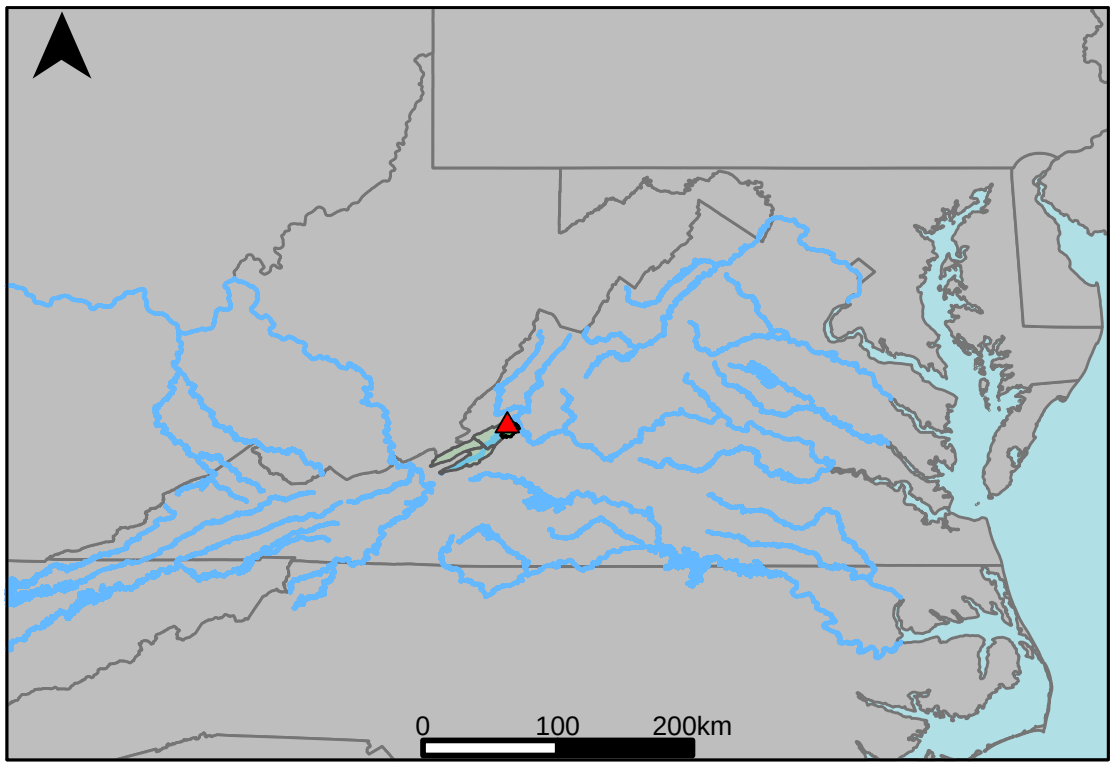
River Segment: JU3_7400_7510 - Scenario : CFBASE30Y20180615 : Gage 02018000 vs. VAHydro



This river segment follows part of the flow of Craig Creek at Parr, VA. Gage 02018000 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 15.0259%, with 50.6% of its rolling three month time spans above 20% difference.

Table 1: Monthly Low Flows

	USGS Gage	VAHydro	Pct. Difference
Jan. Low Flow	49	71.1	45.1
Feb. Low Flow	66	129	95.5
Mar. Low Flow	120	257	114.2
Apr. Low Flow	140	293	109.3
May Low Flow	186	310	66.7
Jun. Low Flow	290	389	34.1
Jul. Low Flow	228	307	34.6
Aug. Low Flow	153	229	49.7
Sep. Low Flow	71	109	53.5
Oct. Low Flow	51	37.7	-26.1
Nov. Low Flow	45	36.1	-19.8
Dec. Low Flow	42.7	32	-25.1

Table 2: Monthly Average Flows

	USGS Gage	VAHydro	Pct. Difference
Overall Mean Flow	386	444	15.03
Jan. Mean Flow	547	605	10.6
Feb. Mean Flow	556	622	11.87
Mar. Mean Flow	738	762	3.25
Apr. Mean Flow	652	668	2.45
May Mean Flow	515	499	-3.11
Jun. Mean Flow	345	395	14.49
Jul. Mean Flow	159	212	33.33
Aug. Mean Flow	109	159	45.87
Sep. Mean Flow	174	278	59.77
Oct. Mean Flow	143	259	81.12
Nov. Mean Flow	322	385	19.57
Dec. Mean Flow	389	491	26.22

Table 3: Monthly High Flows

	USGS Gage	VAHydro	Pct. Difference
Jan. High Flow	196	239	21.94
Feb. High Flow	781	519	-33.55
Mar. High Flow	1240	852	-31.29
Apr. High Flow	1750	1270	-27.43
May High Flow	1470	936	-36.33
Jun. High Flow	2690	1660	-38.29
Jul. High Flow	1450	1440	-0.69
Aug. High Flow	1200	892	-25.67
Sep. High Flow	380	412	8.42
Oct. High Flow	197	239	21.32
Nov. High Flow	150	200	33.33
Dec. High Flow	174	307	76.44

Table 4: Period Low Flows

	USGS Gage	VAHydro	Pct. Difference
Min. 1 Day Min	22.7	3.22	-85.81
Med. 1 Day Min	39	19.8	-49.23
Min. 3 Day Min	22.8	3.31	-85.48
Med. 3 Day Min	39.3	20.9	-46.82
Min. 7 Day Min	23.5	3.53	-84.98
Med. 7 Day Min	40.3	23.9	-40.69
Min. 30 Day Min	27.9	5.34	-80.86
Med. 30 Day Min	47.3	43.3	-8.46
Min. 90 Day Min	44.2	44.6	0.9
Med. 90 Day Min	72.9	87.9	20.58
7Q10	29.9	8.52	-71.51
Year of 90-Day Min. Flow	2002	2002	0
Drought Year Mean	140	165	17.86
Mean Baseflow	171	258	50.88

Table 5: Period High Flows

	USGS Gage	VAHydro	Pct. Difference
Max. 1 Day Max	21000	11800	-43.81
Med. 1 Day Max	5340	3430	-35.77
Max. 3 Day Max	15200	8300	-45.39
Med. 3 Day Max	3470	2880	-17
Max. 7 Day Max	7300	3980	-45.48
Med. 7 Day Max	2450	2140	-12.65
Max. 30 Day Max	2480	2350	-5.24
Med. 30 Day Max	1180	1020	-13.56
Max. 90 Day Max	1520	1580	3.95
Med. 90 Day Max	729	767	5.21

Table 6: Non-Exceedance Flows

	USGS Gage	VAHydro	Pct. Difference
1% Non-Exceedance	32	12.4	-61.25
5% Non-Exceedance	41.7	30.7	-26.38
50% Non-Exceedance	180	302	67.78
95% Non-Exceedance	1330	1340	0.75
99% Non-Exceedance	3270	2820	-13.76
Sept. 10% Non-Exceedance	37	21.7	-41.35

Fig. 1: Hydrograph

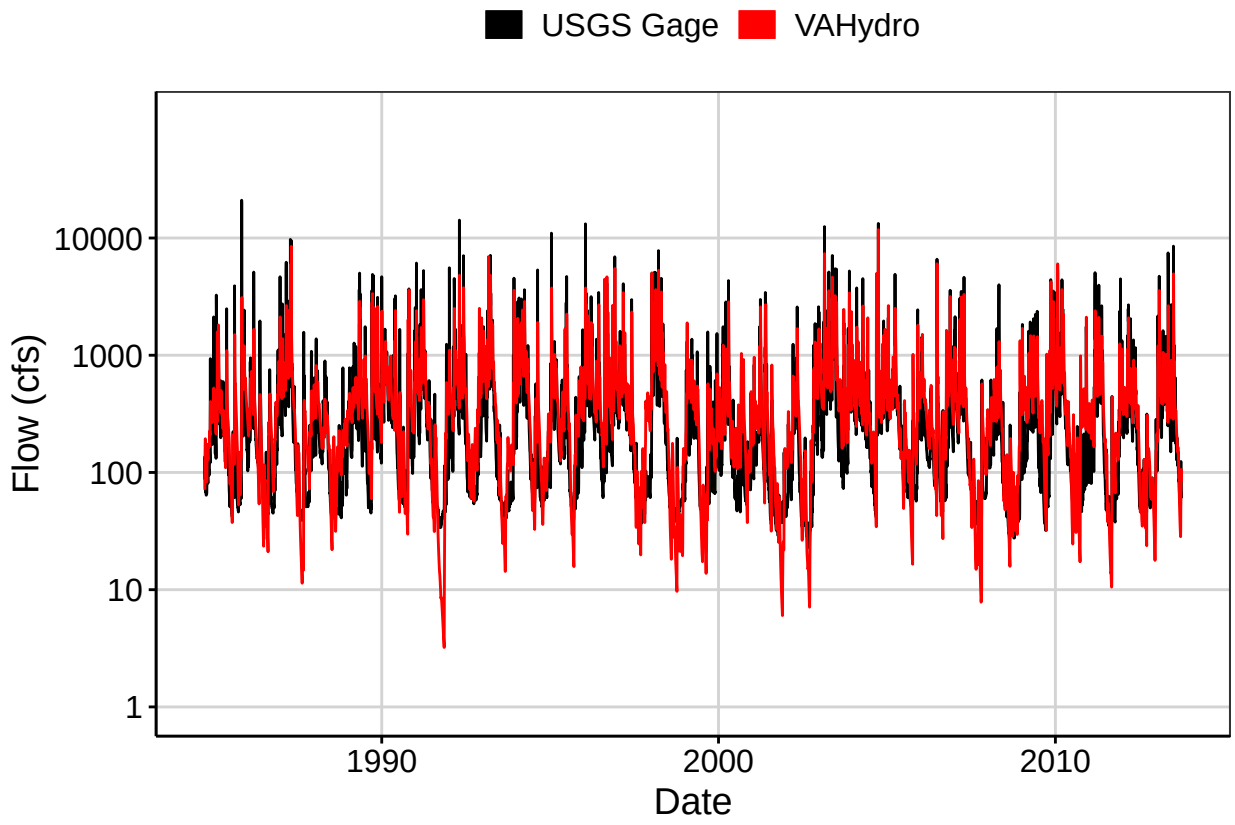


Fig. 2: Zoomed Hydrograph

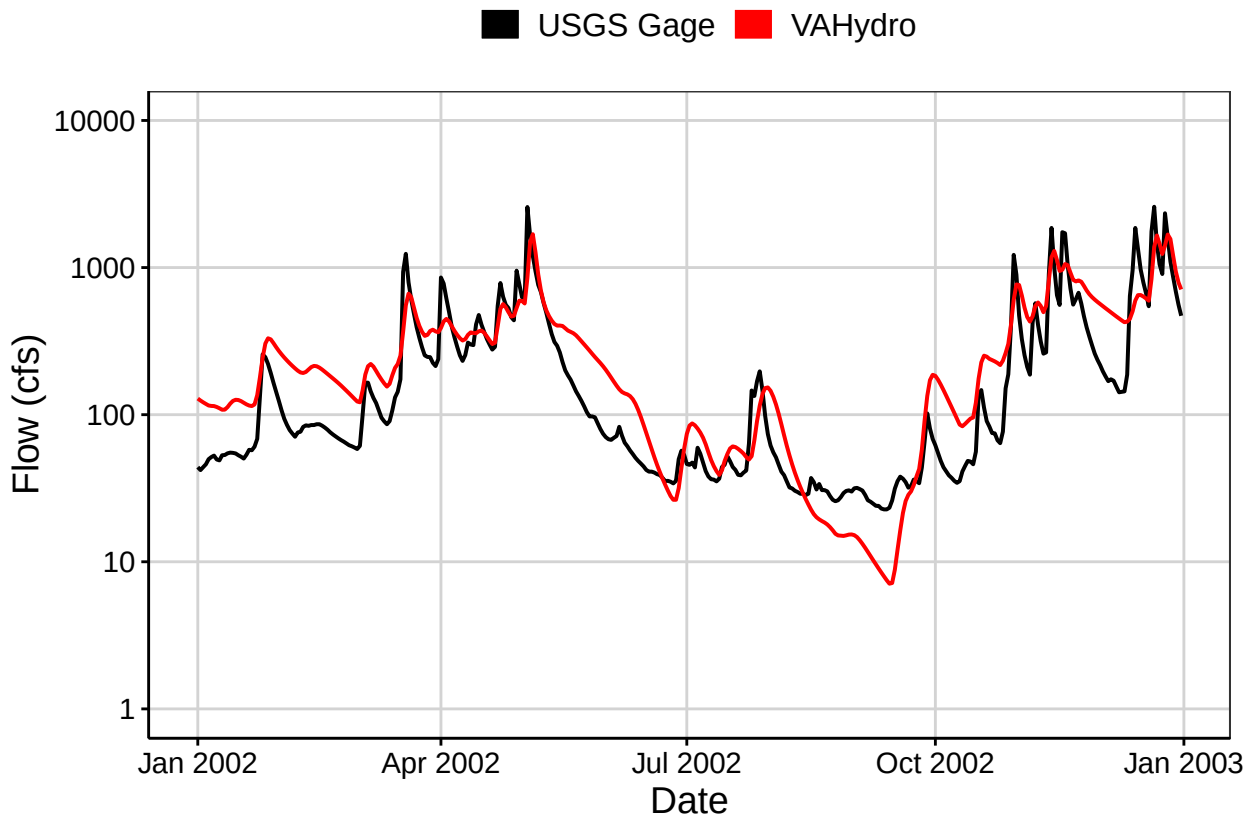


Fig. 3: Flow Exceedance

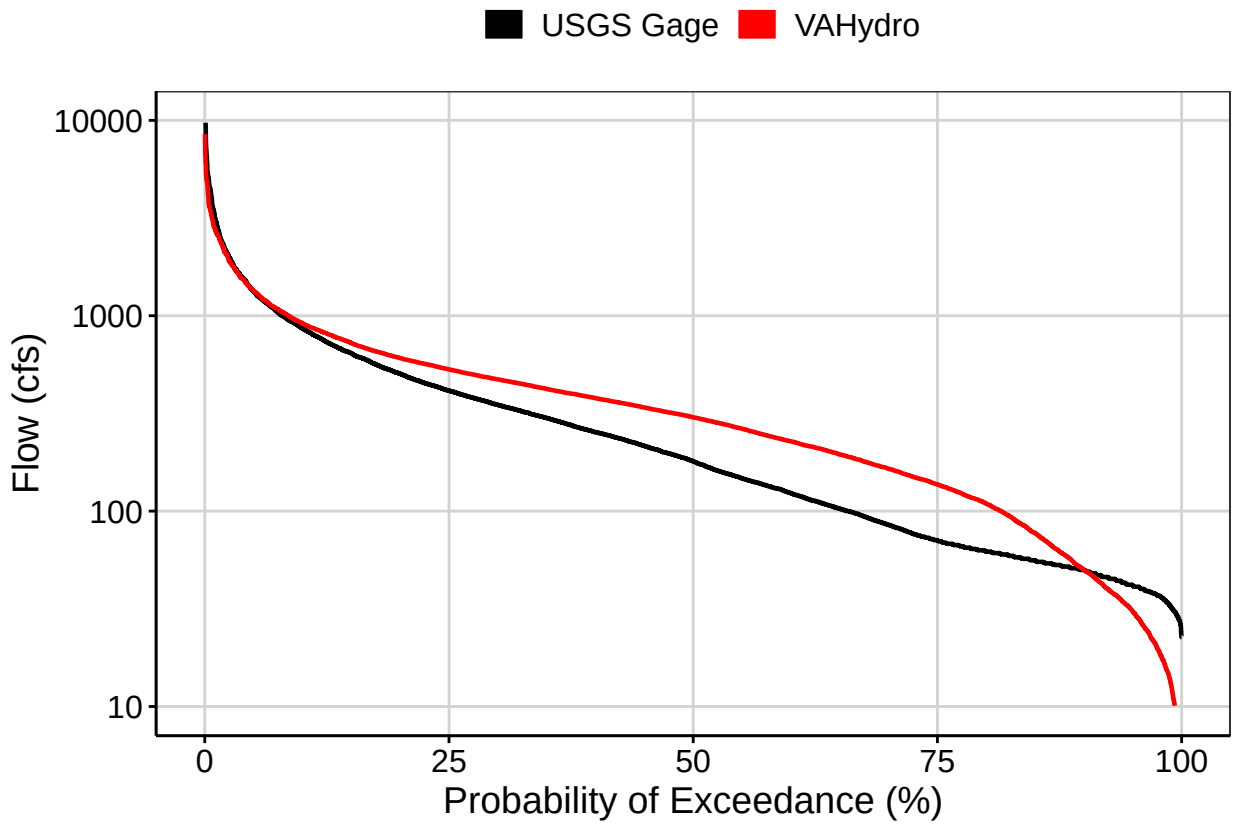


Fig. 4: Baseflow

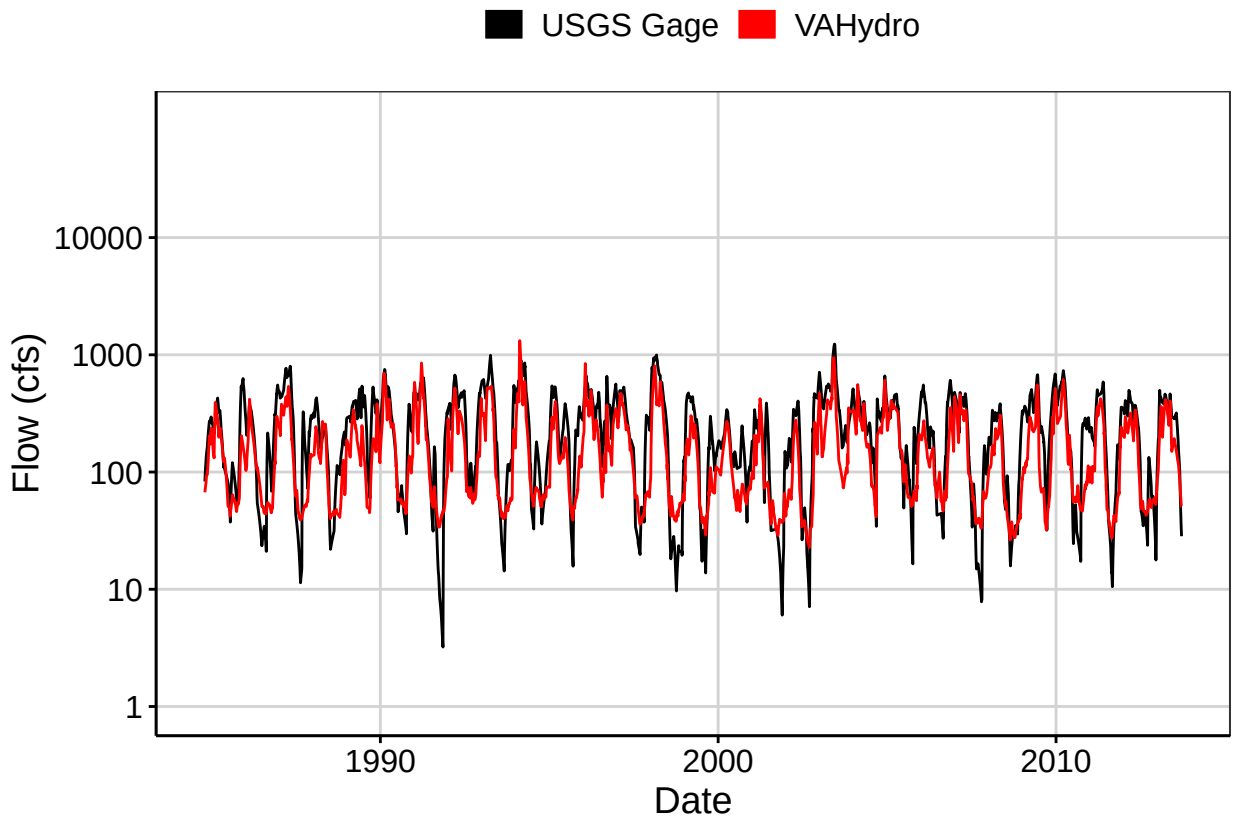


Fig. 5: Combined Baseflow

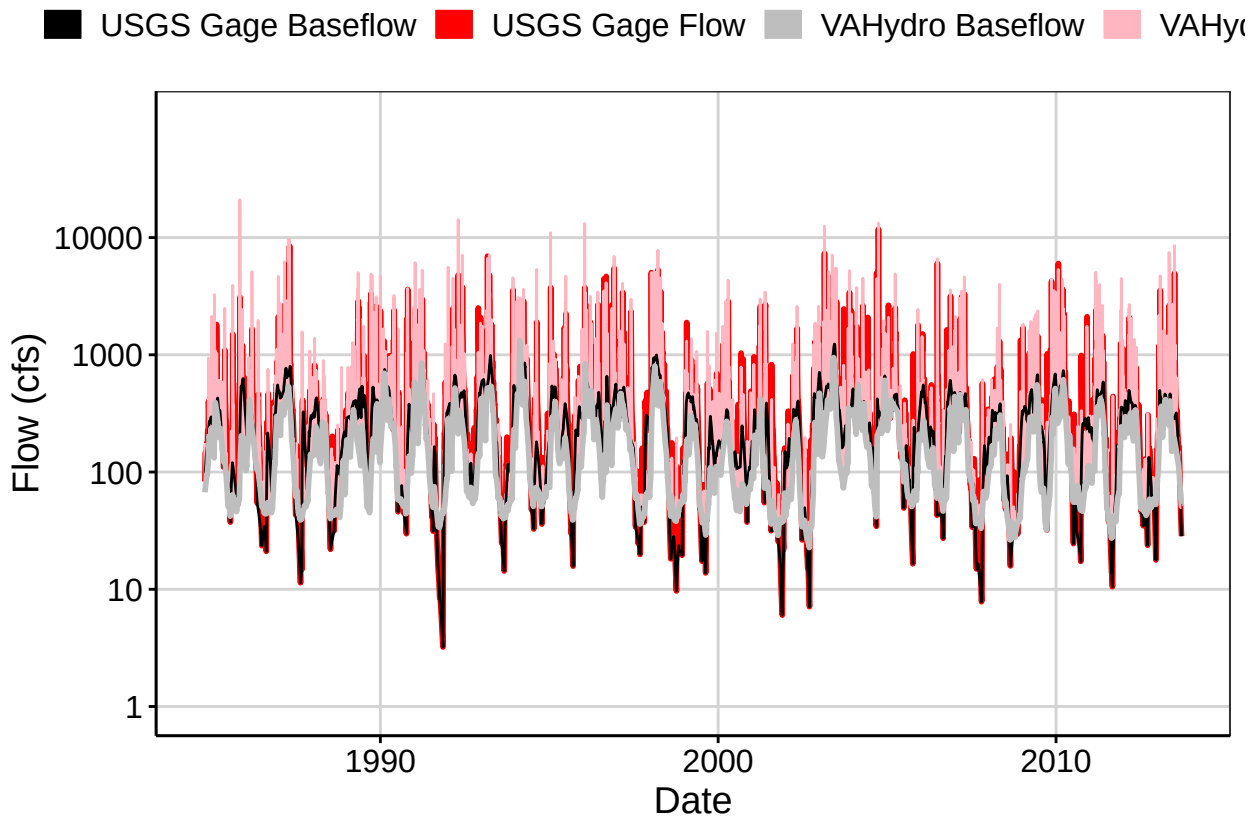


Fig. 6: Largest Difference Segment

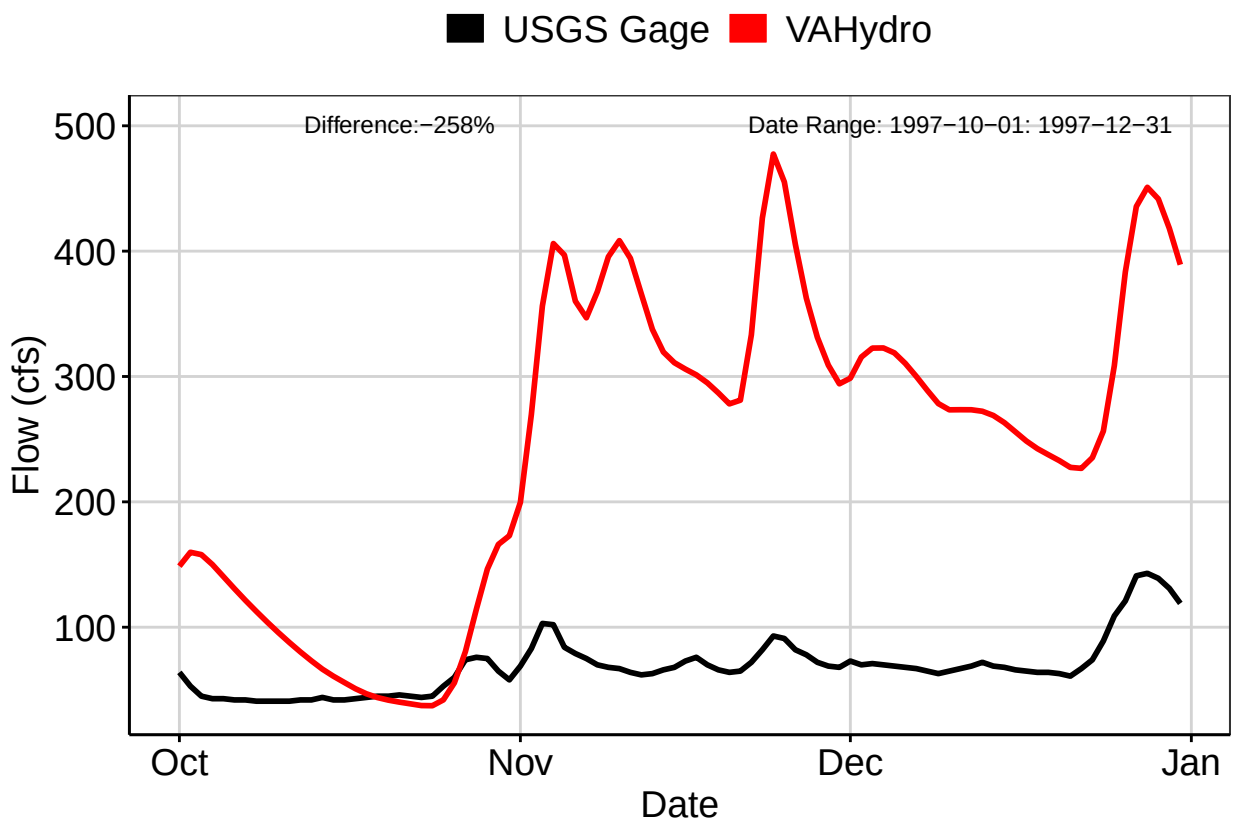


Fig. 7: Second Largest Difference Segment

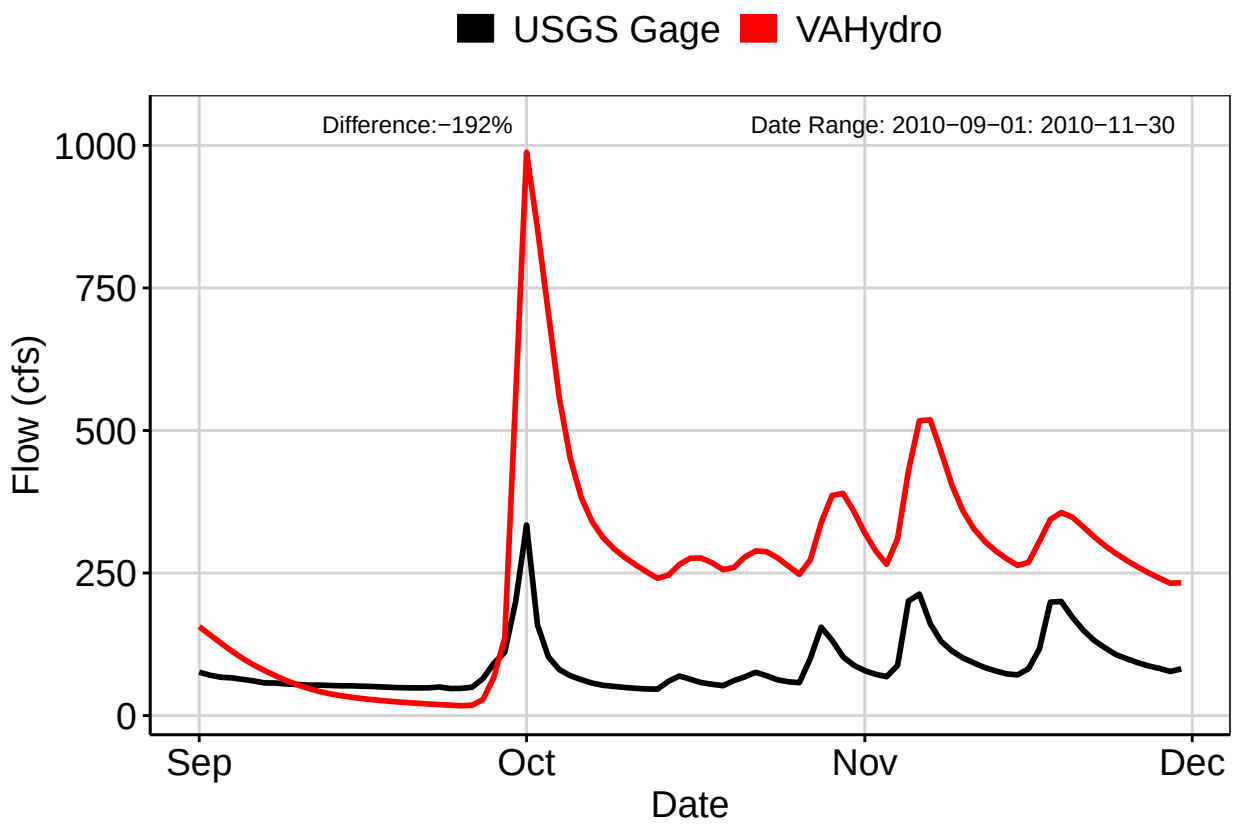


Fig. 8: Third Largest Difference Segment

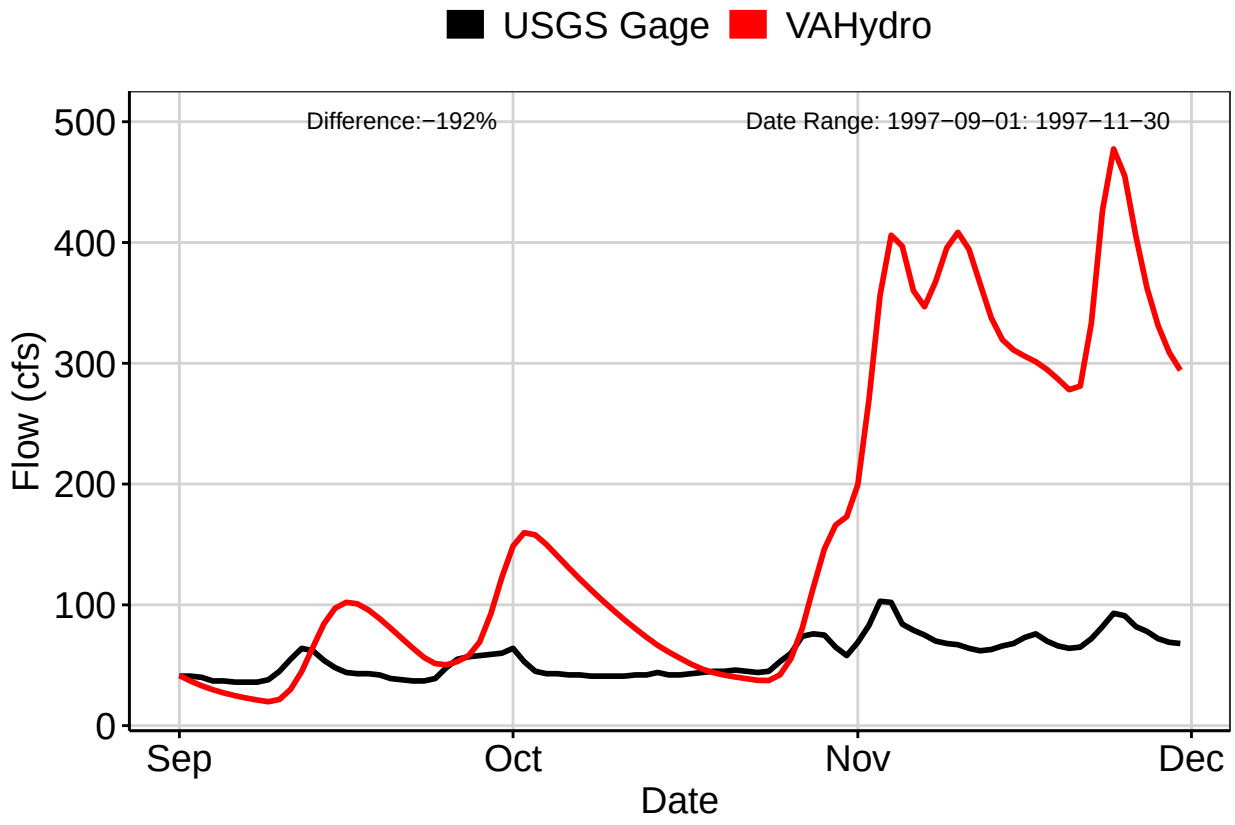


Fig. 9A: Residuals Plot

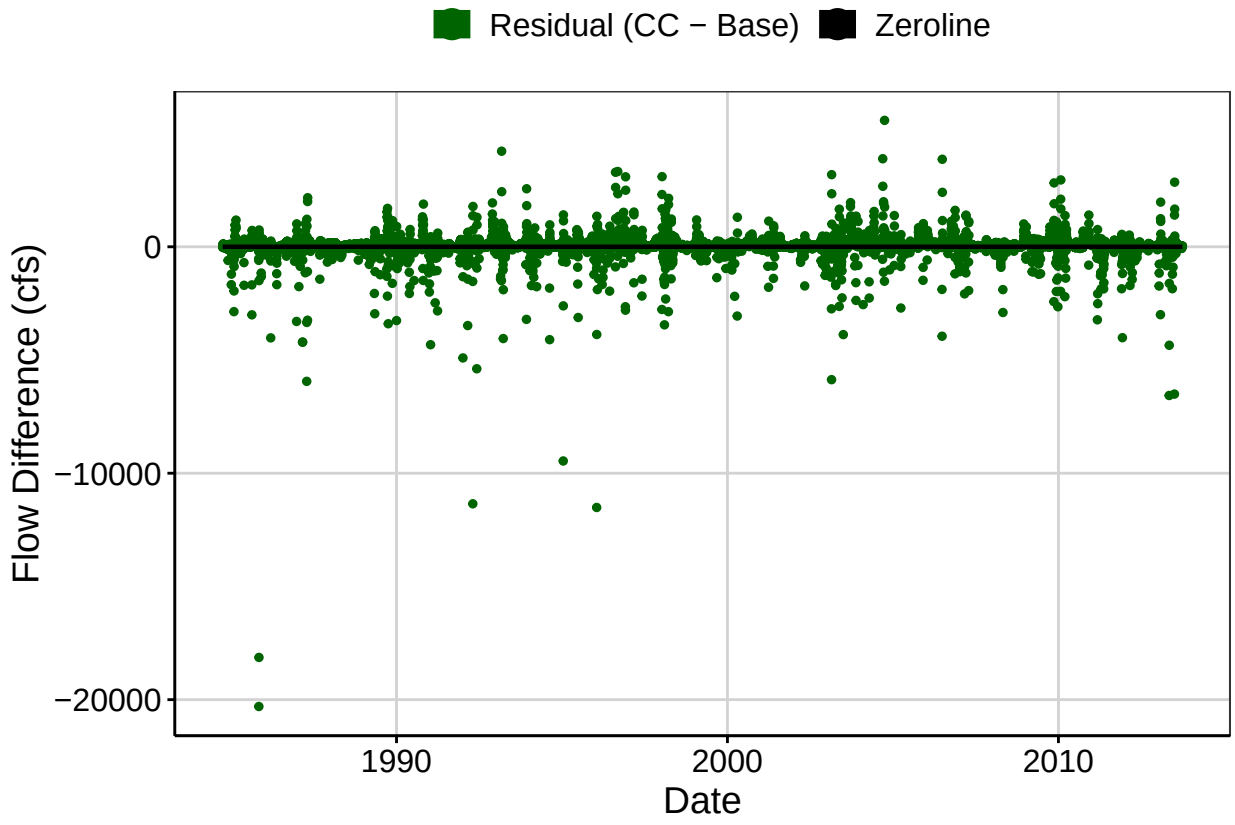


Fig. 9B: Area Weighted Residuals Plot