02059500 vs. OR2_7650_8070

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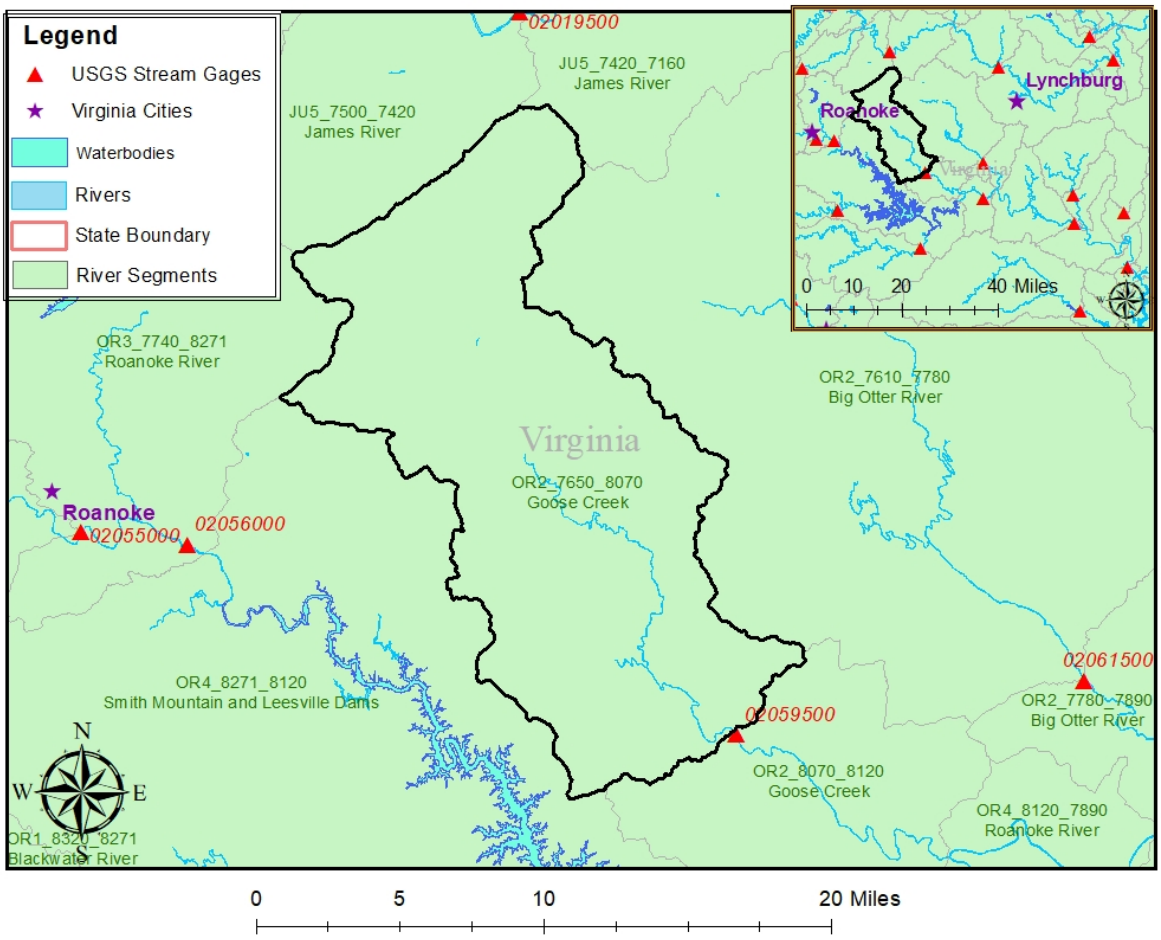

This river segment follows part of the flow of the Goose Creek, a tributary of the Roanoke River. The gage is located in Bedford County, VA (Lat 3710'23", Long 7931'14") approximately 27 miles southwest of Lynchburg, VA. Drainage area is 188 sq. miles. This gage started taking data in 1930 and is still taking data. There are no known anthropogenic alterations in this area that would affect the flow conditions. Prior to 1954 there was a mill upstream but it has since been decommissioned. The average daily discharge error between the model and gage data for the 20 year timespan was -1.56%, with 46.2% of its rolling three month time spans above 20% error.

Table 1: Monthly Low Flows

	USGS Gage	Model	Pct. Error
Jan. Low Flow	49	35	28.6
Feb. Low Flow	67	41	38.8
Mar. Low Flow	91	66	27.5
Apr. Low Flow	76	113	-48.7
May Low Flow	118	140	-18.6
Jun. Low Flow	132	142	-7.58
Jul. Low Flow	126	105	16.7
Aug. Low Flow	111	81.2	26.8
Sep. Low Flow	86	68.1	20.8
Oct. Low Flow	58	44.1	24
Nov. Low Flow	48	39	18.8
Dec. Low Flow	47	32.4	31.1

Table 2: Monthly Average Flows

	USGS Gage	Model	Pct. Error
Overall Mean Flow	192	195	-1.56
Jan. Mean Flow	229	248	-8.3
Feb. Mean Flow	253	289	-14.2
Mar. Mean Flow	290	333	-14.8
Apr. Mean Flow	278	291	-4.68
May Mean Flow	210	203	3.33
Jun. Mean Flow	193	179	7.25
Jul. Mean Flow	122	106	13.1
Aug. Mean Flow	104	91.4	12.1
Sep. Mean Flow	180	155	13.9
Oct. Mean Flow	119	130	-9.24
Nov. Mean Flow	150	152	-1.33
Dec. Mean Flow	176	173	1.7

Table 3: Monthly High Flows

	USGS Gage	Model	Pct. Error
Jan. High Flow	127	135	-6.3
Feb. High Flow	306	472	-54.2
Mar. High Flow	577	404	30
Apr. High Flow	733	526	28.2
May High Flow	576	498	13.5
Jun. High Flow	899	873	2.89
Jul. High Flow	607	582	4.12
Aug. High Flow	303	324	-6.93
Sep. High Flow	295	201	31.9
Oct. High Flow	280	150	46.4
Nov. High Flow	229	147	35.8
Dec. High Flow	211	123	41.7

Table 4: Period Low Flows

	USGS Gage	Model	Pct. Error
Min. 1 Day Min	6.04	3.13	48.2
Med. 1 Day Min	38	20.6	45.8
Min. 3 Day Min	6.42	3.25	49.4
Med. 3 Day Min	38.7	20.9	46
Min. 7 Day Min	7.18	3.53	50.8
Med. 7 Day Min	44.1	22.3	49.4
Min. 30 Day Min	10.7	6.36	40.6
Med. 30 Day Min	50	34.9	30.2
Min. 90 Day Min	17.8	15.8	11.2
Med. 90 Day Min	74.1	57.5	22.4
7Q10	15.7	8.45	46.2
Year of 90-Day Min. Flow	2002	2002	0
Drought Year Mean	39.3	36.8	6.36
Mean Baseflow	100	111	-11

Table 5: Period High Flows

	USGS Gage	Model	Pct. Error
Max. 1 Day Max	26000	10200	60.8
Med. 1 Day Max	2710	2820	-4.06
Max. 3 Day Max	10700	5010	53.2
Med. 3 Day Max	1580	1960	-24.1
Max. 7 Day Max	4810	2620	45.5
Med. 7 Day Max	972	1010	-3.91
Max. 30 Day Max	1340	1250	6.72
Med. 30 Day Max	475	512	-7.79
Max. 90 Day Max	750	796	-6.13
Med. 90 Day Max	313	348	-11.2

Table 6: Non-Exceedance Flows

	USGS Gage	Model	Pct. Error
1% Non-Exceedance	15	10.2	32
5% Non-Exceedance	35	20.5	41.4
50% Non-Exceedance	113	116	-2.65
95% Non-Exceedance	510	531	-4.12
99% Non-Exceedance	1550	1490	3.87
Sept. 10% Non-Exceedance	20.6	32	-55.3

Fig. 1: Hydrograph

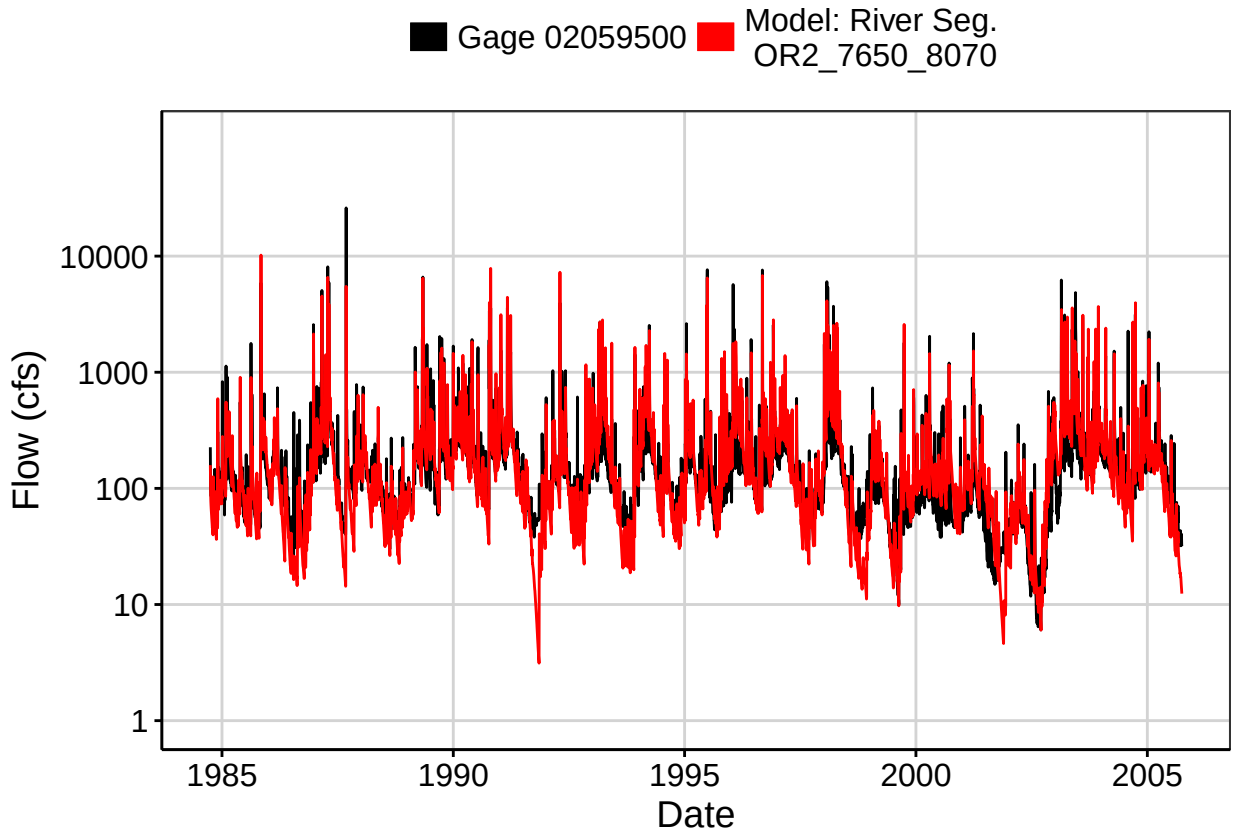

Fig. 2: Zoomed Hydrograph

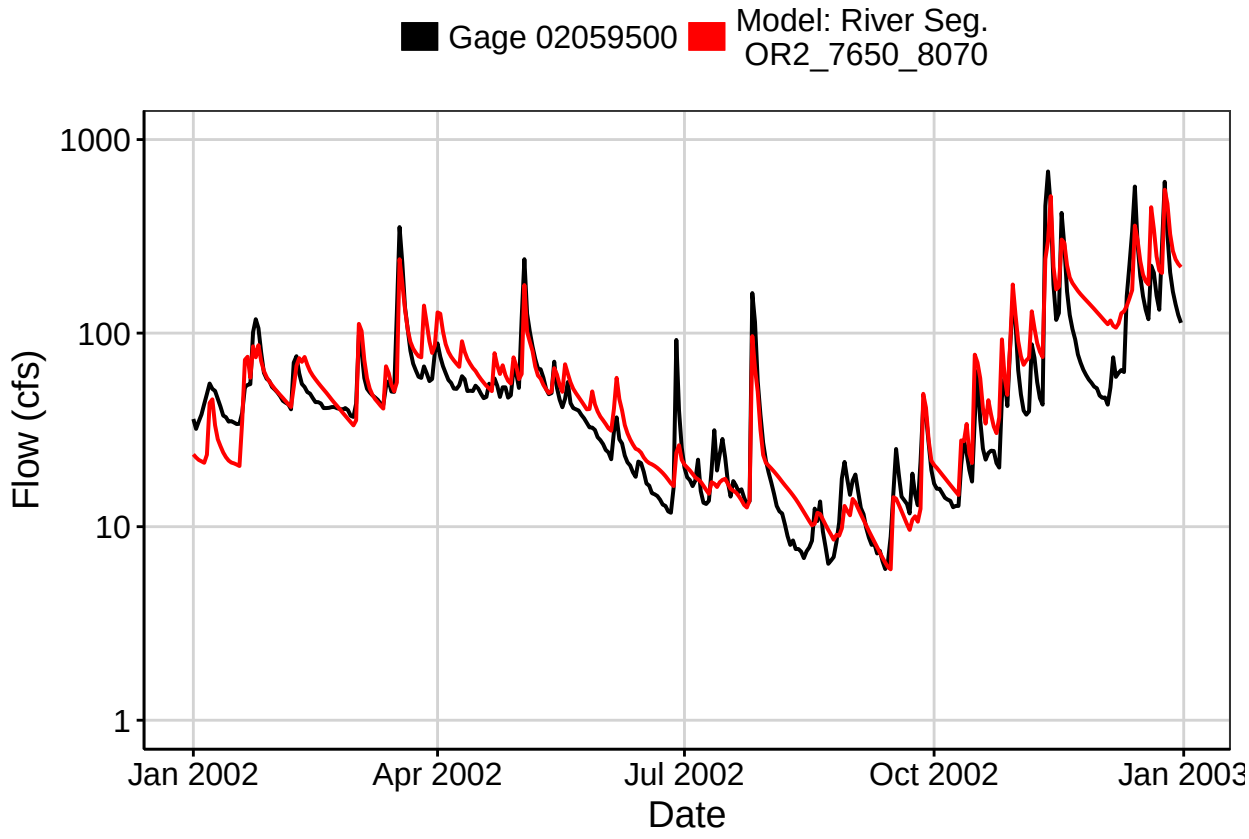

Fig. 3: Flow Exceedance

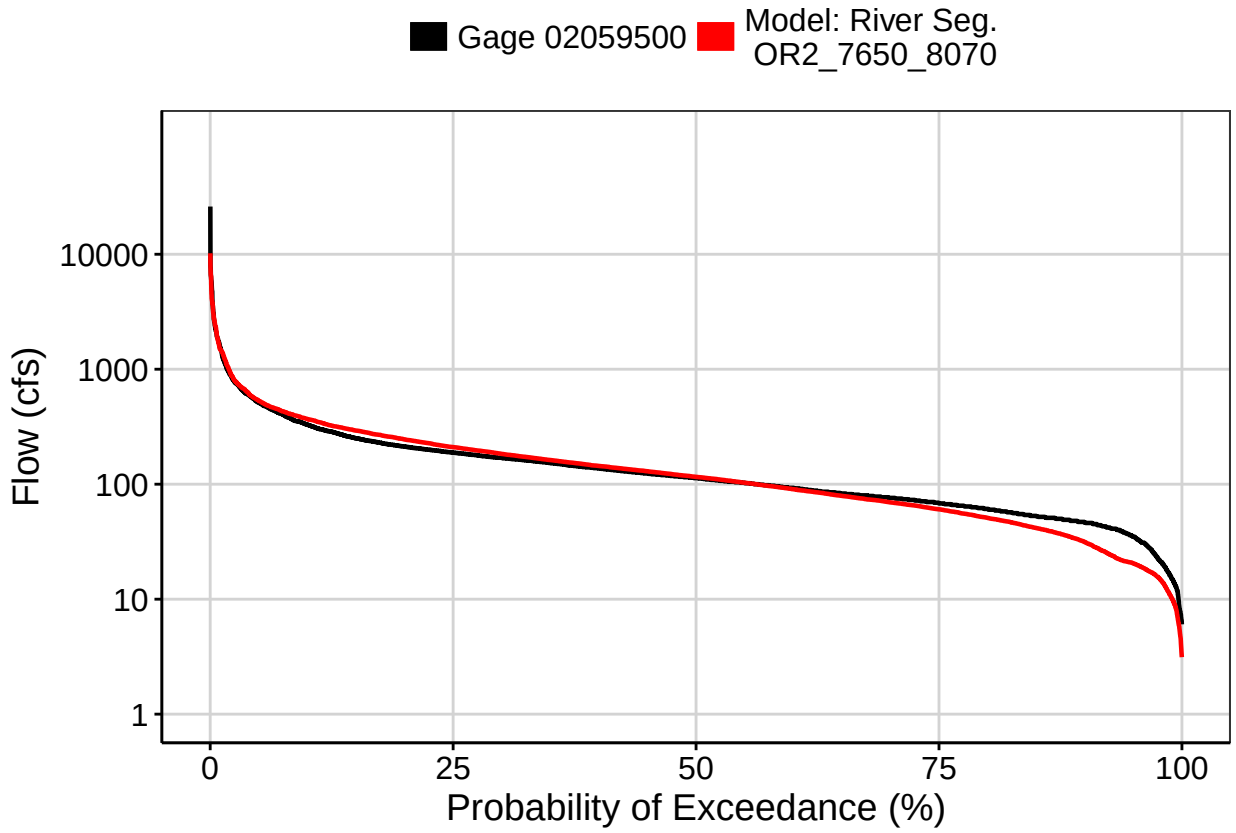

Fig. 4: Baseflow

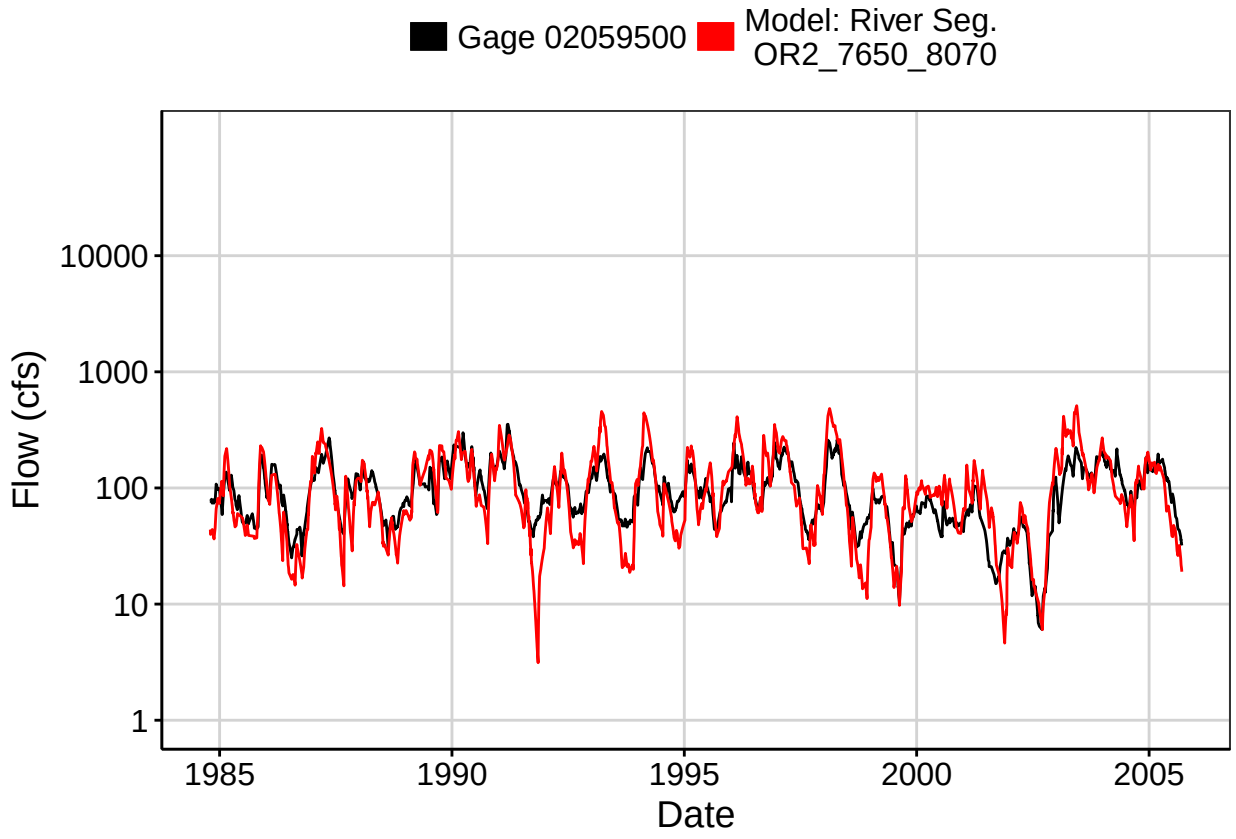

Fig. 5: Combined Baseflow

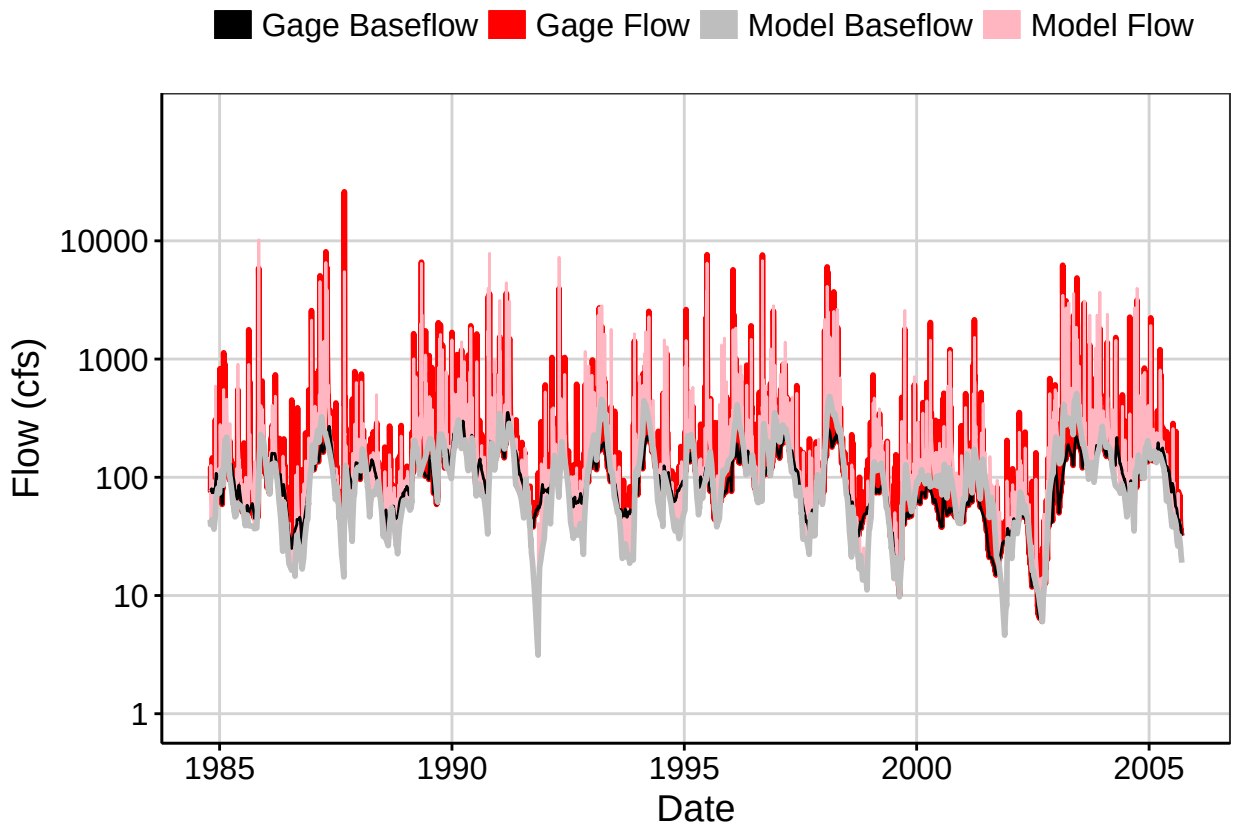

Fig. 6: Largest Error Segment

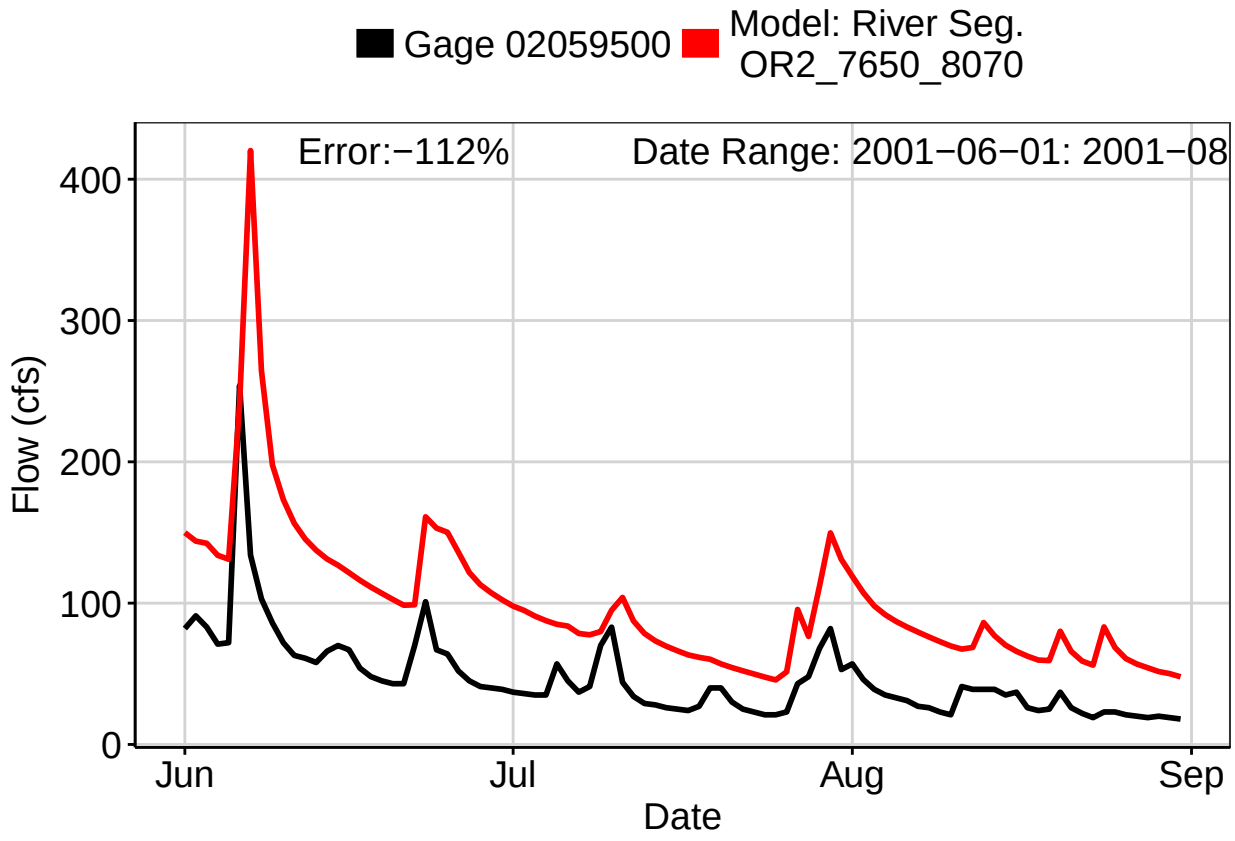

Fig. 7: Second Largest Error Segment

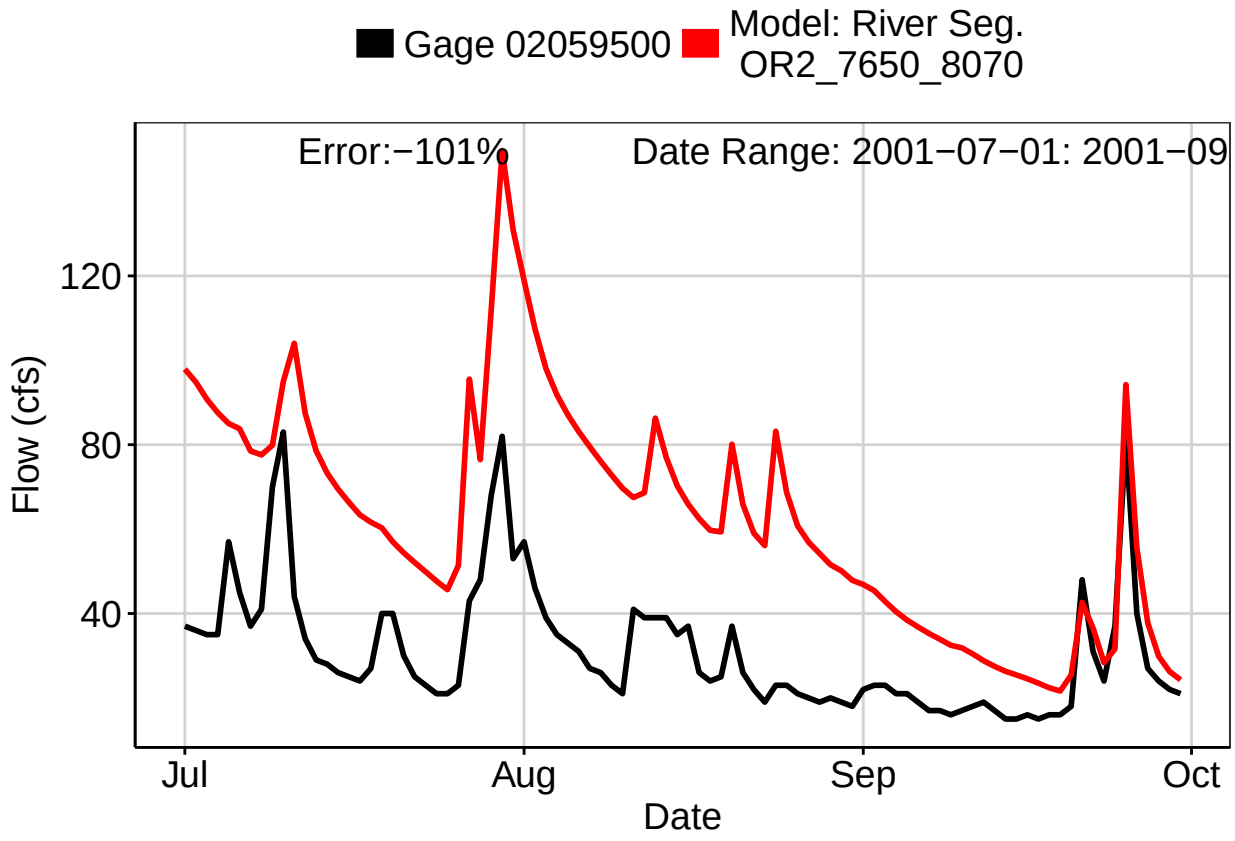

Fig. 8: Third Largest Error Segment

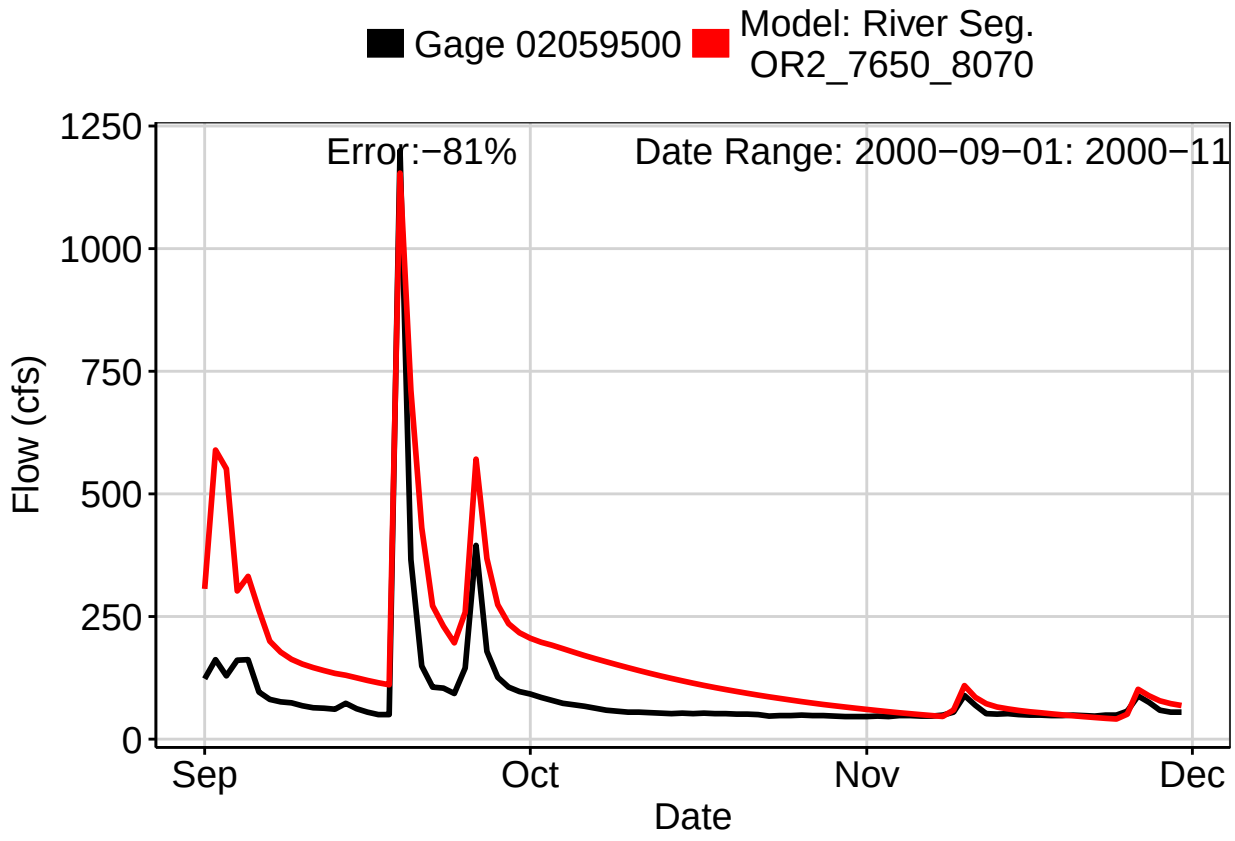

Fig. 9: Residuals Plot