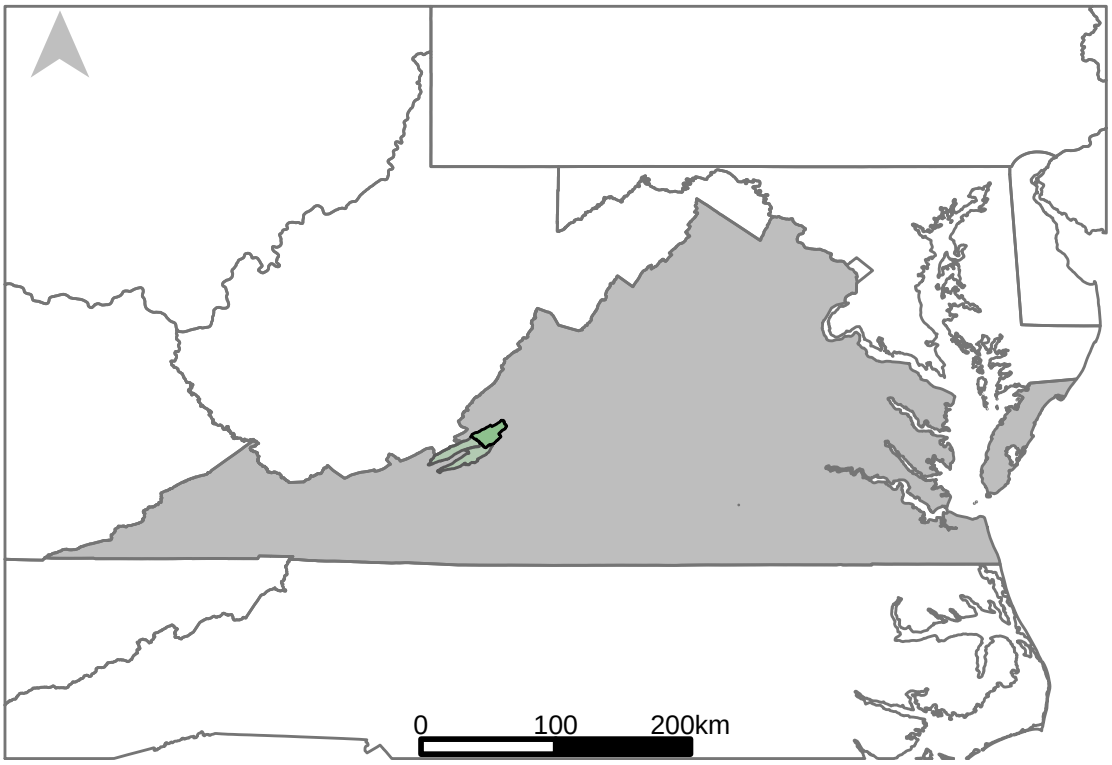
Appendix ##: River Segment: JU3_7490_7400 : CFBASE30Y20180615 vs. Scenario 2: CBASE1808L55CY55R45P50R45P50Y



This river segment follows part of the flow of Craig Creek at Parr, VA. The gage is located in Botetourt County, VA (Lat 37 39'57", long 79 54'42") approximately 0.2 miles northeast of Horton. Drainage area is 329 sq. miles. This gage started taking data in 1925 and is still taking data currently. There are no known anthropogenic alterations in this area that would affect the flow conditions. The average daily discharge change between scenario 1 and scenario 2 for the 20 year timespan was 3.97022%, with 0.556% of its rolling three month time spans above 20% difference.

Table 1: Monthly Low Flows

	Scenario 1	Scenario 2	Pct. Difference
Jan. Low Flow	66.6	66.6	0
Feb. Low Flow	128	130	1.56
Mar. Low Flow	236	236	0
Apr. Low Flow	275	300	9.09
May Low Flow	364	378	3.85
Jun. Low Flow	358	355	-0.84
Jul. Low Flow	255	264	3.53
Aug. Low Flow	182	180	-1.1
Sep. Low Flow	66.4	67	0.9
Oct. Low Flow	18	17.3	-3.89
Nov. Low Flow	16.6	16.2	-2.41
Dec. Low Flow	32	31.6	-1.25

Table 2: Monthly Average Flows

	Scenario 1	Scenario 2	Pct. Difference
Overall Mean Flow	403	419	3.97
Jan. Mean Flow	599	641	7.01
Feb. Mean Flow	632	668	5.7
Mar. Mean Flow	768	757	-1.43
Apr. Mean Flow	606	641	5.78
May Mean Flow	412	426	3.4
Jun. Mean Flow	314	326	3.82
Jul. Mean Flow	138	140	1.45
Aug. Mean Flow	155	163	5.16
Sep. Mean Flow	249	269	8.03
Oct. Mean Flow	224	227	1.34
Nov. Mean Flow	325	337	3.69
Dec. Mean Flow	430	458	6.51

Table 3: Monthly High Flows

	Scenario 1	Scenario 2	Pct. Difference
Jan. High Flow	185	188	1.62
Feb. High Flow	528	548	3.79
Mar. High Flow	732	999	36.48
Apr. High Flow	1680	1760	4.76
May High Flow	1220	1400	14.75
Jun. High Flow	1680	1730	2.98
Jul. High Flow	1140	1140	0
Aug. High Flow	675	726	7.56
Sep. High Flow	297	302	1.68
Oct. High Flow	228	259	13.6
Nov. High Flow	198	208	5.05
Dec. High Flow	245	254	3.67

Table 4: Period Low Flows

	Scenario 1	Scenario 2	Pct. Difference
Min. 1 Day Min	1.32	1.28	-3.03
Med. 1 Day Min	9.25	8.91	-3.68
Min. 3 Day Min	1.34	1.31	-2.24
Med. 3 Day Min	9.55	9.3	-2.62
Min. 7 Day Min	1.39	1.36	-2.16
Med. 7 Day Min	11.3	10.9	-3.54
Min. 30 Day Min	2.22	2.19	-1.35
Med. 30 Day Min	26.5	26.9	1.51
Min. 90 Day Min	32.8	33.7	2.74
Med. 90 Day Min	86.4	87.3	1.04
7Q10	3.1	3.1	0
Year of 90-Day Min. Flow	1999	1999	0
Drought Year Mean	222.57	238.22	7.03
Mean Baseflow	2920	3190	9.25

Table 5: Period High Flows

	Scenario 1	Scenario 2	Pct. Difference
Max. 1 Day Max	9900	9900	0
Med. 1 Day Max	4580	5350	16.81
Max. 3 Day Max	6740	6760	0.3
Med. 3 Day Max	3120	3600	15.38
Max. 7 Day Max	3570	3570	0
Med. 7 Day Max	2070	2280	10.14
Max. 30 Day Max	2110	2110	0
Med. 30 Day Max	1060	1100	3.77
Max. 90 Day Max	1410	1520	7.8
Med. 90 Day Max	735	755	2.72

Table 6: Non-Exceedance Flows

	Scenario 1	Scenario 2	Pct. Difference
1% Non-Exceedance	5.02	5.17	2.99
5% Non-Exceedance	18.6	18.6	0
50% Non-Exceedance	268	276	2.99
95% Non-Exceedance	1200	1260	5
99% Non-Exceedance	2920	3190	9.25
Sept. 10% Non-Exceedance	9.68	9.61	-0.72

Fig. 1: Hydrograph

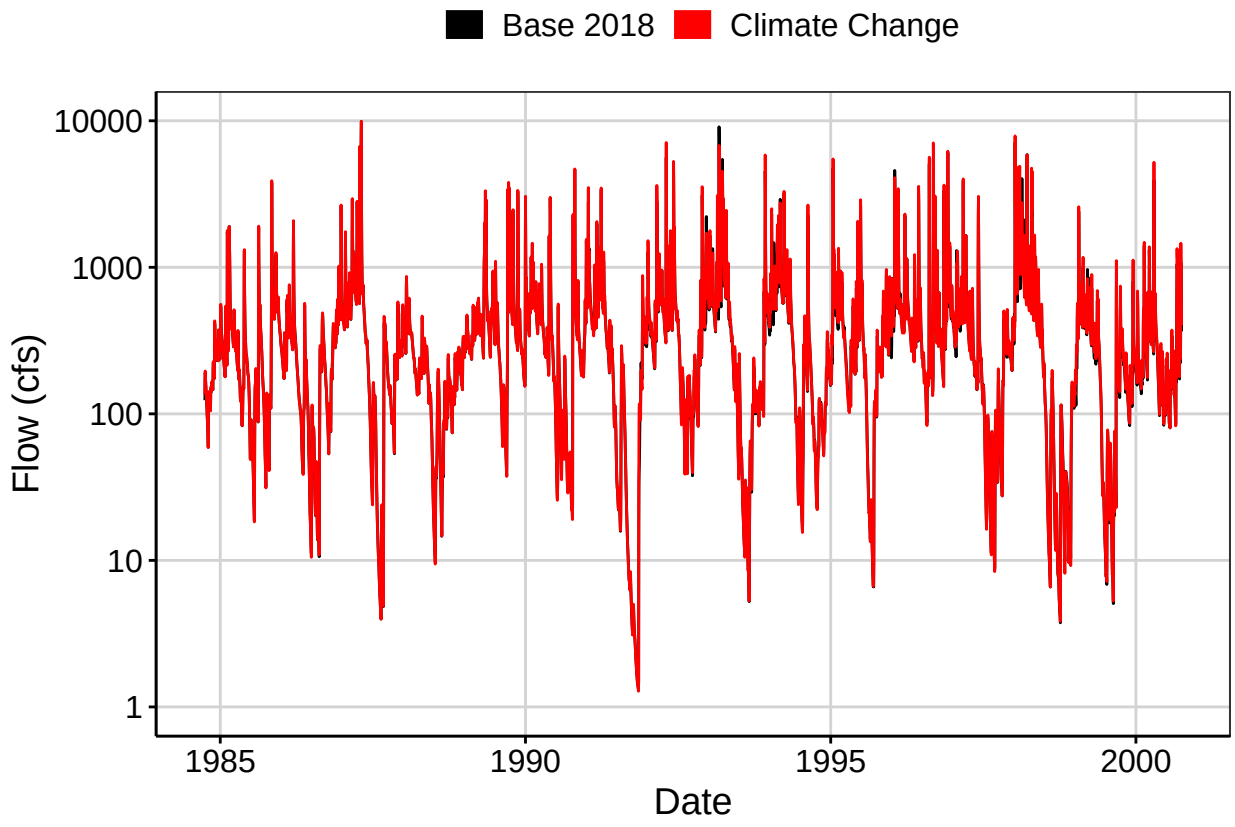


Fig. 2: Zoomed Hydrograph

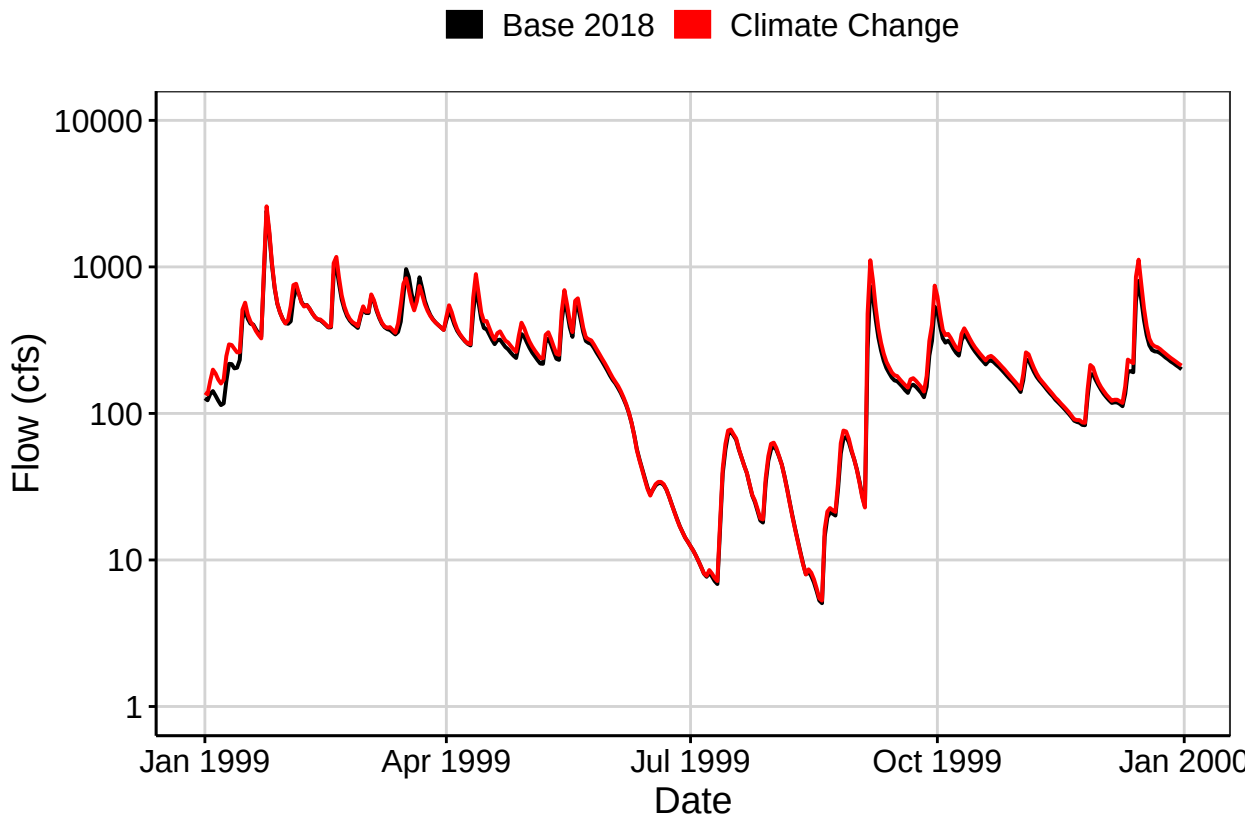


Fig. 3: Flow Exceedance

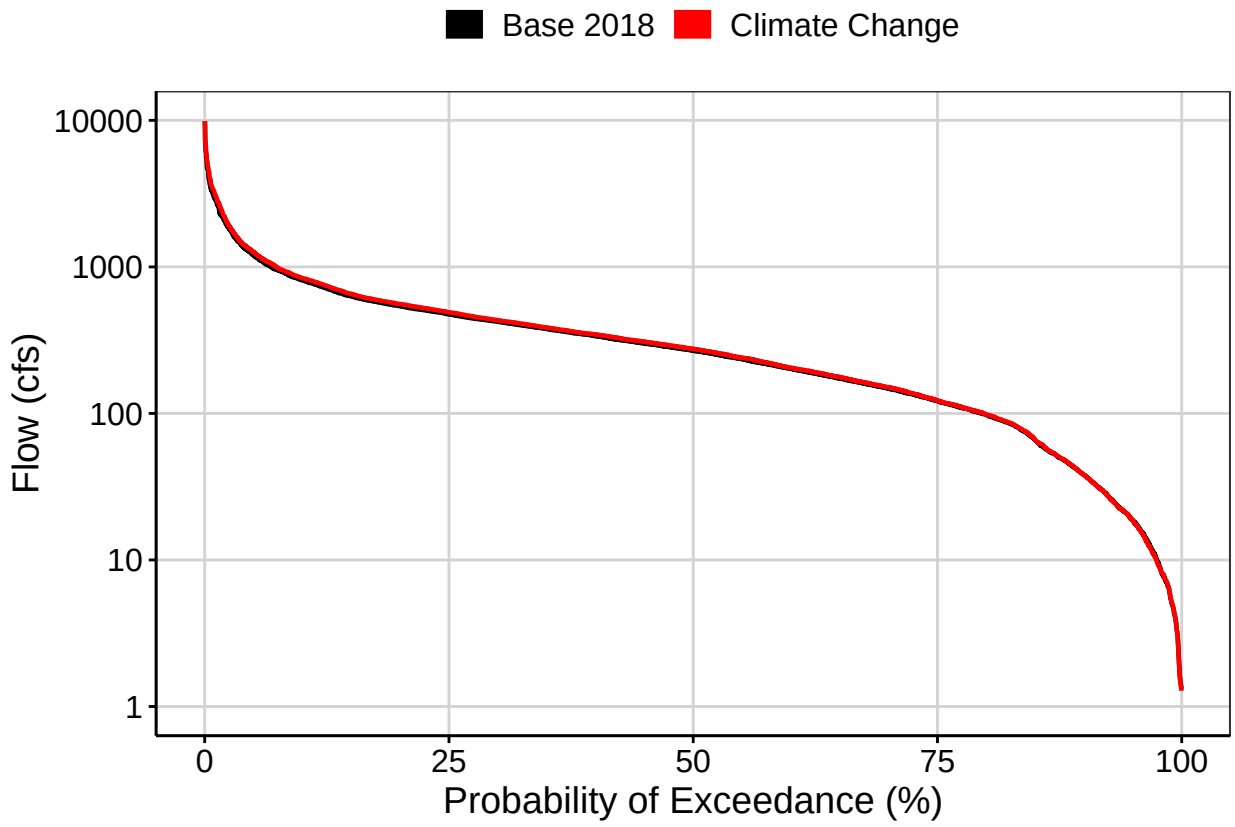


Fig. 4: Baseflow

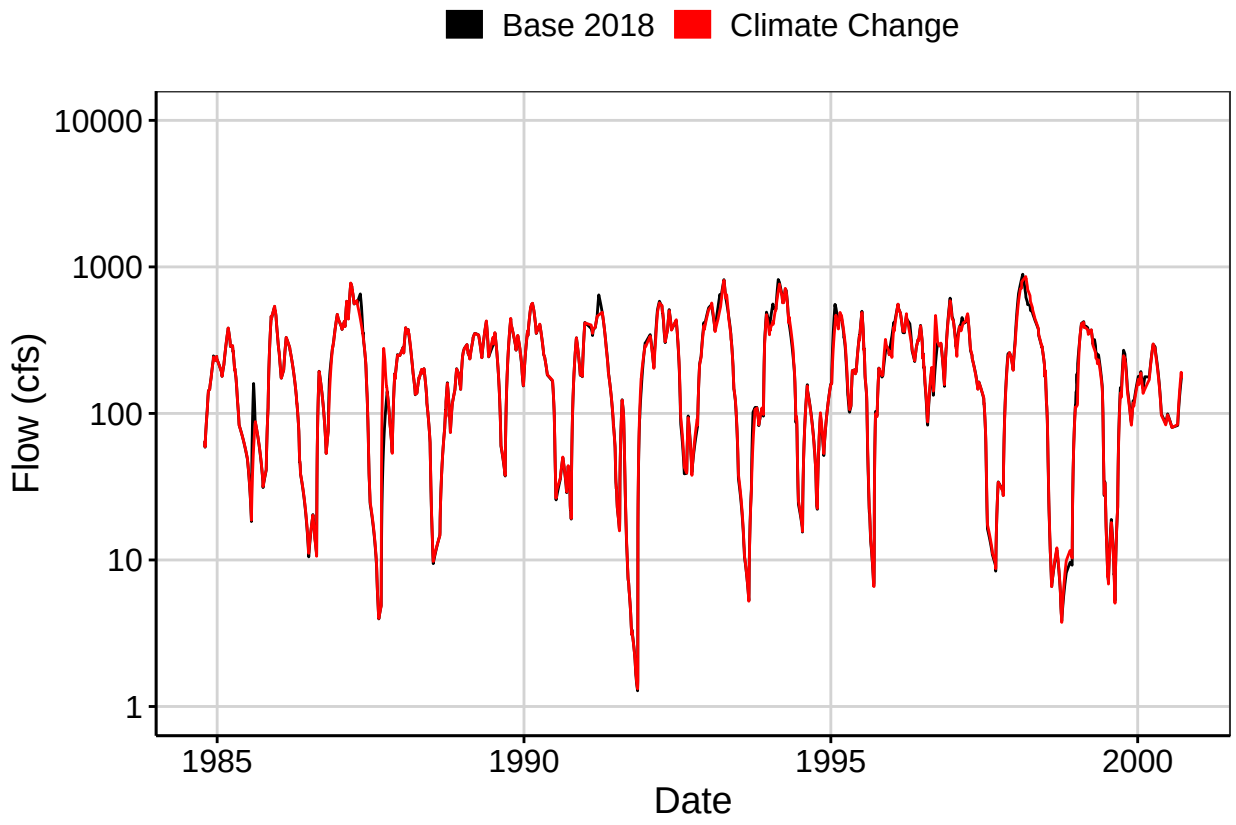


Fig. 5: Combined Baseflow

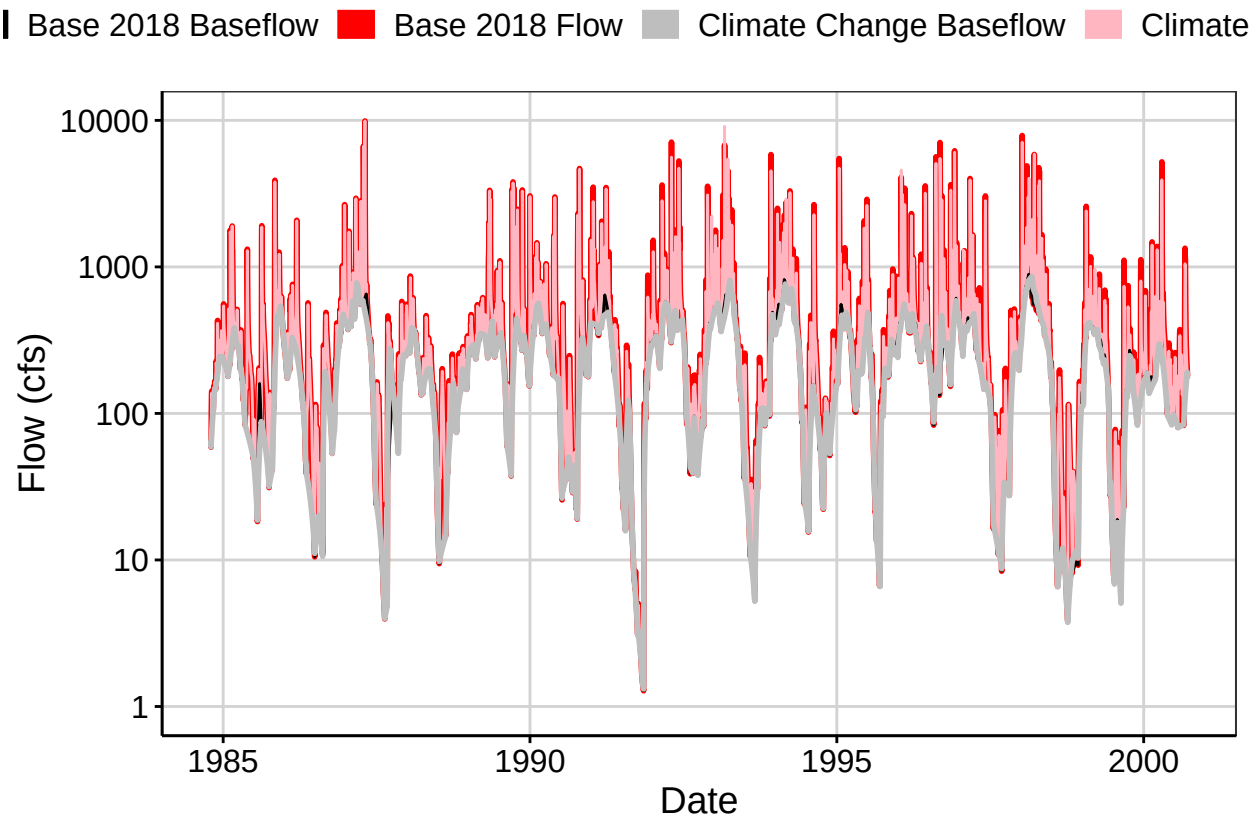


Fig. 6: Largest Difference Segment

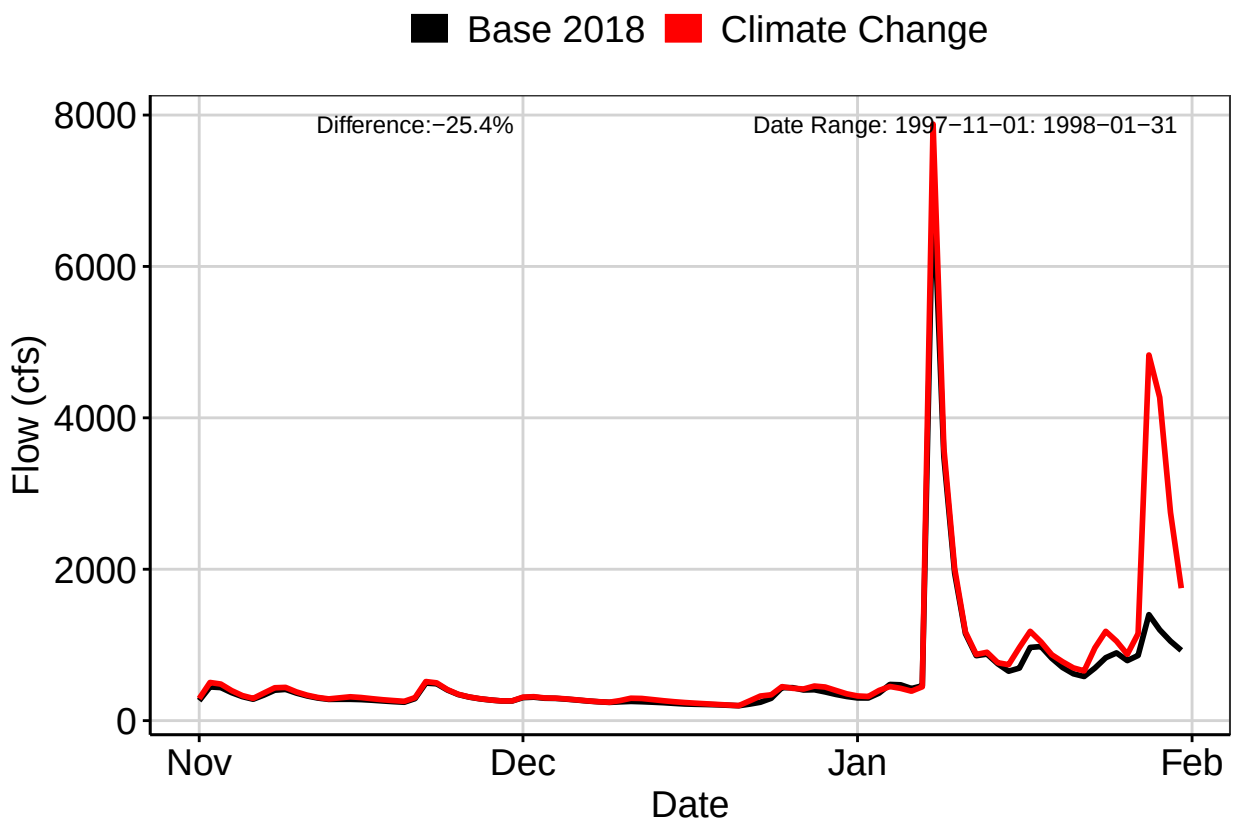


Fig. 7: Second Largest Difference Segment

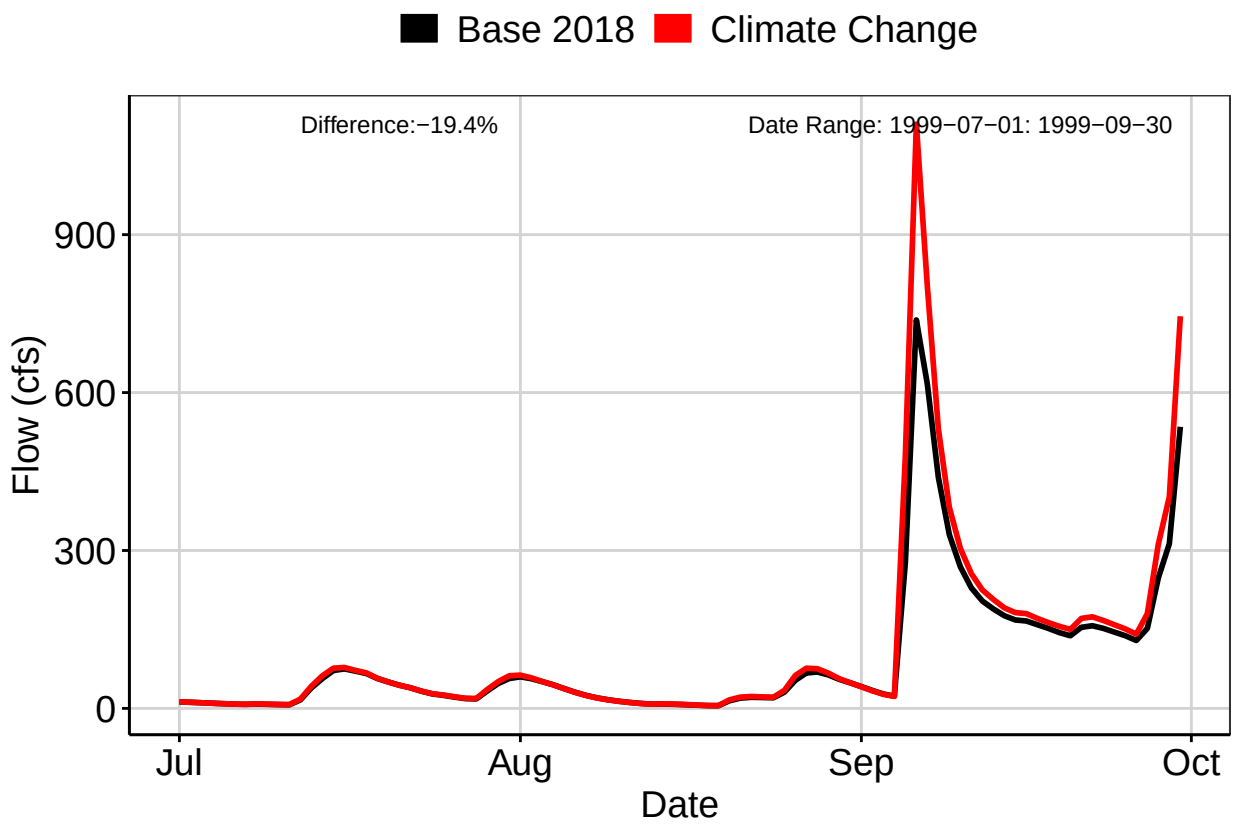


Fig. 8: Third Largest Difference Segment

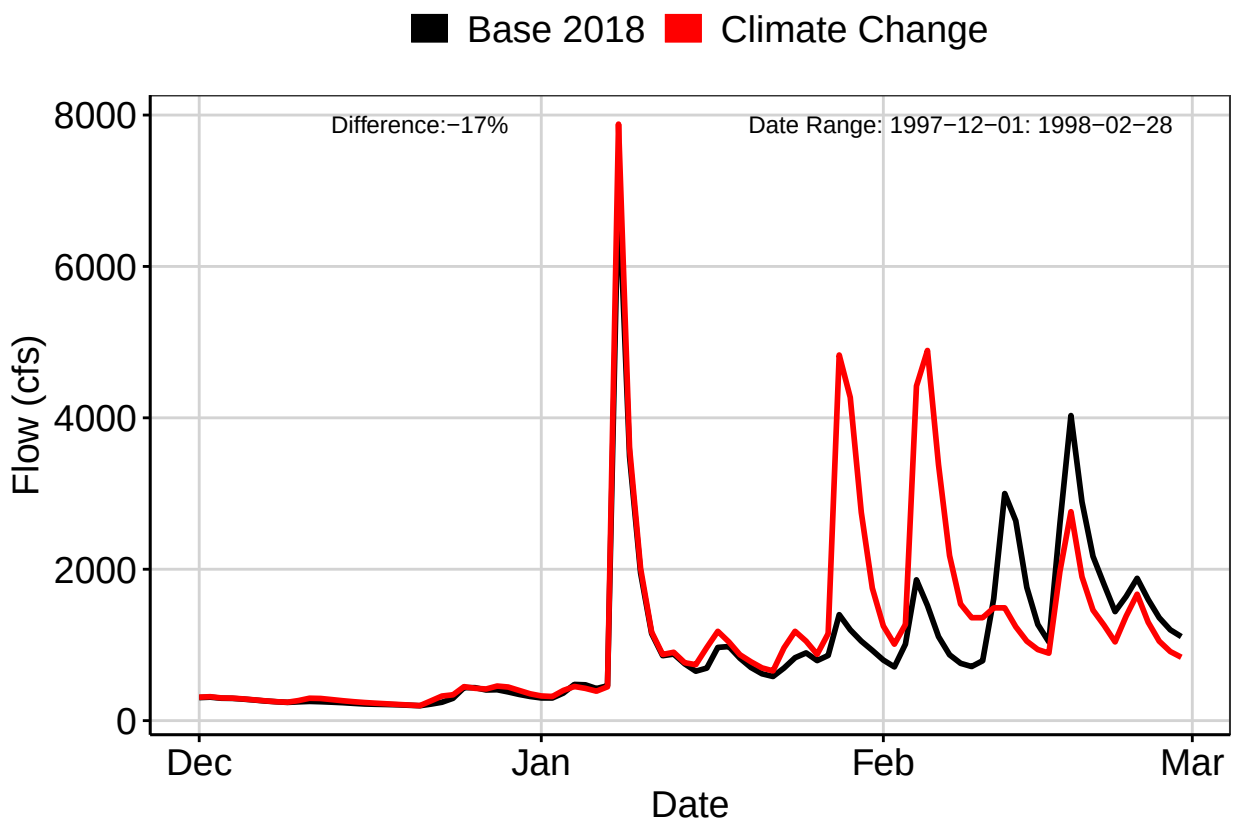


Fig. 9: Residuals Plot