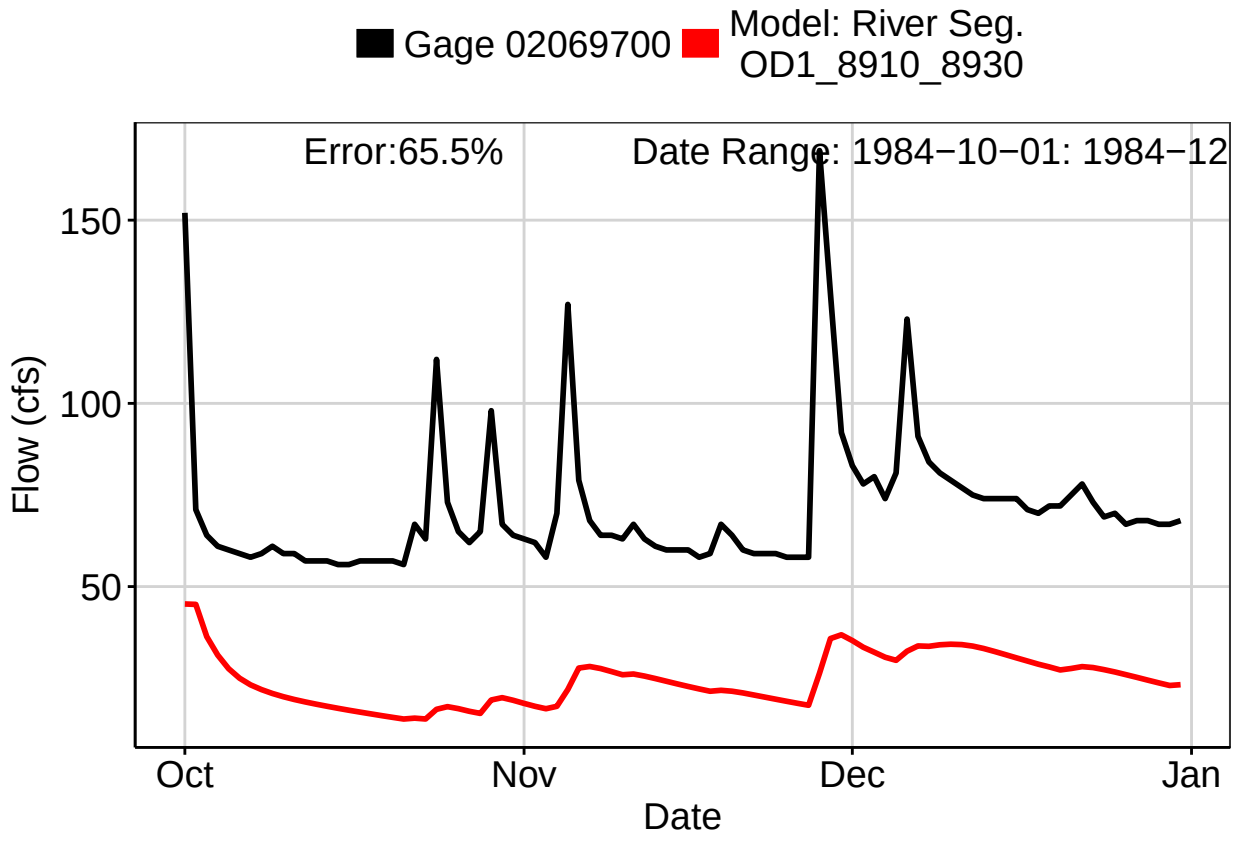

Fig. 8: Third Largest Error Segment

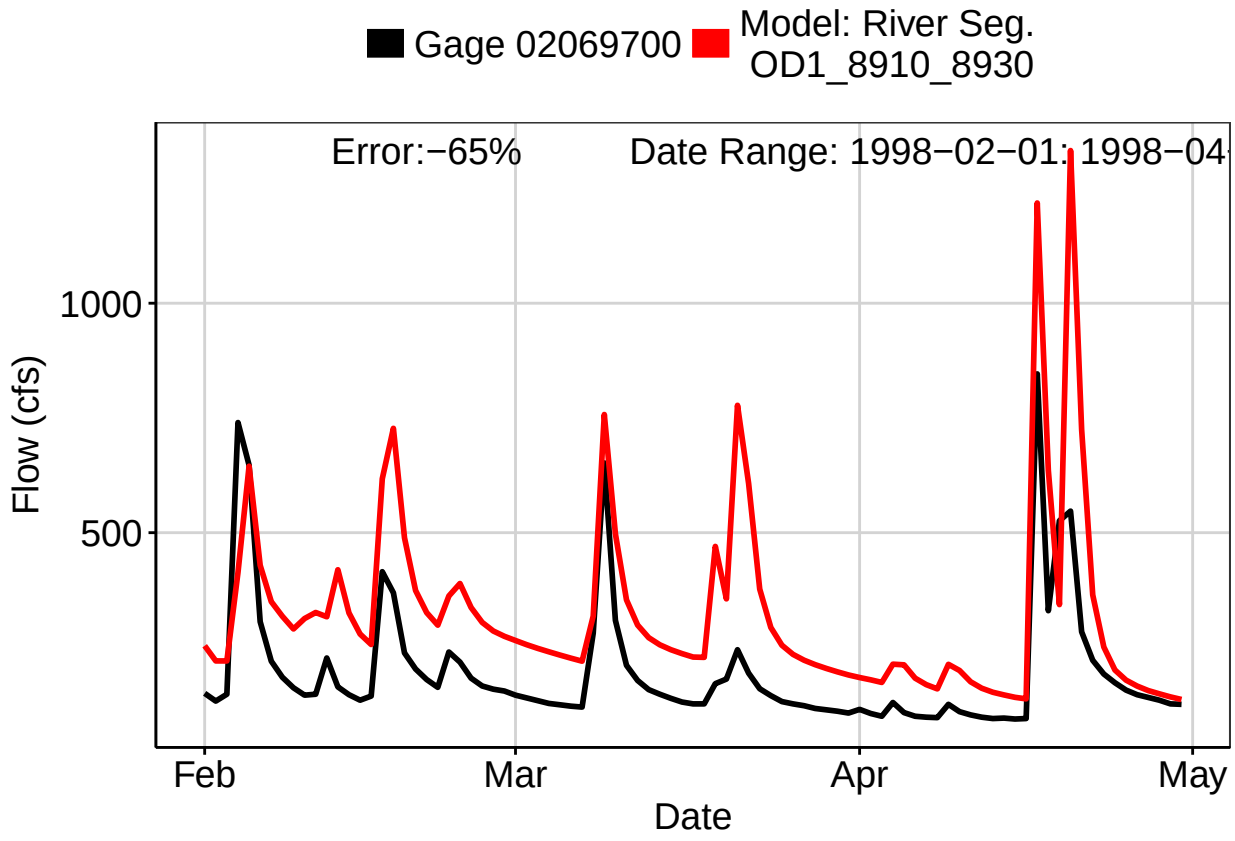

Fig. 9: Residuals Plot